

Testkings.70-488.104.QA

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Microsoft 70-488

**Developing Microsoft SharePoint Server 2013 Core Solutions**

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## Testlet 1

**Consolidated Messenger****Background****Business Scenario**

You are the lead architect, developer, and web administrator of SharePoint 2013 for your company, Consolidated Messenger. Consolidated Messenger is a national company with hundreds of franchises. Consolidated Messenger focuses on bicycle-based courier services in metropolitan areas.

Consolidated Messenger sells franchises to franchisees. Franchisees have three user types:

User	Role
Franchise Manager	Responsible for managing the franchise
Franchise Employee	Responsible for managing accounts and setting pick-up and drop-off locations for couriers
Courier	Responsible for picking-up and dropping off packages

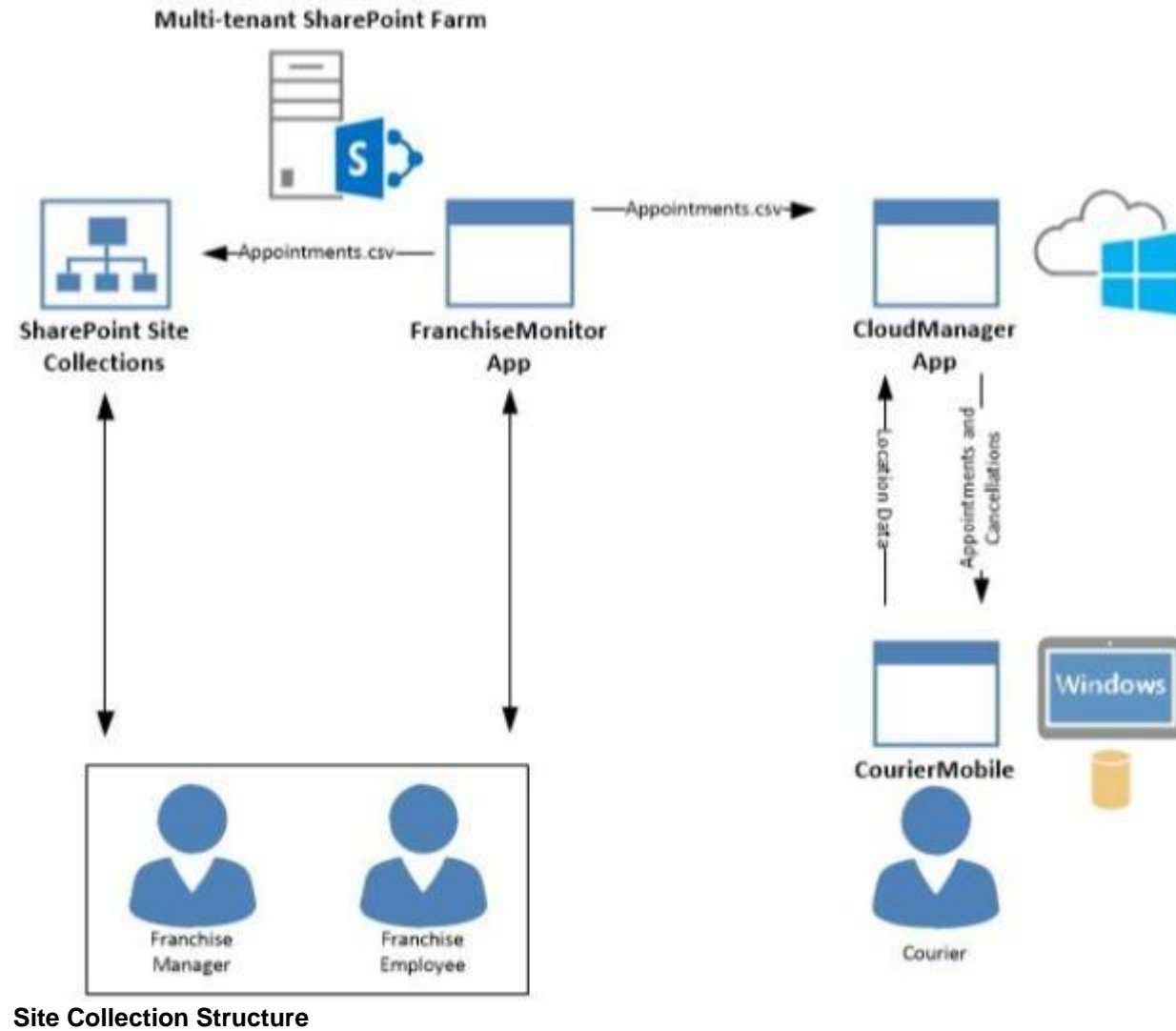
**Technical Scenario**

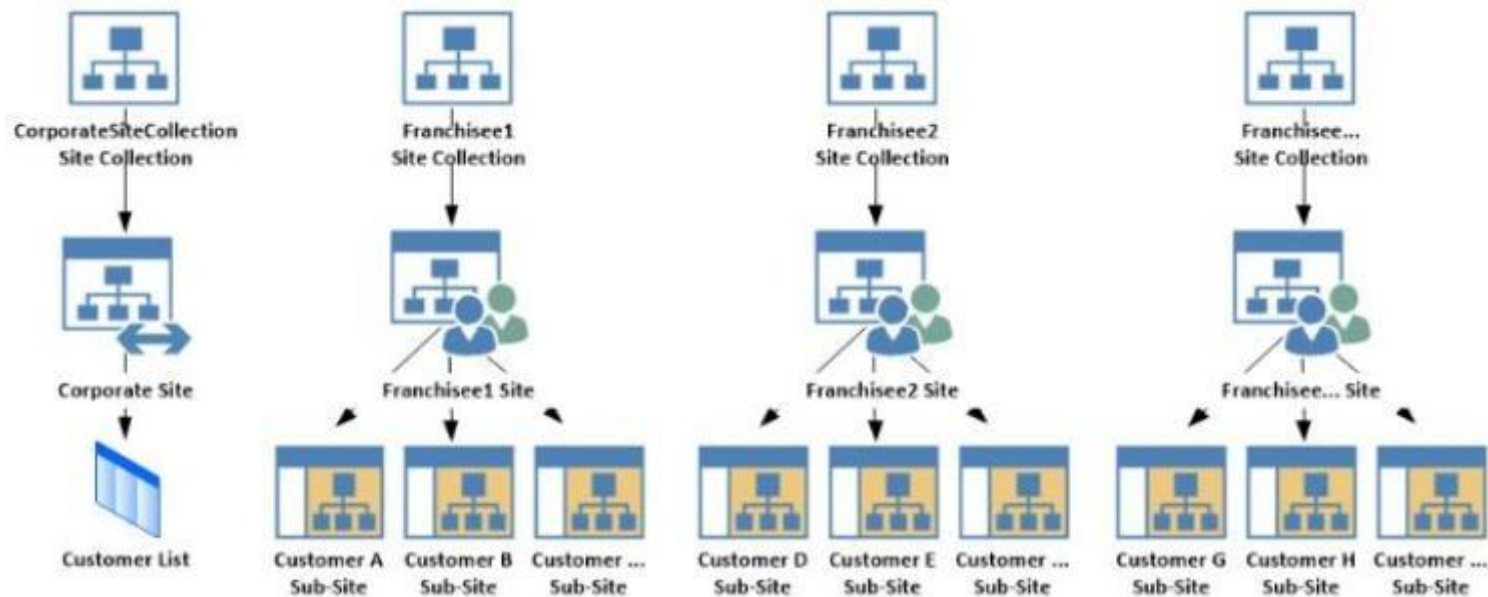
When a franchisee purchases a franchise, they are provided with:

- Access to Consolidated Messenger's SharePoint 2013 multi-tenant farm located at <https://sp.consolidatedmessenger.com>
- Access to a Customers list in the Corporate site collection, named CorporateSiteCollection, which includes a list of all Customers across all franchisees
- A single site collection for each franchisee, named FranchiseeSiteCollection
- An unlimited number of customer subsites for each franchisee
- Consolidated Messenger has funded the creation of three apps.

App Name	Purpose
FranchiseMonitor	Used by franchisees from their franchise locations to monitor the progress of the bicycle couriers
CourierMobile	Used by bicycle couriers to perform their day-to-day function of receiving and delivering packages
CloudManager	Used to perform management of bicycle couriers, their routes, and their schedules

**Solution Architecture**





### SharePoint Farm Design

My Sites are not created for each Franchisee unless they are requested.

### Business Requirements

User	SharePoint Access
Franchise Manager	<ul style="list-style-type: none"> <li>• Franchise Managers are site collection administrators for each franchise.</li> <li>• Franchise Managers may only access their site collection settings and not the settings of the web application.</li> <li>• Franchise Managers must be able to add users to a site in a People Picker control based on claims.</li> <li>• Franchise Managers must be able to search for claims by using the type-in control of the claims picker. The claims must be displayed by using a flattened structure.</li> <li>• Franchise Managers may access only their site collection settings and not the settings of the web application.</li> </ul>
Franchise Employee	<ul style="list-style-type: none"> <li>• Franchise employees are customer subsite owners for each franchise.</li> <li>• Franchise employees must be able to read from the Customers list in the CorporateSiteCollection.</li> <li>• Franchise employees must have complete control over the customer subsites that is assigned to the franchise.</li> </ul>
Courier	<ul style="list-style-type: none"> <li>• No SharePoint access</li> </ul>

#### Technical Requirements

Each Franchise site collection must include a SharePoint document library to store CSV files.

#### FranchiseMonitor App

##### Application Design

Franchise employees use Microsoft Excel 2013 to create a list of pick-up and drop-off locations for each bicycle courier for each day. The spreadsheet is named Appointments.csv.

##### Business Requirements

The FranchiseMonitor app must allow a Franchise employee to upload Appointments.csv to a SharePoint document library in each Franchisee site collection, and send Appointments.csv to the CloudManager app.

#### Technical Requirements

- The FranchiseMonitor app must display the courier's location on the bicycle courier's microfeed on the SharePoint farm if the courier has remained stationary for more than three minutes.
- The FranchiseMonitor app must be listed on the Site Contents page of the host web.
- The FranchiseMonitor app must use claims-based authentication, once launched, to authenticate the franchisee against an API provided by Margie's Travel.
- The FranchiseMonitor app must be deployed to all site collections by the SharePoint

administrator.

- The FranchiseMonitor app must be immediately available to be installed on websites within the tenancy on a website-by-website basis to any tenant contained in the SharePoint farm.
- The FranchiseMonitor app must be able to create lists within SharePoint to store records of the CSV files so that they may be sent to the CloudManager app.

## **CourierMobile App**

### **Application Design**

- Each bicycle courier for each franchise is provided a Microsoft Surface Pro device with LTE. Most bicycle couriers do not return their Microsoft Surface Pro devices back to their franchise locations nightly.
- The CourierMobile app runs on the bicycle courier's Microsoft Surface Pro device.
- Margie's Travel provides an API to enable external developers to authenticate by using OAuth and claims-based authentication. Many couriers are members of Margie's Travel.
- The CourierMobile app receives Microsoft Outlook appointments and Outlook appointment cancellations from the CloudManager app. The appointments include the address of the location for pick-up or drop-off.

### **Business Requirements**

- The CourierMobile app must display a Bing map to display route data when Outlook appointments or appointment cancellations are received.
- The CourierMobile app must capture the location of the Microsoft Surface Pro device on a regular interval. This data must be captured regardless of whether the device has connectivity.
- The CourierMobile app must be able to connect to the SharePoint Customers list and verify whether the account belongs to the franchisee to avoid pickups or deliveries to customers that do not belong to the franchisee. When the CourierMobile app accesses the Customers list, it must only read its contents with the minimum permissions necessary.

### **Technical Requirements**

- The CourierMobile app must provide the ability to authenticate by using the courier's Microsoft account or the Margie's Travel API.
- The CourierMobile app must include a custom sign-in page that includes branding from Consolidated Messenger and Margie's Travel, based on the authentication provider selected by the user.
- The CourierMobile app must be able to capture more than 30 million data points of location data daily as they occur and upload the location data to the cloud when connected to the Internet.

## **CloudManager App**

### **Application Design**

CloudManager processes two sets of data:

- Updates to the list of appointments received from the FranchiseMonitor app
- Geo-location data received from the CourierMobile app

### **Business Requirements**

The CloudManager app must implement business logic that parses Appointments.csv and geolocation data and sends Appointments or Appointment cancellations to the CourierMobile app.



### Technical Requirements

- The CloudManager app must elastically scale to capture courier location data as the number of bicycle couriers increases or decreases.
- The CloudManager app must process bicycle courier location data from a data store capable of storing more than 30 million items.

### Solution Code

#### MyClaimsProvider.es

```
CP01 [SharePointPermissionAttribute(SecurityAction.LinkDemand, ObjectModel = true)]
CP02 [SharePointPermissionAttribute(SecurityAction.InheritanceDemand, ObjectModel =
true)]
CP03

CP04     public class MyClaimsProvider : Microsoft.SharePoint.Administration.Claims.SPClaimsProvider
CP05     {
CP06         public abstract String Name;
CP07
CP08         protected abstract void FillSchema(...);
CP09         protected abstract void FillClaimTypes(...);
CP10         protected abstract void FillClaimValueTypes(...);
CP11         protected abstract void FillEntityTypeTypes(...);
CP12
CP13         public abstract bool SupportsResolve;
CP14         protected abstract void FillResolve(...);
CP15         protected abstract void FillResolve(...);
CP16
CP17         public abstract bool SupportsSearch;
CP18         protected abstract void FillSearch(...);
CP19
CP20     }
```

#### AppManifest.xml for Franchise Monitor app

```

AM01 <?xml version="1.0" encoding="utf-8" ?>
AM02 <App xmlns="http://schemas.microsoft.com/sharepoint/2012/app/manifest"
AM03     ProductID="{4a07f3bd-803d-45f2-a710-b9e944c3396e}"
AM04     Version="1.0.0.0"
AM05     SharePointMinVersion="15.0.0.0"
AM06     Name="FranchiseMonitor"
AM07 >
AM08   <Properties>
AM09     <Title>Franchise Monitor App</Title>
AM10     <StartPage>~remoteAppUrl/Home.aspx?{StandardTokens}</StartPage>
AM11   </Properties>
AM12
AM13   <AppPrincipal>
AM14     <RemoteWebApplication ClientId="1ee82b34-7c1b-471b-b27e-ff272accd564" />
AM15   </AppPrincipal>
AM16
AM17   <AppPermissionRequests>
AM18     <AppPermissionRequest Scope="http://sharepoint/content/sitecollection/web/
AM19     list" Right="Write"/>
AM19   </AppPermissionRequests>
AM20 </App>

```

**QUESTION 1**

You need to implement the custom claims provider for the SharePoint farm.

Which code segments should you implement? (Each correct answer presents part of the solution. Choose all that apply.)



- ☐ A. 

```
public abstract bool SupportsEntityInformation;
protected abstract void FillClaimsForEntity(Uri context, SPClaim entity,
List<SPClaim> claims);
```
- ☐ B. 

```
protected abstract void FillSchema(SPPProviderSchema schema);
protected abstract void FillClaimTypes(List<String> claimTypes);
protected abstract void FillClaimValueTypes(List<String> claimValueTypes);
protected abstract void FillEntityTypes(List<String> entityTypes);
```
- ☐ C. 

```
public abstract bool SupportsHierarchy;
protected abstract void FillHierarchy(Uri context, String[] entityTypes,
String hierarchyNodeID,
int numberOfLevels, bool includeEntityData, SPPProviderHierarchyTree hierarchy);
```
- ☐ D. 

```
public abstract bool SupportsResolve;
protected abstract void FillResolve(Uri context, String[] entityTypes,
String resolveInput,
List<PickerEntity> resolved);
protected abstract void FillResolve(Uri context, String[] entityTypes,
SPClaim resolveInput,
List<PickerEntity> resolved);
```
- ☐ E. 

```
public abstract String Name;
```
- ☐ F. 

```
public abstract bool SupportsSearch;
protected abstract void FillSearch(Uri context, String[] entityTypes,
String searchPattern,
String hierarchyNodeID, int maxCount, SPPProviderHierarchyTree searchTree);
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E
- F. Option F

**Correct Answer:** BDF

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation:

\* From scenario:

MyClaimsProvider.es

```

CP01 [SharePointPermissionAttribute(SecurityAction.LinkDemand, ObjectModel = true)]
CP02 [SharePointPermissionAttribute(SecurityAction.InheritanceDemand, ObjectModel =
true)]
CP03
CP04     public class MyClaimsProvider : Microsoft.SharePoint.Administration.Claims.SPCLa
imProvider
CP05     {
CP06         public abstract String Name;
CP07
CP08         protected abstract void FillSchema(...);
CP09         protected abstract void FillClaimTypes(...);
CP10         protected abstract void FillClaimValueTypes(...);
CP11         protected abstract void FillEntityTypes(...);
CP12
CP13         public abstract bool SupportsResolve;
CP14         protected abstract void FillResolve(...);
CP15         protected abstract void FillResolve(...);
CP16
CP17         public abstract bool SupportsSearch;
CP18         protected abstract void FillSearch(...);
CP19
CP20     }

```

**QUESTION 2**

You need to set the appropriate permissions for the franchise employees' customer list and customer subsite access.

What should you do?

- A. Add franchise employees to the Members group in the CorporateSiteCollection site collection. Break inheritance at the franchisee subsite level. Create a custom role definition at the franchisee subsite level. Add franchise employees to the custom role.
- B. Create a custom role definition in the CorporateSiteCollection site collection with Limited Access to the Customers list. Add franchise employees to the custom role at the CorporateSiteCollection site collection. Break inheritance at the subsite level. Add franchise owners to the Owners group at the subsite level.

- C. Create a custom role definition in the CorporateSiteCollection site collection with Limited Access to the Customer list. Add franchise employees to the custom role. Allow full inheritance of the role definition and permissions at the site level.
- D. Add franchise employees to the Visitors group in the CorporateSiteCollection site collection.  
Break inheritance at the franchisee subsite level. Create a custom role definition at the subsite level with Full Control permissions. Add franchise employees to the custom role.

**Correct Answer:** B

**Section:** [none]

**Explanation**

**Explanation/Reference:**

### QUESTION 3

You need to create rules in the CourierMobile app based on the ItemType that arrives.

For which ItemTypes should you test? (Each correct answer presents part of the solution. Choose all that apply.)

- A. IPM.Schedule.Meeting.Tent
- B. IPM.Note
- C. IPM.Schedule.Meeting.Request
- D. IPM.Appointment
- E. IPM.Schedule.Meeting.Cancelled
- F. IPM.Schedule.Meeting.Pos
- G. IPM.Schedule.Meeting.Neg

**Correct Answer:** DE

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: From scenario:

\* The CourierMobile app receives Microsoft Outlook appointments (D) and Outlook appointment cancellations (E) from the CloudManager app. The appointments include the address of the location for pick-up or drop-off.

### QUESTION 4

You need to meet the requirements for data storage for the CourierMobile app and the CloudManager app.

Which technologies should you use? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Windows Azure SQL Database

- B. SharePoint content database
- C. Secure Store
- D. SQL Server Express LocalDB
- E. SharePoint list

**Correct Answer:** AD

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: A: SQL Azure in the cloud.

D: LocalDB is a lightweight version of Express that has the same programmability features, but it runs in user mode and has a fast, zero-configuration installation and a short list of prerequisites.

From scenario:

\* CourierMobile App

The CourierMobile app must be able to capture more than 30 million data points of location data daily as they occur and upload the location data to the cloud when connected to the Internet.

\* Cloudmanager App

/ The CloudManager app must elastically scale to capture courier location data as the number of bicycle couriers increases or decreases.

/ The CloudManager app must process bicycle courier location data from a data store capable of storing more than 30 million items.

**QUESTION 5**

You need to create a custom sign-in page to allow the users of the FranchiseMonitor app to authenticate against SharePoint and Margie's Travel API.

What should you do?

- A. Create an app for SharePoint. Set the trust level to Sandbox solution. Create an application page that writes a cookie named FedAuth. Deploy the app and configure the Sign In Page URL in Central Administration Authentication Provider for the zone.
- B. Create an app for SharePoint. Set the trust level to Farm solution. Create an application page that writes a cookie named FedAuth. Deploy the app and configure the Sign In Page URL in Central Administration Authentication Provider for the zone.
- C. Create an app for SharePoint. Set the trust level to Farm solution. Create an application page that writes a cookie named ASPXAUTH. Deploy the app and configure the Sign In Page URL in Central Administration Authentication Provider for the zone.
- D. Create an app for SharePoint. Set the trust level to Sandbox solution. Create an application page that writes a cookie named ASPXAUTH. Deploy the app and configure the Sign In Page URL in Central Administration Authentication Provider for the zone.

**Correct Answer:** B

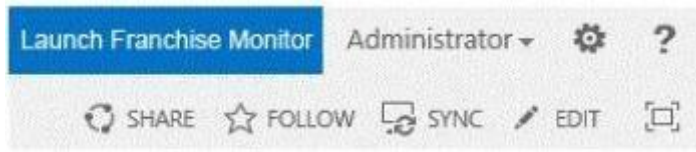
**Section:** [none]

**Explanation**

## Explanation/Reference:

### QUESTION 6

Some franchisees want to launch the FranchiseMonitor app from a link named Launch Franchise Monitor that is displayed next to the name of the user who is currently logged in. Other franchisees do not want to have the link present. The link must be contained within the same out-of-the-box control, as shown in the screenshot below:



You need to configure support for the Launch Franchise Monitor link. Which four actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

## Select and Place:



Answer Area	
Add a new user control named SuiteLinksDelegate.	
Ensure that the class inherits from the <b>WebPart</b> class and overrides the RenderControl method.	
Add a new code module named SuiteLinksDelegate.	
Create a new SharePoint 2013 Empty Project.	
Add a reference to the control to the AppManifest file.	
Add a reference to the control to an empty elements file.	
Ensure that the class inherits from the <b>UserControl</b> class and overrides the Render method.	
Create a new App for SharePoint 2013 project.	

Correct Answer:

	Answer Area
Add a new user control named SuiteLinksDelegate.	Create a new App for SharePoint 2013 project.
Ensure that the class inherits from the <b>WebPart</b> class and overrides the RenderControl method.	Add a new code module named SuiteLinksDelegate.
	Ensure that the class inherits from the <b>UserControl</b> class and overrides the Render method.
Create a new SharePoint 2013 Empty Project.	
Add a reference to the control to the AppManifest file.	Add a reference to the control to an empty elements file.

**Section: [none]**

**Explanation**

**Explanation/Reference:**

Note:


\***Empty elements** are most often used to define SharePoint project items that lack a project or project item template in Visual Studio. When you add an empty element to your project, a node named EmptyElement[x] (where [x] is a unique number) is created. EmptyElement[x] contains a single file that is named Elements.xml. Use XML statements to define the desired elements in Elements.xml.


#### **QUESTION 7**


You need to select the app experience for the CourierMobile app.


In the App for Office 2013 dialog window, which configuration option should you select? (To answer, select the appropriate configuration option in the answer area.)

**Hot Area:**


 Choose the type of app you want to create and where you want it to appear


☐ **Task pane app in:**  
 The app appears in the task pane of the Office application.  
☒ Excel  
☒ Word  
☒ PowerPoint  
☒ Project


☐ **Content app in Excel**  
 The app appears in the body of an Excel document.


☐ **Mail app in:**  
 The app appears adjacent to the currently viewed Outlook item based on a set of a  
☒ Email Message  
☒ Appointment

**Correct Answer:**

 Choose the type of app you want to create and where you want it to appear

☐ **Task pane app in:**  
 The app appears in the task pane of the Office application.  
☒ Excel  
☒ Word  
☒ PowerPoint  
☒ Project

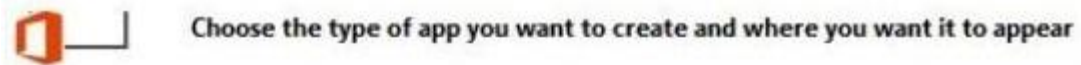
☐ **Content app in Excel**  
 The app appears in the body of an Excel document.

☒ **Mail app in:**  
 The app appears adjacent to the currently viewed Outlook item based on a set of a  
☒ Email Message  
☒ Appointment

Section: [none]

Explanation

Explanation/Reference:



### QUESTION 8

You need to design the FranchiseMonitor app to meet the requirements.

What should you do? (To answer, select the appropriate option from each drop-down list in the answer area.)

Create the **CourierManagerApp** app as an  .

Design the **CourierManagerApp** app UI with a/an  app shape.

Hot Area:



Create the **CourierManagerApp** app as an  .  


- App for Office 2013
- App for SharePoint 2013

Design the **CourierManagerApp** app UI with a/an  app shape.  


- Part
- UI Custom Action
- Immersive Full Page

**Correct Answer:**

Create the **CourierManagerApp** app as an  .  


- App for Office 2013
- App for SharePoint 2013

Design the **CourierManagerApp** app UI with a/an  app shape.  


- Part
- UI Custom Action
- Immersive Full Page

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Create the **CourierManagerApp** app as an  .  


- App for Office 2013
- App for SharePoint 2013

Design the **CourierManagerApp** app UI with a/an  app shape.  


- Part
- UI Custom Action
- Immersive Full Page

## QUESTION 9

You need to design the CloudManager app to meet the requirements.

What should you do? (To answer, select the appropriate option from each drop-down list in the answer area.)

**Hot Area:**

## Answer Area

Create a CloudManagerApp app as an

	▼
App for Office 2013	
App for SharePoint 2013	

Design the CloudManagerApp app UI with a/an

	▼
Part	
UI Custom Action	
Immersive Full Page	

app shape.

**Correct Answer:**

## Answer Area

Create a CloudManagerApp app as an

	▼
App for Office 2013	
App for SharePoint 2013	

Design the CloudManagerApp app UI with a/an

	▼
Part	
UI Custom Action	
Immersive Full Page	

app shape.

**Section:** [none]

**Explanation**

**Explanation/Reference:**

### Answer Area

Create a CloudManagerApp app as an

App for Office 2013  
App for SharePoint 2013

Design the CloudManagerApp app UI with a/an

Part  
UI Custom Action  
Immersive Full Page

 app shape.

### QUESTION 10

You need to add markup at line AM10 to set the minimum app permissions for the FranchiseMonitor app.

