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**Vendor:** Microsoft

**Exam Code:** 70-488

**Exam Name:** Developing Microsoft SharePoint Server 2013 Core Solutions

**Q&As:** 131 (There are 5 parts in the dump, 131 questions in total.)

## 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

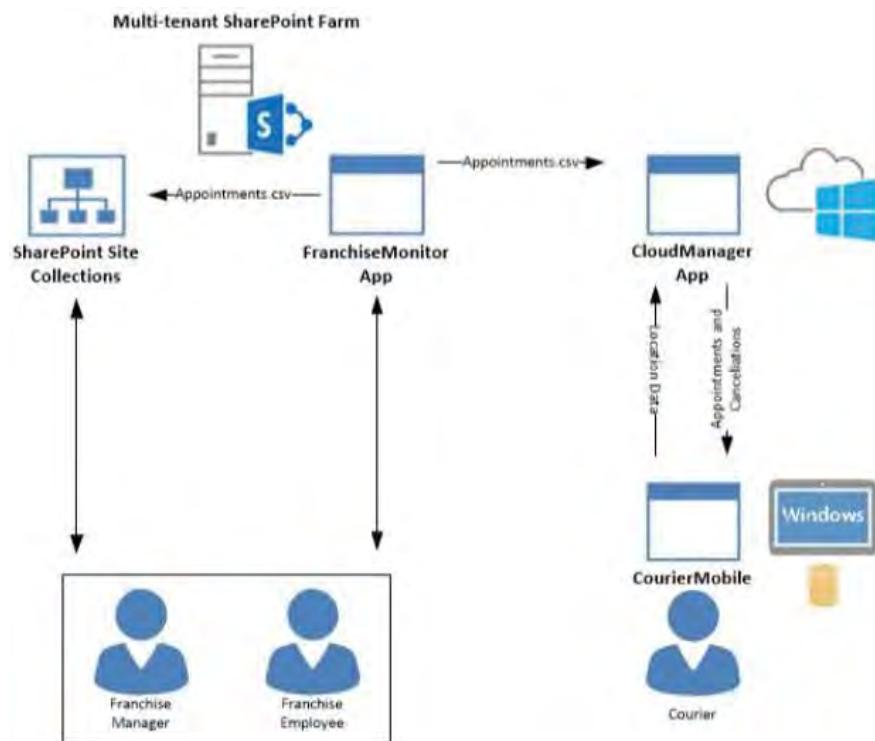
When a franchisee purchases a franchise, they are provided with:

- 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

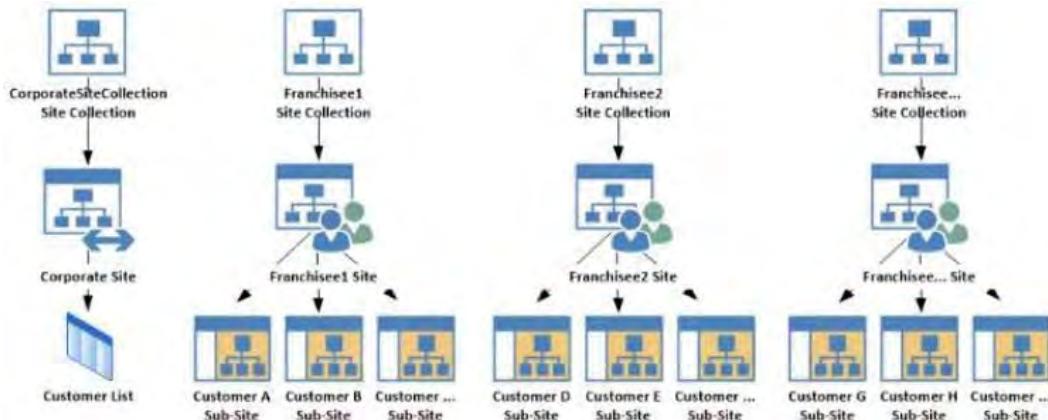
Consolidated Messenger has funded the creation of three apps.

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



### Site Collection Structure



### 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 geo-location 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.cs**

```
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 FillClaimValueTypeTypes(...);
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     }
```

##### **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/
list" Right="Write"/>
AM19     </AppPermissionRequests>
AM20 </App>
```

#### **QUESTION 1**

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:** B

**Explanation**

**Explanation/Reference:**

\* SharePoint users three types of authorization policies. The user-only policy requires only that the call to SharePoint include an authenticated user identity. The app-only policy requires only that the call include only an authenticated app identity. The user+app policy requires that the call include both kinds of authenticated identities.

\* You may have already heard that OAuth 2.0 plays an important role in the authentication and authorization of apps for SharePoint. It does, but it is not necessarily a part of the authorization story for every app for SharePoint. If you plan to build an app for SharePoint that runs in a remote web application and communicates back to SharePoint using server-side code, you will need to use OAuth.

**Scenario:**

\* 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 add accesses the Customers list, it must only read its contents with the minimum permissions necessary.

\* 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

Reference: Authorization and authentication of apps for SharePoint 2013

**QUESTION 2**

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:** D

**Explanation**

**Explanation/Reference:**

To restore a deleted site or workspace directly from the Site Collection Recycle Bin:

1. Click **Recycle Bin** on the Quick Launch.
2. On the **Site Name** Recycle Bin page, above the list of deleted objects, click the **Site Collection Recycle Bin** link.
3. On the Site Collection Administration Recycle Bin page, under **Select a View**, make sure that **Deleted from end user Recycle Bin** is selected.
4. Locate the site or workspace that you want to restore.
5. Select the check box next to the site or workspace that you want to restore, and then click **Restore Selection**.

**Incorrect:**

Not A, not B: 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.

Reference: Restore a deleted object from a SharePoint Recycle Bin

**QUESTION 3**

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

**Explanation**

**Explanation/Reference:**

\* 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.

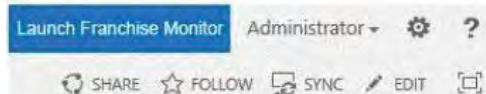
/ The FranchiseMonitor app must display the courier's location on the bicycle courier's microfeed on the SharePoint farm if the courier has remained stationary for more than three minutes.

/ 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.

**QUESTION 4**

**DRAG DROP**

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**

**Create a new SharePoint 2013 Empty Project.**

**Add a new user control named SuiteLinksDelegate.**

**Ensure that the class inherits from the **WebPart** class and overrides the RenderControl method.**

**Ensure that the class inherits from the **UserControl** class and overrides the Render method.**

**Add a new code module named SuiteLinksDelegate.**

**Add a reference to the control to an empty elements file.**

**Add a reference to the control to the AppManifest file.**

**Create a new App for SharePoint 2013 project.**

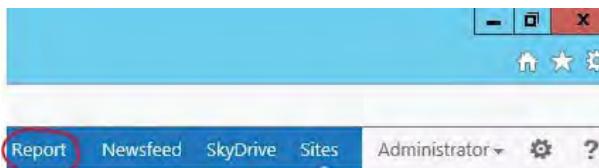
#### Explanation

##### Explanation/Reference:

Note:

Box 1 (see box 4): *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.

Box 2: SuiteLinksDelegate delegate control allow us to add links in right suite bar like "Newsfeed", "Sites" etc.



Box 3: User Control Code Behind:  
protected override void Render(HtmlTextWriter writer) etc.

Box 4: For all these delegate controls , you need to add a reference in Elements.xml file to specify the control id and control source properties:  
 <?xml version="1.0" encoding="utf-8"?>  
 <Elements xmlns="http://schemas.microsoft.com/sharepoint/">  
 <Control ControlSrc="/\_controltemplates/15/MyDelegateControls/UserControl.ascx"  
 Id="DelegateControlID" //ID of DelegateControl e.g. "SuiteLinksDelegate"  
 Sequence="1" />  
 </Elements>

Reference: New Delegate Controls in SharePoint 2013

#### QUESTION 5

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(SPProviderSchema 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, SPProviderHierarchyTree 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, SPProviderHierarchyTree searchTree);
```

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

**Correct Answer:** BDF

**Explanation:**

**Explanation/Reference:**

The following are required methods when writing a claims provider.

B: Required for claims picker

Claims can be displayed in the people picker control through claims picking. The following methods in the SPClaimProvider class are required methods if you want to implement claim picking in the people picker control.

```
protected abstract void FillSchema(SPProviderSchema schema);
protected abstract void FillClaimTypes(List<String> claimTypes);
protected abstract void FillClaimValueTypes(List<String> claimValueTypes);
protected abstract void FillEntityTypes(List<String> entityTypes);
```

D: Required for resolving claims in the type-in control of the claims picker

If you want to be able to resolve claims by using the type-in control of the claims picker, you must implement the following methods in the SPClaimProvider class.

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

F: Required for searching for claims in the claims picker

If you want to be able to search for claims in the claims picker, you must implement the following property and method in the SPClaimProvider class.

```
public abstract bool SupportsSearch
protected abstract void FillSearch(Uri context, String[] entit
```

\* 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 FillClaimValueTypeTypes(...);
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     }

```

Reference: How to: Create a claims provider in SharePoint 2013

#### QUESTION 6

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

**Explanation:**

#### Explanation/Reference:

#### QUESTION 7

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

**Explanation:**

#### Explanation/Reference:

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 8

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

**Explanation:**

#### Explanation/Reference:

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 9

##### HOTSPOT

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:

The dialog box title is "Choose the type of app you want to create and where you want it to appear". It contains three sections:

- Task pane app in:** This section is highlighted with a yellow border. It contains a list of applications:
  - Excel
  - Word
  - PowerPoint
  - Project
- Content app in Excel**: This section is shown below the first one. It contains the text "The app appears in the body of an Excel document."
- Mail app in:** This section is shown below the second one. It contains the text "The app appears adjacent to the currently viewed Outlook item based on a set of a" and two checkboxes:
  - 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

#### Explanation

##### Explanation/Reference:

Scenario: 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.

#### QUESTION 10

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?

- 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.
- 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.
- 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.
- 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**

Explanation

##### Explanation/Reference:

The new claims-based authentication in SharePoint 2010 does not use the ASPXAUTH cookie, instead it uses the FedAuth cookie. SharePoint 2013 tracks FedAuth cookies in the new distributed cache service using Windows Server AppFabric Caching.

Scenario: The FranchiseMonitor app must use claims-based authentication, once launched, to authenticate the franchisee against an API provided by Margie's Travel.

#### QUESTION 11

HOTSPOT

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.)

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	<input type="button" value="▼"/>
App for Office 2013	
App for SharePoint 2013	

Design the CourierManagerApp app UI with a/an	<input type="button" value="▼"/>
Part	
UI Custom Action	
Immersive Full Page	

#### Explanation

##### Explanation/Reference:

Box 1: App for SharePoint 2013

Scenario:

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 be able to create lists within SharePoint to store records of the CSV files so that they may be sent to the CloudManager app.

Box 2: Immersive Full Page

Scenario: 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.

\* Immersive (or full-page app): This shape provides a fully immersive experience by using the entire page. While this gives you complete control over the app experience, it is important to make sure that your app properly links back to the SharePoint site, so the user experience feels integrated and not lost. To make this simple, we provide a chrome control that not only lets your app automatically point a user back to their SharePoint environment, but it also provides your app with the current SharePoint cascading style sheet (CSS). So when SharePoint changes its CSS, say, through a theming change, your app will change its look and feel as well.

Reference: Deciding between apps for SharePoint and SharePoint solutions

#### QUESTION 12

##### HOTSPOT

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

<input type="button" value="▼"/>
App for Office 2013
App for SharePoint 2013

Design the CloudManagerApp app UI with a/an

app shape.	<input type="button" value="▼"/>
Part	
UI Custom Action	
Immersive Full Page	

**Correct Answer:**

#### Answer Area

Create a CloudManagerApp app as an

<input type="button" value="▼"/>
App for Office 2013
App for SharePoint 2013

Design the CloudManagerApp app UI with a/an

app shape.	<input type="button" value="▼"/>
Part	
UI Custom Action	
Immersive Full Page	

#### Explanation

##### Explanation/Reference:

Box 1: App for SharePoint 2013

Box 2: Immersive Full Page

\* Immersive (or full-page app): This shape provides a fully immersive experience by using the entire page. While this gives you complete control over the app experience, it is important to make sure that your app properly links back to the SharePoint site, so the user experience feels integrated and not lost. To make this simple, we provide a chrome control that not only lets your app automatically point a user back to their SharePoint environment, but it also provides your app with

the current SharePoint cascading style sheet (CSS). So when SharePoint changes its CSS, say, through a theming change, your app will change its look and feel as well.

Reference: Deciding between apps for SharePoint and SharePoint solutions

#### QUESTION 13

HOTSPOT

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

Explanation

Explanation/Reference:

URL: Sharepoint/content/sitecollection/web

The website where the app is installed. Includes all children of this scope.

Scenario: 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.

Incorrect:

URL: http://sharepoint/content/tenant

The tenancy where the app is installed. Includes all children of this scope.

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

All the lists in the website where the app is installed. Includes all children of this scope.

#### QUESTION 14

HOTSPOT

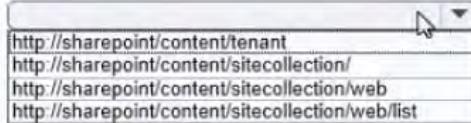
You need to replace the markup at lines AM17 through line AM20 to set the minimum app permissions for the FranchiseMonitor app.

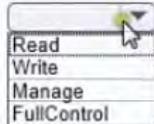
```
<AppPermissionRequests>
  <AppPermissionRequest Scope="Target 1" sRight="Target 2"/>
</AppPermissionRequests>
</App>
```

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

**Hot Area:**

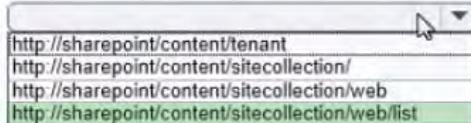
**Answer Area**

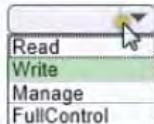
Target 1:   
http://sharepoint/content/tenant  
http://sharepoint/content/sitecollection/  
http://sharepoint/content/sitecollection/web  
http://sharepoint/content/sitecollection/web/list

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

**Explanation**

**Explanation/Reference:**

Scenario:

\* 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 be able to create lists within SharePoint to store records of the CSV files so that they may be sent to the CloudManager app.

## SharePoint

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': Sideloaded 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.cs

```
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.cs

```
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 =
    new NetworkCredential("", "", "");
SM07     context.Credentials = credentials;
SM08
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.cs

```
IL01 protected void ImplementTaskList()
IL02 {
IL03     ClientContext context = new ClientContext("http://sharpoing.contoso.com/tasks");
IL04     List list = context.Web.Lists.GetById("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.cs

```

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.cs