```
<AppPermissionRequests>  
  <AppPermissionRequest Scope="Target 1"  
    Right="Target 2"/>  
</AppPermissionRequests>  
</App>
```

Which code segments should you include in Target 1 and Target 2 to complete the code? (To answer, select the appropriate options from each drop-down list in the answer area.)

Hot Area:

### Answer Area

Target 1:

http://sharepoint/content/tenant  
http://sharepoint/content/sitecollection/  
http://sharepoint/content/sitecollection/web  
http://sharepoint/content/sitecollection/web/list

Target 2:

Read  
Write  
Manage  
FullControl

Correct Answer:

**Answer Area**

Target 1:

http://sharepoint/content/tenant
http://sharepoint/content/sitecollection/
http://sharepoint/content/sitecollection/web
http://sharepoint/content/sitecollection/web/list

Target 2:

Read
Write
Manage
FullControl

**Section: [none]****Explanation****Explanation/Reference:****Answer Area**

Target 1:

http://sharepoint/content/tenant
http://sharepoint/content/sitecollection/
http://sharepoint/content/sitecollection/web
http://sharepoint/content/sitecollection/web/list

Target 2:

Read
Write
Manage
FullControl

**QUESTION 11**

You need to ensure that the CourierMobile app determines whether the franchisee owns the account.

What should you do?

- A. Use OAuth and App only security. Request the Read right from the http://sharepoint/content/ sitecollection/web/list scope URI.
- B. Use OAuth and App+User security. Request the Read right from the http://sharepoint/content/ sitecollection scope URI.
- C. Use SPSecurity.RunWithElevatedPrivileges to connect to SharePoint and read from the Accounts list in the site collection.

D. Use the SharePoint user credentials of the bicycle messenger to connect to SharePoint and read from the Accounts list in the site collection.

**Correct Answer:** C

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 12**

A franchisee deletes several sites from the franchise's site collection. The franchisee site collection administrator must recover the sites.

You need to instruct the franchisee site collection administrator on how to access the page to recover the sites.

What should the site collection administrator do to get to the appropriate page?

- A. Select General Settings for the Web Application in Central Administration and change the second stage Recycle Bin settings to 100 percent.
- B. Select General Settings for the Web Application in Central Administration and change the first stage Recycle Bin settings to 0 days.
- C. Select the Recycle Bin on the Site Settings page. Choose the appropriate sites and select Restore Selection.
- D. Select the Recycle Bin in the Quick Launch page. Choose the appropriate sites and select Restore Selection.

**Correct Answer:** C

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: Note: The sites have been deleted.They need to be restored.A and B are wrong because modifying the Recycle Bin settings after the sites are deleted will have no effect on the deleted sites.

#### **QUESTION 13**

You need to ensure that the CloudManager app can write route progress check-ins to the courier's microfeed.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Ensure that SP.RequestExecutor.js can be accessed in a browser window with no errors.
- B. Ensure that the CloudManager app has the Manage permission request scoped to the URL for the franchisee's My Site.
- C. Ensure that the MySite host is provisioned for each franchisee.
- D. Ensure that all cookies are made available between the My Site and the CloudManager app domain.
- E. Ensure that the CloudManager app has the Write permission request scoped to the URL for the franchisee's My Site.
- F. Ensure that SP.UserProfiles.js can be accessed in a browser window with no errors.

**Correct Answer:** ABDE

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: \* From scenario:

/ Business Requirements

The FranchiseMonitor app must allow a Franchise employee to upload Appointments.csv to a SharePoint document library in each Franchisee site collection, and send Appointments.csv to the CloudManager app.

/ The FranchiseMonitor app must display the courier's location on the bicycle courier's microfeed on the SharePoint farm if the courier has remained stationary for more than three minutes. / The CloudManager app must implement business logic that parses Appointments.csv and geo- location data and sends Appointments or Appointment cancellations to the CourierMobile app.



## Testlet 1

### SharePoint

#### Overview

A client asks you to create a basic task tracking app for SharePoint. The app will be hosted remotely. The users will be able to set up task lists, mark tasks as completed, and manage their task lists.

#### Business Requirements

The client specifies the following business requirements:

- Users can create task lists.
- Users can retrieve task lists.
- Project leads can remove task lists.
- Users can modify task lists.
- Only users with a paid license can use the app.
- Tasks can be tagged with the programming language being used. Task list items may be tagged only with the following terms: C++, C#, and JavaScript.
- Navigational links across the top should be driven by the term store and use URLs that will improve search engine ranking.
- Set a system message that all users can access without the need to query a data source.
- Remote users will authenticate to the app by using a username and password.
- During development, the app will be tested by deploying to a development SharePoint site at <http://sharepoint.contoso.com/tasks>.
- When completed, the app will be published to the Microsoft Store as a paid app.

#### Existing Site Configuration

The table below shows the current site configuration for the client's SharePoint site.

Site/Site Collection	Description
<a href="http://contoso-public.sharepoint.com">http://contoso-public.sharepoint.com</a>	Public-facing site
<a href="https://contoso.sharepoint.com/tasks">https://contoso.sharepoint.com/tasks</a>	Development site for tasks app
<a href="https://contoso.sharepoint.com/search">https://contoso.sharepoint.com/search</a>	Search site
<a href="https://contoso-my.sharepoint.com">https://contoso-my.sharepoint.com</a>	Personal My Site

#### Task List Design

The app should create a SharePoint list named Tasks with the following attributes:

Field Name	Data Type	Contents
Department	Text	
Description	Text	
Hours	Number	
Completed	Radio Button	"Yes", "No"

### User Groups

SharePoint groups will be used to manage access to features of the app.

Group	Description
Admin	Admin can perform all tasks including creating projects, assigning users to projects, and maintaining all task lists.
Project Leads	Project leaders are the only members who have the ability to delete tasks.
Users	Users have the ability to add and manage tasks in their own projects, but cannot delete tasks.

### Task Display

The app should retrieve the Tasks list and display the contents on a webpage 20 tasks at a time.

### Technical Requirements

You have the following requirements:

- Query the Microsoft apps licensing service to validate the license.
- Package and configure the app.
- Configure navigation to use taxonomy-based navigation automatically generated by SharePoint.
- Utilize CSOM to retrieve data from the SharePoint site.
- Implement the system message by using a property bag that uses the key named SystemMessage.
- Implement and configure the credential store.
- The app will be internally tested for at least one month to track and fix any run-time errors.

### Pending Issues

When you deploy the app from Visual Studio 2012, you receive the error: "Error occurred in deployment step 'Install app for SharePoint': Sideload of apps is not enabled on this site."

### Application Structure

Relevant portions of the app files are shown below. (Line numbers in the code segments are

included for reference only and include a two-character prefix that denotes the specific file to which they belong.)

#### LicenseValidation.es

```
LV01  protected bool IsLicenseValid(Guid productId, ClientContext context)
LV02  {
LV03      string token = "";
LV04      ClientResult<AppLicenseCollection> licenseCollection =
        Utility.GetAppLicenseInformation(context, productId);
LV05      context.Load(context.Web);
LV06      context.ExecuteQuery();
LV07      foreach (AppLicense license in licenseCollection.Value)
LV08      {
LV09          token = license.RawXMLLicenseToken;
LV10          break;
LV11      }
LV12      VerificationServiceClient service = null;
LV13      VerifyEntitlementTokenResponse result = null;
LV14      VerifyEntitlementTokenRequest request =
        new VerifyEntitlementTokenRequest();
LV15      request.EntitlementToken = token;
LV16      service = new VerificationServiceClient();
LV17      result = service.VerifyEntitlementToken(request);
LV18      if (result != null && result.AssetId != null)
LV19      {
LV20      }
LV21      return false;
LV22  }
```

#### SystemMessage.es

```

SM01 public void SetSystemMessage(string message)
SM02 {
SM03     string url = "https://sharepoint.contoso.com/tasks";
SM04     string property = "SystemMessage";
SM05     var context = new ClientContext(url);
SM06     NetworkCredential credentials =
SM07     new NetworkCredential("", "", "");
SM08     context.Credentials = credentials;
SM09     Site site = context.Site;
SM10     context.Load(site);
SM11     Web web = site.RootWeb;
SM12     context.Load(web, w => w.AllProperties);
SM13     context.ExecuteQuery();
SM14     PropertyValues propertyValues = web.AllProperties;
SM15     context.Load(propertyValues);
SM16     web.AllProperties[property] = message;
SM17     web.Update();
SM18 }

```

**ImplementTaskList.es**

```

IL01 protected void ImplementTaskList()
IL02 {
IL03     ClientContext context = new ClientContext("http://sharpoing.contoso.com/tasks");
IL04     List list = context.Web.Lists.GetByTitle("Announcements");
IL05     Field department =
IL06         list.Fields.AddFieldAsXml("<Field DisplayName='Department' Type='Text' />",
IL07         true,
IL08         AddFieldOptions.DefaultValue);
IL09     FieldText departmentField = context.CastTo<FieldText>(department);
IL10     departmentField.Update();
IL11     Field description =
IL12         list.Fields.AddFieldAsXml("<Field DisplayName='Department' Type='Text' />",
IL13         true,
IL14         AddFieldOptions.DefaultValue);
IL15     FieldText descriptionField = context.CastTo<FieldText>(description);
IL16     descriptionField.Update();
IL17     Field hours =
IL18         list.Fields.AddFieldAsXml("<Field DisplayName='Hours' Type='Number' />",
IL19         true, AddFieldOptions.DefaultValue);
IL20     FieldNumber hoursField = context.CastTo<FieldNumber>(hours);
IL21     hoursField.Update();
IL22
IL23     context.ExecuteQuery();
IL24 }

```

RetrieveTaskList.es



```

RT01 protected void RetrieveTaskList()
RT02 {
RT03     ClientContext context = new
RT04         ClientContext("https://sharepoint.contoso.com/tasks");
RT05     List taskList = context.Web.Lists.GetByTitle("Tasks");
RT06     CamlQuery query = CamlQuery.CreateAllItemsQuery(20);
RT07     Microsoft.SharePoint.Client.ListItemCollection
RT08         tasks = taskList.GetItems(query);
RT09     context.Load(tasks);
RT10     context.ExecuteQuery();
RT11     foreach (Microsoft.SharePoint.Client.ListItem task in tasks)
RT12     {
RT13         ...
RT14     }
RT15 }

```

#### CanDeleteTask.es

```

CD01 protected bool CanDeleteTask(string targetEmail)
CD02 {
CD03     ClientContext context = new ClientContext("https://sharepoint.contoso.com/
CD04     tasks");
CD05     context.ExecuteQuery();
CD06
CD07     foreach (User user in members.Users)
CD08     {
CD09         if (user.Email == targetEmail)
CD10         {
CD11             return true;
CD12         }
CD13     }
CD14     return false;
CD15 }

```

#### TermSet Navigation.es



```

TN01 public void CreateNavigationTermSet()
TN02 {
TN03     ClientContext clientContext = new ClientContext("https://sharepoint.contoso.com/
tasks");
TN04     TaxonomySession session = TaxonomySession.GetTaxonomySession(clientContext);
TN05     taxonomySession.UpdateCache();
TN06     clientContext.Load(session, ts => ts.TermStores);
TN07     clientContext.ExecuteQuery();
TN08     TermStore store = taxonomySession.TermStores[0];
TN09     clientContext.Load(store,
TN10         s => s.Name,
TN11         s => s.WorkingLanguage);
TN12     TermGroup siteCollectionGroup = termStore.GetSiteCollectionGroup
(clientContext.Site, createIfMissing: true);
TN13     TermSet set = siteCollectionGroup.CreateTermSet("Task Terms");
TN14     store.CommitAll();
TN15     clientContext.ExecuteQuery();
TN16
TN17     termSet.IsNavigationTermSet = true;
TN18     termSet.TargetUrlForChildTerms.Value = "~site/Pages/Tasks/Tasks.aspx";
TN19     termStore.CommitAll();
TN20     clientContext.ExecuteQuery();
TN21     NavigationTerm term = termSet.CreateTerm("Programming
Languages", NavigationLinkType.SimpleLink,
TN22         Guid.NewGuid());
TN23     term.SimpleLinkUrl = "https://sharepoint.contoso.com/tasks";
TN24
TN25     term.GetTaxonomyTerm().TermStore.CommitAll();
TN26     clientContext.ExecuteQuery();
TN27 }

```

#### QUESTION 1

You need to implement term set navigation.

Which code segment should you insert at line TN16?

- ☐ A. 

```
NavigationTermSet navigationTerms =  
    NavigationTermSet.GetAsResolvedByWeb(clientContext,  
    termSet, clientContext.Web,  
    "GlobalNavigationTaxonomyProvider");
```
- ☐ B. 

```
NavigationTermSet navigationTerms =  
    NavigationTermSet.GetAsResolvedByWeb(clientContext,  
    termSet, clientContext.Web,  
    "GlobalNavigationSwitchableProvider");
```
- ☐ C. 

```
NavigationTermSet navigationTerms =  
    NavigationTermSet.GetAsResolvedByWeb(clientContext,  
    termSet, clientContext.Web,  
    "CurrentNavigationTaxonomyProvider");
```
- ☐ D. 

```
NavigationTermSet navigationTerms =  
    NavigationTermSet.GetAsResolvedByWeb(clientContext,  
    termSet, clientContext.Web,  
    "CurrentNavigationSwitchableProvider");
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer:** A

**Section:** [none]

## Explanation

### Explanation/Reference:

#### QUESTION 2

You need to validate that specific users can delete tasks.

Which code segment should you insert at line CD04?

- ☐ A. 

```
GroupCollection groups = context.Web.SiteGroups;  
Group members = groups.GetByName("Users");  
context.Load(members.Groups);
```
- ☐ B. 

```
GroupCollection groups = context.Web.SiteGroups;  
Group members = groups.GetByName("Users");  
context.Load(members.Users);
```
- ☐ C. 

```
List groups = context.Web.SiteUserInfoList;  
Group members = groups.GetByName("Project Leads");  
context.Load(members.Users);
```
- ☐ D. 

```
GroupCollection groups = context.Web.SiteGroups;  
Group members = groups.GetByName("Project Leads");  
context.Load(members.Users);
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: D

Section: [none]

Explanation

Explanation/Reference:

### QUESTION 3

You need to implement term set navigation.

Which code segment should you insert at line TN24?

- ☐ A. `NavigationTerm childTerm  
= term.CreateTerm("C++", NavigationLinkType.Root, Guid.NewGuid());`
- ☐ B. `NavigationTerm childTerm  
= term.CreateTerm("C++", NavigationLinkType.Default, Guid.NewGuid());`
- ☐ C. `NavigationTerm childTerm  
= term.CreateTerm("C++", NavigationLinkType.SimpleLink, Guid.NewGuid());`
- ☐ D. `NavigationTerm childTerm  
= term.CreateTerm("C++", NavigationLinkType.FriendlyUrl, Guid.NewGuid());`

A. Option A

B. Option B

C. Option C

D. Option D

Correct Answer: D

Section: [none]

Explanation

**Explanation/Reference:**

**QUESTION 4**

You need to complete the code at line LV19 to implement the validation of the app license.

Which code segment should you use?

☐ A. 

```
if (result.EntitlementType.ToLower() == "trial")
{
    return true;
}
```

☐ B. 

```
if (result.EntitlementType.ToLower() == "valid")
{
    return true;
}
```

☐ C. 

```
if (result.EntitlementType.ToLower() == "paid")
{
    return true;
}
```

☐ D. 

```
if (result.EntitlementType.ToLower() == "free")
{
    return true;
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer:** C

**Section:** [none]

**Explanation**

**Explanation/Reference:**

## QUESTION 5

You receive an error when you deploy the app.

You need to resolve the error.

What should you do?

- A. Create a deployment package and upload the app to the app catalog in SharePoint.
- B. Enable side-loading of apps in the app manifest.
- C. Deploy the app to <https://contoso-my.sharepoint.com>.
- D. Enable side-loading of apps in the Visual Studio project properties.

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Still accurate.

## QUESTION 6

You need to configure navigation for the site.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Create simple links or headers for new pages.
- B. Create friendly URLs for new pages automatically.
- C. Add unique identifiers to new pages.
- D. Create term-driven pages with friendly URLs.
- E. Add new pages to navigation automatically.

**Correct Answer:** ACD

**Section:** [none]

**Explanation**



## Explanation/Reference:

### QUESTION 7

You need add to code at line IL22 to implement the task list design.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

### Select and Place:

Text

Choice

DropDown

FieldText

FieldChoice

RadioButtons

"Yes", "No"

"True", "False"

Answer Area

```
Field completed = list.Fields.AddFieldAsXml(  
    "<Field DisplayName='Completed'  
    Type= [ ] />",  
    true,  
    AddFieldOptions.DefaultValue);  
FieldChoice completedField =  
    context.CastTo<FieldChoice>(completed);  
completedField.EditFormat =  
    ChoiceFormatType. [ ] ;  
string[] choices = { [ ] };  
completedField.Choices = choices;
```

### Correct Answer:



Text

DropDown

FieldText

FieldChoice

"True", "False"

Answer Area

```
Field completed = list.Fields.AddFieldAsXml(
    "<Field DisplayName='Completed'
    Type= Choice />",
    true,
    AddFieldOptions.DefaultValue);
FieldChoice completedField =
    context.CastTo<FieldChoice>(completed);
completedField.EditFormat =
    ChoiceFormatType. RadioButtons ;
string[] choices = { "Yes", "No" };
completedField.Choices = choices;
```

Section: [none]

Explanation

Explanation/Reference:

```

Field completed = list.Fields.AddFieldAsXml(
    "<Field DisplayName='Completed'
    Type= Choice />",
    true,
    AddFieldOptions.DefaultValue);
FieldChoice completedField =
    context.CastTo<FieldChoice>(completed);

completedField.EditFormat =
    ChoiceFormatType. RadioButtons ;

string[] choices = { "Yes", "No" };

completedField.Choices = choices;

```

#### QUESTION 8

You need to configure the credential store for the app.

Which properties should you configure? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Pin
- B. Windows Password
- C. Windows User Name
- D. Password
- E. User Name

**Correct Answer:** DE

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: From scenario:

\* A client asks you to create a basic task tracking app for SharePoint. The app will be hosted remotely

\* Remote users will authenticate to the app by using a username and password.

#### **QUESTION 9**

You need to deploy the package.

Which file should you select?

- A. the file ending in .publish
- B. the file ending in .wsp
- C. the file ending in .dll
- D. the file ending in .app

**Correct Answer:** D

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 10**

You receive an error when you deploy the app.

You need to resolve the error.

What should you do?

- A. Deploy the app to http://contoso-public.sharepoint.com.
- B. Enable side-loading of apps in the Visual Studio project properties.
- C. Deploy the app to https://contoso-my.sharepoint.com.
- D. Deploy the app to https://contoso.sharepoint.com/tasks.

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

## Testlet 1

### Coho Winery

#### Background

Coho Winery implements a SharePoint farm. They have an intranet site for company employees and an extranet site for their customers. Coho Winery sells products to wholesale and retail customers. Customers must be able to order specific brands and pay directly.

#### Business Requirements

##### Site Collection

The company must organize its main enterprise site to have multiple site collections for different wine brands from various regions. Site documents must have a consistent look and feel.

##### New Features

The first version (1.0.0.0) of the feature must support the addition of newer functionality when the feature is upgraded to version 1.5.0.0.

#### Technical Requirements

##### General

- A Document content type named Finance must be created at the site level. It must contain two site columns named Customer Name and Transaction Date.
- The Order Details and Payment Confirmation content types must be derived from the Finance content type.
- Workflows associated with document content types must be initiated when documents are generated.
- When Payment Confirmation documents are generated, a workflow must send a notification to the customer by email.

##### User Authorization

- A custom role named Whole sale must be created. Wholesale customers must be assigned to this role in order to view the promotions page.
- A custom permission level must be created. This permission level must add the ViewPages permission to the existing base permissions. This permission level must be added to Wholesale user role.
- Anonymous users must be able to browse the site with limited access to resources.
- The web application has been created with anonymous access enabled.
- Users are prompted for credentials when they browse to the site.

##### Application Lifecycle Management

- Versioning of the solution artifacts must adhere to industry best practices.
- In a future upgrade process, a new site column named Division must be added to the Finance content type programmatically.
- Only one version of an assembly must be available at runtime.
- Code based hot fixes must be deployed directly to the Global Assembly Cache on all SharePoint

servers.