```

CD01 protected bool CanDeleteTask(string targetEmail)
CD02 {
CD03     ClientContext context = new ClientContext("https://sharepoint.contoso.com/
tasks");
CD04
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.cs

```

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 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

**Explanation**

**Explanation/Reference:**

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 2**

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

**Explanation**

**Explanation/Reference:**

To publish your app for SharePoint, upload the app manifest file (.app) of your app to the Office Store, the Apps for Office catalog, SharePoint, a file share, or the Exchange catalog.

Scenario: When completed, the app will be published to the Microsoft Store as a paid app.

Reference: How to: Publish an app for SharePoint by using Visual Studio

**QUESTION 3**

**DRAG DROP**

You need add to code at line 1L22 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:**

The interface consists of two main sections: a sidebar on the left containing a list of field types, and a larger 'Answer Area' on the right where code can be edited. The sidebar contains the following items:

- Text
- Choice
- DropDown
- FieldText
- FieldChoice
- RadioButtons
- "Yes", "No"
- "True", "False"

The 'Answer Area' contains the following C# code:

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

**Correct Answer:**

**Answer Area**

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

#### Explanation

##### Explanation/Reference:

Scenario: 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.

##### QUESTION 4

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: D**

**Explanation**

##### Explanation/Reference:

We should deploy the app to the Development site, that is <https://contoso.sharepoint.com/tasks> (see Existing Site Configuration in scenario).

Note:

\* Loading Apps directly from Visual Studio only works if the destination is a Developer site. That form of distribution, called side loading, is only used when testing and debugging an App. To load an App in a regular site you need to add the .App package produced in Visual to the App Catalog site that is associated with your Web Application. From there you will be able to load the app using the Site Contents link in your site.

\* Issue: While we try creating a SharePoint 2013 App in a SharePoint hosted model and when we try to deploy the solution, we get an "Error occurred in deployment step 'Install app for SharePoint': Side loading of apps is not enabled on this site."

Solution:

1. That is, while creating a site collection/site where you want to deploy the app, create it using the "Developer Site" template under the Collaboration tab.
2. Always the app should be published/deployed to the developer site (A site collection with the Developer Site Template). And from this developer site you can add the App to your SharePoint site

Scenario: 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."

Reference: Side Loading of apps is not enabled on this site error while installing app in SharePoint 2013

##### QUESTION 5

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

**Explanation**

**Explanation/Reference:**

\* A well-designed navigation tells your site's users a lot about the business, products, and services that the website offers. By updating the taxonomy behind the navigation, businesses can drive and keep up with change without having to recreate their site navigation in the process.

\* GlobalNavigationTaxonomyProvider  
 StandardNavigationProviderNames.GlobalNavigationTaxonomyProvider field  
 The TaxonomySiteMapProvider instance used for the global navigation scheme.  
 The menu for the "global navigation" scheme typically appears at the top of the master page.

Scenario: Navigational links across the top should be driven by the term store and use URLs that will improve search engine ranking.

Incorrect:  
 Not C: StandardNavigationProviderNames.CurrentNavigationTaxonomyProvider field  
 The menu for the "current navigation" scheme typically appears on the left side of the master page.

Reference: Managed navigation in SharePoint 2013; StandardNavigationProviderNames.GlobalNavigationTaxonomyProvider field.

**QUESTION 6**

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  
**Explanation**

**Explanation/Reference:**

Retrieving all users from a SharePoint group  
The SiteGroups property of the Web class gets all groups in all Web sites within a site collection.

Example:

```
ClientContext clientContext = new ClientContext("http://MyServer/sites/MySiteCollection");
GroupCollection collGroup = clientContext.Web.SiteGroups;
```

Scenario: Project leads can remove task lists.

Reference: How to: Work with Users and Groups

**QUESTION 7**

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  
**Explanation**

**Explanation/Reference:**

Managed Navigation allows for "friendly" URLs. These friendly URLs no longer contain the "Pages/" folder.

Reference: SharePoint 2013 - Friendly URLs and Managed Navigation

**QUESTION 8**

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

**Explanation**

**Explanation/Reference:**

Scenario: Only users with a paid license can use the app.

**QUESTION 9**

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

**Explanation**

**Explanation/Reference:**

We should deploy the app to the Development site, that is <https://contoso.sharepoint.com/tasks> (see Existing Site Configuration in scenario).

Note:

\* Loading Apps directly from Visual Studio only works if the destination is a Developer site. That form of distribution, called side loading, is only used when testing and debugging an App. To load an App in a regular site you need to add the .App package produced in Visual to the App Catalog site that is associated with your Web Application. From there you will be able to load the app using the Site Contents link in your site.

\* Issue: While we try creating a SharePoint 2013 App in a SharePoint hosted model and when we try to deploy the solution, we get an "Error occurred in deployment step 'Install app for SharePoint': Side loading of apps is not enabled on this site."

Solution:

1. That is, while creating a site collection/site where you want to deploy the app, create it using the "Developer Site" template under the Collaboration tab.
2. Always the app should be published/deployed to the developer site (A site collection with the Developer Site Template). And from this developer site you can add the App to your SharePoint site

Scenario: Pending Issues

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

Reference: Side Loading of apps is not enabled on this site error while installing app in SharePoint 2013

**QUESTION 10**

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:** ABD

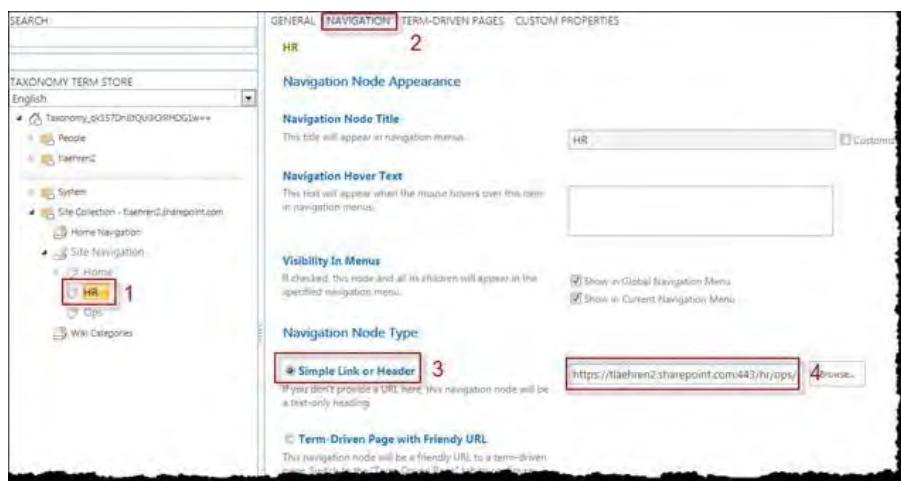
**Explanation**

**Explanation/Reference:**

D: Scenario: Navigational links across the top should be driven by the term store and use URLs that will improve search engine ranking.

A: Simple links:

The HR node is configured with a link to a page the user will be taken to when clicking on the menu item:



BD: Enable Managed Navigation

This page allows you to select managed navigation for your global and current navigation.

Under Site Settings / Look and Feel click on Navigation.

#### Global Navigation

Specify the navigation items to display in global navigation for this Web site. This navigation is shown at the top of the page in most Web sites.



- Display the same navigation items as the parent site  
(This is the top-level site.)
- Managed Navigation: The navigation items will be represented using a Managed Metadata term set.
- Structural Navigation: Display the navigation items below the current site

#### Current Navigation

Specify the navigation items to display in current navigation for this Web site. This navigation is shown on the side of the page in most Web sites.



- Display the same navigation items as the parent site  
(This is the top-level site.)
- Managed Navigation: The navigation items will be represented using a Managed Metadata term set.
- Structural Navigation: Display the current site, the navigation items below the current site, and the current site's siblings
- Structural Navigation: Display only the navigation items below the current site

Other settings on this page allow you to define the term set that will be used for navigation terms and if new pages created should be added to the term set automatically. You can also specify if friendly URL's should be created automatically.

Reference: Term based navigation in SharePoint 2013; SharePoint 2013 Friendly URLs and Managed Navigation

#### QUESTION 11

You receive an error when you deploy the app.

You need to resolve the error.

What should you do?

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

**Correct Answer: D**

**Explanation**

#### Explanation/Reference:

\* Scenario: Pending Issues

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

#### QUESTION 12

DRAG DROP

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

You have the following code:

```
Field completed = list.Fields.AddFieldAsXml(
    "<Field DisplayName='Completed'>
    <Type>Target 1</Type>",
    true,
    AddFieldOptions.DefaultValue);
FieldChoice completedField =
context.CastTo<FieldChoice>(completed);
completedField.EditFormat =
ChoiceFormatType.Target 2;
string[] choices = { Target 3 };
completedField.Choices = choices;
```

Which code segment 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
Text	Target 1:
Choice	Target 2:
DropDown	Target 3:
FieldText	
FieldChoice	
RadioButtons	
"Yes", "No"	
"True", "False"	
	• • • • •

Correct Answer:

Code Segments	Answer Area
Text	Target 1: Choice
	Target 2: RadioButtons
DropDown	Target 3: "Yes", "No"
FieldText	
FieldChoice	
	• • • • •
"True", "False"	

#### Explanation

##### Explanation/Reference:

Note:

\* ChoiceFormatType enumeration members are Dropdown (A drop-down list box) and RadioButtons (Option buttons (also known as radio buttons)).

\* Scenario: The users will be able to set up task lists, mark tasks as completed, and manage their task lists.

## 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 Wholesale 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.cs

```
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     SPFielLink transDateFieldRef =
new SPFielLink(transDateField);
CT15     transDateFieldRef.Required = true;
CT16     docContentType1.FieldLinks.Add(transDateFieldRef);
CT17     docContentType1.Update();
CT18     docContentType2 = web.ContentTypes.Add(docContentType2);
CT19     docContentType2.Group = contentTypeGroup;
CT20     SPFielLink 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     SPFielLink titlePmtFieldRef =
docContentType3.FieldLinks[SPBuiltInFieldId.Title];
CT28     ...
CT29     titlePmtFieldRef.Required = true;
CT30     ...
CT31     docContentType3.Update();
CT32 }
CT33
CT34 {
CT35     SPWeb parentWeb = (SPWeb)properties.Feature.Parent;
CT36     switch (upgradeActionName)
{
CT37         case "" :
CT38             ...
CT39             break;
CT40         default:
CT41             ...
CT42             break;
CT43         }
CT44     }
CT45 }
```

UserAuthorization.cs

```

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
ContentTypeId="0x010123F15ADB2FA333AA49848E7E01BC79C9753222"
FieldId="{4FB9816F-799D-41F3-B801-B8F5FEB3A5CD}" />
CX18       <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

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

**Explanation:**

**Explanation/Reference:**

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

\* Stop-SPAssignment .Disposes of objects in the provided assignment collection.

The Stop-SPAssignment cmdlet 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 2

HOTSPOT

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.)

**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  
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)
```

**Explanation**

**Explanation/Reference:**

\* `SPRoleDefinition`

The role definition, or permission level, is the list of rights associated with the role. For example, a user with the Read role can browse pages in the Web site and view items in lists. A role definition is a collection of rights bound to a specific object. Role definitions (for example, Full Control, Read, Contribute, Design, or Limited Access) are scoped to the Web site.

\* `SPWeb.Update`

Scenario: User Authorization

A custom role named Wholesale must be created. Wholesale customers must be assigned to this role in order to view the promotions page.

Incorrect:

Not `RoleDefinitionCollection`: SPWeb does not have a member `RoleDefinitionCollection`.

Not `web.Commit()`: SPWeb does not have a method `Commit()`.

Not `web.AddProperty(CustomRole,_permissions)`

Just need to create the role, not add permissions.

Reference: `SPWeb` members; `SPWeb` methods

**QUESTION 3**

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

**Explanation**

**Explanation/Reference:**

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. It's 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 4**

**DRAG DROP**

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:**

```
(docContentType,
web.ContentTypes, "Finance");

(docContentType,
web.ContentTypes, "Order Details");

(docContentType,
web.ContentTypes, "Payment Confirmation");

(docContentType1,
web.ContentTypes, "Finance");

(docContentType1,
web.ContentTypes, "Order Details");

(docContentType1,
web.ContentTypes, "Payment Confirmation");

(docContentType2,
web.ContentTypes, "Payment Confirmation");
```

**Answer Area**

```
SPContentType docContentType1 = new
```

```
SPContentType docContentType2 = new
```

```
SPContentType docContentType3 = new
```

**Correct Answer:**

```
(docContentType,
web.ContentTypes, "Order Details");

(docContentType,
web.ContentTypes, "Payment Confirmation");

(docContentType1,
web.ContentTypes, "Finance");

(docContentType2,
web.ContentTypes, "Payment Confirmation");
```

**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");
```

**Explanation**

**Explanation/Reference:**

docContentType1 is the Finance. The Order Details and Payment Confirmation types must refer to docContentType1.

**Scenario:**

- \* A Document content type named Finance must be created at the site level. It must contain two site columns
- \* The Order Details and Payment Confirmation content types must be derived from the Finance content type.

**QUESTION 5**

**HOTSPOT**

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.)

**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();

```

#### Explanation

##### Explanation/Reference:

\* GetFieldByInternalName

The GetFieldByInternalName method of the SPFieldCollection class returns the field with the specified internal name from the collection.

\* SPFieldText.Group

Scenario: 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.

#### QUESTION 6

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

**Explanation**

**Explanation/Reference:**

Scenario:

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.

#### **QUESTION 7**

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.EmptyMask | SPBasePermissions.ViewPages;
- D. customRole.BasePermissions = SPBasePermissions.ViewPages;

**Correct Answer:** B

**Explanation**

**Explanation/Reference:**

Add the ViewPages permission to the permissions of the variable \_permissions.

Scenario: User Authorization

A custom role named Wholesale must be created. Wholesale customers must be assigned to this role in order to view the promotions page.

#### **QUESTION 8**

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:  
`<VersionRange BeginVersion="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:** BC

**Explanation**

**Explanation/Reference:**

B: VersionRange Element specifies a range of previous versions of the Feature to which the upgrade actions should apply.

/BeginVersion: Specifies the earliest version number to which the child upgrade elements will apply, in the format n.n.n.n, where each n can be up to four digits.

/EndVersion: Specifies the earliest version number to which the upgrade will not apply. The format is n.n.n.n, where each n can be up to four digits.

C: Feature versions in Microsoft SharePoint Foundation are used to trigger Feature upgrade. If you update your Feature version but do not specify any Feature upgrade logic in the Feature.xml file, when the Feature upgrade runs, it simply updates the version number of your Feature. However, if you specify Feature upgrade logic, the upgrade code is executed and the version number is automatically updated as well.

Scenario: 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.

Reference: VersionRange Element (Feature); Best Practices for Using Feature Versions

#### **QUESTION 9**

**HOTSPOT**

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)

### Explanation

#### Explanation/Reference:

\* SPRoleDefinition

The role definition, or permission level, is the list of rights associated with the role. For example, a user with the Read role can browse pages in the Web site and view items in lists. A role definition is a collection of rights bound to a specific object. Role definitions (for example, Full Control, Read, Contribute, Design, or Limited Access) are scoped to the Web site.

\* SPWeb.Update

Scenario: User Authorization

A custom role named Wholesale must be created. Wholesale customers must be assigned to this role in order to view the promotions page.

Incorrect:

Not RoleDefinitionCollection: SPWeb does not have a member RoleDefinitionCollection.

Not web.Commit(): SPWeb does not have a method Commit().

Not web.AddProperty(CustomRole,\_permissions)

Just need to create the role, not add permissions.

Reference: SPWeb members; SPWeb methods

### QUESTION 10

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: CE

## **Explanation**

### **Explanation/Reference:**

C: For better performance, Microsoft recommends that you back up to the local computer and then move the backup files to a network folder.

E (not D):

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

Scenario: 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.

\* Automation: Windows PowerShell must be used to automate all operations wherever possible.

Reference: Back up site collections in SharePoint 2013

## **QUESTION 11**

You need to set the appropriate permission levels. A variable named customRole references Wholesale.

Which code segment should you add at line UA11?

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

**Correct Answer: D**

## **Explanation**

### **Explanation/Reference:**

\* ViewPages, View pages in a Web site.

\* Scenario: A custom role named Wholesale must be created. Wholesale customers must be assigned to this role in order to view the promotions page.

Incorrect:

Not A, not C: The previous line, UA10, is: \_permissions = this.GetExistingPermissions();

We should add this permission and the ViewPages permission.

Not B: ViewFormPages View forms, views, and application pages, and enumerate lists.

Reference: SPBasePermissions enumeration

<https://msdn.microsoft.com/en-us/library/microsoft.sharepoint.spbasepermissions.aspx>

## 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 with 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. Some of the intranet content must be migrated to the target platform; however, the whole intranet won't be migrated as-is.

### 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 ease the upgrade procedures. The publishing site must support rendering on a number of devices, starting with Windows Phone 7. Apart from being deployed on all existing publishing sites, the design package must be automatically deployed each time a publishing site is created. A search box must be available on all pages.

#### 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 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: DBF805AB-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.

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.cs`).

#### 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.)

#### `Litware.Intranet.Templates.wsp`, Module `WebTemplatePropertyBag` `Element.xml` file:

```
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.cs`

```

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.
Please contact your system administrator. </p>");
MA17    }
MA18
MA19    base.RenderContents(writer);
MA20 }

```

**QUESTION 1**

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

**Explanation**

**Explanation/Reference:**

The SPQueryThrottleOption enumeration has three values: Default, Override, and Strict. If you use the default value, the standard list view threshold applies to all users except local server administrators, who are not bound by either threshold. If you set the query throttle mode to Override, users who have the required permissions in the Web application user policy can query at the higher "auditors and administrators" threshold. Local server administrators remain unbound by either threshold. Finally, if you set the query throttle mode to Strict, this closes down the local server administrator loophole and the standard list view threshold applies to all users.

Scenario: 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.cs).

Reference: Retrieve data more than the threshold limit

**QUESTION 2**

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

**Explanation**

**Explanation/Reference:**

In SharePoint 2013, Design Manager can help web developers and designers build and export the visual design of a SharePoint site collection as a package. This package can easily be distributed to customers, or other designated groups, for installation on their site collections. This new feature reduces the complexity of transporting designs, and makes it easier for customers to outsource the visual design of their sites.

Scenario: 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.

Reference: SharePoint 2013 Design Manager design packages

**QUESTION 3**

**DRAG DROP**

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:**

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

**Correct Answer:**

Answer Area

```
<?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>
```

## Explanation

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

#### Explanation:

Box 1: WebTemplate

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.

Box 2: BaseTemplateName

Required. The internal name of the site definition on which the web template ultimately derives. This is the value of the Name attribute of the Template element in a WebTemp\*.xml file.

**Box 3: Name  
Attributes: Name**

Attribute: Name  
Required: The in-

Required. The internal name of the web template.

Box 4: Title  
Optional. On

Optional. Option

Box 5: DisplayCategory

Optional. Specifies the command to use when creating a new file; for example, Col

Scenario: 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.

Reference: WebTemplate Element (Web Template)  
<https://msdn.microsoft.com/en-us/library/office/ff408392.aspx>

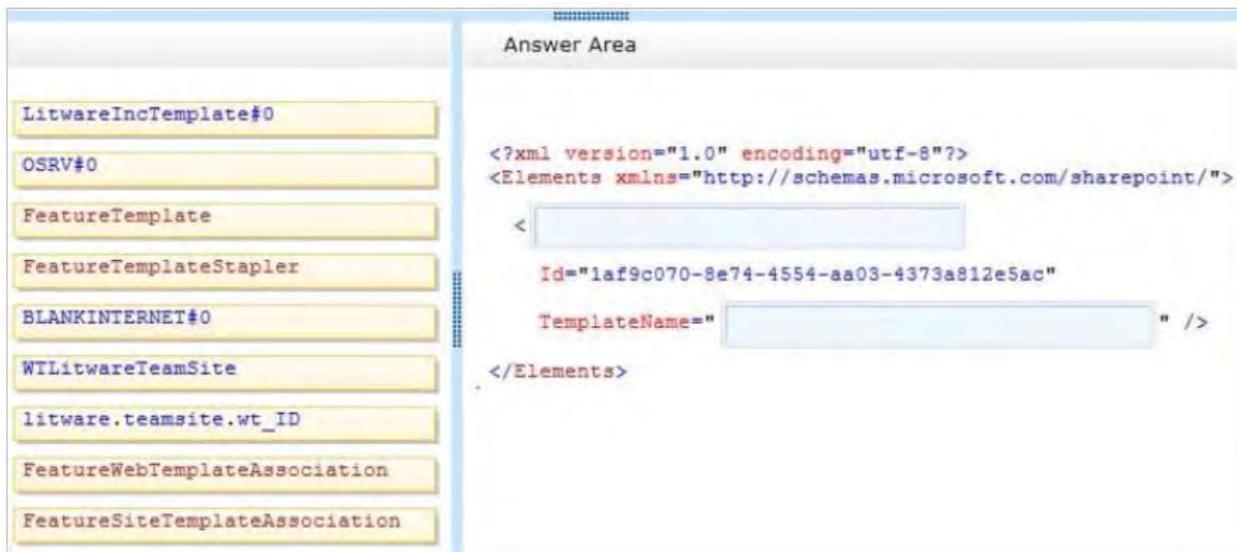
#### QUESTION 4

DRAG DROP

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

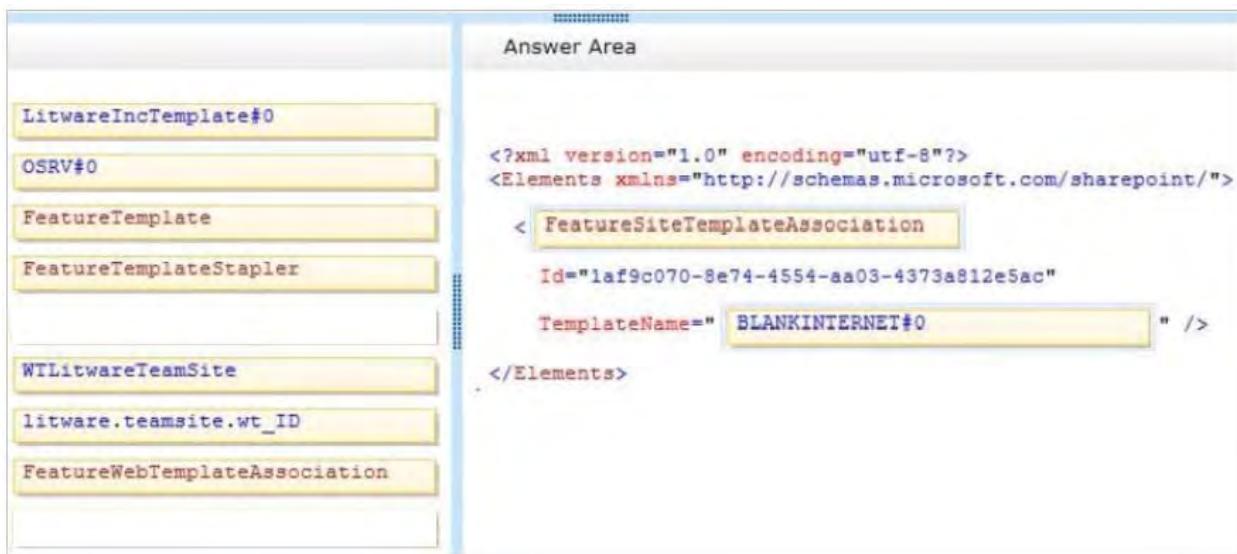
How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct location or locations in the answer area. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Select and Place:



```
<?xml version="1.0" encoding="utf-8"?>
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">
<FeatureSiteTemplateAssociation
  Id="laf9c070-8e74-4554-aa03-4373a812e5ac"
  TemplateName="" />
</Elements>
```

Correct Answer:



```
<?xml version="1.0" encoding="utf-8"?>
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">
<FeatureSiteTemplateAssociation
  Id="laf9c070-8e74-4554-aa03-4373a812e5ac"
  TemplateName="BLANKINTERNET#0" />
</Elements>
```

#### Explanation

##### Explanation/Reference:

Box 1: FeatureSiteTemplateAssociation

FeatureSiteTemplateAssociation Element associates the specified Features with the specified site definition configuration so that when Web sites are provisioned, the Features are automatically included.

Box 2: BLANKINTERNET#0

Site template BLANKINTERNET#0:

Publishing sub-sites can be created under this site. A Document and Picture Library are included for storing Web publishing assets.

Reference: FeatureSiteTemplateAssociation Element (FeatureSiteTemplateAssociation); SharePoint 2010: Default Site Templates

#### QUESTION 5

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

**Explanation**

**Explanation/Reference:**

Scenario:

Litware.Intranet.Templates contains the LitwareWebArtifacts hidden feature which contains code required to run after the provisioning is completed.

**QUESTION 6**

**HOTSPOT**

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	
<input type="checkbox"/> Create column		
<input type="checkbox"/> Add from existing site columns		
<input type="checkbox"/> Column ordering		
<input type="checkbox"/> 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	
<input type="checkbox"/> Create column		
<input type="checkbox"/> Add from existing site columns		
<input checked="" type="checkbox"/> Column ordering		
<input checked="" type="checkbox"/> Indexed columns		

**Explanation**

**Explanation/Reference:**

\* To improve the performance of a large list or library, you can index a column. Then you can use the indexed column to filter new or existing views of the list or library.

An indexed column is ordered.

**Incorrect:**

Column ordering is how the columns are ordered horizontally not how the records are ordered.

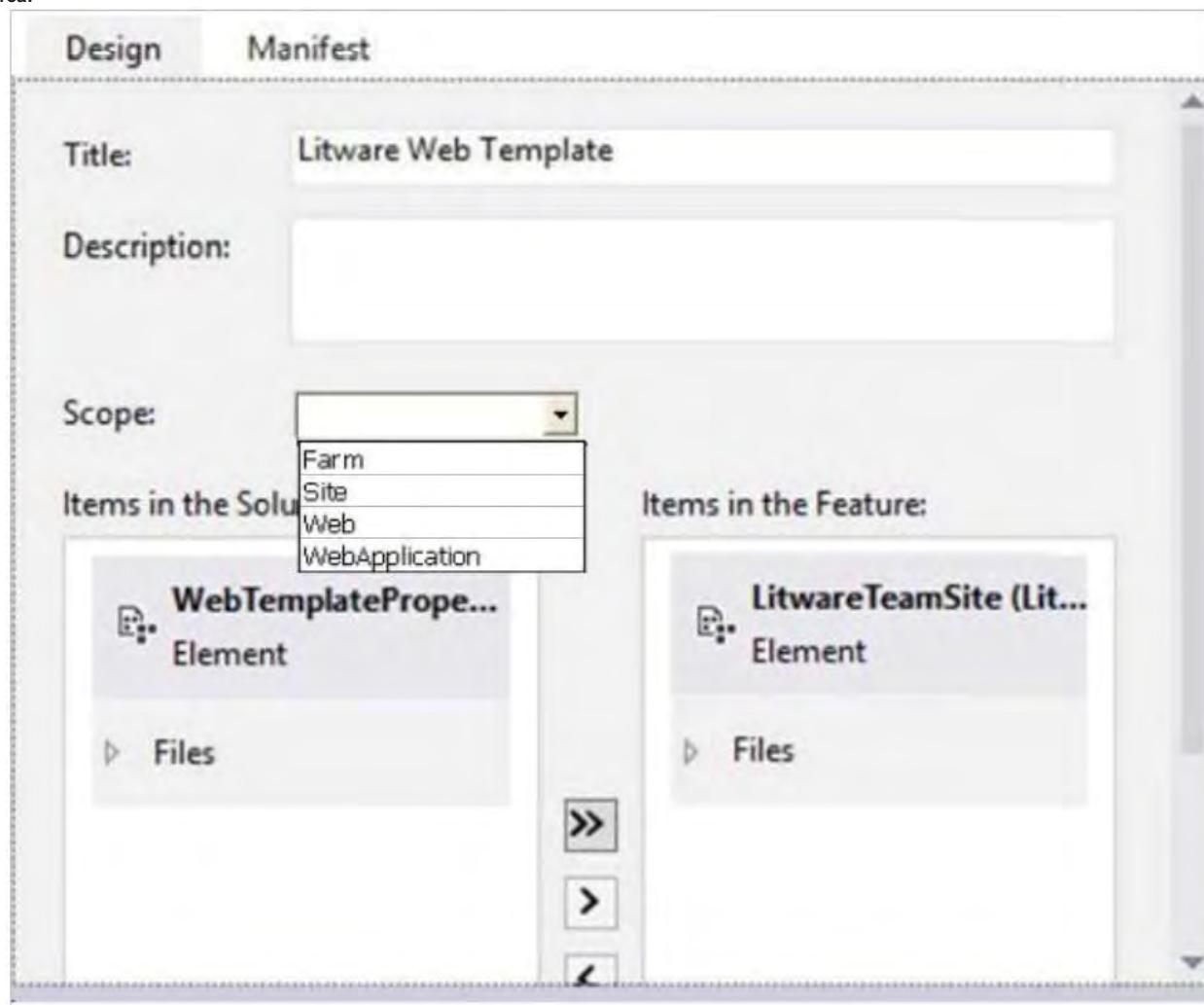
**QUESTION 7**

**HOTSPOT**

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.)