- During maintenance periods, content must be available but must not be modified.

### **Backup and Recovery**

- In the event of hardware failure, the SharePoint environment must be restored to the most recent date.
- The backup process must not degrade system performance.

### **Performance Optimization and Memory Usage**

SPSite objects must be removed from memory immediately after the objects go out of scope.

### **Automation**

Windows PowerShell must be used to automate all operations wherever possible.

### **Application Structure**

Relevant portions of the application files are shown below. (Line numbers in the code segments are included for reference only and include a two-character prefix that denotes the specific file to which they belong.)

#### **ContentType.es**

```

CT01 public override void
    FeatureActivated(SPFeatureReceiverProperties spFtRcvProperties)
CT02 {
CT03     SPWeb web =
        ((SPSite)spFtRcvProperties.Feature.Parent).RootWeb;
CT04     string financeColumn = "Finance Columns";
CT05     string customerFieldName =
        web.Fields.Add("Customer Name", SPFieldType.Text, true);
CT06
CT07     string transDateFieldName = web.Fields.Add("Transaction
Date", SPFieldType.DateTime, true);
CT08     ...
CT09     string contentTypeGroup = "Finance Content Types";
CT10     SPContentType docContentType =
        web.AvailableContentTypes[SPBuiltInContentTypeId.Document];
CT11
CT12     docContentType1 = web.ContentTypes.Add(docContentType1);
CT13     docContentType1.Group = contentTypeGroup;
CT14     SPFieldLink transDateFieldRef =
        new SPFieldLink(transDateField);
CT15     transDateFieldRef.Required = true;
CT16     docContentType1.FieldLinks.Add(transDateFieldRef);
CT17     docContentType1.Update();
CT18     docContentType2 = web.ContentTypes.Add(docContentType2);
CT19     docContentType2.Group = contentTypeGroup;
CT20     SPFieldLink titleODFieldRef =
        docContentType2.FieldLinks[SPBuiltInFieldId.Title];
CT21     ...
CT22     titleODFieldRef.Required = true;
CT23     ...
CT24     docContentType2.Update();
CT25     docContentType3 = web.ContentTypes.Add(docContentType3);
CT26     docContentType3.Group = contentTypeGroup;
CT27     SPFieldLink titlePmtFieldRef =
        docContentType3.FieldLinks[SPBuiltInFieldId.Title];
CT28     ...
CT29     titlePmtFieldRef.Required = true;
CT30     ...
CT31     docContentType3.Update();

```

## UserAuthorization.es

```
UA01  private SPBasePermissions _permissions =
      SPBasePermissions.EmptyMask;
UA02  public override void
      FeatureActivated(SPFeatureReceiverProperties properties)
UA03  {
UA04      try
UA05      {
UA06          SPSite site =
      new SPSite("http://localhost:80/sites/brands/Wholesale");
UA07
UA08          using (SPWeb web = site.RootWeb)
UA09          {
UA10              _permissions = this.GetExistingPermissions();
UA11
UA12              foreach (SPWeb spWebItem in web.Webs)
UA13              {
UA14                  ...
UA15              }
UA16          }
UA17      }
UA19      {
UA20
UA21      }
UA22
UA23  }
UA24  private SPBasePermissions GetExistingPermissions()
UA25  {
UA26      SPBasePermissions permissions =
      SPBasePermissions.EmptyMask;
UA27      ...
UA28      return permissions;
UA29  }
```



ContentType.Finance.Template.xml

```
CX01 <Feature Id="08380D6A-858C-4618-9525-50E9D6DEAD53"
CX02 Title="ContentType.Finance"
CX03 Description="Content type for Finance"
CX04 ReceiverClass="MyFeatureReceiver.MyReceiver"
CX05 xmlns="http://schemas.microsoft.com/sharepoint/">
CX06 ...
CX07 <ElementManifests>
CX08 <ElementManifest Location="ElementsV1.xml" />
CX09 <ElementManifest Location="ElementsV2.xml" />
CX10 </ElementManifests>
CX11
CX12 <UpgradeActions>
CX13
CX14 <ApplyElementManifests>
CX15 <ElementManifest Location="ElementsV2.xml" />
CX16 </ApplyElementManifests>
CX17 <AddContentTypeField
CX18 ContentTypeId="0x010123F15ADB2FA333AA49848E7E01BC79C9753222"
CX19 FieldId="{4FB9816F-799D-41F3-B801-B8F5FEB3A5CD}"/>
CX20 <CustomUpgradeAction Name=" " ">
CX21 <Parameters>
CX22 <Parameter Name="Division">Finance</Parameter>
CX23 </Parameters>
CX24 </CustomUpgradeAction>
CX25
CX26 </UpgradeActions>
CX27
CX28 </Feature>
```

ExportWholesaleSites.ps1

```

EW01 $site = Get-SPSite "http://localhost:80/sites/brands/Wholesale";
EW02 foreach ($web in $site.AllWebs)
EW03 {
EW04
EW05     $web | Export-SPWeb -Path ($web.Title + ".cmp") -Force;
EW06     $date = Get-Date;
EW07     if ($web.AllProperties["LastWebExport"] -eq $null)
EW08     {
EW09         $web.AddProperty("LastWebExport", $date);
EW10         $web.Update();
EW11     }
EW12     else
EW13     {
EW14         $web.SetProperty("LastWebExport", $date);
EW15         $web.Update();
EW16     }
EW17
EW18 }

```

#### QUESTION 1

You need to set the appropriate permission levels.

A variable named customRole references Wholesale.

Which code segment should you add at line UA09?

- A. customRole.BasePermissions= \_permissions | SPBasePermissions.ViewFormPages;
- B. customRole .BasePermissions= \_permissions| SPBasePermissions.ViewPages;
- C. customRole.BasePermissions=SPBasePermissions.EmptyMaskSPBasePermissions.ViewPages;
- D. customRole.BasePermissions=SPBasePermissions.ViewPages;

**Correct Answer:** B

**Section:** [none]

## Explanation

## Explanation/Reference:

### QUESTION 2

You must upgrade the existing version of the application to a newer version.

Which two actions should you perform? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Add the following code segment at line CX11:  
<VersionRangeBeginVersion="1.0" EndVersion="2.e">
- B. Add the following code segment at CX13:  
<VersionRangeBeginVersion-"1.0.0.0"EndVersion-"2.0.0.0">
- C. Use Microsoft Visual Studio to change the feature version to 1.5.0.0.
- D. Use Microsoft Visual Studio to change the feature version to 1.5.
- E. Add the following code segment at line CX11:  
<VersionRange BeginVersion-"1.0.0.0"EndVersion-"2.0.0.0">

**Correct Answer:** BE

**Section:** [none]

## Explanation

## Explanation/Reference:

### QUESTION 3

You need to automate the backup of a site collection.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Back up to a network folder.
- B. Set the LockStatus of the site collection to Adding content prevented
- C. Back up to a local folder and then move the backup to a network folder.
- D. Use Central Administration to perform the backup.
- E. Use Windows PowerShell to perform the backup.

**Correct Answer:** AD

**Section:** [none]

## Explanation

## Explanation/Reference:

### QUESTION 4

You need to add code at line CT11 to create the content types.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

### Select and Place:

	Answer Area
<pre>(docContentType, web.ContentTypes, "Finance");</pre>	<pre>SPContentType docContentType1 = new</pre>
<pre>(docContentType, web.ContentTypes, "Order Details");</pre>	
<pre>(docContentType, web.ContentTypes, "Payment Confirmation");</pre>	<pre>SPContentType docContentType2 = new</pre>
<pre>(docContentType1, web.ContentTypes, "Finance");</pre>	
<pre>(docContentType1, web.ContentTypes, "Order Details");</pre>	<pre>SPContentType docContentType3 = new</pre>
<pre>(docContentType1, web.ContentTypes, "Payment Confirmation");</pre>	
<pre>(docContentType2, web.ContentTypes, "Payment Confirmation");</pre>	

### Correct Answer:

	Answer Area
<pre>(docContentType, web.ContentTypes, "Order Details");</pre>	<pre>SPContentType docContentType1 = new (docContentType, web.ContentTypes, "Finance");</pre>
<pre>(docContentType, web.ContentTypes, "Payment Confirmation");</pre>	<pre>SPContentType docContentType2 = new (docContentType1, web.ContentTypes, "Order Details");</pre>
<pre>(docContentType1, web.ContentTypes, "Finance");</pre>	<pre>SPContentType docContentType3 = new (docContentType1, web.ContentTypes, "Payment Confirmation");</pre>
<pre>(docContentType2, web.ContentTypes, "Payment Confirmation");</pre>	

Section: [none]

Explanation

Explanation/Reference:

Answer Area

```
SPContentType docContentType1 = new
(docContentType,
web.ContentTypes, "Finance");
```

```
SPContentType docContentType2 = new
(docContentType1,
web.ContentTypes, "Order Details");
```

```
SPContentType docContentType3 = new
(docContentType1,
web.ContentTypes, "Payment Confirmation");
```

**QUESTION 5**

You need to create the required site columns.

How should you complete the relevant code? (To answer, select the appropriate code segment from each drop-down list in the answer area.)

```
String customerFieldName = web.Fields.Add("Customer Name",
SPFieldType.Text, true);
SPFieldText customerField = web.Fields.
```

(customerFieldName) as SPFieldText;

customerField.Update();

Hot Area:



```
String customerFieldName = web.Fields.Add("Customer Name",  
SPFieldType.Text, true);  
SPFieldText customerField = web.Fields.
```

```
 (customerFieldName) as SPFieldText;
```

Add  
CreateNewField  
GetFieldByInternalName

customerField.Group = financeColumn;  
customerField.XPath = financeColumn;  
customerField.RelatedField = financeColumn;

```
customerField.Update();
```

Commit();  
Update();  
SetCustomProperty();

**Correct Answer:**



```
String customerFieldName = web.Fields.Add("Customer Name",  
SPFieldType.Text, true);  
SPFieldText customerField = web.Fields.
```

```
(customerFieldName) as SPFieldText;
```

Add  
CreateNewField  
GetFieldByInternalName

customerField.Group = financeColumn;  
customerField.XPath = financeColumn;  
customerField.RelatedField = financeColumn;

```
customerField.Update();
```

Commit();  
Update();  
SetCustomProperty();

Section: [none]

Explanation

Explanation/Reference:

```
String customerFieldName = web.Fields.Add("Customer Name",
SPFieldType.Text, true);
SPFieldText customerField = web.Fields.
```

(customerFieldName) as SPFieldText;

Add  
CreateNewField  
GetFieldByInternalName

customerField.Group = financeColumn;  
customerField.XPath = financeColumn;  
customerField.RelatedField = financeColumn;

customerField.Update();

Commit();  
Update();  
SetCustomProperty();

#### QUESTION 6

You need to add code at line UA11 to create the custom role.  
You have the following code:

```
var customRole = new Target 1();
customRole.Name = "Wholesale";
customRole.Description = "Custom role for Wholesale customers";
Target 2
Target 3
```

Which code segments should you include in Target 1, Target 2 and Target 3 to complete the code? (To answer, select the appropriate code segment from each drop-down list in the answer area.)

Hot Area:

## Answer Area

Target 1:

SPRoleDefinition  
SPRoleAssignment  
SPRoleDefinitionCollection

Target 2:

web.RoleAssignment.Add(customRole);  
web.RoleDefinitions.Add(customRole);  
web.RoleDefinitionCollection.Add(customRole);

Target 3:

web.Commit();  
web.Update();  
web.AddProperty(customRole, permissions);

Correct Answer:

## Answer Area

Target 1:

SPRoleDefinition  
SPRoleAssignment  
SPRoleDefinitionCollection

Target 2:

web.RoleAssignment.Add(customRole);  
web.RoleDefinitions.Add(customRole);  
web.RoleDefinitionCollection.Add(customRole);

Target 3:

web.Commit();  
web.Update();  
web.AddProperty(customRole, permissions);

Section: [none]

Explanation

Explanation/Reference:

Answer Area

Target 1:

SPRoleDefinition

SPRoleAssignment

SPRoleDefinitionCollection

Target 2:

web.RoleAssignment.AddcustomRole;

web.RoleDefinitions.AddcustomRole;

web.RoleDefinitionCollection.AddcustomRole;

Target 3:

web.Commit()

web.Update()

web.AddProperty(customRole\_permissions)

### QUESTION 7

You need to add code at line UA09 to create the custom role.

How should you complete the relevant code? (To answer, select the appropriate code segment from each drop-down list in the answer area.)

```
var customRole =  ();  
  
customRole.Name = "Wholesale";  
customRole.Description = "Custom role for Wholesale customers";  
  

```

Hot Area:

```

var customRole =  ();
SPRoleDefinition
SPRoleAssignment
SPRoleDefinitionCollection

customRole.Name = "Wholesale";
customRole.Description = "Custom role for Wholesale customers";


web.RoleAssignment.Add(customRole);
web.RoleDefinitions.Add(customRole);
web.RoleDefinitionCollection.Add(customRole);


web.Commit()
web.Update()
web.AddProperty(customRole, _permissions)

```

**Correct Answer:**

```

var customRole =  ();
SPRoleDefinition
SPRoleAssignment
SPRoleDefinitionCollection

customRole.Name = "Wholesale";
customRole.Description = "Custom role for Wholesale customers";


web.RoleAssignment.Add(customRole);
web.RoleDefinitions.Add(customRole);
web.RoleDefinitionCollection.Add(customRole);


web.Commit()
web.Update()
web.AddProperty(customRole, _permissions)

```

**Section: [none]**

**Explanation**

**Explanation/Reference:**

## QUESTION 8

A server in the SharePoint farm experiences high memory usage. Task Scheduler on the server runs a Windows PowerShell script to perform backups of Wholesale sites.

You need to resolve any memory leak issues in the Windows PowerShell script.

What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Insert the code segment at line EW04:  
Start-SPAssignment -Global
- B. Insert the code segment at line EW17:  
\$site.Close()
- C. Insert the code segment at line EW17:  
Stop-SPAssignment -SemiGlobal
- D. Insert the code segment at line EW17:  
Stop-SPAssignment Global

**Correct Answer: AC**

**Section: [none]**

**Explanation**

**Explanation/Reference:**

Explanation: \* Start-SPAssignment Global initiates a new assignment store.

\* Stop-SPAssignment .Disposes of objects in the provided assignment collection. The Stop-SPAssignmentcmdlet disposes of objects in the provided assignment collection. Use the Global parameter to dispose of all objects in the global assignment collector and to stop the global store from collecting additional objects. Provide a SemiGlobal assignment collector to dispose of all contained objects.

From scenario:

\* Performance Optimization and Memory Usage

SPSite objects must be removed from memory immediately after the objects go out of scope.

## QUESTION 9

After deploying a solution, a code-based hotfix becomes available.

You need to deploy the hotfix.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Use assembly binding redirection in the web application configuration file.
- B. Increment the assembly file version of the assembly.
- C. Increment the product version of the assembly.
- D. Increment the assembly version of the assembly.
- E. Use assembly binding redirection in the assembly policy file.

**Correct Answer:** AC

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: A:Assembly versions are everywhere in SharePoint web.config files, web part definitions, workflow definitions, event receiver bindings the list goes on. In each case, the version number is absolutely required so that SharePoint can load the code to run at that time. If you update an assembly's version, you have two choices to ensure your code can still be loaded:

/ Find and update every reference to the previous assembly version. / Use a binding redirect in the relevant .config file (e.g. web.config) to point to the new version of the assembly.

C: Assembly Version : This is the version number used by framework during build and at runtime to locate, link and load the assemblies. When you add reference to any assembly in your project, it is this version number which gets embedded. At runtime, CLR looks for assembly with this version number to load. But remember this version is used along with name, public key token and culture information only if the assemblies are strong-named signed. If assemblies are not strong-named signed, only file names are used for loading.

Incorrect:

not B: Assembly File Version : This is the version number given to file as in file system. It is displayed by Windows Explorer. Its never used by .NET framework or runtime for referencing.

From scenario:

- \* solution artifacts must adhere to industry best practices.
- \* Code based hot fixes must be deployed directly to the Global Assembly Cache on all SharePoint servers.
- \* Only one version of an assembly must be available at runtime.

**QUESTION 10**

Customers report that upon creation of the Payment Confirmation document, they do not receive a confirmation message.

You need to ensure that customers receive confirmation messages.

What should you do?



- A. Ensure that the user has the correct permissions to start a workflow.
- B. Ensure that the Payment Confirmation content type is deployed.
- C. Ensure that the user is assigned to the Wholesale role.
- D. Ensure that a workflow is associated with the document content type.

**Correct Answer:** D

**Section:** [none]

**Explanation**

**Explanation/Reference:**

## **Testlet 1**

### **LitwareInc**

#### **Background**

You are a SharePoint developer working for Litware Inc., a large bicycle manufacturing company. Litware runs an intranet that is based on SharePoint Server 2010, side-by-side a collaboration space for various departments. The IT department for Litware is migrating a SharePoint 2010 environment to a new SharePoint 2013 farm. Some collaboration site collections are already migrated, including a Marketing site collection.

#### **Business Requirements**

##### **Intranet**

Litware is redefining its brand identity. It is essential that the new intranet supports a wide variety of mobile devices, platforms, and browsers. Some of the content must be migrated from the old intranet during the implementation. The redesigned intranet must be extensible. The solution must be designed with the changes in the underlying technology in mind.

A marketing company named Graphic Design Institute provides documents and guidelines for the new design for Litware's intranet.

##### **Collaboration**

Litware has the following collaboration requirements:

- The collaboration space must include a start page containing information about site owners, contact data, and statistics on site usage. This information must be available for each collaboration space, directly after its creation.
- The project must be delivered in multiple phases.
- The solution must support changes and updates on the structure and functionality of the collaboration spaces.

##### **Marketing collaboration space**

Auditors must be able to create reports about the documents the Marketing team produces. Initial reports should show document distribution over projects and information about the most active documents, the top inactive documents, and the most active users. Additional reports will be added over time.

#### **Technical Requirements**

##### **Publishing Design for the Intranet**

Litware will use the following web application for the intranet: <https://intranet.litwareinc.com>. The publishing site design is delivered as a set of HTML files (litwarepublishing.html), CSS (Litwarepublishing.css), and image files from the marketing company. A design package must be created for easier deployment over various platforms. During the creation and application of the design package to the publishing site, SharePoint 2013 out-of-the-box capabilities must be used as much as possible to ensure simple design changes and to simplify the upgrade procedures. The publishing site must support rendering on a number of devices, starting with Windows Phone.

Apart from being deployed on all existing publishing sites, the design package must be automatically applied each time a publishing site is created. A search box must be available on all publishing sites.

### **Collaboration**

Litware will use two additional web applications for the collaboration:

- Collaboration 1: <https://collab1.litwareinc.com>
- Collaboration 2: <https://collab2.litwareinc.com>

Most of the features contained within the Team Site template are sufficient; however, a few additions to the template must be made to support the business requirements. In order to achieve this and ensure maximum portability, a web template based on the Team Site definition must be created. A three-state workflow must be used to manage business processes. A customized default home page must be deployed by using a site feature.

### **Feature IDs:**

- Three-state workflow: FDE5D850-671E-4143-950A-87B473922DC7
- Litware Web Artifacts: DBF80SAB-03D9-43DC-9154-52D6AC54689F

The project must be implemented in phases, so a solution must be developed to support upgrade procedures. As soon as the package containing the web template

Litware.Intranet.Templates.wsp is deployed, the Litware Team Site template must be available for use in all site collections. In order to make the solution as extensible as possible, all core functionality should be moved to the separate package Litware.Intranet.Core.wsp. Deployment of the package containing the Litware web templates Litware.Intranet.Templates.wsp must be prevented if the core package is not deployed in order to prevent deployment errors and eventually damage on the site structure itself.

Litware.Intranet.Templates contains two features:

- The LitwareWebTemplateFeature feature contains the Litware Team Site web template. Templates with this title must be available in the group Litware in the template selection.
- The LitwareWebArtifacts hidden feature contains code required to run after the provisioning is completed.

The LitwareWebArtifacts feature can be activated only if the LitwareWebTemplateFeature feature is activated as well.

### **Marketing site collection**

An existing marketing collaboration site located in a web application named Collaboration 1 is located at <https://collab1.litwareinc.com/sites/marketing>. Collaboration 1 contains a document library with approximately 9000 documents for approximately 200 projects. The largest project contains 120 files. Documents are assigned to appropriate projects by using the Projects field. The farm uses the default throttle settings. Users report that they cannot sort documents in the marketing collaboration site.

Auditors have access to the page that provides statistics on Marketing documents. This page contains a report on document distribution over projects and information about the most active documents, the top inactive documents, and the most active users. Processing the queries can result in working with huge result sets. You must ensure that the information on this page is always available and that the queries are not throttled. The relevant code segment is available in the code sections area (MarketingAudit.ascx.es).

## Application Structure

Relevant portions of the app files are shown below. (Line numbers in the code segments are included for reference only and include a two-letter prefix that denotes the specific file to which they belong.)

### Element.xml file from Litware.Intranet.Templates.wsp:

```
PB01 <?xml version="1.0" encoding="utf-8"?>
PB02 <Elements xmlns="http://schemas.microsoft.com/sharepoint/">
PB03   <PropertyBag ParentType="Web">
PB04     <Property Name="litware.teamsite.wt_ID"
PB05       Type="string" Value="WTLitwareTeamSite" />
PB06   </PropertyBag>
PB07 </Elements>
```

### MarketingAudit.ascx.es

```
MA01 protected override void RenderContents(System.Web.UI.HtmlTextWriter writer)
MA02 {
MA03   SPWeb spWeb = SPContext.Current.Web;
MA04   SPList spList = spWeb.Lists["Documents"];
MA05   SPUser spUser = SPContext.Current.Web.CurrentUser;
MA06   SPQuery spQuery = new SPQuery();
MA07
MA08
MA09
MA10   if (spUser.IsSiteAdmin || spUser.IsSiteAuditor)
MA11   {
MA12     ...
MA13   }
MA14   else
MA15   {
MA16     writer.Write("<p> You do not have enough privileges to run this report.
MA17       Please contact your system administrator. </p>");
MA18   }
MA19   base.RenderContents(writer);
MA20 }
```

**QUESTION 1**

You need to add the search box to the publishing site.

What should you do?

- A. Generate a code snippet and paste it into the HTML file.
- B. Edit the default.master master page and then add the search box control.
- C. Add the Search Web Part to the Welcome page.
- D. Edit the page layout.

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

**QUESTION 2**

You need to apply updates to only the sites that were created based on the Litware Team Site web template.

Which code segment should you use?

- ☐ A. `String property = spWeb.GetProperty("litware.teamsite.wt_ID").ToString();  
if (property == "WTLitwareTeamSite")  
{  
 ...  
}`
- ☐ B. `String property = spWeb.GetProperty("WTLitwareTeamSite").ToString();  
if (property == "litware.teamsite.wt_ID")  
{  
 ...  
}`
- ☐ C. `if (spWeb.WebTemplate == "WTLitwareTeamSite")  
{  
 ...  
}`
- ☐ D. `if (spWeb.Properties["litware.teamsite.wt_ID"] == "WTLitwareTeamSite")  
{  
 ...  
}`

- A. Option A  
B. Option B  
C. Option C  
D. Option D

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Absolutely right option.

### QUESTION 3

You need to create a collaboration template.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

Answer Area	
Name	<pre> &lt;?xml version="1.0" encoding="utf-8"?&gt;  &lt;Elements xmlns="http://schemas.microsoft.com/sharepoint/"&gt;    &lt;     [ ]     [ ]="STS"     BaseTypeID="0"     BaseConfigurationID="0"     [ ]="LitwareTeamSite"     [ ]="Litware Team Site"     [ ]="Litware"/&gt;  &lt;/Elements&gt; </pre>
Title	
Template	
TemplateID	
WebTemplate	
DisplayCategory	
BaseTemplateName	

Correct Answer:



Answer Area	
<input type="text"/>	
<input type="text"/>	
<input type="text" value="Template"/>	
<input type="text" value="TemplateID"/>	
<input type="text"/>	
<input type="text"/>	
<input type="text"/>	

```
<?xml version="1.0" encoding="utf-8"?>
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">
  < WebTemplate
    BaseTemplateName="STS"
    BaseTemplateID="0"
    BaseConfigurationID="0"
    Name="LitwareTeamSite"
    Title="Litware Team Site"
    DisplayCategory="Litware"/>
</Elements>
```

Section: [none]

Explanation

Explanation/Reference:

```
<?xml version="1.0" encoding="utf-8"?>
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">
  < WebTemplate
    BaseTemplateName="STS"
    BaseTemplateID="0"
    BaseConfigurationID="0"
    Name="LitwareTeamSite"
    Title="Litware Team Site"
    DisplayCategory="Litware"/>
</Elements>
```

#### QUESTION 4

You need to apply the Design Package to all of the required sites.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

	Answer Area
LitwareIncTemplate#0	<pre>&lt;?xml version="1.0" encoding="utf-8"?&gt; &lt;Elements xmlns="http://schemas.microsoft.com/sharepoint/"&gt;    &lt;     Id="1af9c070-8e74-4554-aa03-4373a812e5ac"     TemplateName=" " /&gt;  &lt;/Elements&gt;</pre>
OSRV#0	
FeatureTemplate	
FeatureTemplateStapler	
BLANKINTERNET#0	
WTLitwareTeamSite	
litware.teamsite.wt_ID	
FeatureWebTemplateAssociation	
FeatureSiteTemplateAssociation	

Correct Answer:

	Answer Area
LitwareIncTemplate#0	<pre> &lt;?xml version="1.0" encoding="utf-8"?&gt; &lt;Elements xmlns="http://schemas.microsoft.com/sharepoint/"&gt;    &lt; FeatureSiteTemplateAssociation     Id="1af9c070-8e74-4554-aa03-4373a812e5ac"     TemplateName=" BLANKINTERNET#0 " /&gt;  &lt;/Elements&gt; </pre>
OSRV#0	
FeatureTemplate	
FeatureTemplateStapler	
WTLitwareTeamSite	
litware.teamsite.wt_ID	
FeatureWebTemplateAssociation	

Section: [none]

Explanation

Explanation/Reference:

```

<?xml version="1.0" encoding="utf-8"?>
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">
  < FeatureSiteTemplateAssociation
    Id="1af9c070-8e74-4554-aa03-4373a812e5ac"
    TemplateName=" BLANKINTERNET#0 " />
</Elements>

```

#### QUESTION 5

You need to ensure that users can sort files by using the Projects field.

From the List Settings page, which option should you select? (To answer, select the appropriate

option in the answer area.)

**Hot Area:**

### Columns

A column stores information about each document in the document library. The following columns are currently available in this document library:

Column (click to edit)	Type	Required
Title	Single line of text	
Project	Lookup	
<hr/>		
▣ Create column		
▣ Add from existing site columns		
▣ Column ordering		
▣ Indexed columns		

**Correct Answer:**

## Columns

A column stores information about each document in the document library. The following columns are currently available in this document library:

Column (click to edit)	Type	Required
Title	Single line of text	
Project	Lookup	
<hr/>		
▣ Create column		
▣ Add from existing site columns		
▣ Column ordering		
▣ Indexed columns		

Section: [none]

Explanation

Explanation/Reference:

## Columns

A column stores information about each document in the document library. The following columns are currently available in this document library:

Column (click to edit)	Type	Required
Title	Single line of text	
Project	Lookup	
<hr/>		
▢ Create column		
▢ Add from existing site columns		
▢ Column ordering		
▢ Indexed columns		

### QUESTION 6

You need to scope the feature containing the Litware Team Site template.

In the Feature Designer tool in Visual Studio 2012, which scope option should you select? (To answer, select the appropriate scope from the drop-down list in the answer area.)



DesignManifest

Title:Litware Web Template

Description:

Scope:

Items in the Solution:

WebTemplatePrope...  
Element

Files

Items in the Feature:

LitwareTeamSite (Lit...  
Element

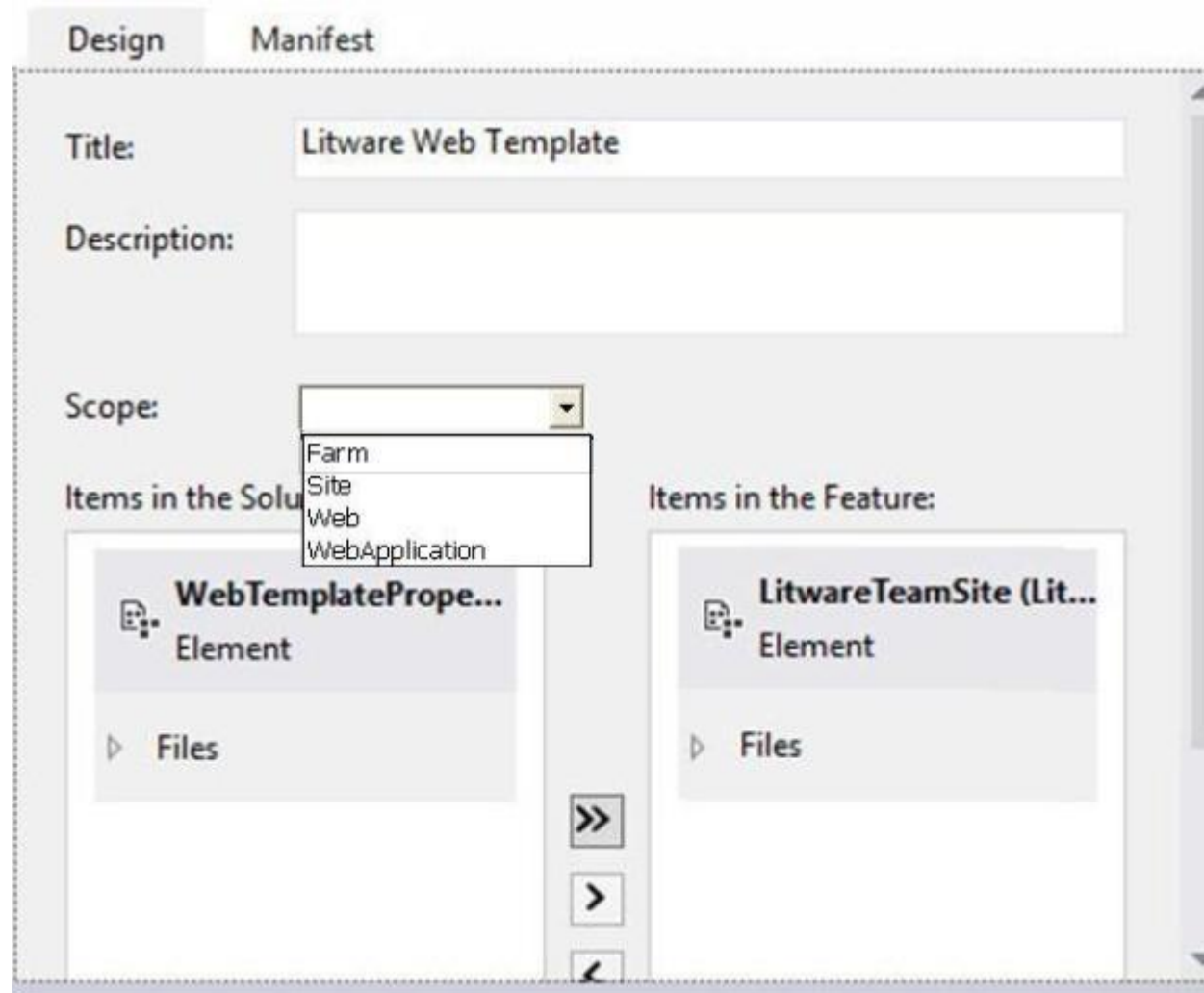
Files

>>

>

<

Hot Area:



Correct Answer:

**Design**   **Manifest**

**Title:** Litware Web Template

**Description:**

**Scope:**

**Items in the Solution:**

- WebTemplatePrope...  
Element  
Files

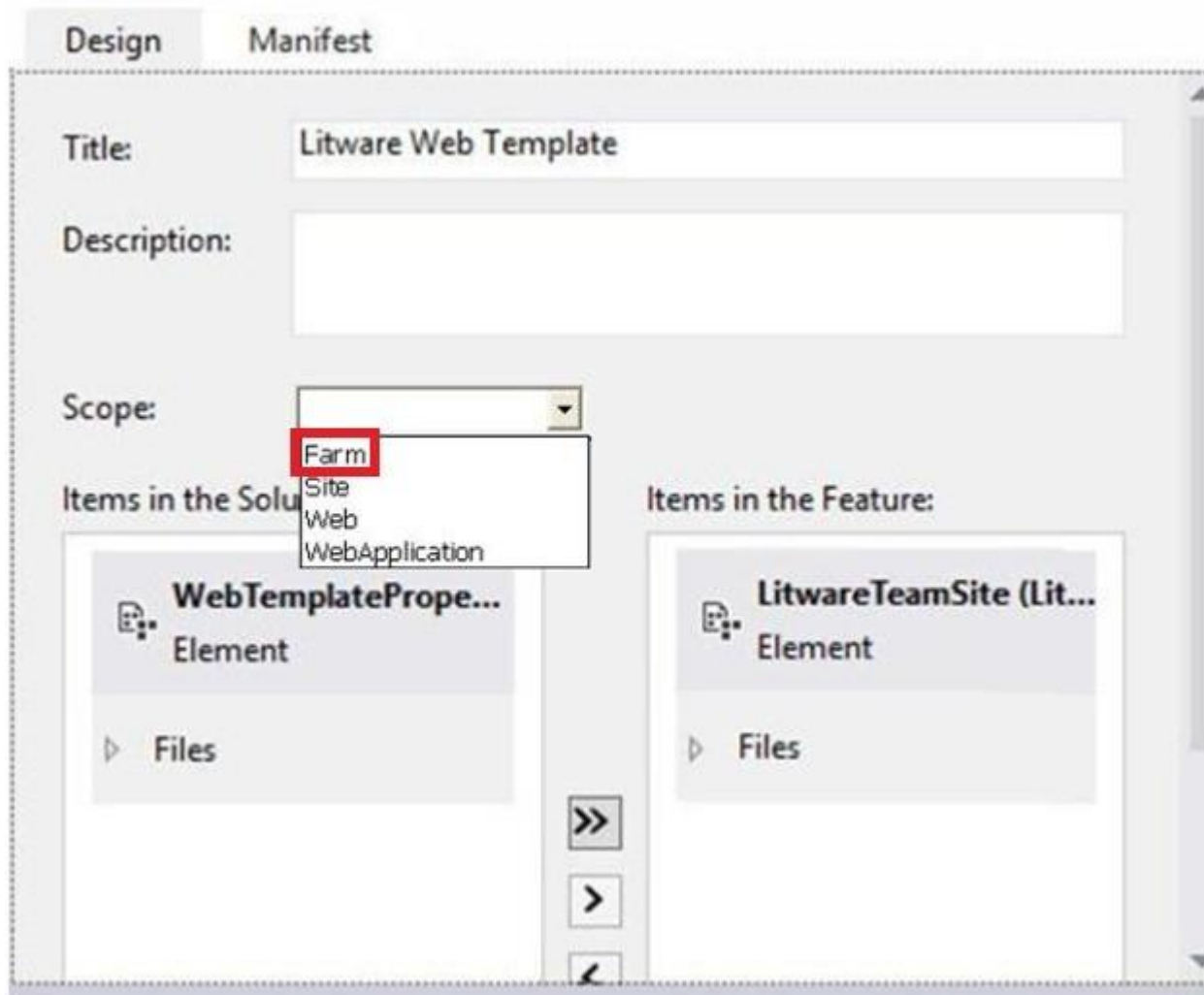
**Items in the Feature:**

- LitwareTeamSite (Lit...  
Element  
Files

Navigation buttons: >>, >, <

Section: [none]  
Explanation

Explanation/Reference:



#### QUESTION 7

You need to configure the publishing site to support the browser requirements.  
From Site Settings, which option should you select first? (To answer, select the appropriate option in the answer area.)

**Hot Area:**

# Site Settings

## Users and Permissions

- People and groups
- Site permissions
- Site collection administrators
- Site app permissions

## Web Designer Galleries

- Site columns
- Site content types
- Web parts
- List templates
- Master pages and page layouts
- Solutions
- Themes
- Composed looks

## Look and Feel

### Design Manager

- Master page
- Page layouts and site templates

### Welcome Page

### Title, description, and logo

### Device Channels

### Tree view

### Change the look

### Import Design Package

### Navigation

### Image Renditions

## Site Actions

- Manage site features

Correct Answer:

# Site Settings

## Users and Permissions

- People and groups
- Site permissions
- Site collection administrators
- Site app permissions

## Web Designer Galleries

- Site columns
- Site content types
- Web parts
- List templates
- Master pages and page layouts
- Solutions
- Themes
- Composed looks

## Look and Feel

### Design Manager

- Master page
- Page layouts and site templates

### Welcome Page

### Title, description, and logo

### Device Channels

### Tree view

### Change the look

### Import Design Package

### Navigation

### Image Renditions

## Site Actions

- Manage site features

Section: [none]

Explanation

Explanation/Reference:

# Site Settings

## Users and Permissions

- People and groups
- Site permissions
- Site collection administrators
- Site app permissions

## Web Designer Galleries

- Site columns
- Site content types
- Web parts
- List templates
- Master pages and page layouts
- Solutions
- Themes
- Composed looks

## Look and Feel

### Design Manager

- Master page
- Page layouts and site templates
- Welcome Page
- Title, description, and logo
- Device Channels
- Tree view
- Change the look
- Import Design Package
- Navigation
- Image Renditions

## Site Actions

- Manage site features

### QUESTION 8

You need to ensure that the features required for the Litware Team Site web template are referenced correctly in the ONET.XML file.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**



	Answer Area
WebFeatures	<pre> &lt;Configuration ID="0" Name="Default"   MasterUrl="_catalogs/masterpage/seattle.master"&gt;   &lt;SiteFeatures&gt;      &lt;Feature ID=" " /&gt;    &lt;/SiteFeatures&gt;    &lt; " /&gt;    &lt;Feature ID=" " /&gt;    &lt;/ " /&gt;  &lt;/Configuration&gt; </pre>
FarmFeatures	
SiteCollectionFeatures	
DBF805AB-03D9-43DC-9154-52D6AC54689F	
FDE5D850-671E-4143-950A-87B473922DC7	

Correct Answer:

	Answer Area
WebFeatures	<pre> &lt;Configuration ID="0" Name="Default"   MasterUrl="_catalogs/masterpage/seattle.master"&gt;   &lt;SiteFeatures&gt;      &lt;Feature ID=" FDE5D850-671E-4143-950A-87B473922DC7 " /&gt;    &lt;/SiteFeatures&gt;    &lt; WebFeatures &gt;      &lt;Feature ID=" DBF805AB-03D9-43DC-9154-52D6AC54689F " /&gt;    &lt;/ WebFeatures &gt;  &lt;/Configuration&gt; </pre>
FarmFeatures	
SiteCollectionFeatures	
DBF805AB-03D9-43DC-9154-52D6AC54689F	
FDE5D850-671E-4143-950A-87B473922DC7	

Section: [none]

Explanation

Explanation/Reference:

```
<Configuration ID="0" Name="Default"
  MasterUrl="_catalogs/masterpage/seattle.master">
  <SiteFeatures>
    <Feature ID="FDE5D850-671E-4143-950A-87B473922DC7" />
  </SiteFeatures>
  <WebFeatures>
    <Feature ID="DBF805AB-03D9-43DC-9154-52D6AC54689F" />
  </WebFeatures>
</Configuration>
```

#### QUESTION 9

You need to ensure that all of the solutions are deployed in the correct order.

You have the following code:

```
<?xml version="1.0" encoding="utf-8"?>
<Solution xmlns="http://schemas.microsoft.com/sharepoint/">
  <Target 1>
    <Target 2
      Target 3="5ddead15-b99b-4948-bda0-ad1fa6970f9f"
      Target 4="Target 5.wsp"/>
    </Target 6>
  </Solution>
```

Which code segments should you include in Target 1, Target 2, Target 3, Target 4, Target 5 and Target 6 to complete the code? (To answer, drag the appropriate code segments to the correct targets in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Select and Place:

Code Segments	Answer Area
<input type="text" value="Id"/>	Target 1: <input type="text" value="Code Segment"/>
<input type="text" value="Name"/>	Target 2: <input type="text" value="Code Segment"/>
<input type="text" value="SolutionId"/>	Target 3: <input type="text" value="Code Segment"/>
<input type="text" value="SolutionName"/>	Target 4: <input type="text" value="Code Segment"/>
<input type="text" value="SolutionDependency"/>	Target 5: <input type="text" value="Code Segment"/>
<input type="text" value="SolutionDependencies"/>	Target 6: <input type="text" value="Code Segment"/>
<input type="text" value="ActivationDependency"/>	
<input type="text" value="ActivationDependencies"/>	
<input type="text" value="Litware.Intranet.Core"/>	
<input type="text" value="Litware.Intranet.Templates"/>	

Correct Answer:

Code Segments	Answer Area
<input type="text" value="Id"/>	Target 1: <input type="text" value="ActivationDependencies"/>
<input type="text" value="Name"/>	Target 2: <input type="text" value="ActivationDependency"/>
<input type="text" value="SolutionId"/>	Target 3: <input type="text" value="SolutionId"/>
<input type="text" value="SolutionName"/>	Target 4: <input type="text" value="SolutionName"/>
<input type="text" value="SolutionDependency"/>	Target 5: <input type="text" value="Litware.Intranet.Core"/>
<input type="text" value="SolutionDependencies"/>	Target 6: <input type="text" value="ActivationDependencies"/>
<input type="text" value="ActivationDependency"/>	
<input type="text" value="ActivationDependencies"/>	
<input type="text" value="Litware.Intranet.Core"/>	
<input type="text" value="Litware.Intranet.Templates"/>	

Section: [none]  
Explanation

Explanation/Reference:

Target 1:	ActivationDependencies
Target 2:	ActivationDependency
Target 3:	SolutionId
Target 4:	SolutionName
Target 5:	Litware.Intranet.Core
Target 6:	ActivationDependencies

## QUESTION 10

You create a document reporting Web Part for the Marketing team auditors.

You need to configure throttling for the Web Part.

Which code segment should you insert at line MA08?

- A. `spQuery.QueryThrottleMode=SPQueryThrottleOption.Strict;`
- B. `spQuery.QueryThrottleMode=SPQueryThrottleOption.Override;`
- C. `spQuery.QueryThrottleMode=SPQueryThrottleOption.Disable;`
- D. `spQuery.QueryThrottleMode=SPQueryThrottleOption.Default;`

**Correct Answer:** B

**Section:** [none]

**Explanation**

**Explanation/Reference:**

## QUESTION 11

You need to create a design package for the publishing sites.

What should you do?

- A. Use SharePoint Designer to create master pages and a design package.

- B. Use Visual Studio 2012 to create master pages and generate a design package.
- C. Use display templates.
- D. Use Design Manager.

**Correct Answer:** D

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 12**

You implement the dependency changes based on the requirements for the Litware web artifacts feature.

When you deploy the Litware.Intranet.Templates.wsp package, you receive an error message.

You need to ensure that the package deploys successfully.

What should you do?

- A. Set the scope of the Litware web artifacts feature to SPSite.
- B. Set the scope of the Litware web artifacts feature to SPFarm.
- C. Set the Is Hidden option of the Litware web artifacts feature to False.
- D. Set the Auto Activate in Central Admin parameter of the Litware web artifacts feature to True.

**Correct Answer:** C

**Section:** [none]

**Explanation**

**Explanation/Reference:**

## Testlet 1

### Mix Questions

#### QUESTION 1

Contoso uses a SharePoint site that contains subsites. Each subsite represents different projects. Each project site is based on a team site template and stores information and documents. Contoso has five teams: Manufacturing, Sales, Administration, Marketing, and IT.

You must create a different look and feel for each team site such that any visitor to the site can identify the team by looking at the colors, fonts, and background image of the site.

You need to create a different look and feel for each team.

What should you do? (Each correct answer presents part of the complete solution. Choose all that apply.)

- A. Open Contoso Corporate Microsoft PowerPoint Slides Template, save the template as ContosoCorporate.master, and then upload it to the Theme Gallery.
- B. From SharePoint Designer, go to Content Types. Right-click and select Content Type Settings.
- C. Get a site background image for each team and upload it to the site collection images library. Then create a new master page for each team site by using the Master Page Gallery. Set the version to 15.
- D. From the Web Designer Galleries, choose Composed Looks and create a new item for each team site. Specify the title, URL of the master page, theme, background image, and font schema file.
- E. On the Site Settings page in the Look and Feel section, choose Change the look.
- F. Create a new font XML schema with a font specification for each team.

**Correct Answer:** BCD

**Section:** [none]

**Explanation**

#### **Explanation/Reference:**

Explanation:

B:

\* Content types enable site users to quickly create specialized kinds of content by using the New Item or New Document command in a list or library. Content types provide site owners a way to make sure that that content is consistent across sites. Site owners can pre-configure specific details about the content when they set up content types for a site, list, or library.

D:

\* A Composed Look is made up of:

Master Pages

CSS

Color palettes



Font palettes  
Background image

## QUESTION 2

A user deploys a sandbox solution.

The user cannot activate the solution.

You need to ensure that the user can activate the solution.

What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Grant permission to the user to execute the solution.
- B. Grant permission to the user to activate the solution.
- C. Start the Microsoft SharePoint Foundation Sandboxed Code Service.
- D. Start the PerformancePoint Services.

**Correct Answer:** BC

**Section:** [none]

**Explanation**

**Explanation/Reference:**

## QUESTION 3

A company uses SharePoint for internal collaboration. SharePoint is deployed on a server farm with a single front-end server, a single application server, and a dedicated database server.

You review existing Web Parts that read from and write to SharePoint lists. You find the following code in one of the utility classes and notice memory leaks in the method.

```

Private void ChangeSiteDescription(string SiteUrl, string newSiteDescription)
{
    SPSite siteCollection = null;
    try
    {
        siteCollection = new SPSite(SiteUrl);
        using (SPWeb site = siteCollection.RootWeb)
        {
            site.Description = newSiteDescription;
            site.Update();
        }
    }
    catch (Exception)
    {
        siteCollection.Close();
    }
}

```

You need to ensure that there are no memory leaks in the method.

What should you do?

- A. Add a finally statement and include site.Dispose ().
- B. Add site.Dispose() to the catch statement.
- C. Add a finally statement and include siteCollection.Dispose ();
- D. Add siteCollection.Dispose() to the catch statement.