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

>, >>, <) are visible between the two sections."/>

#### Explanation

##### Explanation/Reference:

A Farm scoped Feature can be activated at the server farm level.

Scenario: The Litware Team Site template must be available for use in all site collections.

##### QUESTION 8

##### HOTSPOT

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

## Explanation

### Explanation/Reference:

With device channels in SharePoint 2013, you can render a single publishing site in multiple ways by using different designs that target different devices. A device channel is part of the SharePoint 2013 publishing infrastructure that enables you to render certain site content, style your content, and even change images—while maintaining the same URL across a pool of different devices.

Note: When a user browses a SharePoint site from a mobile device such as a smartphone or tablet, the mobile browser submits to the site an HTTP GET request that includes a user agent string. This string contains information about the type of device that is trying to access the site. Based on that device substring, the device browser can be redirected to a specific master page view.

Scenario: It is essential that the new intranet supports a wide variety of mobile devices, platforms, and browsers.

Reference: SharePoint 2013 Design Manager device channels

### QUESTION 9

#### DRAG DROP

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:**

The screenshot shows a 'Select and Place' interface. On the left, there is a vertical list of feature IDs: 'WebFeatures', 'FarmFeatures', 'SiteCollectionFeatures', 'DBF805AB-03D9-43DC-9154-52D6AC54689F', and 'FDE5D850-671E-4143-950A-87B473922DC7'. On the right, there is an 'Answer Area' containing the following XML code:

```
<Configuration ID="0" Name="Default"
  MasterUrl="_catalogs/masterpage/seattle.master">
<SiteFeatures>
  <Feature ID="" />
</SiteFeatures>
< />
<Feature ID="" />
</ />
</Configuration>
```

**Correct Answer:**

The screenshot shows the 'Correct Answer' interface. It has the same structure as the 'Select and Place' interface, with a list of feature IDs on the left and XML code on the right. In the XML code, two specific feature IDs are highlighted in yellow boxes: 'FDE5D850-671E-4143-950A-87B473922DC7' and 'DBF805AB-03D9-43DC-9154-52D6AC54689F'. These highlighted IDs correspond to the features listed in the 'WebFeatures' and 'SiteCollectionFeatures' boxes on the left.

```
<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>
```

**Explanation**

**Explanation/Reference:**

Scenario:

\* 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

**QUESTION 10**

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

**Explanation**

**Explanation/Reference:**

Scenario: A search box must be available on all publishing sites.

The publishing site design is delivered as a set of HTML files (litwarepublishing.html), CSS (Litwarepublishing.css), and image files from the marketing company.

**QUESTION 11**

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  
**Explanation:**

**Explanation/Reference:**

Scenario:

In Element.xml file from Litware.Intranet.Templates.wsp we see:  
<Property Name="Litware.teamsite.wt\_ID"  
Type="string" Value="WTLitwareTeamSite" />

**QUESTION 12**

DRAG DROP

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
<code>Id</code>		Target 1: Code Segment
<code>Name</code>		Target 2: Code Segment
<code>SolutionId</code>		Target 3: Code Segment
<code>SolutionName</code>		Target 4: Code Segment
<code>SolutionDependency</code>		Target 5: Code Segment
<code>SolutionDependencies</code>		Target 6: Code Segment
<code>ActivationDependency</code>		
<code>ActivationDependencies</code>		
<code>Litware.Intranet.Core</code>		
<code>Litware.Intranet.Templates</code>		

Correct Answer:

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

#### Explanation

##### Explanation/Reference:

Scenario: Deployment of the package containing the Litware web templates `Litware.Intranet.Templates.wsp` must be prevented if the core package (Target 5) is not deployed in order to prevent deployment errors and eventually damage on the site structure itself.

\* (Target1, Target 6) ActivationDependencies Element (Feature)  
Specifies a list of features on which the activation of the current feature depends.

Child element: ActivationDependency  
\* (Target 2) ActivationDependency  
Specifies the activation dependencies for a solution.

Syntax:

```
<ActivationDependency  
  SolutionId = string  
  SolutionName = string // (Target 4)  
  SolutionTitle = string  
  SolutionUrl = string />
```

SolutionId  
Required string. Specifies the solution ID of the dependency.

Reference: ActivationDependencies Element (Feature); ActivationDependency Element (Solution)

### QUESTION 13

HOTSPOT

You create a document reporting Web Part for Marketing auditors.

You need to configure throttling for the Web Part. You insert the following code in line MA08

**spQuery.QueryThrottleMode = Target 1**

Which code segment should you include in Target1 to complete the code? (To answer, select the appropriate option from the drop-down list in the answer area.)

Hot Area:

Target 1:

SPQueryThrottleOption.Override;
SPQueryThrottleOption.Strict;
SPQueryThrottleOption.Default;
SPQueryThrottleOption.Disable;

Correct Answer:

Target 1:

SPQueryThrottleOption.Override;
SPQueryThrottleOption Strict;
SPQueryThrottleOption Default;
SPQueryThrottleOption Disable;

### Explanation

#### Explanation/Reference:

The SPQueryThrottleOption enumeration has three values: Default, Override, and Strict. If you use the default value, the standard list view threshold applies to all users except local server administrators, who are not bound by either threshold. If you set the query throttle mode to Override, users who have the required permissions in the Web application user policy can query at the higher "auditors and administrators" threshold. Local server administrators remain unbound by either threshold. Finally, if you set the query throttle mode to Strict, this closes down the local server administrator loophole and the standard list view threshold applies to all users.

Scenario: 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).

Reference: Retrieve data more than the threshold limit

### QUESTION 14

DRAG DROP

You need to create a collaboration template.

```
<?xml version="1.0" encoding="utf-8"?>  
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">  
  <Target 1>  
    Target 2="STS"  
    BaseTemplateID="0"  
    BaseConfigurationID="0"  
    Target 3="LitwareTeamSite"  
    Target 4="Litware Team Site"  
    Target 5="Litware"/>  
</Elements>
```

Which code segment should you include in Target 1, Target 2, Target 3, Target 4 and Target 5 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
Name	Target 1: Code Segment
Title	Target 2: Code Segment
Template	Target 3: Code Segment
TemplateID	Target 4: Code Segment
WebTemplate	Target 5: Code Segment
DisplayCategory	
BaseTemplateName	

Correct Answer:

Code Segments	Answer Area
	Target 1: WebTemplate
	Target 2: BaseTemplateName
Template	Target 3: Name
TemplateID	Target 4: Title
	Target 5: DisplayCategory

### Explanation

#### Explanation/Reference:

Explanation:

Box 1: WebTemplate

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.

Box 2: BaseTemplateName

Required. The internal name of the site definition on which the web template ultimately derives. This is the value of the Name attribute of the Template element in a WebTemp\*.xml file.

Box 3: Name

Attribute: Name

Required. The internal name of the web template.

Box 4: Title

Optional. Optional. The public name of the web template.

Box 5: DisplayCategory

Optional. Specifies the category in which the web template appears in the Microsoft SharePoint Foundation UI when users are selecting a type of website to create; for example, Collaboration, Meetings, or some other custom name. If it is not specified, the default is "Custom".

Scenario: 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.

Reference: WebTemplate Element (Web Template)

<https://msdn.microsoft.com/en-us/library/office/ff408392.aspx>

### QUESTION 15

DRAG DROP

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

You have the following code:

```
<?xml version="1.0" encoding="utf-8"?>
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">
  <Target 1
    Id="1af9c070-8e74-4554-aa03-4373a812e5ac"
    TemplateName="Target 2"/>
</Elements>
```

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 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
STS#0	Target 1: <input type="text"/>
GLOBAL	Target 2: <input type="text"/>
Feature	
FeatureStapler	
BLANKINTERNET#0	
WTLitwareTeamSite	
litware.teamsite.wt_ID	
FeatureWebTemplateAssociation	
FeatureSiteTemplateAssociation	

Correct Answer:

Code Segments	Answer Area
STS#0	Target 1: <input type="text"/> FeatureSiteTemplateAssociation
GLOBAL	Target 2: <input type="text"/> WTLitwareTeamSite
Feature	
FeatureStapler	
BLANKINTERNET#0	
litware.teamsite.wt_ID	
FeatureWebTemplateAssociation	

Explanation

Explanation/Reference:

Explanation:

\* Scenario:

/ The design package must be automatically deployed each time a publishing site is created.

\* The FeatureSiteTemplateAssociation Element Associates the specified Features with the specified site definition configuration so that when Web sites are provisioned, the Features are automatically included in provisioning.

TemplateName

Required Text. Specifies the name of the site definition configuration. SharePoint Foundation includes the following site definition configurations by default.

STS#0 Team Site

STS#1 Blank Site

STS#2 Document Workspace

MPS#0 Basic Meeting Workspace

MPS#1 Blank Meeting Workspace

MPS#2 Decision Meeting Workspace

MPS#3 Social Meeting Workspace

MPS#4 Multipage Meeting Workspace

BLOG#0 Blog

SGS#0 Basic Group Work Site

SGS#1 Blank Group Work Site

WIKI#0 Wiki

Reference: FeatureSiteTemplateAssociation Element (FeatureSiteTemplateAssociation)

<https://msdn.microsoft.com/en-us/library/office/aa544552.aspx>

## Mix Questions

### QUESTION 1

DRAG DROP

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.
Upload the solution package to the desired site.
Use Visual Studio to activate the solution package.
Import the solution package into Visual Studio.
Use Visual Studio to export the workflow as a .wsp solution package.

## Explanation

### Explanation/Reference:

Note:

Box 1 (SharePoint Designer): Use SharePoint Designer to save the workflow as a .wsp solution package.

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

Box 2(Visual Studio): Upload the solution package to the desired site.

Box 3(Visual Studio): Use Visual Studio to Active the solution package.

After a solution package (.wsp) file is uploaded and activated on the target website (that is, the SharePoint site collection), the features that are contained in the package are installed and available for activation.

Note 2:

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: How to: Build and deploy workflow custom actions; Walkthrough: Import a SharePoint Designer Reusable Workflow into Visual Studio.

**QUESTION 2****HOTSPOT**

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:**

**List Actions**

- 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

**Task Actions**

- Assign a task**
- Start a task process**

**Correct Answer:**

**List Actions**

- 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

**Task Actions**

- Assign a task**
- Start a task process**

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

\* Set Workflow Status

There is an action to Set Workflow Status under Core Actions, in both SharePoint 2013 Workflow platform and SharePoint 2010 Workflow platform.

Reference: How to set Approval Status to approve\reject after approve\reject the request in SharePoint Online 2013 Designer Workflow?

**QUESTION 3**

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

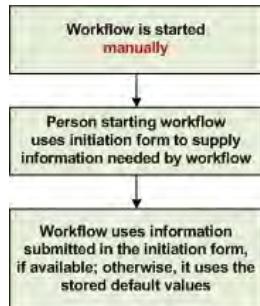
You need to use ASP.NET forms in the workflow.

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

You may want your workflow to collect information from the person who starts it, and then reference this information later in the workflow. For example, imagine that you are designing a workflow that assigns a document review task. In some workflows of this kind, it might make sense to always automatically assign the review task to the same participant and to always use the same formula for calculating the due date. But in your workflow, you want the person who manually starts the workflow to specify both the reviewer and the due date. You can set this up by adding custom fields to the workflow initiation form and requiring that the workflow be started manually.



Reference: Create a workflow initiation form

**QUESTION 4**

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: D****Explanation****Explanation/Reference:**

## Loop shapes

Loops are a series of connected shapes that will execute as a loop, returning from the last shape in the series to the first, until a condition is satisfied.

Note: Workflows in SharePoint Designer 2013 now include the notions of stages, loops, and steps. The SharePoint 2013 Workflow template that is included in Visio 2013 also uses stages, loops, and steps as logical building blocks for creating a workflow

Reference: Workflow development in SharePoint Designer 2013 and Visio 2013

**QUESTION 5**

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.

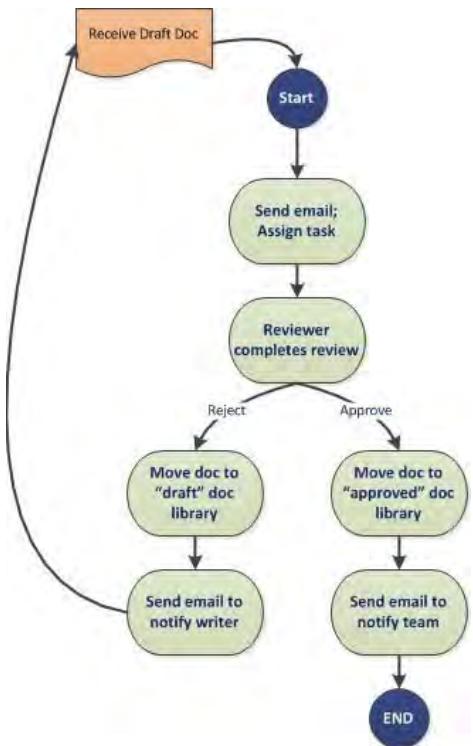
Which tool should you use?

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

**Correct Answer: B****Explanation****Explanation/Reference:**

Workflows in SharePoint 2013 allow you to model and automate business processes. These business processes can be as simple as a document approval process with a single approver (shown in example below), as complex as customer-facing product catalog using web service calls and database support, or as formidable as virtually any structured business process, full of conditions, loops, user inputs, tasks, and custom actions.