**Correct Answer:** C

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### QUESTION 4

Adventure Works uses SharePoint to store product and order information.

Product managers visit the Products list to see the status of each product. They request a feature that will allow them to easily see the recent and old product orders without opening the Products list. The products orders page is located at /sitepages/productorders.aspx, and the product order history page is located at /sitepages/productordershistory.aspx. Both pages require a query string parameter named ProductID.

You need to add custom actions to the Products list by using the least amount of administrative effort.

What should you do?

- A. Add an empty element to the SharePoint project. Add a <CustomAction> tag, set the Location element to EditControlBlock, and then use the <UrlAction> tag for a redirect to the custom page.
- B. Create a Windows Application and add a reference to Microsoft.SharePoint.Portal.CustomActions.dll and use the SPCustomActions class to add a custom action.
- C. Open the site in SharePoint Designer. Create a custom List Item Display Template and then apply it to the Products List View Web Part.
- D. Create a visual Web Part. Use a grid view with a template column and hyperlink, and databind the Products list. Add the Web Part to the allItems.aspx page of the Products list.

**Correct Answer:** D

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 5**

Adventure Works uses a SharePoint publishing site to host their public-facing website at <http://www.adventureworks.com>. The website gives external users the ability to register and sign in to the site to buy Adventure Works products.

You notice that publicly registered users see the SharePoint ribbon.

You need to ensure that the SharePoint ribbon is available only to content authors and administrators.

What should you do?

- ☐ A. In the SharePoint project, add an Empty Element and then use the <HideCustomAction> tag to hide the ribbon.
- ☐ B. Open the current site master page in SharePoint Designer, place the SharePoint:SPSecurityTrimmedControl control around the div tag with the s4-ribbonrow ID. Set the PermissionsString to **ManageSubWeb**.

- ☐ C. In the SharePoint project, create a User Control and add the following code segment to hide the ribbon:

```
protected void Page_Load(object sender, EventArgs e)
{
    if (UserHasPermissions(SPContext.Current.Web.CurrentUser))
    {
        SPContext.Current.Site.CommandUIVisible = true;
    }
    else
    {
        SPContext.Current.Site.CommandUIVisible = false;
    }
}
private bool UserHasPermissions(SPUser sPUser)
```

Then place the control in the master page.

- ☐ D. Open the current site master page in SharePoint Designer and then place the SharePoint:SPSecurityTrimmedControl control around the div tag with the s4-ribbonrow ID. Set the PermissionsString to **AddAndCustomizePages**.

- A. Option A  
B. Option B  
C. Option C  
D. Option D

**Correct Answer:** B  
**Section:** [none]

## **Explanation**

### **Explanation/Reference:**

#### **QUESTION 6**

You must select an app model to deploy apps to an Office 365 small business tenant. The business logic of the apps is located in a remote web application.

What should you do?

- A. Create a SharePoint-hosted app. Implement the business logic by using JavaScript.
- B. Develop provider-hosted apps and integrate data sources with the business logic by using OData.
- C. Deploy the business logic to the host web by using a Full Trust SharePoint solution.
- D. Develop an OData service provider infrastructure and publish the provider to the \_layouts directory.

**Correct Answer: C**

**Section: [none]**

## **Explanation**

### **Explanation/Reference:**

#### **QUESTION 7**

A company has a SharePoint farm that has the following configuration:

- SPWFE1 and SPWFE2 are configured as front-end web servers.
- SPAPP1 and SPAPP2 are configured as application servers.
- New servers will be added to the farm.

You implement a solution that contains a custom navigation provider.

You need to register a custom navigation provider by using the least amount of administrative effort.

What should you do?

- A. Create a web.solutionname.xml file in the \CONFIG directory and run the copyappbincontentStsadm command.
- B. Edit the ApplicationHost.config file on each SharePoint server.
- C. Edit the web.config file for the web application on all SharePoint servers.
- D. Use the SPWebConfigModification class.

**Correct Answer:** D

**Section:** [none]

**Explanation**

**Explanation/Reference:**

**QUESTION 8**

You need to retrieve data about all the lists in a site by using the REST (Representational State Transfer) API.

Which code segment should you use?

- ☐ A. 

```
string siteUrl = "http://server/sites/site";
HttpWebRequest endpointRequest =
(HttpWebRequest)HttpWebRequest.Create(siteUrl.ToString() + "/_api/web/AllLists");
endpointRequest.Credentials = new NetworkCredential("userid", "password", "domain");
endpointRequest.Method = "GET";
endpointRequest.Accept = "application/json;odata=verbose";
HttpWebResponse endpointResponse = (HttpWebResponse)endpointRequest.GetResponse();
```
- ☐ B. 

```
string siteUrl = "http://server/sites/site";
HttpWebRequest endpointRequest =
(HttpWebRequest)HttpWebRequest.Create(siteUrl.ToString() + "/_api/web/lists");
endpointRequest.Credentials = new NetworkCredential("userid", "password", "domain");
endpointRequest.Method = "POST";
endpointRequest.Accept = "application/json;odata=verbose";
HttpWebResponse endpointResponse = (HttpWebResponse)endpointRequest.GetResponse();
```
- ☐ C. 

```
string siteUrl = "http://server/sites/site";
HttpWebRequest endpointRequest =
(HttpWebRequest)HttpWebRequest.Create(siteUrl.ToString() + "/_api/web/lists");
endpointRequest.Credentials = new NetworkCredential("userid", "password", "domain");
endpointRequest.Method = "GET";
endpointRequest.Accept = "application/json;odata=verbose";
HttpWebResponse endpointResponse = (HttpWebResponse)endpointRequest.GetResponse();
```
- ☐ D. 

```
string siteUrl = "http://server/sites/site";
HttpWebRequest endpointRequest =
(HttpWebRequest)HttpWebRequest.Create(siteUrl.ToString() + "/_vti_bin/web/lists");
endpointRequest.Credentials = new NetworkCredential("userid", "password", "domain");
endpointRequest.Method = "GET";
endpointRequest.Accept = "application/json;odata=verbose";
HttpWebResponse endpointResponse = (HttpWebResponse)endpointRequest.GetResponse();
```



- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Correct Answer:** C

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 9**

Adventure Works uses a SharePoint publishing site to host their public-facing website at <http://www.adventureworks.com>. The website gives external users the ability to register and sign in to the site to buy Adventure Works products.

You notice that publicly registered users see the SharePoint ribbon.

You need to ensure that the SharePoint ribbon is available only to content authors and administrators.

What should you do?

- A. Open the current site master page in SharePoint Designer, place the SharePoint:SPSecurityTrimmedControl control around the div tag with the s4-ribbonrow ID. Set the PermissionsString to ManageSubWeb.
- B. Open the current site master page in SharePoint Designer, find a div tag with the s4-ribbonrow ID, and then remove all of the contents of the div.
- C. Open the current site master page in SharePoint Designer and then place the SharePoint:SPSecurityTrimmedControl control around the div tag with the s4-ribbonrow ID. Set the PermissionsString to AddAndCustomizePages.
- D. In the SharePoint project, add an Empty Element and then use the <HideCustomAction> tag to hide the ribbon.

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 10**

Adventure Works uses a web design firm to design the user interface for an upcoming toy sales website, [www.toys.adventureworks.com](http://www.toys.adventureworks.com). The website is built by using a SharePoint publishing template.

Adventure Works must implement the newly designed user interface for the site. The design firm provides a set of HTML, CSS, and JavaScript files.

You need to create and publish a SharePoint master page by using the supplied files.

What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. From the Master Pages section in SharePoint Designer, select Create New Master Page and then replace the master page contents with the contents of the HTML file.
- B. From SharePoint Designer, open the master page gallery. Right-click the new master page and then select Set as Default Master.
- C. From the Design Manager, map a network drive to the /\_layouts/masterpage/ folder. Then, in Windows Explorer, copy all the UI elements provided by the design team to the network share.
- D. From the Edit Master Page section in Design Manager, select Convert an HTML File to a SharePoint Master Page to generate a master page from the HTML file provided by designer firm.
- E. Publish the master page. Then, from Site Settings, choose the Look and Feel section, and then select Master Page. Choose the master page and select OK.
- F. Preview the master page and select Snippets to get HTML segments of the SharePoint top navigation, quick launch, and body. Then, edit the master page by using Microsoft Notepad and replace the HTML with the new segments.

**Correct Answer:** BDE

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: Note:

\*

D, Not A: To convert the HTML file into a .master file

#### **QUESTION 11**

You have an app named TaskManagerApp that is published at <http://sharepoint.contoso.com/apps>.

You need to remove the app and ensure that users will no longer be able to use the app.

Which Windows PowerShell cmdlets should you run?

- ☐ A. `$instance = Get-SPAppInstance`  
`Web http://sharepoint.contoso.com/apps | where {$_.Title -eq 'TaskManagerApp'}`  
`Uninstall-SPAppInstance -Identity $instance`
- ☐ B. `$instance = Get-SPWebApplication`  
`http://sharepoint.contoso.com/apps`  
`Uninstall-SPAppInstance -Identity $instance`
- ☐ C. `$instance = Get-SPAppInstance`  
`-Web http://sharepoint.contoso.com/apps | where {$_.Title -eq 'TaskManagerApp'}`  
`Disable-SPFeature -Identity $instance -URL http://sharepoint.contoso.com/apps`
- ☐ D. `$instance = Get-SPWebApplication`  
`http://sharepoint.contoso.com/apps`  
`Remove-SPServiceApplication $instance`

- A. Option A  
B. Option B  
C. Option C  
D. Option D

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### QUESTION 12

You create a cloud-hosted SharePoint app.

You must make the app available in the SharePoint Store for customers to install on their host webs.

You need to keep the style and navigation of the app the same as the host web of the app after it is installed by any customer.

What should you do?

- A. Add a reference to SP.UI.Controls.js on the host web. Pass the AppUrl parameter to the host web. Apply branding to the host web.
- B. Copy the CSS file from the app to the host web. Run the Chrome control to convert the CSS file to the host web format. Apply the styles contained in the CSS file to the host web.
- C. Use a Chrome control to find the differences in the styles between the host web and the app. Resolve all of the differences by using JavaScript.
- D. Add a reference to the SP.UI.Controls.js file located in the new /\_layouts/15 directory. Pass the HostUrl parameter to the start page of the app. Use the Chrome control in JavaScript.

**Correct Answer:** D

**Section:** [none]

**Explanation**

**Explanation/Reference:**

### QUESTION 13

The Contoso SharePoint on-premise intranet portal stores content in 50 site collections.

Contoso must display all content tagged with a metadata term on the main page of the portal.

You need to display all documents with the metadata term without using any custom code.

Which technology should you use?

- A. Content Query Web Part (CQWP)
- B. Content Search Web Part (CSWP)
- C. TaxonomySession
- D. CamlQuery

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: The ContentByQueryWebPart, commonly referred to as the Content Query Web Part, is a part of the Enterprise Content Management (ECM) functionality in Microsoft Office SharePoint Server. It aggregates and displays list items within a site hierarchy. The Content Query Web Part has the following limitations:

/You can only aggregate data within a single site collection.  
/You can only aggregate list information.

Incorrect:

Not B:

In a simplified world, here's how you can decide between the two:

Use the CQWP when you have a limited amount of content, your query is simple, and you don't expect your content to grow much in the future.

Use the CSWP in all other scenarios when you want to show content that is based on a query. Not C: For TaxonomySession you would have to write code. Not D: The CamlQuery class just specifies a query on a list.

#### **QUESTION 14**

You create a cloud-hosted SharePoint app.

You must make the app available in the SharePoint Store for customers to install on their host webs.

You need to keep the style and navigation of the app the same as the host web of the app after it is installed by any customer.

What should you do?

- A. Use an app template and an app.master master file for branding.
- B. Add a reference to SP.UI.Controls.js on the host web. Pass the AppUrl parameter to the host web. Apply branding to the host web.
- C. Copy the CSS file from the app to the host web. Run the Chrome control to convert the CSS file to the host web format. Apply the styles contained in the CSS file to the host web.
- D. Add a reference to the SP.UI.Controls.js file located in the new /\_layouts/15 directory. Pass the HostUrl parameter to the start page of the app. Use the Chrome control in the HTML page in a declarative manner.

**Correct Answer: D**

**Section: [none]**

**Explanation**

#### **Explanation/Reference:**

Explanation: Microsoft allows developers to import a very basic version of the SharePoint 2013 chrome into their apps without having to manually create matching HTML controls. The functionality for this can be found in the SP.UI.Controls.js file located in the new /\_layouts/15 directory. To use the chrome control, first add a reference to SP.UI.Controls.js (make sure you've already loaded the requisite JQuery files and other dependencies), then add an empty <div> to your page markup at or near the top of the page.

Reference: Using the Chrome Control in SharePoint 2013 Apps

#### **QUESTION 15**

You prepare an on-premise farm to support the creation of SharePoint apps.

You need to create an instance of a service application before building apps.

Which service application should you create?

- A. Secure Store service
- B. App Management service
- C. Machine Translation service
- D. SharePoint-hosted service

**Correct Answer:** D

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: SharePoint-hosted apps

Start with the simplest option: SharePoint-hosted apps, or apps where all components are hosted on either an on-premises or Office 365 SharePoint farm. SharePoint-hosted apps are installed on a SharePoint 2013 website, called the host web. They have their resources hosted on an isolated subsite of a host web, called the app web.

Incorrect:

Not A: Secure Store Service is a shared service that provides storage and mapping of credentials such as account names and passwords. It enables you to securely store data that provides credentials required for connecting to external systems and associating those credentials to a

specific identity or group of identities.

Not B: The App Management Service is responsible for storing and providing information concerning SP App licenses and permissions

All licenses for apps downloaded from Marketplace will be stored in Apps service application The App Management Service is accessed each time app is requested or used in SharePoint to verify validity of the request

Not C: Machine Translation Service is a new service application in SharePoint 2013 that provides automatic machine translation of files and sites.

#### **QUESTION 16**

A company uses SharePoint team sites for their projects, which last for a month.

At the end of every month the project site must be archived and moved to a backup web application. The company plans to create a timer job.

You need to write custom code that will move the site from the production web application to the archived web application.

Which method of the timer job should you override?

- A. RunNow
- B. Execute
- C. Update
- D. Provision

**Correct Answer:** B

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: Execute

Executes the job definition on the local machine and is intended to be used only by the timer service.

Incorrect:

A: RunNow

Schedules the job for immediate execution.

C: SPJobDefinition.Update method

Causes the job definition to save its state and propagate changes to all machines in the farm.

D: Provision

Makes the changes to the local server that are needed before the object can be used.

#### **QUESTION 17**

You plan to create a SharePoint Business Process Automation (BPA) project.

You need to process items in queues on a configurable schedule.

Which tool should you use?

A. Remote Event Receiver

B. Work Item Timer Job

C. Out-of-the-box workflow

D. SharePoint Designer workflow

**Correct Answer:** D

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: \* Visio 2013 and SharePoint Designer 2013 make it easy for business analysts, process consultants, and IT professionals to collaborate and build workflows.

\* Thanks to some of the improvements with SharePoint workflow capabilities in concert with SharePoint Designer 2013, it is now easy to write workflows that respond to list events or even write workflows that wakeup on a timed schedule to perform some task.

#### **QUESTION 18**

Adventure Works uses a SharePoint publishing site for an external website at [www.adventureworks.com](http://www.adventureworks.com). The user interface is implemented by using HTML5, CSS 3, and JavaScript.

You need to ensure that the site designers have an efficient way to create and modify the JavaScript files.

What should you do?

- A. Open the site in SharePoint Designer. From All Files, double-click the \_cts folder and then select the MasterPages folder. Create a folder. Modify the JavaScript files by using Microsoft Notepad.
- B. Copy all the JavaScript files to a document library and modify them directly by using Microsoft Notepad.
- C. Open the site in SharePoint Designer. From Master Pages select the JavaScript files to modify them.
- D. Set up a mapped network drive in Design Manager. Open the mapped drive and create a folder. Modify the JavaScript files by using Microsoft Notepad.

**Correct Answer:** C

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 19**

The Contoso SharePoint on-premise intranet portal stores content in 50 site collections.

Contoso wants to display all content tagged with a metadata term on the main page of the portal.

You need to display all documents with the metadata term without using any custom code.

Which technology should you use?

- A. SPQuery with Site Collection set to the portal's main page site collection
- B. Content Query Web Part (CQWP)
- C. Content Search Web Part (CSWP)
- D. SPSiteDataQuery

**Correct Answer:** B

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: The ContentByQueryWebPart, commonly referred to as the Content Query Web Part, is a part of the Enterprise Content Management



(ECM) functionality in Microsoft Office SharePoint Server. It aggregates and displays list items within a site hierarchy. The Content Query Web Part has the following limitations:

/You can only aggregate data within a single site collection.

/You can only aggregate list information.

#### **QUESTION 20**

You develop a SharePoint app to create an approval workflow for expense reports.

The app must collect user input during the workflow.

You need to use ASP.NET forms in the workflow.

Which form type should you use?

- A. Workflow modification form
- B. Workflow input form
- C. Workflow task form
- D. Workflow initiation form

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 21**

You plan to create a workflow design by using Microsoft Visio 2013 and then import the design into SharePoint Designer 2013.

You need to ensure that you have branching capability.

Which shape should you use?

- A. Assign a Task
- B. Stage
- C. Loop
- D. Step

**Correct Answer:** B

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: A stage can contain any number of shapes and may include branching.

**QUESTION 22**

A user deploys a sandbox solution.

The user cannot activate the solution.

You need to ensure that the user can activate the solution.

What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Grant permission to the user to activate the solution.
- B. Grant permission to the user to execute the solution.
- C. Configure a local mode load-balancing scheme.
- D. Stop the Microsoft User Code Host Service.
- E. Configure a remote mode load-balancing scheme.
- F. Start the Microsoft SharePoint Foundation Sandboxed Code Service.

**Correct Answer:** AF

**Section:** [none]

**Explanation**

**Explanation/Reference:**

Explanation: A: Need to activate the feature that provisions the files.

siteCollection.Features.Add([guid\_of\_your]feature])

F: To enable sandboxed solutions by using Central Administration

**QUESTION 23**

You develop a reusable workflow on a development site by using SharePoint Designer.

The workflow must be made available to a test site on a different SharePoint environment.

You need to deploy and start the workflow on the test site by using Microsoft Visual Studio 2012.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

**Select and Place:**

	Answer Area
Use SharePoint Designer to save the workflow as a .wsp solution package.	
Use Visual Studio to activate the workflow feature.	
Use Visual Studio to activate the solution package.	
Upload the solution package to the desired site.	
Import the solution package into Visual Studio.	
Use Visual Studio to export the workflow as a .wsp solution package.	

**Correct Answer:**

	Answer Area
	Use SharePoint Designer to save the workflow as a .wsp solution package.
Use Visual Studio to activate the workflow feature.	
Use Visual Studio to activate the solution package.	Import the solution package into Visual Studio.
	Upload the solution package to the desired site.
Use Visual Studio to export the workflow as a .wsp solution package.	

**Section: [none]**

**Explanation**

**Explanation/Reference:**

Note:

\* Visual Studio allows you to import reusable workflows created in SharePoint Designer 2010 and convert them to code workflows for use in your SharePoint sites.

Steps:

1. Creating a simple, reusable workflow in SharePoint Designer.
2. Exporting the SharePoint Designer reusable workflow to a .wsp file and into SharePoint.
3. Importing the .wsp file into Visual Studio by using the Import Reusable Workflow project.
4. Altering the workflow by adding code.
5. Using the imported workflow in a SharePoint site.

\* When you create a declarative workflow in Microsoft SharePoint® Designer 2010, you can save the workflow as a template in a SharePoint solution package (.wsp) file. In some circumstances, you may need to import your workflow template into the Microsoft Visual Studio® 2010 development system, and repackage it as a Visual Studio project—for example, if you want to

create a solution package that contains both a declarative workflow and custom-coded workflow activities.

\* Visual Studio SharePoint workflow projects deploy just like other Visual Studio SharePoint projects.

Reference: Walkthrough: Import a SharePoint Designer Reusable Workflow into Visual Studio

#### QUESTION 24

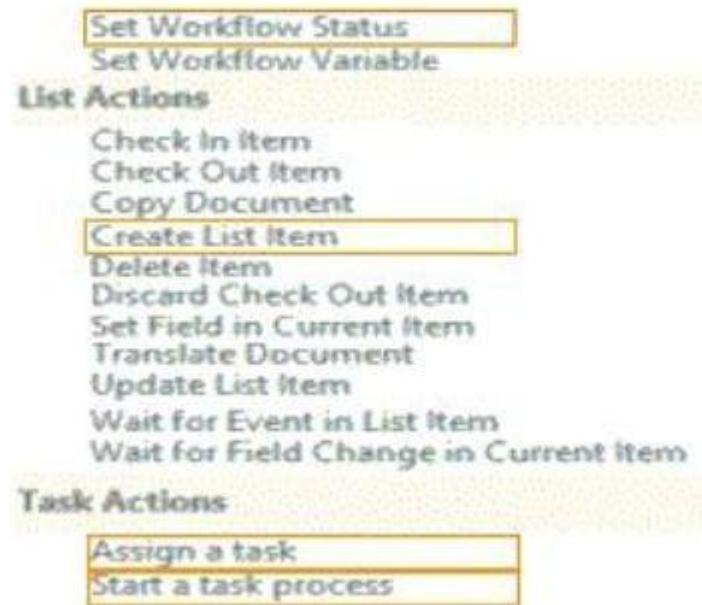
A company's IT department implements a Help Desk Ticketing system that involves workflow development by using SharePoint Designer and InfoPath. The Help Desk Ticket workflow involves multiple steps and tasks that have serial approvals of multiple users and groups with custom task email messages.

The Approver accidentally rejects a workflow step, and the workflow has stopped. The Approver then corrects the step.

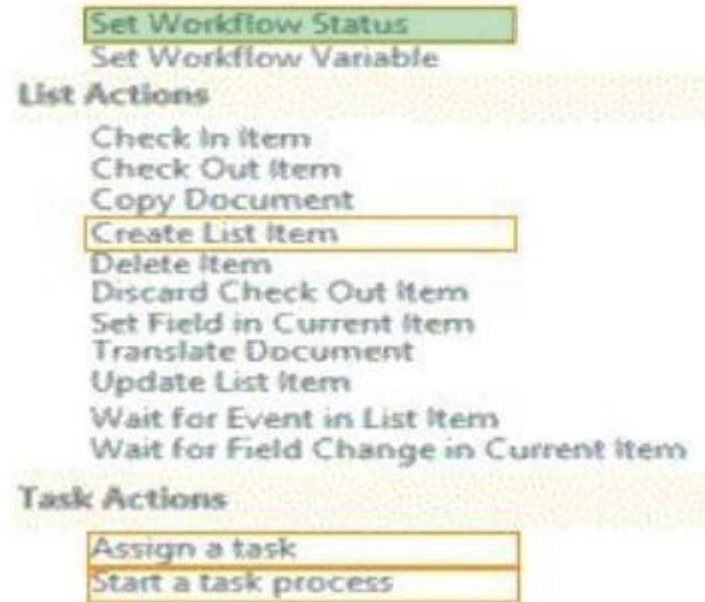
You need to continue the workflow to reflect the updated approval.

Which activity should you use? (To answer, select the appropriate action from the list of actions in the answer area.)

**Hot Area:**



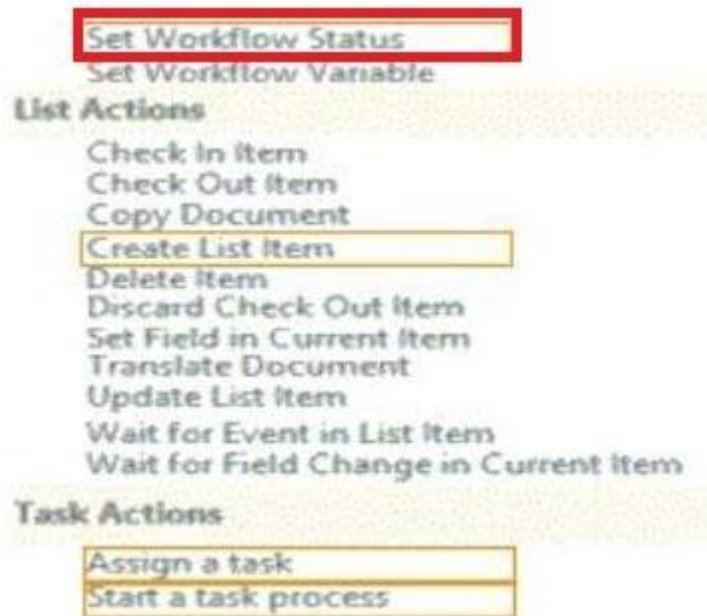
**Correct Answer:**



Section: [none]

Explanation

Explanation/Reference:



#### QUESTION 25

You need to create a workflow custom activity to use in a custom action in SharePoint by using Microsoft Visual Studio 2012.

Which five actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

**Select and Place:**

	Answer Area
Create a new custom action by using SharePoint Designer.	
Activate the feature.	
Deploy the SharePoint solution package (.wsp) file.	
Package the custom activity as a SharePoint solution package (.wsp) file.	
Add a new item named <b>Workflow Custom Activity</b> to the project.	
Add new actions to the design surface and configure and connect the new actions as needed.	
Package the custom activity as a template (.stp) file.	

**Correct Answer:**



	Answer Area
	Create a new custom action by using SharePoint Designer.
	Add new actions to the design surface and configure and connect the new actions as needed.
	Package the custom activity as a SharePoint solution package (.wsp) file.
Add a new item named <b>Workflow Custom Activity</b> to the project.	Deploy the SharePoint solution package (.wsp) file.
	Activate the feature.
Package the custom activity as a template (.stp) file.	

Section: [none]

Explanation

Explanation/Reference:

Note:

\* Task 1 – Create a Custom Workflow Action in Visual Studio

\* Task 2 – Deploy Custom Workflow Action to SharePoint

Reference: Exercise: Implement a Custom Workflow Action in Visual Studio

### QUESTION 26

You troubleshoot the sandbox solutions that your team builds.

You need to redeploy a sandbox solution. You also need to identify which process must be debugged.

Where should you redeploy the solution, and which process should you debug? (To answer, drag the appropriate statements to the correct location or locations in the answer area. Each statement may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Select and Place:

Answer Area	
Farm	Process to debug
W3wp.exe	Location where the solution is deployed
Solution Gallery	
Central Administration	
SPUCWorkerProcess.exe	

Correct Answer:

Answer Area	
Farm	Process to debug
W3wp.exe	SPUCWorkerProcess.exe
	Location where the solution is deployed
Central Administration	Solution Gallery

Section: [none]

Explanation

**Explanation/Reference:**

Process to debug	SPUCWorkerProcess.exe
Location where the solution is deployed	Solution Gallery

**QUESTION 27**

You add a site column for an Enterprise Content Management (ECM) project by using the Site Column Designer in Visual Studio 2012.

What will the designer-generated XML look like? (To answer, drag the appropriate XML elements to the correct location or locations in the answer area. Each XML element may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

Answer Area	
ContentTypeColumn	<pre> &lt;?xml version="1.0" encoding="utf-8"?&gt; &lt; xmlns="http://schemas.microsoft.com/sharepoint/"&gt; &lt; ID="{9a904d11-b76d-4dba-a772-67b2383dd86f}" Name="SiteColumnB" DisplayName="Site Column B" ="Text" Required="FALSE" Group="mySiteColumns"&gt; &lt;/ &lt;/ </pre>
Elements	
Field	
ContentType	
Type	

Correct Answer:

Answer Area

ContentTypeColumn

Elements

Field

ContentType

Type

```
<?xml version="1.0" encoding="utf-8"?>
< Elements
xmlns="http://schemas.microsoft.com/sharepoint/">
  < Field
    ID="{9a904d11-b76d-4dba-a772-67b2383dd86f}"
    Name="SiteColumnB"
    DisplayName="Site Column B"
    Type="Text"
    Required="FALSE"
    Group="mySiteColumns">
  </ Field >
</ Elements >
```

Section: [none]

Explanation

Explanation/Reference:

```

<?xml version="1.0" encoding="utf-8"?>
< Elements
  xmlns="http://schemas.microsoft.com/sharepoint/">
  < Field
    ID="{9a904d11-b76d-4dba-a772-67b2383dd86f}"
    Name="SiteColumnB"
    DisplayName="Site Column B"
    Type="Text"
    Required="FALSE"
    Group="mySiteColumns">
  </ Field >
</ Elements >

```

### QUESTION 28

You have a SharePoint site with one site collection and several subwebs. You develop a feature that installs an event receiver on a list. The event receiver must send a notification by email when information is modified. Not all subwebs require this functionality.

You need to set the feature scope.

From the Add New Feature dialog window, which scope should you use? (To answer, select the appropriate scope in the answer area.)

Design Manifest

Title: SharePointProject1234 Feature2

Description:

Scope:

Items in the Solution:

Hot Area:

Design Manifest

Title: SharePointProject1234 Feature2

Description:

Scope:

Items in the Solution:

- Farm
- Site
- Web
- WebApplication

**Correct Answer:**

The image shows the 'Design' tab of the SharePoint Feature Designer. The 'Title' field contains 'SharePointProject1234 Feature2'. The 'Description' field is empty. The 'Scope' dropdown menu is open, showing the following options: Farm, Site, Web (highlighted), and WebApplication. The 'Items in the Solution' field is partially visible below the 'Scope' dropdown.

**Section: [none]**

**Explanation**

**Explanation/Reference:**



Design Manifest

Title: SharePointProject1234 Feature2

Description:

Scope:

Items in the Solution

- Farm
- Site
- Web
- WebApplication

#### QUESTION 29

A company uses SharePoint and Microsoft Dynamics CRM for collaboration and customer relationship management. The company uses Active Directory Domain Services (AD DS) for identity management. SharePoint and Microsoft Dynamics CRM are configured to use claimsbased authentication. The company wants to authorize user access to SharePoint sites by using roles defined in Microsoft Dynamics CRM.

You create a custom claims provider. The provider adds a claim to the claim token for each role a user has in Microsoft Dynamics CRM. The provider also allows a site administrator to find and select roles from Microsoft Dynamics CRM to authorize user access. The custom claims provider must be created as a class library project to meet the unit testing requirements of the company. The custom claims provider project is complete and ready to be packaged for deployment.

You need to package and deploy the custom claims provider.

What should you do? (To answer, drag the appropriate actions to the correct location or locations in the answer area. Each action may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

Create a deployment project.

Create an empty SharePoint project as a farm solution.

Add a feature to the SharePoint project and set the feature scope to **Web**.

Add a feature to the SharePoint project, set the feature scope to **Farm**, and then specify the **ReceiverAssembly** and the **ReceiverClass** attributes in the Feature.xml file.

Add a class library project to the SharePoint project, and add code to implement claims.

In Solution Explorer, right-click the SharePoint project, choose **Add Reference**, and then select the signed assembly of the claims provider project.

In the SharePoint project inside **Solution Explorer**, double-click the **Package.package** node, add the assembly, and then set the Deployment Target as **GlobalAssemblyCache**.

In the SharePoint management shell, run the Windows PowerShell cmdlet **Add-SPSolution** and then run the Windows PowerShell cmdlet **Install-SPSolution** with the **-GACDeployment** parameter.

Right-click the SharePoint project in Solution Explorer, choose **Package**, and then copy the .wsp file to the SharePoint server.

Right-click the SharePoint project in Solution Explorer, choose **Package**, and then copy the .wsp file to the SharePoint Solutions Gallery on the

**Correct Answer:**

Create a deployment project.

Add a feature to the SharePoint project and set the feature scope to **Web**.

Add a class library project to the SharePoint project, and add code to implement claims.

In the SharePoint project inside **Solution Explorer**, double-click the **Package.package** node, add the assembly, and then set the Deployment Target as **GlobalAssemblyCache**.

Section: [none]

Explanation

Explanation/Reference:

Get Assembly	In Solution Explorer, right-click the SharePoint project, choose <b>Add Reference</b> , and then select the signed assembly of the claims provider project.
Create Project	Create an empty SharePoint project as a farm solution.
Specify Event Receiver Properties	Add a feature to the SharePoint project, set the feature scope to <b>Farm</b> , and then specify the <b>ReceiverAssembly</b> and the <b>ReceiverClass</b> attributes in the Feature.xml file.
Add Assembly to SharePoint Project	In the SharePoint management shell, run the Windows PowerShell cmdlet <b>Add-SPSolution</b> and then run the Windows PowerShell cmdlet <b>Install-SPSolution</b> with the <b>-GACDeployment</b> parameter.
Generate Solution	Right-click the SharePoint project in Solution Explorer, choose <b>Package</b> , and then copy the .wsp file to the SharePoint Solutions Gallery on the root site collection.
Deploy Solution	Right-click the SharePoint project in Solution Explorer, choose <b>Package</b> , and then copy the .wsp file to the SharePoint server.

### QUESTION 30

Adventure Works uses SharePoint for managing project-related documents, information sharing, and tasks management. You develop a SharePoint-hosted app named TasksViewer and deploy it to the Corporate Catalog Site. This app is used only by the Project Management Office (PMO) group. Only users in the PMO group have permission to view and add this app to various project sites. The Adventure Works IT department creates a security group in Active Directory for the PMO.

Currently all of the apps are visible to the Everyone group.

You need to ensure that only users in the PMO group can see the app.

Which five actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Select and Place:

	Answer Area
<p>Remove the Everyone group from the permissions and then add the PMO group with Read permission.</p>	
<p>From Central Administration, select the <b>Apps</b> link and then open the Corporate Catalog site.</p>	
<p>From Quick Launch, select the <b>Apps for SharePoint</b> link.</p>	
<p>From Quick Launch, select the <b>Apps for Office</b> link.</p>	
<p>Open the context menu, select the <b>Ellipsis</b> button, select the <b>Shared With</b> link, and then select the <b>Advanced</b> link.</p>	
<p>Select the <b>Stop Inheriting Permissions</b> button.</p>	

Correct Answer:

	Answer Area
	From Central Administration, select the <b>Apps</b> link and then open the Corporate Catalog site.
	From Quick Launch, select the <b>Apps for SharePoint</b> link.
From Quick Launch, select the <b>Apps for Office</b> link.	Open the context menu, select the <b>Ellipsis</b> button, select the <b>Shared With</b> link, and then select the <b>Advanced</b> link.
	Select the <b>Stop Inheriting Permissions</b> button.
	Remove the Everyone group from the permissions and then add the PMO group with Read permission.

Section: [none]

Explanation

Explanation/Reference:

### QUESTION 31

You create an Enterprise Content Management (ECM) project. You write .NET client-side object model (CSOM) code to create a navigation term set in an existing term store to use in a taxonomybased navigation.

You need to complete the code to get a reference to the term store.

How should you complete the relevant code? (To answer, drag the appropriate code segment to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view



content.)

Select and Place:

	Answer Area
<code>SPContext.Current.Web</code>	<code>int lcid = Thread.CurrentThread.CurrentCulture.LCID;</code>
<code>"http://sharepoint.local"</code>	<code>ClientContext context = new</code>
<code>new TaxonomySession(context, null)</code>	<code>ClientContext( [ ] );</code>
<code>TaxonomySession.GetTaxonomySession(context)</code>	<code>TaxonomySession session =</code>
<code>session</code>	<code>[ ] ;</code>
<code>session, ts =&gt; ts.TermStores</code>	<code>context.Load( [ ] );</code>
<code>GetTermSetsByTermLabel</code>	<code>context.ExecuteQuery();</code>
<code>GetTermSetsByName</code>	<code>TermStore store = session.TermStores.FirstOrDefault();</code>
	<code>if (store != null)</code>
	<code>{</code>
	<code>foreach (TermSet ts in</code>
	<code>store. [ ]</code>
	<code>("Navigation",lcid)</code>
	<code>{</code>
	<code>...</code>
	<code>}</code>
	<code>}</code>

Correct Answer:



SPContext.Current.Web

new TaxonomySession(context, null)

session

GetTermSetsByTermLabel

#### Answer Area

```
int lcid = Thread.CurrentThread.CurrentCulture.LCID;
ClientContext context = new
ClientContext("http://sharepoint.local");
TaxonomySession session =
    TaxonomySession.GetTaxonomySession(context);
context.Load(session, ts => ts.TermStores);
context.ExecuteQuery();
TermStore store = session.TermStores.FirstOrDefault();
if (store != null)
{
    foreach (TermSet ts in
        store.GetTermSetsByName
            ("Navigation", lcid))
    {
        ...
    }
}
```

Section: [none]

Explanation

Explanation/Reference:

```

int lcid = Thread.CurrentThread.CurrentCulture.LCID;
ClientContext context = new
ClientContext("http://sharepoint.local");

TaxonomySession session =
    TaxonomySession.GetTaxonomySession(context);

context.Load(session, ts => ts.TermStores);

context.ExecuteQuery();
TermStore store = session.TermStores.FirstOrDefault();
if (store != null)
{
    foreach (TermSet ts in
        store.GetTermSetsByName
            ("Navigation",lcid))
    {
        ...
    }
}

```

### QUESTION 32

You have an app named TaskManager published at <http://sharepoint.contoso.com/apps>.

You need to remove the app and ensure that users will no longer be able to use the app by using Windows PowerShell cmdlets.

What should you do? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

	Answer Area
Uninstall-SPAppInstance -Identity \$instance	<p>\$instance =</p> <p>http://sharepoint.contoso.com/apps   where {\$_.Title -eq 'TaskManager'}</p>
Disable-SPFeature -Identity \$instance	
Delete-SPAppInstance -Identity \$instance	
Remove-SPServiceApplication \$instance	
Get-SPWebApplication	
Get-SPAppInstance -Web	

Correct Answer:

	Answer Area
	<p>\$instance =</p> <p>http://sharepoint.contoso.com/apps   where {\$_.Title -eq 'TaskManager'}</p>
Disable-SPFeature -Identity \$instance	Get-SPAppInstance -Web
Delete-SPAppInstance -Identity \$instance	
Remove-SPServiceApplication \$instance	Uninstall-SPAppInstance -Identity \$instance
Get-SPWebApplication	

Section: [none]

Explanation

Explanation/Reference:

```

$instance =
  Get-SPAppInstance -Web
  http://sharepoint.contoso.com/apps |
  where {$_.Title -eq 'TaskManager'}
  Uninstall-SPAppInstance -Identity $instance

```

### QUESTION 33

You create SharePoint apps for multiple clients. Each client has a unique environment with specific requirements. You need to choose the appropriate hosting location for each app. What should you do? (To answer, drag the appropriate hosting options to the correct description in the answer area. Each hosting option may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Select and Place:

Autohosted

Provider-hosted

SharePoint-hosted

Answer Area

Hosting Option	Description
	App needs to be written by using HTML, JavaScript, and PHP that accesses a MySQL database.
	Load balancing, multi-tenancy, and maintenance will be handled by Windows Azure.
	App will be written by using HTML, JavaScript, and Web Parts.
	App will run on a third-party web hosting service with an ASP.NET platform.

Correct Answer:

Answer Area											
Autohosted	<table border="1"> <thead> <tr> <th>Hosting Option</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Provider-hosted</td><td>App needs to be written by using HTML, JavaScript, and PHP that accesses a MySQL database.</td></tr> <tr> <td>Autohosted</td><td>Load balancing, multi-tenancy, and maintenance will be handled by Windows Azure.</td></tr> <tr> <td>SharePoint-hosted</td><td>App will be written by using HTML, JavaScript, and Web Parts.</td></tr> <tr> <td>Provider-hosted</td><td>App will run on a third-party web hosting service with an ASP.NET platform.</td></tr> </tbody> </table>	Hosting Option	Description	Provider-hosted	App needs to be written by using HTML, JavaScript, and PHP that accesses a MySQL database.	Autohosted	Load balancing, multi-tenancy, and maintenance will be handled by Windows Azure.	SharePoint-hosted	App will be written by using HTML, JavaScript, and Web Parts.	Provider-hosted	App will run on a third-party web hosting service with an ASP.NET platform.
Hosting Option	Description										
Provider-hosted	App needs to be written by using HTML, JavaScript, and PHP that accesses a MySQL database.										
Autohosted	Load balancing, multi-tenancy, and maintenance will be handled by Windows Azure.										
SharePoint-hosted	App will be written by using HTML, JavaScript, and Web Parts.										
Provider-hosted	App will run on a third-party web hosting service with an ASP.NET platform.										
Provider-hosted											
SharePoint-hosted											

Section: [none]  
Explanation

Explanation/Reference:

Hosting Option	Description
Provider-hosted	App needs to be written by using HTML, JavaScript, and PHP that accesses a MySQL database.
Autohosted	Load balancing, multi-tenancy, and maintenance will be handled by Windows Azure.
SharePoint-hosted	App will be written by using HTML, JavaScript, and Web Parts.
Provider-hosted	App will run on a third-party web hosting service with an ASP.NET platform.

#### QUESTION 34

A company uses SharePoint for document sharing and collaboration. Users create content types for different types of documents that are created daily. All document content types have ProjectID, Type, and AuditStatus columns. ProductID is not a required field. The Auditing department requires that every document have a ProjectID within two weeks of the creation date.

If a document does not have a ProjectID, the AuditStatus column must show a message for users to specify the ProjectID. For performance reasons, fewer than 50 documents at a time should be processed.

You need to write a work-item timer job to meet the requirement.

How should you complete the relevant code? (To answer, select the appropriate option from the drop-down list in the answer area.)

```
public class MyWorkItemTimerJob : SPWorkItemJobDefinition
{
    public static readonly
        string WorkItemJobDisplayName =
            "Contoso Work Item Time Job";
    public static readonly Guid WorkItemTypeId =
        new Guid("{4A359645-E5EF-44F3-9523-5CB43D5C0A89}");
    public MyWorkItemTimerJob()

    public override string DisplayName

    private bool IsTwoWeeksOldNow(SPListItem anItem)
}
```

Hot Area:



```

public class MyWorkItemTimerJob : SPWorkItemJobDefinition
{
    public static readonly
        string WorkItemJobDisplayName =
            "Contoso Work Item Time Job";
    public static readonly Guid WorkItemTypeId =
        new Guid("{4A359645-E5EF-44F3-9523-5CB43D5C0A89}");
    public MyWorkItemTimerJob()

    public override Guid WorkItemType()
    public override void Execute(SPJobState jobState)

    public override string DisplayName

    public int BatchFetchLimit
    public override int BatchFetchLimit = 50;

    public override void Execute(...)
    protected override bool ProcessWorkItem(...)

    private bool IsTwoWeeksOldNow(SPListItem anItem)
}

```

Correct Answer:

```

public class MyWorkItemTimerJob : SPWorkItemJobDefinition
{
    public static readonly
        string WorkItemJobDisplayName =
            "Contoso Work Item Time Job";
    public static readonly Guid WorkItemTypeId =
        new Guid("{4A359645-E5EF-44F3-9523-5CB43D5C0A89}");
    public MyWorkItemTimerJob()

    public override Guid WorkItemType()
    public override void Execute(SPJobState jobState)

    public override string DisplayName

    public int BatchFetchLimit
    public override int BatchFetchLimit = 50;

    public override void Execute(...)
    protected override bool ProcessWorkItem(...)

    private bool IsTwoWeeksOldNow(SPListItem anItem)
}

```

Section: [none]

Explanation

Explanation/Reference:



```

public class MyWorkItemTimerJob : SPWorkItemJobDefinition
{
    public static readonly
        string WorkItemJobDisplayName =
            "Contoso Work Item Time Job";
    public static readonly Guid WorkItemTypeId =
        new Guid("{4A359645-E5EF-44F3-9523-5CB43D5C0A89}");
    public MyWorkItemTimerJob()

    public override Guid WorkItemType()
    public override void Execute(SPJobState jobState)

    public override string DisplayName

    public int BatchFetchLimit
    public override int BatchFetchLimit = 50;

    public override void Execute(...)
    protected override bool ProcessWorkItem(...)
    private bool IsTwoWeeksOldNow(SPListItem anItem)
}

```

### QUESTION 35

You need to create workflows for your business processes by using the least amount of development effort.

Which four actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

**Select and Place:**

	Answer Area
<p>Verify and use the out-of-the-box workflows for the objective.</p>	
<p>Verify and use SharePoint Designer workflows without creating any custom activities in Visual Studio.</p>	
<p>Import Activity Designer from the Windows Azure websites.</p>	
<p>Use Microsoft Visual Studio 2012 to create the workflow custom activities.</p>	
<p>Use SharePoint Designer to create a workflow definition by using the activities.</p>	

**Correct Answer:**

	Answer Area
Verify and use the out-of-the-box workflows for the objective.	Verify and use SharePoint Designer workflows without creating any custom activities in Visual Studio.
	Import Activity Designer from the Windows Azure websites.
	Use Microsoft Visual Studio 2012 to create the workflow custom activities.
	Use SharePoint Designer to create a workflow definition by using the activities.

**Section: [none]**

**Explanation**

**Explanation/Reference:**

Note:

\* The Activity Designer Library template is used to create a custom activity designer. Custom activity designers are used to create the design-time experience for activity use, controlling how the activity and its property page appear in Visual Studio.

\* Visual Studio allows you to import reusable workflows created in SharePoint Designer 2010 and convert them to code workflows for use in your SharePoint sites.

Steps:

1. Creating a simple, reusable workflow in SharePoint Designer.
2. Exporting the SharePoint Designer reusable workflow to a .wsp file and into SharePoint.
3. Importing the .wsp file into Visual Studio by using the Import Reusable Workflow project.
4. Altering the workflow by adding code.
5. Using the imported workflow in a SharePoint site.

### QUESTION 36

You plan to use an app event receiver in conjunction with a remote event receiver.

You need to create the remote event receiver by using Visual Studio 2012.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Select and Place:

	Answer Area
Add an item based on the Remote Event Receiver template.	
Upload an item from the Remote Event Receiver template to the library.	
Inherit an item from the Remote Event Receiver template.	
Implement the <b>ProcessEvent</b> method.	
Select the event type in the SharePoint Customization wizard.	

Correct Answer:

	Answer Area
	Add an item based on the Remote Event Receiver template.
Upload an item from the Remote Event Receiver template to the library.	Select the event type in the SharePoint Customization wizard.
Inherit an item from the Remote Event Receiver template.	Implement the <b>ProcessEvent</b> method.