Example: Simple SharePoint workflow



Reference: Get started with workflows in SharePoint 2013

#### QUESTION 6

DRAG DROP

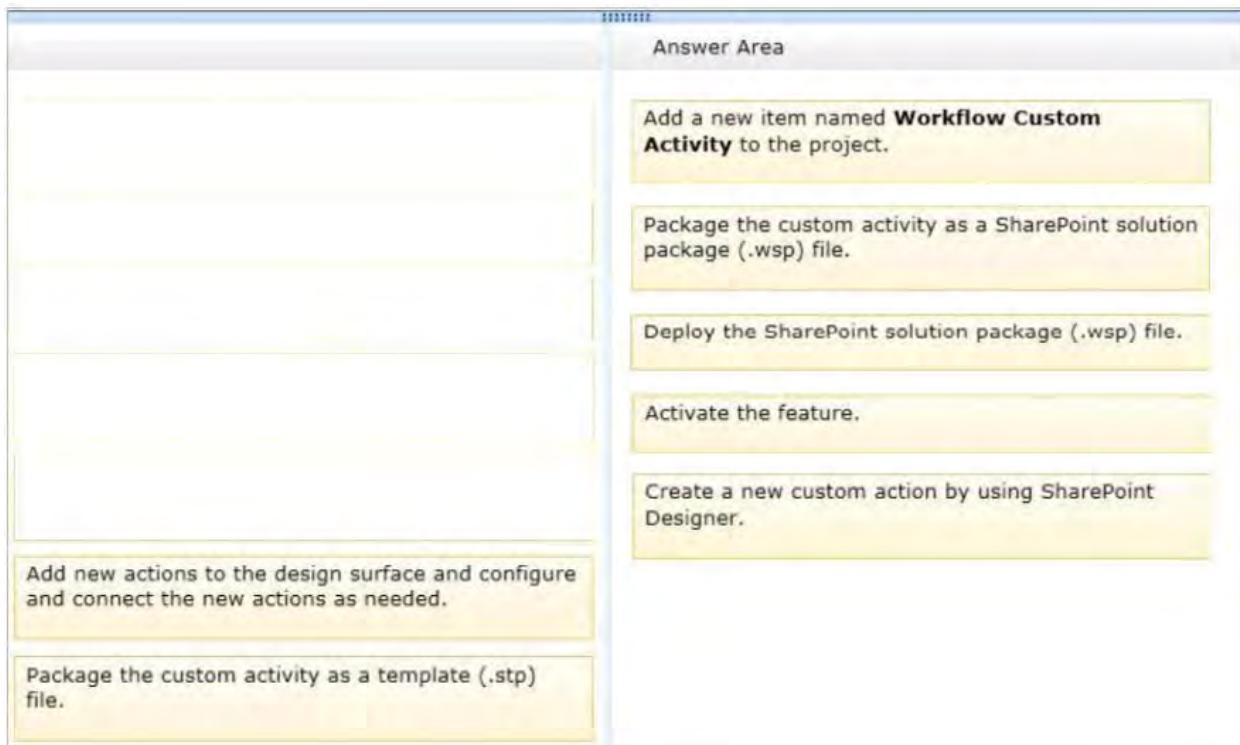
You need to create a workflow custom activity to use in a custom action in SharePoint by using Microsoft Visual Studio 2012.

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:



## Explanation

### Explanation/Reference:

Note:

Box 1 (Visual Studio): Add a new item named Workflow Custom Activity to the project.

Visual Studio 2012 now provides a "workflow custom activity" item type within SharePoint projects. You can use the item type to create a custom activity that you can then import as a custom action in SharePoint Designer 2013.

Box 2 (Visual Studio): Package the custom activity as a SharePoint solution package (.wsp) file.

Custom actions are packaged and deployed as SharePoint Features in SharePoint solution package (.wsp) files

Box 3: (Visual studio) Deploy the SharePoint solution package (.wsp) file.

After you create your custom workflow activity, you can then package and deploy it. After it is deployed, the custom activity can be consumed by SharePoint Designer 2013 as a custom action.

Box 4: Activate the feature

After a solution package (.wsp) file is uploaded and activated on the target website (that is, the SharePoint site collection), the features that are contained in the package are installed and available for activation. After the custom actions are activated, they are available for use in a workflow.

Box 5: Create a new custom action by using SharePoint Designer.

\* SharePoint Designer provides a collection of workflow actions that are available through the Workflow Designer user interface (UI). Although the range of workflow actions that are included in SharePoint Designer is extensive, it is nevertheless finite. In some cases, you may need to model a business process whose requirements are not met by the existing library of workflow actions that are available in SharePoint Designer. Recognizing that business processes often have specialized requirements, SharePoint 2013 lets you create custom workflow actions. You can develop these custom actions by using Visual Studio, and then package and deploy them to SharePoint. At that point, the custom action becomes available to workflow authors in SharePoint Designer, exactly as if it were among the library of existing actions.

Reference: How to: Build and deploy workflow custom actions

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

### QUESTION 7

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

**Explanation**

### Explanation/Reference:

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.

\* Define content types

If your group works with several types of files, such as worksheets, presentations, and documents, you can extend the functionality of your library by enabling and defining multiple content types. Content types add flexibility and consistency across multiple libraries. Each content type can specify a template and even workflow processes. The templates act as a starting point, for formatting and any boilerplate text and for properties that apply to the documents of that type, such as department name or contract number.

Reference: Best practices for creating and managing team sites

C: To map a master page to a SharePoint site

1. In Site Settings for the designated site, under the Look and Feel section, choose Master Page.
2. On Site Master Page Settings, select one of the two options for the Site Master Page or System Master Page sections:
  - 2a. Inherit site master page from parent site Choose this option if you are configuring a child SharePoint site and want to use the parent master page.
  - 2b. Specify a master page to be used by this site and all sites that inherit from it Choose this option if you want to map a specific master page to the site, or if you want to map a specific master page for administrative pages. A drop-down box named Default or All Channels is available for you, depending on your site or system configuration, so you can select a specific master page stored in the master page gallery. Select the desired master page from the drop-down box.
3. Choose OK.

Reference: How to: Apply a master page to a site in SharePoint 2013

D:

\* A Composed Look is made up of:

Master Pages

CSS

Color palettes

Font palettes

Background image

\* This means we can package a master page with its CSS, color palettes, font palettes and background image and have it deployed in the enterprise. With Composed Looks, you can now offer your Power Users a list of branded looks and allow them to choose an appropriate look as well as giving them limited control to make changes to the colors, image or font. You could be providing the Composed Looks.

Reference: Step by Step: Create a SharePoint 2013 Composed Look

#### QUESTION 8

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

**Explanation**

#### Explanation/Reference:

By default, sandboxed solutions are disabled. Enable sandboxed solutions on every application server on which you want to run sandboxed solutions.

Note:

#### To enable sandboxed solutions by using Central Administration

1. Verify that you have the following administrative credentials:  
You must be a member of the Farm Administrators group on the computer that is running the SharePoint Central Administration Web site.
2. On the home page of the Central Administration Web site, in the **System Settings** section, click **Manage services on server**.
3. On the Services on Server page, in the **Server** box, select the server on which you want to enable sandboxed solutions.
4. In the **Microsoft SharePoint Foundation Sandboxed Code Service** row, in the **Action** column, click **Start**.
5. Repeat steps 3 and 4 for each server on which you want to enable sandboxed solutions.

Reference: Enable sandboxed solutions on the farm (SharePoint Server 2010)

#### QUESTION 9

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

**Explanation**

**Explanation/Reference:**

Need to manually dispose of the siteCollection instance. This can be done through a finally statement.

Note:

\* Try and finally blocks or a using statement would be required to avoid potential leaks when you create a disposable object within a foreach block, as shown in the following code example.

```
SPWebApplication webApp = siteCollectionOuter.WebApplication;
SPSiteCollection siteCollections = webApp.Sites;

SPSite siteCollectionInner = null;
foreach (siteCollectionInner in siteCollections)
{
    try //Should be first statement after foreach.
    {
        Console.WriteLine(siteCollectionInner.Url);
        //Exception occurs here.
    }
    finally
    {
        if(siteCollectionInner != null)
            siteCollectionInner.Dispose();
    }
}
```

**\* Why Dispose?**

Several of the Windows SharePoint Services objects, primarily the SPSite class and SPWeb class objects, are created as managed objects. However, these objects use unmanaged code and memory to perform the majority of their work. The managed part of the object is much smaller than the unmanaged part. Because the smaller managed part does not put memory pressure on the garbage collector, the garbage collector does not release the object from memory in a timely manner. The object's use of a large amount of unmanaged memory can cause some of the unusual behaviors described earlier. Calling applications that work with IDisposable objects in Windows SharePoint Services must dispose of the objects when the applications finish using them. You should not rely on the garbage collector to release them from memory automatically.

Reference: Best Practices: Using Disposable Windows SharePoint Services Objects

**QUESTION 10**

**DRAG DROP**

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	
<b>Process to debug</b>	
<b>Location where the solution is deployed</b>	

**Farm**

**W3wp.exe**

**Solution Gallery**

**Central Administration**

**SPUCWorkerProcess.exe**

**Correct Answer:**

Answer Area	
<b>Process to debug</b>	<b>SPUCWorkerProcess.exe</b>
<b>Location where the solution is deployed</b>	<b>Solution Gallery</b>

**Farm**

**W3wp.exe**

**Central Administration**

**Explanation**

**Explanation/Reference:**

**Box 1: SPUCWorkerProcess.exe**

\* The Visual Studio debugger usually attaches to the Windows SharePoint Services process (w3wp.exe). If the project type lets you change the Sandboxed Solution property and its value is set to true, then the debugger attaches to a different process (SPUCWorkerProcess.exe).

**\* Why Sandboxed Solutions?**

In WSS 3.0, solutions could be deployed only to the farm level. This meant that potentially harmful or destabilizing solutions could be deployed that affected the whole Web farm and all of the other site collections and applications that run under it. However, by using sandboxed solutions, you can deploy your solutions to a subarea of the farm, a specific site collection. To provide additional protection, the solution's assembly is not loaded into the main IIS process (w3wp.exe). Instead, it is loaded into a separate process (SPUCWorkerProcess.exe). This process is monitored and implements quotas and throttling to protect the farm from sandboxed solutions that perform harmful activities, such as running tight loops that consume CPU cycles.

**Box 2: Solution Gallery**

The solution gallery is a document library stored in the root Web of the SharePoint site. The solution gallery replaces site templates and supports solution packages. When a SharePoint solution package (.wsp) file is uploaded, it is processed as a sandboxed solution.

Reference: Debugging SharePoint Solutions; Sandboxed Solution Considerations

**QUESTION 11****DRAG DROP**

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

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

**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="SiteColumnnB"
    DisplayName="Site Column B"
    Type="Text"
    Required="FALSE"
    Group="mySiteColumns">
    </ Field >
  < Elements >
```

#### Explanation

##### Explanation/Reference:

Example: A simple content type defined in a feature element, together with its site columns

```
<?xml version="1.0" encoding="utf-8"?>
<Elements xmlns="http://schemas.microsoft.com/sharepoint/">
  <!-- Site Columns used by the Content Type -->
  <Field
    ID="{C7792AD6-F2F3-4f2d-A7E5-75D5A8206FD9}"
    Name="DevLeapContactID"
    StaticName="DevLeapContactID"
    DisplayName="Contact ID"
    Type="Text"
    Group="DevLeap Columns"
    Sortable="TRUE">
  </Field>
</Elements>
```

Reference: Microsoft SharePoint 2013 Developer Reference: Data Provisioning

#### QUESTION 12

##### HOTSPOT

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.)

**Hot Area:**

**Design      Manifest**

**Title:** SharePointProject1234 Feature2

**Description:**

**Scope:**

**Items in the Solution:**

Farm  
Site  
Web  
WebApplication

**Correct Answer:**

**Design      Manifest**

**Title:** SharePointProject1234 Feature2

**Description:**

**Scope:**

**Items in the Solution:**

Farm  
Site  
**Web**  
WebApplication

#### Explanation

##### Explanation/Reference:

SharePoint Features can be scoped to the Farm, Web Application, Site Collection, and Web Site level depending on the purpose of the feature.

Web Site scoped Feature (Scope="Web"):

A Web Site scoped Feature is one that can be activated only at the individual Web site level. List templates, list instances, custom actions, event receivers, etc. are some common elements for web site scoped features.

Reference: Explain it to me: SharePoint deployment scope, solution and features

#### QUESTION 13

DRAG DROP

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 claims-based 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.

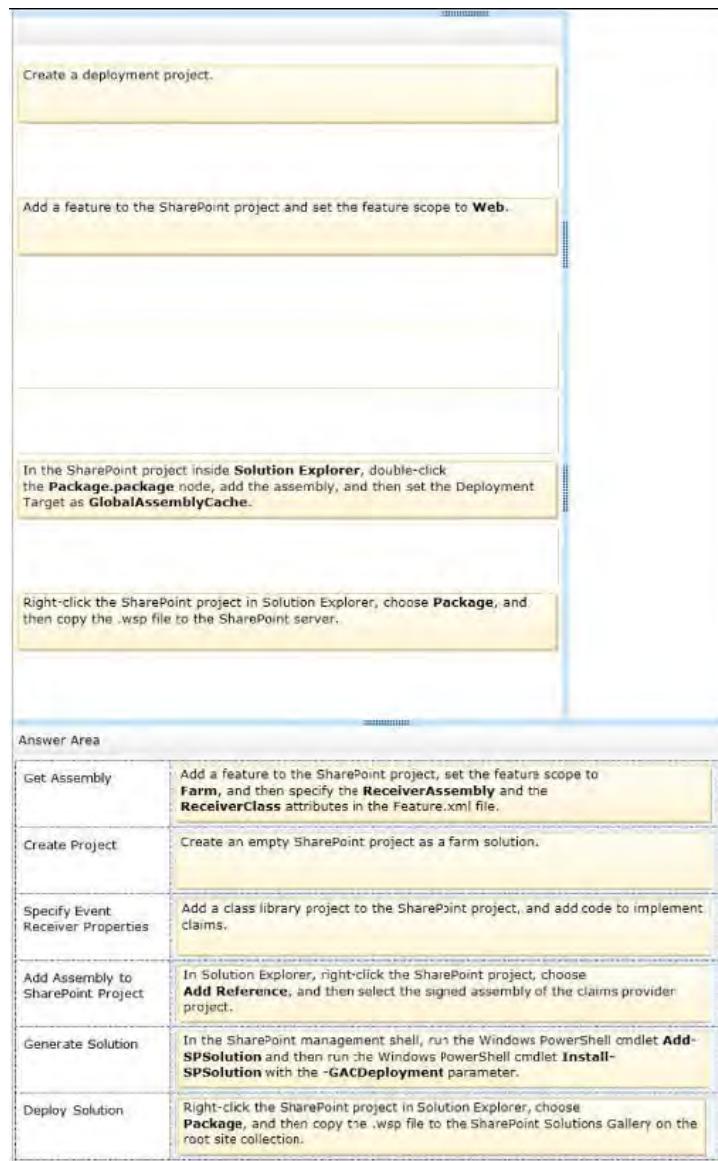
Right-click the SharePoint project in Solution Explorer, choose **Package**, and then copy the .wsp file to the SharePoint server.

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

**Answer Area**

Get Assembly	
Create Project	
Specify Event Receiver Properties	
Add Assembly to SharePoint Project	
Generate Solution	
Deploy Solution	

**Correct Answer:**



## Explanation

### Explanation/Reference:

Note:

Add Assembly to SharePoint Project:

The SPClaimProviderManager.AddClaimProvider method adds a claims provider to be used by the local farm.

Generate Solution:

Install and deploy the solution (that will automatically activate the "LDAPCP" farm-scoped feature):

Add-SPSolution -LiteralPath "PATH TO WSP FILE"

Install-SPSolution -Identity "LDAPCP.wsp" –GACDeployment

Deploy Solution:

When you save your site as a template, you create a Web Solution Package, or WSP. A WSP is a CAB file that uses the solution manifest. The solution that you create is stored in the solutions gallery for the SharePoint site collection. Once you save the template, a solution file (.wsp) is created and stored in the solutions gallery where you can download or activate the solution.

Reference: How to: Create a claims provider in SharePoint 2013

### QUESTION 14

DRAG DROP

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

Remove the Everyone group from the permissions and then add the PMO group with Read permission.

From Central Administration, select the **Apps** link and then open the Corporate Catalog site.

From Quick Launch, select the **Apps for SharePoint** link.

From Quick Launch, select the **Apps for Office** link.

Open the context menu, select the **Ellipsis** button, select the **Shared With** link, and then select the **Advanced** link.

Select the **Stop Inheriting Permissions** button.

Correct Answer:

Answer Area

From Central Administration, select the **Apps** link and then open the Corporate Catalog site.

From Quick Launch, select the **Apps for SharePoint** link.

Open the context menu, select the **Ellipsis** button, select the **Shared With** link, and then select the **Advanced** link.

Select the **Stop Inheriting Permissions** button.

Remove the Everyone group from the permissions and then add the PMO group with Read permission.

#### Explanation

##### Explanation/Reference:

Box 4: Stop Inheriting Permission

Click on the Stop Inheriting Permissions option. Click OK on the Message.



##### Box 5:

Example: Remove all the current users and groups (except for myself) and add three specific users. Use the Remove User Permissions to remove users and Grant Permissions to add users. You will see the below:

This library has unique permissions.

	Type	Permission Levels
Testing	User	Full Control
- Center	User	Edit
Document Library	User	Edit
	User	Edit

Reference: SharePoint 2013: Break Document Library Permissions Inheritance

#### QUESTION 15

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?

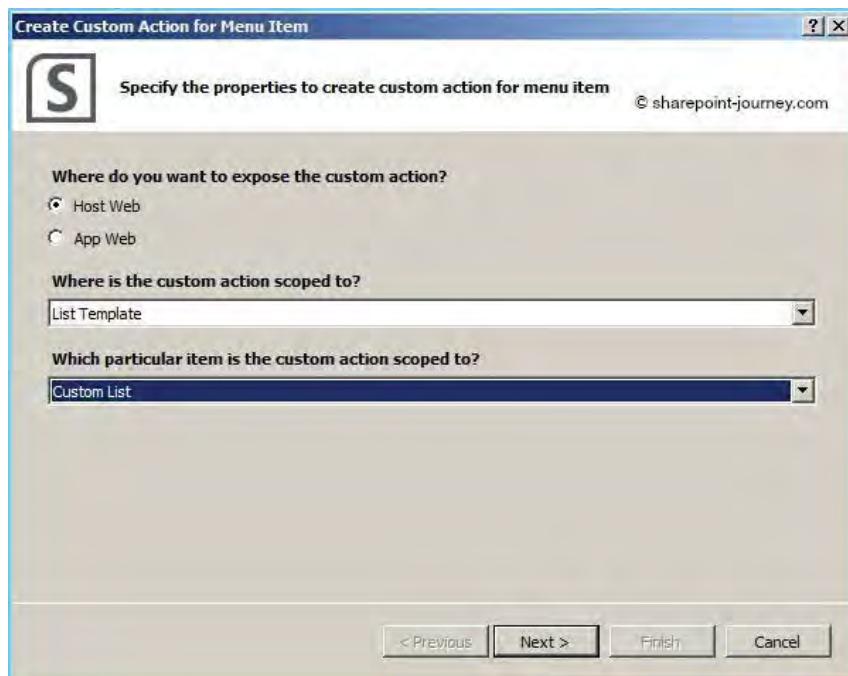
- Add an empty element to the SharePoint project. Add a <CustomAction> tag, set the Location element to EditControlBlock, and then use the <UrlAction> tag for a redirect to the custom page.
- Create a Windows Application and add a reference to Microsoft.SharePoint.Portal.CustomActions.dll and use the SPCustomActions class to add a custom action.
- Open the site in SharePoint Designer. Create a custom List Item Display Template and then apply it to the Products List View Web Part.
- 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:** C

**Explanation:**

#### Explanation/Reference:

- To add a menu item custom action feature to the app for SharePoint project Right-click the app for SharePoint project, and add a new Menu Item Custom Action item.
  - Select the host web to expose the custom action and choose a list template and custom list as custom action scope to then click on Next button.
  - Enter the menu item text you want to show and page in App where you want to redirect when the user selects the Menu item then click on the Finish button.
- Example:



Note: When you are creating an app for SharePoint, custom actions let you interact with the lists and the ribbon in the host web. A custom action deploys to the host web when end users install your app. Custom actions can open a remote webpage and pass information through the query string. There are two types of custom actions available for apps: Ribbon and Menu Item custom actions.

Reference: Custom actions in SharePoint 2013

**QUESTION 16**

**DRAG DROP**

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 taxonomy-based 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:**

The screenshot shows a 'Select and Place' interface. On the left, there is a list of code snippets:

- SPContext.Current.Web
- "http://sharepoint.local"
- new TaxonomySession(context, null)
- TaxonomySession.GetTaxonomySession(context)
- session
- session, ts => ts.TermStores
- GetTermSetsByTermLabel
- GetTermSetsByName

On the right, the 'Answer Area' contains the following C# code:

```
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))
    {
        ...
    }
}
```

**Correct Answer:**

The screenshot shows the 'Correct Answer' interface. The 'Answer Area' contains the completed C# code:

```
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))
    {
        ...
    }
}
```

**Explanation**

**Explanation/Reference:**

\*Box 1:

Example: //open context  
using (ClientContext context = new ClientContext("http://sharepoint.local"))  
etc.

\* Example (box 2-3)

```
private void CreateColorsTermSet(string siteUrl)
{
    ClientContext clientContext = new ClientContext(siteUrl);

    TaxonomySession taxonomySession = TaxonomySession.GetTaxonomySession(clientContext);
    clientContext.Load(taxonomySession,
        ts => ts.TermStores.Include(
            store => store.Name,
            store => store.Groups.Include(
                group => group.Name
            )
        );
}
```

```
clientContext.ExecuteQuery();
```

Box 4: GetTermSetsByName

SP.Taxonomy.TaxonomySession.getTermSetsByName Method

Gets all TermSet objects from all TermStore objects that have a name in the specified language.

Reference: Managed metadata and navigation in SharePoint 2013

**QUESTION 17**

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 <HideCustomActions> 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: D**

Explanation

**Explanation/Reference:**

If you designed a custom master page for your SharePoint 2010 and the ribbon is in your way, SharePoint has a built-in control that lets you hide it from anonymous users in few easy steps. Open and check-out your master page, find where your ribbon control starts or look for <WebPartPages:SPWebPartManager id="m" runat="Server"/>. Place this control below <Sharepoint:SPSecurityTrimmedControl runat="server" Permissions="AddAndCustomizePages">. Find where your ribbon control ends or look for <div id=s4-workspace> and place the closing control above it </SharePoint:SPSecurityTrimmedControl>. Save, check-in the master page and publish it to see the changes. From now on, only logged in users with the right permissions will be able to see the ribbon on the top.

Incorrect:

Not B: Permission should be set to AddAndCustomizePages not ManageSubWeb.

Reference: SharePoint, Hide the Ribbon from Anonymous Users <http://www.topsharepoint.com/hide-the-ribbon-from-anonymous-users>

**QUESTION 18**

DRAG DROP

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**

\$instance =

```
http://sharepoint.contoso.com/apps |  
where {$_.Title -eq 'TaskManager'}
```

Correct Answer:

**Answer Area**

\$instance =

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

#### Explanation

##### Explanation/Reference:

\* Get-SPAppInstance  
Use the Get-SPAppInstance cmdlet to get a collection of app instances that are installed on an SPWeb object.

\*Uninstall-SPAppInstance  
Use the Uninstall-SPAppInstance cmdlet to uninstall an instance of an app. This cmdlet is required to be run before a migration process.  
-----EXAMPLE-----

\$instance = Get-SPAppInstance -AppInstanceId \$instance.Id  
Uninstall-SPAppInstance -Identity \$spapp  
This example uninstalls an instance of an app.

Reference: Uninstall-SPAppInstance

#### QUESTION 19

DRAG DROP

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:

**Answer Area**

Hosting Option	Description
Autohosted	App needs to be written by using HTML, JavaScript, and PHP that accesses a MySQL database.
Provider-hosted	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.
	App will run on a third-party web hosting service with an ASP.NET platform.

Correct Answer:

Answer Area	
Hosting Option	Description
Autohosted	Provider-hosted
Provider-hosted	Autohosted
SharePoint-hosted	SharePoint-hosted
	Provider-hosted

### Explanation

#### Explanation/Reference:

Box 1, box 4: Provider-hosted apps

Provider-hosted apps for SharePoint include components that are deployed and hosted outside the SharePoint farm. They are installed to the host web, but their remote components are hosted on another server.

Box 2: Autohosted

With auto-hosted apps all Windows Azure and Windows Azure SQL Database components are provisioned for you when the app is installed and the Windows Azure Web Sites infrastructure handles load balancing and other important maintenance tasks for you.

Box 3: SharePoint-hosted

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.

Note: Apps in SharePoint

SharePoint 2013 app model has three types of hosting model.

- a. SharePoint Hosted Application.
- b. Auto Hosted Application.
- c. Provider Hosted Application.

Reference: Choose patterns for developing and hosting your app for SharePoint

### QUESTION 20

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: B

Explanation

#### Explanation/Reference:

Provider Hosted Application

Provider hosted apps are also a part of cloud hosting model, where app can be hosted on any remote web platform such as IIS server. And these apps are made available on deploying it on cloud i.e. using SharePoint online, Office365 site, or windows azure in case of Auto hosting.

It interacts with SharePoint 2013 by using one of the SharePoint client object models or its REST/OData-based web service. Depending on the scenario it gains authorization to SharePoint data using either the SharePoint 2013 implementation of the OAuth standard or a JavaScript cross-domain library.

Note: Apps in SharePoint

SharePoint 2013 app model has three types of hosting model.

- a. SharePoint Hosted Application.
- b. Auto Hosted Application.
- c. Provider Hosted Application.

Incorrect:

Not C: When you use the full-trust execution model, you deploy your assemblies to the global assembly cache on each Web front-end server and application server in the server farm. The SharePoint Web application process loads the assembly from the global assembly cache and your code runs with full trust--in other words, it runs without any code access security restrictions.

Reference: Step by step create provider hosted application using SharePoint 2013

### QUESTION 21

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

**Explanation**

**Explanation/Reference:**

In Microsoft SharePoint Foundation, one way to modify web.config settings is to use the SPWebConfigModification class of the Microsoft.SharePoint.Administration namespace, which allows you to dynamically register entities. These modifications are persisted in the configuration database where they function as a kind of virtual web.config that effectively serves as the final layer of the .config file stack for the SharePoint Foundation web application. The changes become effective when the SPWebService.ApplyWebConfigModifications method is called.

Reference: How to: Add and Remove Web.config Settings Programmatically

**QUESTION 22**

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

**Explanation**

**Explanation/Reference:**

Must use \_api/web/lists:

To retrieve all of the lists in a specific SharePoint site, you would make a GET request to http://<site url>/\_api/web/lists.

Incorrect:

Not B: The method must be GET (not POST).

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

**QUESTION 23**

**HOTSPOT**

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.)

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)
}
```

#### Explanation

##### Explanation/Reference:

Box 1: ..WorkItem Type()

You need to write a work-item timer job.

Box 2: ..BatchFetchLimit=50

For performance reasons, fewer than 50 documents at a time should be processed.

Box 3: ..ProcessWorkItem

For Work Item Timer Jobs you use the ProcessWorkItem method to execute your logic.

Reference: Processing items with Work Item Timer Jobs in SharePoint 2010

#### QUESTION 24

DRAG DROP

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

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.

**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.

### Explanation

#### Explanation/Reference:

Box 1: Verify and use the out-of-the-box workflows for the objective.

First try to use only out-of-the box workflows.

Box 2: Verify and use SharePoint Designer workflows without creating any custom activities in Visual Studio.

If that is not enough use SharePoint Designer workflows as well.

Box 3: Use Microsoft Visual Studio 2012 to create the workflow custom activities.

If custom activities are required then use Microsoft Visual Studio 2012 to create these activities.

Box 4: Use SharePoint Designer to create a workflow definition by using the activities.

Then use these activities in SharePoint Designer workflows.

Note:

\* SharePoint Designer can consume and implement custom actions that are created and deployed by using Visual Studio.

\* SharePoint 2013 supports two primary workflow development environments for authoring workflows: SharePoint Designer and Visual Studio.

\* Among the greatest advantages of the workflow framework in SharePoint 2013 is the ease with which information workers can use the no-code environment of SharePoint Designer to create rich and powerful workflows.

Reference: Develop SharePoint 2013 workflows using Visual Studio

### QUESTION 25

#### DRAG DROP

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 **ProcessEvent** method.

Select the event type in the SharePoint Customization wizard.

Correct Answer:

Answer Area

Add an item based on the Remote Event Receiver template.

Select the event type in the SharePoint Customization wizard.

Implement the **ProcessEvent** method.

#### Explanation

##### Explanation/Reference:

Note:

- \* To handle events that occur to items in apps for SharePoint
- 1. In Visual Studio, open **Solution Explorer**, and then choose the project node of the app for SharePoint.
- 2. (box 1) On the menu bar, choose **Project, Add New Item**.
- 3. (box 1) In the **Templates** pane, choose **Remote Event Receiver**, specify a name in the **Name** box, and then choose the **Add** button. The SharePoint Customization Wizard appears.
- 4. (box 2) On the **Choose Event Receiver Settings** page, choose an event receiver type, such as **List Item Events**.
- 5. Set the event source to a list whose events you want to handle, such as **Announcements**.
- 6. In the list of events to handle, select the check box next to each event that you want to handle, such as **An item was added**, and then choose the **Finish** button.  
A web application is created with a web service that contains a code file.
- 7. (box 3) In the code file for the web service, add code that will execute every time the events that you specified occur.

Reference: How to: Create a remote event receiver

#### QUESTION 26

DRAG DROP

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:

**Answer Area**

Column  
Elements  
FieldRef  
FieldRefs  
SiteColumn

```

<?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">
    < SiteColumn >
      < FieldRef ID="{8fb95db3-0e69-4232-8827-c5b3c6b35333}"
        DisplayName="Site Column A" Required="TRUE" Name="SiteColumnA" />
    </ SiteColumn >
  </ContentType>
</ Elements >

```

**Correct Answer:**

**Answer Area**

Column  
Elements  
FieldRef  
FieldRefs  
SiteColumn

```

<?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 >

```

#### Explanation

##### Explanation/Reference:

\* 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 27

DRAG DROP

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:**

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

**Correct Answer:**

```
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();
}
```

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

Box 1: ContentTypes("Document")

Box 2: "Tasks"

Box 3: "WF History"

Box 4: CreateWebContentTypeAssociation

\* SPWorkflowAssociation.CreateWebContentTypeAssociation method

Syntax: public static SPWorkflowAssociation CreateWebContentTypeAssociation (

    SPWorkflowTemplate baseTemplate,

    string name,

    string taskListName,

    string historyListName)

**QUESTION 28****HOTSPOT**

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.)