**Section: [none]**

**Explanation**

**Explanation/Reference:**

Note:

\* To handle events that occur to items in apps for SharePoint

The SharePoint Customization Wizard appears.

A web application is created with a web service that contains a code file.

Reference: How to: Create a remote event receiver

### QUESTION 37

You create a new Enterprise Content Management (ECM) project.

You add a content type to the Visual Studio Project by using the Content Type Designer in Visual Studio 2012.

What will the designer-generated XML look like? (To answer, drag the appropriate XML elements to the correct location or locations in the answer area. Each XML element may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view

content.)

Select and Place:

Column

Elements

FieldRef

FieldRefs

SiteColumn

Answer Area

```
<?xml version="1.0" encoding="utf-8"?>
< [ ] xmlns="http://schemas.microsoft.com/sharepoint/">
  <ContentType ID="0x0100C246DA2BB57D493D916BDD32671C57FA"
    Name="ContentTypeAB"
    Group="myContentTypes"
    Description="ContentTypeAB"
    Inherits="FALSE"
    Version="0">
    < [ ] >
      < [ ] ID="{8fb95db3-0e69-4232-8827-c5b3c6b35333}"
        DisplayName="Site Column A" Required="TRUE" Name="SiteColumnA" />
    </ [ ] >
  </ContentType>
</ [ ] >
```

Correct Answer:



Column

Elements

FieldRef

FieldRefs

SiteColumn

Answer Area

```

<?xml version="1.0" encoding="utf-8"?>
< Elements xmlns="http://schemas.microsoft.com/sharepoint/">
  <ContentType ID="0x0100C246DA2BB57D493D916BDD32671C57FA"
    Name="ContentTypeAB"
    Group="myContentTypes"
    Description="ContentTypeAB"
    Inherits="FALSE"
    Version="0">
    < FieldRefs >
      < FieldRef ID="{8fb95db3-0e69-4232-8827-c5b3c6b35333}"
        DisplayName="Site Column A" Required="TRUE" Name="SiteColumnA" />
    </ FieldRefs >
  </ContentType>
</ Elements >

```

Section: [none]

Explanation

Explanation/Reference:

```

<?xml version="1.0" encoding="utf-8"?>
< Elements xmlns="http://schemas.microsoft.com/sharepoint/">
  <ContentType ID="0x0100C246DA2BB57D493D916BDD32671C57FA"
    Name="ContentTypeAB"
    Group="myContentTypes"
    Description="ContentTypeAB"
    Inherits="FALSE"
    Version="0">
    < FieldRefs >
      < FieldRef ID="{8fb95db3-0e69-4232-8827-c5b3c6b35333}"
        DisplayName="Site Column A" Required="TRUE" Name="SiteColumnA" />
    </ FieldRefs >
  </ContentType>
</ Elements >

```

### QUESTION 38

You work on a SharePoint Enterprise Content Management (ECM) project.

You develop the Litware Document Approval workflow that enables a group of people to review, approve, or reject documents and document changes.

You need to assign the Litware Document Approval workflow to the Document content type.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**



	Answer Area
"Tasks"	<pre> public override void FeatureActivated (SPFeatureReceiverProperties properties) {     SPWeb spWeb = (SPWeb)properties.Feature.Parent;     var document =          spWeb.        ;      SPWorkflowTemplate wfTemplate =         spWeb.WorkflowTemplates.GetTemplateByName             ("Litware Document Approval", spWeb.Locale);      var wfTaskList =        ;     var wfHistoryList =        ;      SPWorkflowAssociation wfAssociation =         SPWorkflowAssociation.          (wfTemplate, "Document Approval", wfTaskList, wfHistoryList);     document.WorkflowAssociations.Add(wfAssociation);     document.Update(); } </pre>
"WF History"	
Lists["Documents"]	
spWeb.Lists["Tasks"]	
CreateListAssociation	
ContentTypes["Document"]	
spWeb.Lists["WF History"]	
CreateWebContentTypeAssociation	

Correct Answer:

Lists["Documents"]

spWeb.Lists["Tasks"]

CreateListAssociation

spWeb.Lists["WF History"]

Answer Area

```

public override void FeatureActivated
(SPFeatureReceiverProperties properties)
{
    SPWeb spWeb = (SPWeb)properties.Feature.Parent;
    var document =

        spWeb. ContentTypes["Document"]

        ;

    SPWorkflowTemplate wfTemplate =
        spWeb.WorkflowTemplates.GetTemplateByName
            ("Litware Document Approval", spWeb.Locale);

    var wfTaskList = "Tasks"
        ;

    var wfHistoryList = "WF History"
        ;

    SPWorkflowAssociation wfAssociation =
        SPWorkflowAssociation. CreateWebContentTypeAssociation

        (wfTemplate, "Document Approval", wfTaskList, wfHistoryList);
    document.WorkflowAssociations.Add(wfAssociation);
    document.Update();
}

```

Section: [none]

Explanation

Explanation/Reference:

```

public override void FeatureActivated
(SPFeatureReceiverProperties properties)
{
    SPWeb spWeb = (SPWeb)properties.Feature.Parent;
    var document =
        spWeb.ContentTypes["Document"];

    SPWorkflowTemplate wfTemplate =
        spWeb.WorkflowTemplates.GetTemplateByName
            ("Litware Document Approval", spWeb.Locale);
    var wfTaskList = "Tasks";
    var wfHistoryList = "WF History";

    SPWorkflowAssociation wfAssociation =
        SPWorkflowAssociation.CreateWebContentTypeAssociation

        (wfTemplate, "Document Approval", wfTaskList, wfHistoryList);
    document.WorkflowAssociations.Add(wfAssociation);
    document.Update();
}

```

### QUESTION 39


You develop a SharePoint-hosted app that is used by internal users to read and write data.

The app has the following requirements:

- The app must be able to find and display the products that are purchased most often by customers.
- The app must be able to read product information from a custom SQL Server database by using an external list.
- The app must be able to read from and write to the user profile.
- The app must be able to make changes to lists by using the minimum permissions necessary.
- The app must be able to read enterprise keywords.

You need to configure permissions for the app.

Which scopes and permissions should you use? (To answer, select the appropriate options from each drop-down list in the answer area.)

Scope	Permission
<input type="text"/>	QueryAsUserIgnoreAppPrincipal
<input type="text"/>	Read
User Profiles	<input type="text"/>
Web	<input type="text"/>
<input type="text"/>	Read
	

Hot Area:

Scope	Permission
<div> <div></div> <div> Search Reporting Enterprise Search Enterprise Resources </div> </div>	QueryAsUserIgnoreAppPrincipal
<div> <div></div> <div> BCS Tenant Workflow Site Collection </div> </div>	Read
<div> <div>User Profiles</div> </div>	<div> <div></div> <div> Read Write Manage Full Control </div> </div>
<div> <div>Web</div> <div> <div></div> <div> Search Workflow Social Feed Taxonomy </div> </div> </div>	<div> <div></div> <div> Read Write Manage Full Control </div> </div>

**Correct Answer:**

Scope	Permission
<div> <div></div> <div>Search</div> <div>Reporting</div> <div>Enterprise Search</div> <div>Enterprise Resources</div> </div>	QueryAsUserIgnoreAppPrincipal
<div> <div></div> <div>BCS</div> <div>Tenant</div> <div>Workflow</div> <div>Site Collection</div> </div>	Read
User Profiles	<div> <div></div> <div>Read</div> <div>Write</div> <div>Manage</div> <div>Full Control</div> </div>
Web	<div> <div></div> <div>Read</div> <div>Write</div> <div>Manage</div> <div>Full Control</div> </div>
<div> <div></div> <div>Search</div> <div>Workflow</div> <div>Social Feed</div> <div>Taxonomy</div> </div>	<div> <div></div> <div>Read</div> <div>Write</div> <div>Manage</div> <div>Full Control</div> </div>

Section: [none]

Explanation

Explanation/Reference:

Scope	Permission
<div>Search</div> <div>Reporting</div> <div>Enterprise Search</div> <div>Enterprise Resources</div>	QueryAsUserIgnoreAppPrincipal
<div>BCS</div> <div>Tenant</div> <div>Workflow</div> <div>Site Collection</div>	Read
User Profiles	<div>Read</div> <div>Write</div> <div>Manage</div> <div>Full Control</div>
Web	<div>Read</div> <div>Write</div> <div>Manage</div> <div>Full Control</div>
<div>Search</div> <div>Workflow</div> <div>Social Feed</div> <div>Taxonomy</div>	

#### QUESTION 40

You create a solution to access data contained in SharePoint by using a client-side object model (CSOM).

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Select and Place:

	Answer Area
clientContext	ClientContext <input type="text"/> = new ClientContext(siteUrl);
collListItem	clientContext.Credentials = new NetworkCredential("userid","password","domain"); SP.List oList = clientContext.Web.Lists.GetByTitle("Dev"); CamlQuery q = new CamlQuery(); q.ViewXml = @"<View/>";
ExecuteQuery	ListItemCollection <input type="text"/> = oList.GetItems(q);
Load	clientContext. <input type="text"/> (collListItem);
ExecuteQueryAsync	clientContext. <input type="text"/> (); foreach (ListItem oListItem in collListItem) { ... }

Correct Answer:



ExecuteQueryAsync

Answer Area

```
ClientContext clientContext = new ClientContext(siteUrl);

clientContext.Credentials = new NetworkCredential("userid","password","domain");
SP.List oList = clientContext.Web.Lists.GetByTitle("Dev");
CamlQuery q = new CamlQuery();
q.ViewXml = @"<View/>";

ListItemCollection collListItem = oList.GetItems(q);

clientContext.Load(collListItem);

clientContext.ExecuteQuery();

foreach (ListItem oListItem in collListItem)
{
    ...
}
```

Section: [none]

Explanation

Explanation/Reference:

```

ClientContext clientContext = new ClientContext(siteUrl);

clientContext.Credentials = new NetworkCredential("userid", "password", "domain");
SP.List oList = clientContext.Web.Lists.GetByTitle("Dev");
CamlQuery q = new CamlQuery();
q.ViewXml = @"<View/>";

ListItemCollection collListItem = oList.GetItems(q);

clientContext.Load(collListItem);

clientContext.ExecuteQuery();

foreach (ListItem oListItem in collListItem)
{
    ...
}

```

#### QUESTION 41

You develop an autohosted app for SharePoint.

The app will access SharePoint data in the host web.

You need to configure the minimum required data access permissions for the app.

How should you configure permissions in the app manifest? (To answer, select the appropriate option from each drop-down list in the answer area.)

Scope	Permissions
<input type="text"/>	<input type="text"/>

Hot Area:

Scope	Permissions
<input type="text"/>	<input type="text"/>
Business Connectivity Services (BC)	FullControl
Search	Manage
Web	Read
Workflow	Write

Correct Answer:

Scope	Permissions
Business Connectivity Services (BC)	FullControl
Search	Manage
Web	Read
Workflow	Write

Section: [none]

Explanation

Explanation/Reference:

Scope	Permissions
Business Connectivity Services (BC)	FullControl
Search	Manage
Web	Read
Workflow	Write

#### QUESTION 42

You have a large list that contains more than 5,000 list items.

You need to iterate through the list by using the Content Iterator to avoid getting an exception.

You have the following code:

```
string Target 1 = "<View/>";
Target 2 iterator = new Target 3();
SPQuery listQuery = new SPQuery();
listQuery.Query = Target 4;
SPList list = Target 5.Current.Web.Lists["vIndividualCustomer"];
iterator.Target 6(list,
listQuery,
ProcessItem,
ProcessError
);
```

Which code segments should you include in Target 1, Target 2, Target 3, Target 4, Target 5 and Target 6 to complete the code? (To answer, drag the appropriate code segments to the correct

location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content)

**Select and Place:**

Code Segments	Answer Area
<div>query1</div>	Target 1: <div>Code Segment</div>
<div>SPList</div>	Target 2: <div>Code Segment</div>
<div>SPListItem</div>	Target 3: <div>Code Segment</div>
<div>SPContext</div>	Target 4: <div>Code Segment</div>
<div>ContentIterator</div>	Target 5: <div>Code Segment</div>
<div>ProcessListItems</div>	Target 6: <div>Code Segment</div>

**Correct Answer:**

Code Segments	Answer Area
query1	Target 1: query1
SPList	Target 2: ContentIterator
SPListItem	Target 3: ContentIterator
SPContext	Target 4: query1
ContentIterator	Target 5: SPContext
ProcessListItems	Target 6: ProcessListItems

Section: [none]

Explanation

Explanation/Reference:

Target 1:	query1
Target 2:	ContentIterator
Target 3:	ContentIterator
Target 4:	query1
Target 5:	SPContext
Target 6:	ProcessListItems

\* (Target 2, 3) ContentIterator

Provides helper methods that ensure lists can be queried while regulating the amount of data being transferred. This is especially important for queries on large lists or Web farms so that the load put on the database is not excessive.

\*(Target 5) SPContext

Use the SPContext class to return context information about such objects as the current Web application, site collection, site, list, or list item.

\*(Target 6) iterator.ProcessListItems

ContentIterator.ProcessListItems method (SPList, SPQuery, Boolean, ContentIterator.ItemProcessor, ContentIterator.ItemProcessorErrorCallout)  
Processes list items.

### QUESTION 43

You develop a SharePoint app to access data contained in a hosted SharePoint site.

You need to authorize the app to access the list items in a custom list on the host website.

You have the following code:

```
Target 1.TrustAllCertificates();
string Target 2 =
    Target 3.GetContextTokenFromRequest(Request);
if (contextTokenStr != null)
{
    contextToken = Target 4.ReadAndValidateContextToken
        (Target 5 , Request.Url.Authority);
    sharepointUrl = new Uri(Request.QueryString["SPHostUrl"]);
    accessToken = TokenHelper.Target 6
        (contextToken,sharepointUrl.Authority).AccessToken;
    Button1.CommandArgument = accessToken;
}
```

Which code segments should you include in Target 1, Target 2, Target 3, Target 4, Target 5 and Target 6 to complete the code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content)

**Select and Place:**

Code Segments	Answer Area
ServiceHost	Target 1: Code Segment
SecurityTokenContext +	Target 2: Code Segment
TokenHelper	Target 3: Code Segment
GetAccessToken	Target 4: Code Segment
contextTokenStr	Target 5: Code Segment
	Target 6: Code Segment

Correct Answer:

Code Segments	Answer Area
ServiceHost	Target 1: TokenHelper
SecurityTokenContext +	Target 2: contextTokenStr
TokenHelper	Target 3: TokenHelper
GetAccessToken	Target 4: TokenHelper
contextTokenStr	Target 5: contextTokenStr
	Target 6: GetAccessToken

Section: [none]  
Explanation

#### Explanation/Reference:

Target 1:	TokenHelper
Target 2:	contextTokenStr
Target 3:	TokenHelper
Target 4:	TokenHelper
Target 5:	contextTokenStr
Target 6:	GetAccessToken

\* TokenHelper.TrustAllCertificates

If you are using Visual Studio 2012, it adds 'TrustAllCertificates' in TokenHelper.cs by default.

\* Tokenhelper.GetContextTokenFromRequest

\* Tokenhelper.ReadAndValidateContextToken

Example:

```
string contextTokenString = TokenHelper.GetContextTokenFromRequest(Page.Request);
```

```
SharePointContextToken contextToken =
```

```
TokenHelper.ReadAndValidateContextToken(contextTokenString, Request.Url.Authority);
```

```
*TokenHelper.GetAccessToken
```

Example:

```
//Get user+app access token.
```

```
string accessToken =
```

```
TokenHelper.GetAccessToken(contextToken, sharepointUrl.Authority).AccessToken;
```

#### QUESTION 44

A company develops a workflow by using SharePoint Workflow Manager. The Auditing department has a SQL Server database that contains a list of all available software. The list contains the names of the users who have permission to use the software. The data is available through a Windows Communication Foundation (WCF) service that uses OData and is deployed internally.

The IT department plans to implement a help desk solution on the IT site collection that involves the creation of workflows.

A user must request approval to use software that is not available internally from three different managers. The workflow should be approved if two of the three managers approve the request.

The workflow has an Evaluation and an Approval stage.



You need to develop the workflow by using SharePoint Designer.  
Which five actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Select and Place:

Actions	Answer Area
Create a stage for every phase of the workflow.	
In the <b>Transition to Stage</b> section of the Approval stage, insert the <b>Go to a Stage</b> action and then set the <b>Go to</b> value to <b>End of Workflow</b> .	
In the Evaluation stage, insert the <b>Call Http Web Service</b> condition and the <b>Get an Item from a Dictionary</b> condition.	
In the <b>Transition to Stage</b> section of the Evaluation stage, insert <b>Go to a stage</b> action and set a <b>stage</b> value to <b>End of Workflow</b> in the else clause.	
In the Approval stage, insert the <b>Start a Task Process</b> and add the names of the participating managers. Set the <b>Completion Criteria</b> property to <b>Wait of percentage of a response</b> .	

Correct Answer:

Actions	Answer Area
	Create a stage for every phase of the workflow.
	In the Evaluation stage, insert the <b>Call Http Web Service</b> condition and the <b>Get an Item from a Dictionary</b> condition.
	In the <b>Transition to Stage</b> section of the Evaluation stage, insert <b>Go to a stage</b> action and set a <b>stage</b> value to <b>End of Workflow</b> in the else clause.
	In the Approval stage, insert the <b>Start a Task Process</b> and add the names of the participating managers. Set the <b>Completion Criteria</b> property to <b>Wait of percentage of a response</b> .
	In the <b>Transition to Stage</b> section of the Approval stage, insert the <b>Go to a Stage</b> action and then set the <b>Go to</b> value to <b>End of Workflow</b> .

Section: [none]

Explanation

Explanation/Reference:

#### QUESTION 45

You plan to create a search-driven navigation that supports the Cross-site Publishing Feature. Which four actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Select and Place:

Actions	Answer Area
Insert a Search Box Web Part on the page.	
Insert a Content Search Web Part on the page.	
Insert a Search Result Web Part on the page.	
Select the <b>Change query</b> button.	
Build and save the query.	
Select the <b>Edit Web Part</b> link.	

Correct Answer:

Actions	Answer Area
Insert a Search Box Web Part on the page.	Insert a Content Search Web Part on the page.
	Select the <b>Edit Web Part</b> link.
	Build and save the query.
Select the <b>Change query</b> button.	Insert a Search Result Web Part on the page.

**Section: [none]****Explanation****Explanation/Reference:**

Box 1: Insert a Content Search Web part on the page.

Box 2: Select the Edit Web Part link.

Box 3: Build and save the query.

Box 4: Insert a Search Results Web Part on the page.

Note:

Box 1: Add a Content Search Web Part to a page

Box 2-3: Configure the query for a Content Search Web Part

In the Web Part, click the Content Search Web Part Menu arrow, and then click Edit Web Part.

In the Web Part tool pane, in the Properties section, in the Search Criteria section, click Change query.

Edit and change the query.

Box 4: (Search Result Web Part)

Here are some tools that make Cross-Site Publishing happen.

/ Content Search Web Part:

It allows to build your own query using a wizard, this means fetching the content you want to see, and then allows you to display them using predefined display templates. It uses Search to query, which therefore allows us to show content from another Site.

/ Search Results Web Part:

It can either show the results of a typed query in the Search Box, which is the traditional Search Results we know. But, and this is key, the Search Results also allows you to build a Query using the same Query Builder in the Content Search. In fact, I have found the Search Results to offer 95% of the same functionality as the Content Search. Therefore, it can also be used in Cross-Site Publishing Scenarios.

Reference: Configure Search Web Parts in SharePoint Server 2013

**QUESTION 46**


A company hosts its public website by using a SharePoint publishing site template. The website allows customers to browse and buy company products. The website user interface is optimized to support multiple browsers, smartphones and tablets.

You need to enable support for a new tablet type.

Which Design Manager option should you use? (To answer, select the appropriate link in the answer area.)

**Hot Area:**

## Answer Area



EDIT LINKS

Search this site

# Design Manager: Welcome

1. [Welcome](#)
2. Manage Device Channels
3. Upload Design Files
4. Edit Master Pages
5. Edit Display Templates
6. Edit Page Layouts
7. Publish and Apply Design
8. Create Design Package

The Design Manager helps you create your own site design in SharePoint. [Learn how SharePoint sites work](#)


If you aren't creating your own design, you may instead want to choose from one of the following options:

- [Import a complete design package](#)
- [Pick a pre-installed look](#)

Otherwise, go ahead to the next step of the Design Manager. [Get an overview](#)

Correct Answer:

## Answer Area



EDIT LINKS

Search this site

# Design Manager: Welcome

1. [Welcome](#)
2. Manage Device Channels
3. Upload Design Files
4. Edit Master Pages
5. Edit Display Templates
6. Edit Page Layouts
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The Design Manager helps you create your own site design in SharePoint. [Learn how SharePoint sites work](#)

If you aren't creating your own design, you may instead want to choose from one of the following options:

- [Import a complete design package](#)
- [Pick a pre-installed look](#)

Otherwise, go ahead to the next step of the Design Manager. [Get an overview](#)

Section: [none]

Explanation

Explanation/Reference:

## Answer Area



### \* Manage Device Channels

The device channel feature is ideal for more complex SharePoint sites where you create a single site and author content for that site, but map the content to use different master pages and style sheets that are specific to a device or group of devices. By using the device channel feature you can choose to show different content to different device channels using the same page and page layout.

Reference: Configure a SharePoint site for mobile devices

### QUESTION 47

Contoso, Ltd. uses SharePoint for document sharing, task management, and workflows. Contoso, Ltd has a SharePoint portal with a URL of intranet.contoso.com. The portal has 5,000 subsites. It is used by 50,000 users.

You develop a custom web level feature that allows users to see their tasks from every website on the portal.

You need to use a Windows PowerShell script to enable the web level feature in the subsites without adversely impacting the performance of the server.

You have the following script:

```
Target 1
foreach($site in ($siteScope | Get-SPSite "http://intranet.contoso.com"))
{
    Target 2
    $web = $webScope | Get-SPWeb $site.RootWeb.Url
    Target 3
}
Target 4
```

Which values should you include in Target 1, Target 2, Target 3 and Target 4 to complete the script? (To answer, drag the appropriate values to the correct targets in the answer area. Each

value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

Code Segments	Answer Area
<code>\$siteScope = Get-SPSiteAdministration</code>	Target 1: <input type="text" value="Code Segment"/>
<code>\$webScope = Start-SPAssignment</code>	Target 2: <input type="text" value="Code Segment"/>
<code>\$webScope = End-SPAssignment</code>	Target 3: <input type="text" value="Code Segment"/>
<code>Stop-SPAssignment \$webScope</code>	Target 4: <input type="text" value="Code Segment"/>
<code>\$siteScope=End-SPAssignment</code>	
<code>Stop-SPAssignment \$siteScope</code>	
<code>Stop-SPServices \$siteScope</code>	
<code>\$siteScope = Start-SPAssignment</code>	

**Correct Answer:**

Code Segments	Answer Area
<code>\$siteScope = Get-SPSiteAdministration</code>	Target 1: <code>\$siteScope = Start-SPAssignment</code>
<code>\$webScope = End-SPAssignment</code>	Target 2: <code>\$webScope = Start-SPAssignment</code>
<code>\$siteScope=End-SPAssignment</code>	Target 3: <code>Stop-SPAssignment \$webScope</code>
<code>Stop-SPServices \$siteScope</code>	Target 4: <code>Stop-SPAssignment \$siteScope</code>

Section: [none]  
Explanation

#### Explanation/Reference:

Target 1:	<code>\$siteScope = Start-SPAssignment</code>
Target 2:	<code>\$webScope = Start-SPAssignment</code>
Target 3:	<code>Stop-SPAssignment \$webScope</code>
Target 4:	<code>Stop-SPAssignment \$siteScope</code>

\* Example:

Advanced Assignment

Objects are assigned to named stores for disposal. You can dispose of objects by using the - Identity parameter with the Stop-SPAssignment command.



```
$siteScope = Start-SPAssignment
foreach($site in ($siteScope | Get-SPSite "http://server/*"))
{
    $webScope = Start-SPAssignment
    $web = $webScope | Get-SPWeb $site.RootWeb.Url
    $web.Title = "Greetings from PowerShell"
    $web.Update()
    Stop-SPAssignment $webScope
}
Stop-SPAssignment $siteScope
```

Regardless of the level used, all objects are disposed of when the PowerShell runspace is closed.