Hot Area:

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

Correct Answer:

Scope	Permission
<input type="checkbox"/> Search <input type="checkbox"/> Reporting <input type="checkbox"/> Enterprise Search <input type="checkbox"/> Enterprise Resources	<b>QueryAsUserIgnoreAppPrincipal</b>  <input type="checkbox"/> Read
<input type="checkbox"/> BCS <input type="checkbox"/> Tenant <input type="checkbox"/> Workflow <input type="checkbox"/> Site Collection	
<b>User Profiles</b>	
<input type="checkbox"/> Read <input type="checkbox"/> Write <input checked="" type="checkbox"/> Manage <input type="checkbox"/> Full Control	
<b>Web</b>	
<input type="checkbox"/> Search <input type="checkbox"/> Workflow <input type="checkbox"/> Social Feed <input checked="" type="checkbox"/> Taxonomy	<input type="checkbox"/> Read <input type="checkbox"/> Write <input checked="" type="checkbox"/> Manage <input type="checkbox"/> Full Control

#### Explanation

##### Explanation/Reference:

Box 1: Search

QueryAsUserIgnoreAppPrincipal

To provide proper permissions to have search in SharePoint hosted app, open the Appmanifest.xml and provide the permissions to search as scope and select the permission "QueryAsUserIgnoreAppPrincipal".

Box 2: BCS

Business Connectivity Services (BCS) need read as the app must be able to read product information from a custom SQL Server database by using an external list.

Box 3: Write

User Profiles scope require write as the app must be able to read from and write to the user profile.

Box 4: Manage

Web permissions should be manage as the app must be able to make changes to lists by using the minimum permissions necessary.

Box 5: Taxonomy

For taxonomy, only rights for Read and Write are available. Here read is fine as the app must be able to read enterprise keywords

Reference: App permissions in SharePoint 2013

#### QUESTION 29

DRAG DROP

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 = 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)
{
    ***
}

```

**Correct Answer:**

**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)
{
    ***
}

```

### Explanation

#### Explanation/Reference:

Box 1: ClientContext

Need this variable as is it used in line 2 (clientContext.Credentials = ...).

Box 2: CollListItem

Need this variable in the next line.

Box 3: Load

ClientRuntimeContext.Load retrieves the properties of the object from server to client.

Box 4: ExecuteQuery

ClientContext.ExecuteQuery executes the current set of data retrieval queries and method invocations.

Reference: ClientContext methods

#### QUESTION 30

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?

- 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.
- 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.
- 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.
- In the SharePoint project, add an Empty Element and then use the <HideCustomAction> tag to hide the ribbon.

**Correct Answer: C**

**Explanation**

#### Explanation/Reference:

If you designed a custom master page for your SharePoint 2010 and the ribbon is in your way, SharePoint has a built-in control that lets you hide it from anonymous users in few easy steps. Open and check-out your master page, find where your ribbon control starts or look for <WebPartPages:SPWebPartManager id="m" runat="Server"/>. Place this control below <Sharepoint:SPSecurityTrimmedControl runat="server" Permissions="AddAndCustomizePages">. Find where

your ribbon control ends or look for <div id=s4-workspace> and place the closing control above it </SharePoint:SPSecurityTrimmedControl>. Save, check-in the master page and publish it to see the changes. From now on, only logged in users with the right permissions will be able to see the ribbon on the top.

Incorrect:

Not A: Permission should be set to AddAndCustomizePages not ManageSubWeb.

Reference: SharePoint, Hide the Ribbon from Anonymous Users

### QUESTION 31

Adventure Works uses a web design firm to design the user interface for an upcoming toy sales website, 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

Explanation

Explanation/Reference:

Note:

\*

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

1. Browse to your publishing site.
2. In the upper-right corner of the page, choose **Settings**, and then choose **Design Manager**.
3. In Design Manager, in the left navigation pane, choose **Edit Master Pages**.
4. Choose **Convert an HTML file to a SharePoint master page**.
5. In the **Select an Asset** dialog box, browse to and select the HTML file that you want to convert.etc

E (not F): Let's say you created a new Master Page/Theme/CSS for your SharePoint site and want to apply them across your site (including all your subsites as well). This can be easily done from Site Settings -> Look & Feel -> Master Page.

B: Usually you'll set the master page as both default and custom master page,

Reference: How to: Convert an HTML file into a master page in SharePoint 2013; How to: Create a minimal master page in SharePoint 2013

### QUESTION 32

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

Explanation

Explanation/Reference:

Answer: A

\* Get-SPAppInstance

Use the Get-AppInstance cmdlet to get a collection of app instances that are installed on an SPWeb object.

\*Uninstall-SPAppInstance

Use the Uninstall-SPAppInstance cmdlet to uninstall an instance of an app. This cmdlet is required to be run before a migration process.

-----EXAMPLE-----

```
$instance = Get-SPAppInstance -AppInstanceId $instance.Id
```

```
Uninstall-SPAppInstance -Identity $app
```

This example uninstalls an instance of an app.

Incorrect:

Not B, not D: get-SPWebApplication

The Get-SPWebApplication cmdlet returns all Web applications that match the scope given by the Identity parameter. The Identity can be the name of the name, URL, or GUID of the Web application. If no Identity is specified, all Web applications are returned.

EXAMPLE 1-----

```
$w = Get-SPWebApplication http://sitename
```

This example gets the Web application for http://sitename and stores it in a variable.

Not C: Disable-SPFeature

The Disable-SPFeature cmdlet disables a SharePoint Feature at the given scope.

Reference: Uninstall-SPAppInstance

### QUESTION 33

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

Explanation

#### Explanation/Reference:

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 34

HOTSPOT

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.)

Hot Area:

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

Correct Answer:

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

Explanation

**Explanation/Reference:**

\* SharePoint supports four different permission scopes within the content database and tenancy:  
/ website

The website where the app is installed. Includes all children of this scope.

/ tenancy

/ site collection

/ list

\* Minimal permission would be read.

Note: For each scope, an app can have the following rights: Read, Write, Manage, FullControl

Reference: App permissions in SharePoint 2013

**QUESTION 35**

DRAG DROP

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
query1	Target 1: <input type="text"/>
SPLIST	Target 2: <input type="text"/>
SPLISTITEM	Target 3: <input type="text"/>
SPContext	Target 4: <input type="text"/>
ContentIterator	Target 5: <input type="text"/>
ProcessListItems	Target 6: <input type="text"/>

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
...	

#### Explanation

##### Explanation/Reference:

\* (Target 1, 4)

SPQuery.Query property

Syntax: public string Query { get; set; }

\* (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 36

##### DRAG DROP

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

#### Explanation

##### Explanation/Reference:

- \* (Target1) TokenHelper.TrustAllCertificates  
If you are using Visual Studio 2012, it adds 'TrustAllCertificates' in TokenHelper.cs by default.
- \* (target3) Tokenhelper.GetContextTokenFromRequest
- \* (Target2, Target4, target5) Tokenhelper.ReadAndValidateContextToken

Example:

```
string contextTokenString = TokenHelper.GetContextTokenFromRequest(Page.Request);
SharePointContextToken contextToken = TokenHelper.ReadAndValidateContextToken(contextTokenString, Request.Url.Authority);
*(Target6) TokenHelper.GetAccessToken
Example:
//Get user+app access token.
string accessToken =
    TokenHelper.GetAccessToken(contextToken, sharepointUrl.Authority).AccessToken;
```

#### QUESTION 37

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: B

Explanation

##### Explanation/Reference:

CSWP can be configured to "see" items anywhere in SharePoint.

Incorrect:

Not A: CQWP and related SPSiteDataQuery can only search within the current site collection.

Not C: For TaxonomySession you would have to write code. Not D: The CamlQuery class just specifies a query on a list.

Reference: Using the Content Search web part (and understanding SP2013 search)

#### QUESTION 38

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

Explanation

#### Explanation/Reference:

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 39

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

Explanation

#### Explanation/Reference:

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.

Reference: Choose patterns for developing and hosting your app for SharePoint

#### QUESTION 40

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

Explanation

#### Explanation/Reference:

Execute

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

Note: After you create the constructors, you must override the Execute method of the SPJobDefinition class and replace the code in that method with the code that your job requires.

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.

Reference: Creating Timer Jobs in SharePoint 2010 that Target Specific Services

#### QUESTION 41

DRAG DROP

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> .	

Explanation

**Explanation/Reference:**

- \* Create the stages Evaluation and approval
- \* But the Evaluation stage before the Approval stage.
- \* End each stage with a Transition to Stage.

Note: Microsoft has introduced the concept of stages. These are containers in the workflow that allow you to structure the workflow to flow from one stage to another. The use of stages mean that you can create a workflow very similar to a state machine workflow.

A stage can hold one or more workflow actions, and will also have only one Transition to stage area. The Transition to stage area defines how the workflow exits the stage after its actions have been processed. The stage can be configured to transition to another stage, or to end the workflow.

Example:

The screenshot shows a 'Stage' interface in SharePoint Designer. The title bar says 'Stage: My First Stage'. Below it is a text input field with placeholder '(Start typing or use the Insert group on the Ribbon.)'. At the bottom is a section titled 'Transition to stage' with placeholder '(Insert go-to actions with conditions for transitioning to the stage)'.

Reference: Workflow Changes in SharePoint Designer 2013

**QUESTION 42**

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:** B

**Explanation**

**Explanation/Reference:**

A Work Item Timer Job can be scheduled to run operations in SharePoint. A Work Item Timer Job is essentially a queue where you add list items that need to be processed. When the Work Item Timer Job runs, it pulls items from the queue and process the item. When complete, the item is removed from the queue (if you want) so it is not processed again.

Reference: ALL ABOUT SHAREPOINT WORK ITEM TIMER JOBS

**QUESTION 43**

DRAG DROP

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:

The screenshot shows a 'Select and Place' interface. On the left is a 'Actions' column containing six items in boxes:

- 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 **Change query** button.
- Build and save the query.
- Select the **Edit Web Part** link.

On the right is an 'Answer Area' column where users can drag and drop these actions.

**Correct Answer:**

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

#### Explanation

##### Explanation/Reference:

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 44

##### HOTSPOT

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**

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
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](#)

## Explanation

### Explanation/Reference:

\* 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 45

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

### Explanation

### Explanation/Reference:

Master Page - Use SharePoint Designer to add code to a master page when you want to code to be available on every page in a site. You can add the JavaScript inside of <SCRIPT> tags or link to a file that contains the JavaScript. Typically add your CSS just before the </HEAD> section and your JavaScript just before the </BODY> tag.

Reference: Adding JavaScript and CSS to SharePoint

### QUESTION 46

#### DRAG DROP

Contoso, Ltd. uses SharePoint for document sharing, task management, and workflows. Contoso, Ltd has a SharePoint portal with a URL of [intranet.contoso.com](http://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 = $siteScope | 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
\$siteScope = Get-SPSiteAdministration	Target 1: <input type="text"/> Code Segment
\$webScope = Start-SPAssignment	Target 2: <input type="text"/> Code Segment
\$webScope = End-SPAssignment	Target 3: <input type="text"/> Code Segment
Stop-SPAssignment \$webScope	Target 4: <input type="text"/> Code Segment
\$siteScope=End-SPAssignment	
Stop-SPAssignment \$siteScope	
Stop-SPServices \$siteScope	
\$siteScope = Start-SPAssignment	

Correct Answer:

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

## Explanation

### Explanation/Reference:

\* 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 47

DRAG DROP

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

#### Correct Answer:

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

#### Explanation

**Explanation/Reference:**

\* 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 48**

DRAG DROP

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	Answer Area	
<code>public override bool SupportsHierarchy</code>	Requirement 1 Property:	Code Segment
<code>protected override void FillClaimsForEntity()</code>	Requirement 1 Method:	Code Segment
<code>public override bool SupportsEntityInformation</code>	Requirement 2 Property:	Code Segment
<code>public override bool SupportsResolve</code>	Requirement 2 Method:	Code Segment
<code>protected override void FillSearch()</code>	Requirement 3 Property:	Code Segment
<code>internal static string SupportSearchResolve</code>	Requirement 3 Method:	Code Segment
<code>protected override void FillHierarchy()</code>		
<code>protected override void FillResolve()</code>		
<code>public override bool SupportsSearch</code>		
<code>protected override void CreateHierarchy()</code>		

**Correct Answer:**

Code Segments	Answer Area
<pre>protected override void FillClaimsForEntity()</pre> <pre>public override bool SupportsEntityInformation</pre>	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>
<pre>internal static string SupportSearchResolve</pre>	
<pre>protected override void CreateHierarchy()</pre>	

## Explanation

### Explanation/Reference:

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 SupportsSearch 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 49

### HOTSPOT

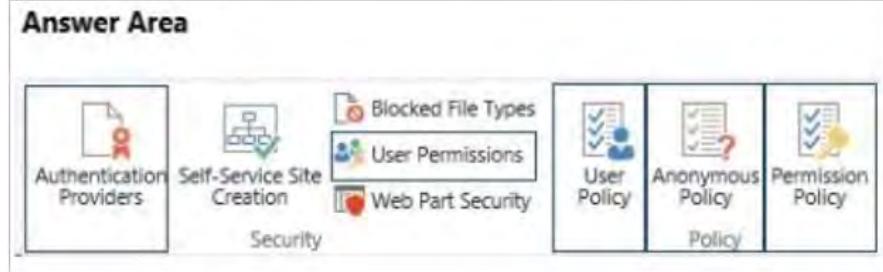
A web application that listens on port 80 has been created for Internet users to access your company's SharePoint site. The web application uses claims-based authentication.

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

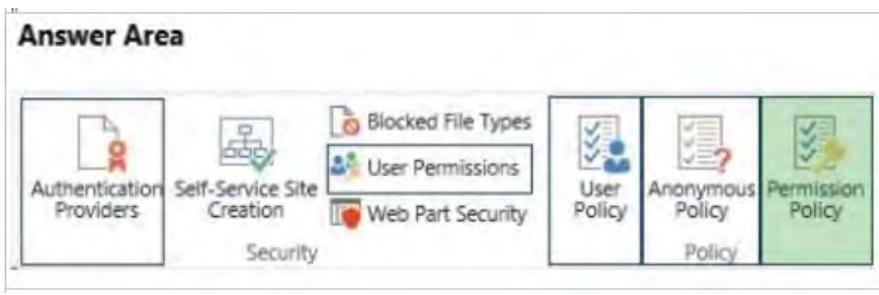
You need to enable anonymous access.