#### **QUESTION 48**

Northwind Traders uses Microsoft Office 365 to share customer information between internal and external users. Northwind Traders plans to allow external sales managers to manage customers on the Office 365 site by providing a custom SharePoint autohosted app. The custom web application will be hosted on Microsoft Azure.

You develop the autohosted app that allows all users on Office 365 to be able to read and write data in a SharePoint list from an ASP.NET web application.

You need to ensure that the custom web application will authenticate itself, get access tokens from the Microsoft Azure Access Control Service (ACS), and read to and write from a SharePoint list.

You have the following code:

```

SharePointContextToken contextToken; string accessToken; Uri sharepointUrl;
protected void Page_Load(object sender, EventArgs e)
{
    string contextTokenString = Target 1
    if (contextTokenString != null)
    {
        contextToken = Target 2
        sharepointUrl = GetModifiedAppWebUrl();
        accessToken = TokenHelper.GetAccessToken
            (contextToken, sharepointUrl.Authority).AccessToken;
        Button1.CommandArgument = accessToken;
    }
}
protected void Button1_Click(object sender, EventArgs e)
{
    string accessToken = ((Button)sender).CommandArgument;
    if(IsPostBack)
    {
        sharepointUrl = GetModifiedAppWebUrl();
    }
    using (var clientcontext = Target 3
    {
        Microsoft.SharePoint.Client.List Customers = clientcontext.
            Web.Lists.GetByTitle("Customers");
        //"Code Add New Item to Customers List"
        clientcontext.ExecuteQuery();
        //Bind List Items to Grid
    }
}
private Uri GetModifiedAppUrl()

```

Which code segments should you include in Target 1, Target 2 and Target 3 to complete the code? (To answer, drag the appropriate code segments to the correct targets in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

Code Segments	Answer Area
<code>TokenHelper.GetContextTokenFromRequest(Request);</code>	Target 1: <input type="text" value="Code Segment"/>
<code>TokenHelper.GetClientContextWithAuthorizationCode(contextTokenString, Request.Url.Authority);</code>	Target 2: <input type="text" value="Code Segment"/>
<code>TokenHelper.ReadAndValidateContextToken(contextTokenString, Request.Url.Authority);</code>	Target 3: <input type="text" value="Code Segment"/>
<code>TokenHelper.GetS2SClientContextWithWindowsIdentity(sharepointUrl, System.Security.Principal.WindowsIdentity.GetCurrent());</code>	
<code>TokenHelper.GetClientContextWithAccessToken(sharepointUrl.ToString(), accessToken)</code>	

**Correct Answer:**

Code Segments	Answer Area
	Target 1: <code>TokenHelper.GetContextTokenFromRequest(Request);</code>
<code>TokenHelper.GetClientContextWithAuthorizationCode(contextTokenString, Request.Url.Authority);</code>	Target 2: <code>TokenHelper.ReadAndValidateContextToken(contextTokenString, Request.Url.Authority);</code>
	Target 3: <code>TokenHelper.GetClientContextWithAccessToken(sharepointUrl.ToString(), accessToken)</code>
<code>TokenHelper.GetS2SClientContextWithWindowsIdentity(sharepointUrl, System.Security.Principal.WindowsIdentity.GetCurrent());</code>	

Section: [none]

Explanation

Explanation/Reference:

Target 1:	<code>TokenHelper.GetContextTokenFromRequest(Request);</code>
Target 2:	<code>TokenHelper.ReadAndValidateContextToken(contextTokenString, Request.Url.Authority);</code>
Target 3:	<code>TokenHelper.GetClientContextWithAccessToken(sharepointUrl.ToString(), accessToken)</code>

\*

\* Example (Target1, Target2) (TokenHelper.GetContextTokenFromRequest, TokenHelper.ReadAndValidateContextToken)

```
// The Page_Load method fetches the context token and the access token.
// The access token is used by all of the data retrieval methods.
protected void Page_Load(object sender, EventArgs e)
{
    string contextTokenString = TokenHelper.GetContextTokenFromRequest(Request);
    if (contextTokenString != null)
    {
        contextToken =
        TokenHelper.ReadAndValidateContextToken(contextTokenString, Request.Url.Authority);
        // etc,
    }
    * Example (Target 3, TokenHelper.GetClientContextWithAccessToken):
    // This method retrieves information about the host web by using the CSOM.
    private void RetrieveWithCSOM(string accessToken)
    {
        if (IsPostBack)
        {
            sharepointUrl = new Uri(Request.QueryString["SPHostUrl"]);
        }
        ClientContext clientContext =
        TokenHelper.GetClientContextWithAccessToken(
        sharepointUrl.ToString(), accessToken);
    }
}
```

#### QUESTION 49

A company uses SharePoint and Microsoft Dynamics CRM to manage customers. External users log in to the SharePoint site by using forms-based authentication.

The company needs to authenticate users by using a custom claims provider.

You have the following requirements:

1. Site administrators must be able to locate users in CRM.
2. Site administrators must be able to select users based on their roles in CRM.
3. Site administrators must be able to confirm that users exist in CRM.

You need to implement the custom claims provider.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

### Code Segments

`public override bool SupportsHierarchy`

`protected override void FillResolve()`

`protected override void FillClaimsForEntity()`

`public override bool SupportsEntityInformation`

`public override bool SupportsResolve`

`protected override void FillSearch()`

`internal static string SupportSearchResolve`

`protected override void FillHierarchy()`

`protected override void FillResolve()`

`public override bool SupportsSearch`

`protected override void CreateHierarchy()`

### Answer Area

Requirement 1 Property:

Code Segment

Requirement 1 Method:

Code Segment

Requirement 2 Property:

Code Segment

Requirement 2 Method:

Code Segment

Requirement 3 Property:

Code Segment

Requirement 3 Method:

Code Segment

**Correct Answer:**

### Code Segments

```
protected override void FillClaimsForEntity()
```

```
public override bool SupportsEntityInformation
```

```
internal static string SupportSearchResolve
```

```
protected override void FillResolve()
```

```
protected override void CreateHierarchy()
```

### Answer Area

Requirement 1 Property: `public override bool SupportsHierarchy`

Requirement 1 Method: `protected override void FillHierarchy()`

Requirement 2 Property: `public override bool SupportsSearch`

Requirement 2 Method: `protected override void FillSearch()`

Requirement 3 Property: `public override bool SupportsResolve`

Requirement 3 Method: `protected override void FillResolve()`

Section: [none]

Explanation

Explanation/Reference:

Requirement 1 Property:	<code>public override bool SupportsHierarchy</code>
Requirement 1 Method:	<code>protected override void FillHierarchy()</code>
Requirement 2 Property:	<code>public override bool SupportsSearch</code>
Requirement 2 Method:	<code>protected override void FillSearch()</code>
Requirement 3 Property:	<code>public override bool SupportsResolve</code>
Requirement 3 Method:	<code>protected override void FillResolve()</code>

#### Requirement 1:

\* FillHierarchy.SupportsHierarchy property

When implemented in a derived class, determines whether the claims provider supports hierarchical display.

\* FillHierarchy

If you want to display hierarchy on the left pane of the claims picker, you must implement the FillHierarchy method and the SupportsHierarchy property in the SPClaimProvider class.

#### Requirement 2:

FillSearch.SupportSearch

If you want to be able to search for claims in the People Picker control, you must implement the Fillsearch method and Microsoft.SharePoint.Administration.Claims.SupportSearch property.

The SupportSearch must return true.

#### Requirement 3: FillResolve.SupportResolve

A People Picker with claims picking functionality is sometimes referred to as a claim picker. If you want to be able to resolve claims by using the type-in control of the claims picker, you must implement this method and implement the **SupportResolve()** property to return true.

Incorrect:

\* FillClaimsForEntity.SupportsEntityInformation

When you include additional claims in a user's security token, you are augmenting claims. If you want to augment claims, you must implement the FillClaimsForEntity method. In addition, you must also set the SupportsEntityInformation property to true in the SPClaimProvider class. In order for this method to be invoked, the SupportsEntityInformation must return true.

### QUESTION 50

A web application that listens on port 80 has been created for Internet users to access your company's SharePoint site. The web application uses claims-based authentication.

Users report that they are prompted for credentials when they access the site in their browser.

You need to enable anonymous access.

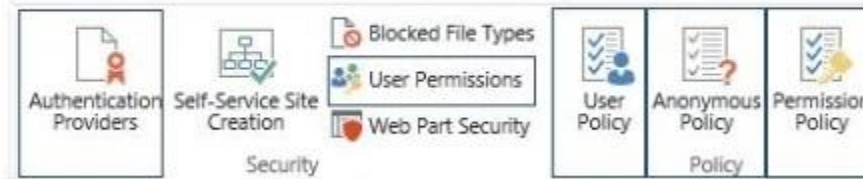
On the Manage web applications page in Central Administration, which option should you select?

(To answer, select the appropriate menu item in the answer area.)

#### Hot Area:

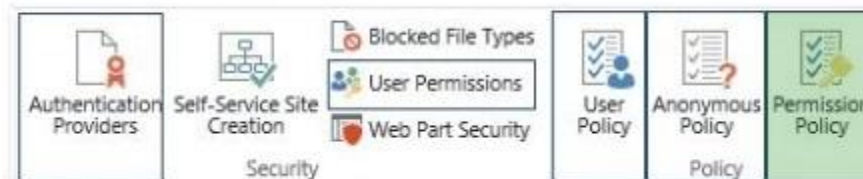


### Answer Area



Correct Answer:

### Answer Area

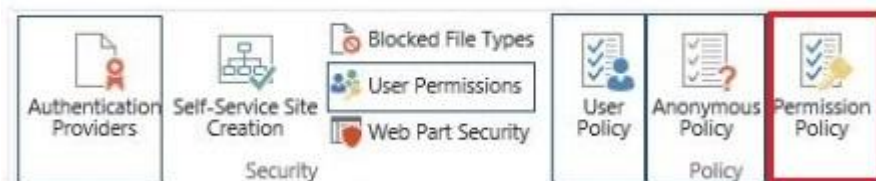


Section: [none]

Explanation

Explanation/Reference:

### Answer Area



\* Permission Policy

On the SharePoint Central Administration website, in the Application Management section, click Manage web applications.

Click to highlight the web application whose permission policy that you want to manage.

In the Policy group of the ribbon, click Anonymous Policy.

In the Anonymous Access Restrictions dialog box, in the Zone list, click the zone for which you want the policy to apply.

In the Permissions section, select the permission policy that you want anonymous users to have,

and then click Save.

#### QUESTION 51

You add a site column for an Enterprise Content Management (ECM) project by using the Site Column Designer in Visual Studio 2012.

You need to identify what the designer-generated XML will look like.

You have the following code:

```
<?xml version="1.0" encoding="utf-8"?>
<Target 1 xmlns="http://schemas.microsoft.com/sharepoint/">
  <Target 2
    ID="9a904d11-b76d-4dba-a772-67b2383dd86f">
    Name="SiteColumnB"
    DisplayName="Site Column B"
    Target 3="Text"
    Required="FALSE"
    Group="MySiteColumns">
  </Target 4>
</Target 5>
```

Which xml elements should you include in Target 1, Target 2, Target 3, Target 4 and Target 5 to complete the code? (To answer, drag the appropriate XML element to the correct targets in the answer area. Each XML element may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

XML Elements	Answer Area
Column	Target 1: XML Element
Elements	Target 2: XML Element
Field	Target 3: XML Element
SiteColumn	Target 4: XML Element
Type	Target 5: XML Element

Correct Answer:

XML Elements	Answer Area
Column	Target 1: Elements
Elements	Target 2: Field
Field	Target 3: Type
SiteColumn	Target 4: Field
Type	Target 5: Elements

**Section: [none]**

**Explanation**

**Explanation/Reference:**

Target 1:

Target 2:

Target 3:

Target 4:

Target 5:

\* Target 1, target 5:

Elements Element (Field)

Top-level element in a Feature manifest file that contains Feature element declarations.

Example:

```
<Elements  
  Id = "Text">  
</Elements>
```

\* Example:

```
<?xml version="1.0" encoding="utf-8"?>  
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">  
  <Field ID="{060E50AC-E9C1-4D3C-B1F9-DE0BCAC300F6}"  
    Name="Amount"  
    Type="Currency"  
  />  
</Field></Elements>
```

## QUESTION 52

A web application that listens on port 80 has been created for Internet users to access your company's SharePoint site.

Your company requires anonymous users to authenticate before they post content.

You need to change the permissions that are assigned to unauthenticated users.

On the Manage web applications page in Central Administration, which option should you select?

(To answer, select the appropriate menu item in the answer area.)

Hot Area:

**Answer Area**



Correct Answer:

**Answer Area**



Section: [none]

Explanation

Explanation/Reference:

**Answer Area**



\* For the unauthenticated users use the Anonymous policy.

**QUESTION 53**

You need to retrieve data about all the lists in a site by using the REST (Representational State Transfer) API.

You have the following code:

```

string siteUrl = "http://server/sites/site";
HttpWebRequest endpointRequest =
    (HttpWebRequest)HttpWebRequest.Create(siteUrl.ToString()
        + Target 1);

endpointRequest.Credentials = new
    NetworkCredential("userid", "password", "domain");

endpointRequest.Method = Target 2;

endpointRequest.Accept = "application/json;odata=verbose";
HttpWebResponse endpointResponse =
    (HttpWebResponse)endpointRequest.GetResponse();

```

Which code segments should you include in Target 1 and Target 2 to complete the code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**

Code Segments	Answer Area
"POST"	Target 1: Code Segment
"GET"	Target 2: Code Segment
"/_vti_bin /web/lists"	
"/_api/web/Alllists"	
"/_api/web/lists"	

**Correct Answer:**

Code Segments	Answer Area
<code>"POST"</code>	Target 1: <code>"/_api/web/lists"</code>
<code>"/_vti_bin /web/lists"</code>	Target 2: <code>"GET"</code>
<code>"/_api/web/AllLists"</code>	

Section: [none]

Explanation

Explanation/Reference:

Target 1:	<code>"/_api/web/lists"</code>
Target 2:	<code>"GET"</code>

\* HttpRequest "/\_api/web/lists"

Example:

The code in the following example shows you how to request a JSON representation of all of the lists in a site by using C#. It assumes that you have an OAuth access token that you are storing in the accessToken variable.

C#

```
HttpRequest endpointRequest =
(HttpRequest)HttpRequest.Create(sharepointUrl.ToString() + "/_api/web/lists");
endpointRequest.Method = "GET";
// etc.
```

Reference: How to: Complete basic operations using SharePoint 2013 REST endpoints

#### QUESTION 54

You create a new Enterprise Content Management (ECM) project.

You add a content type to the Visual Studio Project by using the Content Type Designer in Visual Studio 2012.

You need to identify what the designer-generated XML will look like?  
You have the following code:

```
<?xml version="1.0" encoding="utf-8"?>
<Target 1 xmlns="http://schemas.microsoft.com/sharepoint/">
  <ContentType ID="0x0100C246DA28B57D493D9168DD32671C57FA"
    Name="ContentTypeAB"
    Group="my contentTypes"
    Description="ContentTypeAB"
    Inherits="FALSE"
    Version="0">
    <Target 2>
      <Target 3 ID="{8fb95db3-0e69-4232-8827-c5b3c6b3533}"
        DisplayName="Site Column A" Required="TRUE" Name="SiteColumnA"/>
      </Target 4>
    </ContentType>
  </Target 5>
```

Which XML elements should you include in Target 1, Target 2, Target 3, Target 4 and Target 5 to complete the code?(To answer, drag the appropriate XML elements to the correct targets in the answer area. Each XML element may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

**Select and Place:**



XML Elements	Answer Area
Column	Target 1: XML Element
Elements	Target 2: XML Element
FieldRef	Target 3: XML Element
FieldRefs	Target 4: XML Element
SiteColumn	Target 5: XML Element

Correct Answer:

XML Elements	Answer Area
Column	Target 1: Elements
Elements	Target 2: FieldRefs
FieldRef	Target 3: FieldRef
FieldRefs	Target 4: FieldRefs
SiteColumn	Target 5: Elements

**Section: [none]**

**Explanation**

**Explanation/Reference:**

Target 1: `Elements`

Target 2: `FieldRefs`

Target 3: `FieldRef`

Target 4: `FieldRefs`

Target 5: `Elements`

\* Target 1, target 5:

Elements Element (Field)

Top-level element in a Feature manifest file that contains Feature element declarations.

Example:

```
<Elements
```

```
Id = "Text">
```

```
</Elements>
```

\* Target 2, 3, 4

The FieldRefs element contains a collection of FieldRef elements. The FieldRef element is a reference to a column defined elsewhere, either at the site or list level.

### **QUESTION 55**

You work on a SharePoint Enterprise Content Management (ECM) project.

You need to ensure that all Microsoft Word documents are converted to Portable Document Format (PDF) once they are published and approved.

You have the following code:

```

public override void Target 1(SPItemEventProperties properties)
{
    base.Target 2(properties);
    SPListItem splistItem = properties.ListItem;
    SPFile spFile = splistItem.File;
    String spFileExtension = Path.GetExtension(spFile.Name);
    if ((spFileExtension.ToUpper() == ".DOCX") &&
        (spFile.Level == Target 3.Target 4))
    {
        ConversionJob conversionJob =
            new ConversionJob("Word Automation Services Application");
        conversionJob.Name = "PDF Conversion";
        conversionJob.UserToken = properties.Web.CurrentUser.UserToken;
        conversionJob.Settings.OutputSaveBehavior =
            SaveBehavior.AlwaysOverwrite;
        conversionJob.Settings.OutputFormat = SaveFormat.PDF;
        conversionJob.Settings.UpdateFields = true;
        string siteUrl = properties.WebUrl + "/";
        string outputUrl = siteUrl+spFile.Url.Replace(".docx", ".pdf");
        conversionJob.AddFile(siteUrl + spFile.Url, outputUrl);
        conversionJob.Start();
    }
}

```

Which code segments should you include in Target 1, Target 2, Target 3 and Target 4 to complete the code? (To answer, drag the appropriate code segments to the correct targets in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content)

**Select and Place:**

Code Segments	Answer Area
<div>Approved</div>	Target 1: <div>Code Segment</div>
<div>ItemAdded</div>	Target 2: <div>Code Segment</div>
<div>ItemUpdated</div>	Target 3: <div>Code Segment</div>
<div>Published</div>	Target 4: <div>Code Segment</div>
<div>Run();</div>	
<div>SPFileInfo</div>	
<div>SPFileLevel</div>	
<div>Start();</div>	

**Correct Answer:**

Code Segments	Answer Area
Approved	Target 1: ItemUpdated
ItemAdded	Target 2: ItemUpdated
ItemUpdated	Target 3: SPFileLevel
Published	Target 4: Published
Run();	
SPFileInfo	
SPFileLevel	
Start();	

Section: [none]

Explanation

Explanation/Reference:

Target 1:	ItemUpdated
Target 2:	ItemUpdated
Target 3:	SPFileLevel
Target 4:	Published

\* ItemUpdated

Runs after an item has been updated in the list

\* SPFileLevel.Published

SPFileLevel specifies the level of publication for a document.

Published: The document is published.

#### QUESTION 56

A company's IT department implements a Help Desk Ticketing system that involves workflow development by using SharePoint Designer and InfoPath. The Help Desk Ticket workflow involves multiple steps and tasks that have serial approvals of multiple users and groups with custom task email messages.

You need to manage task approvals.

Which activity should you use? (To answer, select the appropriate action from the list of actions in the answer area.)

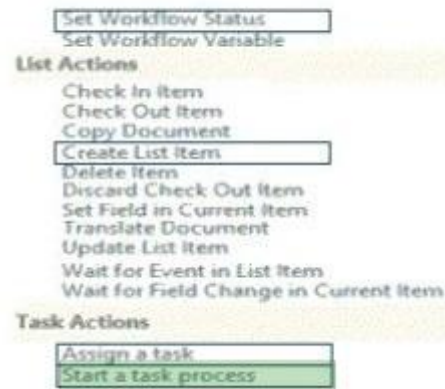
**Hot Area:**

#### Answer Area

Set Workflow Status
Set Workflow Variable
<b>List Actions</b>
Check In Item
Check Out Item
Copy Document
Create List Item
Delete Item
Discard Check Out Item
Set Field in Current Item
Translate Document
Update List Item
Wait for Event in List Item
Wait for Field Change in Current Item
<b>Task Actions</b>
Assign a task
Start a task process

**Correct Answer:**

## Answer Area

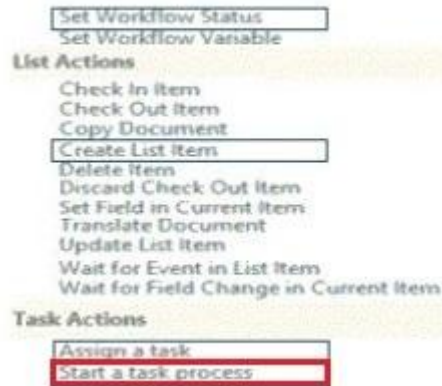


Section: [none]

Explanation

Explanation/Reference:

## Answer Area



\* Start a task process

Start a task process is used to assign a task to multiple participants.

Reference: Understanding Task Actions in SharePoint Designer 2013

## QUESTION 57

You develop a SharePoint app to create an approval workflow for expense reports. The app must collect user input before starting the workflow.

You need to use ASP.NET forms in the workflow.

Which form type should you use?

- A. Workflow input form
- B. Workflow initiation form
- C. Workflow task form
- D. Workflow modification form

**Correct Answer:** B

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 58**

You plan to create a workflow design by using Microsoft Visio 2013 and then import the design into SharePoint Designer 2013.

You need to ensure that you have repetition capability.

Which shape should you use?

- A. Stage
- B. Assign a Task
- C. Step
- D. Loop

**Correct Answer:** A

**Section:** [none]

**Explanation**

**Explanation/Reference:**

#### **QUESTION 59**

You plan to create a SharePoint Business Process Automation (BPA) project.

You need to process items for approval with the least amount of developer effort.



Which tool should you use?

- A. Remote Event Receiver
- B. Out-of-the-box workflow
- C. SharePoint Designer workflow
- D. Work Item Timer Job

**Correct Answer:** B

**Section:** [none]

**Explanation**

**Explanation/Reference:**