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:



Correct Answer:



#### Explanation

##### Explanation/Reference:

\* 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 50

DRAG DROP

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</Target 3>
  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	
<input type="checkbox"/> Column		Target 1:	<input type="checkbox"/> XML Element
<input type="checkbox"/> Elements		Target 2:	<input type="checkbox"/> XML Element
<input type="checkbox"/> Field		Target 3:	<input type="checkbox"/> XML Element
<input type="checkbox"/> SiteColumn		Target 4:	<input type="checkbox"/> XML Element
<input type="checkbox"/> Type		Target 5:	<input type="checkbox"/> 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

#### Explanation

##### Explanation/Reference:

\* 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 51

##### HOTSPOT

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					
Authentication Providers	Self-Service Site Creation	Security	Blocked File Types	User Permissions	Web Part Security
Policy	Policy	Policy	Policy	Policy	Policy
User Policy	Anonymous Policy	Permission Policy	User Policy	Anonymous Policy	Permission Policy

**Correct Answer:**

Answer Area					
Authentication Providers	Self-Service Site Creation	Security	Blocked File Types	User Permissions	Web Part Security
Policy	Policy	Policy	Policy	Policy	Policy
User Policy	Anonymous Policy	Permission Policy	User Policy	Anonymous Policy	Permission Policy

#### Explanation

##### Explanation/Reference:

\* For the unauthenticated users use the Anonymous policy.

**QUESTION 52**

DRAG DROP

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
"POST"	Target 1: "/_api/web/lists"
"/_vti_bin /web/lists"	Target 2: "GET"
"/_api/web/AllLists"	

**Explanation****Explanation/Reference:**\* `HttpWebRequest "/_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#

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

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

**QUESTION 53**

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:** C

**Explanation**

**Explanation/Reference:**

CSWP can be configured to "see" items anywhere in SharePoint.

Incorrect:

Not B, not D: CQWP and related SPSiteDataQuery can only search within the current site collection.

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.

Reference: Using the Content Search web part (and understanding SP2013 search)

**QUESTION 54**

DRAG DROP

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="0x0100C246DA2BB57D493D916BDD32671C57FA"
    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>
```

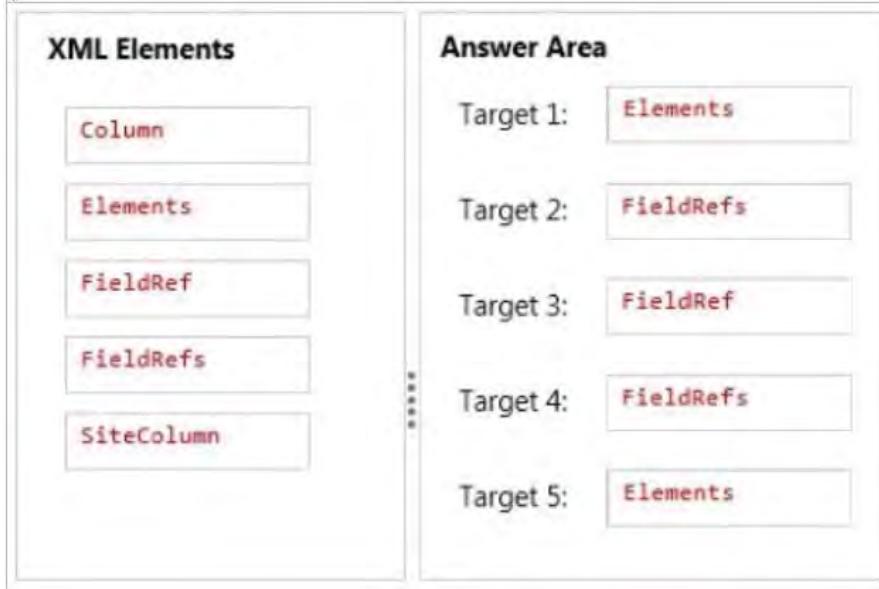
Which XML elements should you include in Target 1, Target 2, Target 3, Target 4 and Target 5 to complete the code? (To answer, drag the appropriate XML elements to the correct targets in the answer area. Each XML element may be used once, more than once, or not at all. You may need to drag the split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

Select and Place:

XML Elements	
<input type="checkbox"/> Column	
<input type="checkbox"/> Elements	
<input type="checkbox"/> FieldRef	
<input type="checkbox"/> FieldRefs	
<input type="checkbox"/> SiteColumn	

Answer Area	
Target 1:	<input type="checkbox"/> XML Element
Target 2:	<input type="checkbox"/> XML Element
Target 3:	<input type="checkbox"/> XML Element
Target 4:	<input type="checkbox"/> XML Element
Target 5:	<input type="checkbox"/> XML Element

**Correct Answer:**



### Explanation

#### Explanation/Reference:

\* 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

DRAG DROP

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

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();	

#### Explanation

##### Explanation/Reference:

\* 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

##### HOTSPOT

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
<b>Create List Item</b>
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
<b>Start a task process</b>

Correct Answer:

## Answer Area

Set Workflow Status
Set Workflow Variable
<b>List Actions</b>
Check In Item
Check Out Item
Copy Document
<b>Create List Item</b>
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
<b>Start a task process</b>

## Explanation

### Explanation/Reference:

- \* 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 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

Explanation

### Explanation/Reference:

Modification Forms

Modifications are options you present to users to change the workflow as it's running on an item. You can then create modification forms that enable users to specify the parameters of the modification.

Note:

Four types of forms can be used in a workflow: association, initiation, task, and modification.

Incorrect:

Not D: Association and Initialization Forms

Association and initialization forms are displayed for users to fill out before any workflow is actually started. You can use these forms to enable users to set parameters and other information for the workflow before it starts.

Reference: Workflow Forms Overview

### 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 branching capability.  
Which shape should you use?

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

**Correct Answer:** B

**Explanation**

**Explanation/Reference:**

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

**QUESTION 59**

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

**Explanation**

**Explanation/Reference:**

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

siteCollection.Features.Add([guid\_of\_yourfeature])

**F: To enable sandboxed solutions by using Central Administration**

1. Verify that you have the following administrative credentials:
2. On the home page of the Central Administration Web site, in the System Settings section, click Manage services on server.
3. On the Services on Server page, in the Server box, select the server on which you want to enable sandboxed solutions.
4. In the **Microsoft SharePoint Foundation Sandboxed Code Service** row, in the **Action** column, click **Start**.

**QUESTION 60**

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, 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))
    {
        SPRibbon.GetCurrent(this.Page).CommandUIVisible = true;
    }
    else
    {
        SPRibbon.GetCurrent(this.Page).CommandUIVisible = false;
    }
}
private bool UserHasPermissions(SPUser sPUser)
```

Then place the control in the master page.

- 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. Open the current site master page in SharePoint Designer, find a div tag with the s4-ribbonrow ID, and then set the style attribute to **display:none**.

- D. 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.

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

**Correct Answer: A**

**Explanation**

**Explanation/Reference:**

The property CommandUIVisible shows or hides the ribbon section at the top of the application page.

Incorrect:

Not B: Permission should be set to AddAndCustomizePages not ManageSubWeb.

Reference: SharePoint, Hide the Ribbon from Anonymous Users  
<http://www.topsharepoint.com/hide-the-ribbon-from-anonymous-users>

**QUESTION 61**

**DRAG DROP**

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 taxonomy-based navigation.

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

You have the following code.

```
int lcid = Thread.CurrentThread.CurrentCulture.LCID;
ClientContext context = new ClientContext(Target 1);
TaxonomySession session = Target 2;
context.Load(Target 3);
context.ExecuteQuery();
TermStore store = session.TermStores.FirstOrDefault();
if (store != null)
{
    foreach (TermSet ts in store.Target 4("Navigation",lcid))
    {
        ...
    }
}
```

Which code segment should you include in Target 1, Target 2, Target 3 and Target 4 to complete the code? (To answer, drag the appropriate code segment 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
SPContext.Current.Web		Target 1: Code Segment
"http://sharepoint.local"		Target 2: Code Segment
new TaxonomySession(context, null)		Target 3: Code Segment
TaxonomySession.GetTaxonomySession(context)		Target 4: Code Segment
session		
session, ts => ts.TermStores		
GetTermSetsByTermLabel		
GetTermSetsByName		

Correct Answer:

Code Segments		Answer Area
SPContext.Current.Web		Target 1: "http://sharepoint.local"
		Target 2: TaxonomySession.GetTaxonomySession(context)
new TaxonomySession(context, null)		Target 3: session, ts => ts.TermStores
		Target 4: GetTermSetsByName
session		
GetTermSetsByTermLabel		

## Explanation

### Explanation/Reference:

Explanation:

\*Box 1:

Example: //open context  
using (ClientContext context = new ClientContext("http://sharepoint.local"))  
etc.

\* Example (box 2-3)

```
private void CreateColorsTermSet(string siteUrl)
{
    ClientContext clientContext = new ClientContext(siteUrl);

    TaxonomySession taxonomySession = TaxonomySession.GetTaxonomySession(clientContext);
    clientContext.Load(taxonomySession,
        ts => ts.TermStores.Include(
            store => store.Name,
            store => store.Groups.Include(
                group => group.Name
            )
        );
    clientContext.ExecuteQuery();
```

Box 4: GetTermSetsByName

SP.Taxonomy.TaxonomySession.getTermSetsByName Method

Gets all TermSet objects from all TermStore objects that have a name in the specified language.

Reference: Managed metadata and navigation in SharePoint 2013

### QUESTION 62

You create a branding package for Contoso, Ltd. You export the design package from the development environment. The solution you build uses custom query rules and result types. You activate the following features:

- SharePoint Server Publishing Infrastructure
- Search Config Data Content Types
- Search Config Site Columns
- Search Config Template

You import the package into the production environment. You observe that the search configuration did not import properly, and some images are missing.

You need to ensure that search and branding work properly on the production server.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Check in and publish all design assets. Export the package.
- B. Import the package. Check in and publish all design assets.
- C. On the development server, activate the Search Config List Instance feature. Export the design package.
- D. On the production server, activate the Search Config List Instance feature. Import the design package.

**Correct Answer:** BC

**Explanation**

**Explanation/Reference:**

\* Search Config List Instance Features

Provisions a list to enable the import and export of Search Configurations.

**QUESTION 63**

DRAG DROP

You are using SharePoint Designer 2013 to develop a no-code customization.

You need to choose the correct controls to use for each feature that you implement.

Which controls should you implement? To answer, drag the appropriate control to the correct feature or features. Each control 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:**

Controls	Answer Area	Control
Feature	Control	Control
Data View	a live, customizable view of a data source that can be edited through a browser	Control
Related Item View	a hierarchy of connected lists	Control
Web Part	a modular unit of functionality for a page	Control
List Form	a control for displaying, editing, and adding items to a list or library	Control
Custom List Form	a control for reorganizing items in a list	Control
Item Form		Control

**Correct Answer:**

Controls	Answer Area	Control
Feature	Control	Control
	a live, customizable view of a data source that can be edited through a browser	Data View
	a hierarchy of connected lists	Related Item View
	a modular unit of functionality for a page	Web Part
Item Form	a control for displaying, editing, and adding items to a list or library	List Form
	a control for reorganizing items in a list	Custom List Form

**Explanation**

**Explanation/Reference:**

Explanation:

\* A Data View is a live, customizable view of a data source from a SharePoint site.

\* A new Column type "Related Items" has been introduced in SharePoint 2013. This is a very useful column from a business perspective. After you create an item you can simply add a reference to another item or a document in any list/library as a related entity to this item using Related Items column.

\* Using web parts, you can modify the content, appearance, and behavior of pages of a SharePoint site by using a browser. Web parts are server-side controls that run inside a web part page: they're the building blocks of pages that appear on a SharePoint site.

\* SharePoint lists and libraries contain list forms that allow users to display, edit, and add items to a list or library.

\* In a custom list form, you can show or hide certain fields, reorganize those fields, change the layout of the form, add formatted text and graphics, and ultimately, change the XSL, HTML, or ASP used by the form. You can only perform these tasks by creating a custom list form in SharePoint Designer.

Reference: Customize Data Views and forms using SharePoint Designer  
<https://support.office.com/en-us/article/Customize-Data-Views-and-forms-using-SharePoint-Designer-4201233c-ce24-42c2-9f2a-31f202c440cc>

**QUESTION 64**

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?

- 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.
- Open the site in SharePoint Designer. From Master Pages select the JavaScript files to modify them.
- Open the site in SharePoint Designer. From All Files, double-click the \_private folder and then select the JavaScript folder. Create a folder. Modify the JavaScript files by using Microsoft Notepad.
- Open the site in SharePoint Designer. From Master Pages, download the JavaScript files, modify them by using Microsoft Notepad, and then upload them after the changes.

**Correct Answer:** B

**Explanation**

**Explanation/Reference:**

Publish and apply design

Most assets used by your design, such as images, HTML, CSS, and JavaScript files, will reside in the Master Page Gallery. The Master Page Gallery is a SharePoint document library that by default has versioning turned on, which creates major and minor (draft) versions each time you edit a file.

Reference: Master pages, the Master Page Gallery, and page layouts in SharePoint 2013  
<https://msdn.microsoft.com/EN-US/library/office/dn205271.aspx>

**QUESTION 65**

**DRAG DROP**

You administer the SharePoint environment for a company. You create a SharePoint application to manage budgets and expenses. The application requires access to all site collections and resources.

You need to package and publish the budget and expenses app.

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
Register the application with Azure Access Control Service.	
Publish the remote app component, and install the app component to SharePoint.	
Register the application with the SharePoint farm's App Management Service.	
Add the certificate serial number to the application's web.config and TokenHelper files.	
Configure the remote web server with a trusted certificate.	

**Correct Answer:**

Actions	Answer Area
Register the application with Azure Access Control Service.	Register the application with the SharePoint farm's App Management Service.
	
	
	
	Configure the remote web server with a trusted certificate.
	
	Add the certificate serial number to the application's web.config and TokenHelper files.
	
	Publish the remote app component, and install the app component to SharePoint.
	

**Explanation**

**Explanation/Reference:**

Explanation:

Step1: Before you can publish the app, it has to be registered with the SharePoint farm's app management service.

Step 2: Configure the remote web server with the certificate

Step 3: Configure SharePoint to use the certificate

Modify the web.config file

Modify the TokenHelper file

Step 4: Use the Visual Studio wizards to package your remote web application and app for SharePoint for publishing

Reference: Package and publish high-trust apps for SharePoint 2013  
<https://msdn.microsoft.com/en-us/library/office/jj860570.aspx>

**QUESTION 66**

DRAG DROP

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:

Hosting Options	Answer Area	
Provider-hosted		
SharePoint-hosted		
	<p>App needs to be written by using HTML, JavaScript, and PHP that accesses a MySQL database.</p>	Hosting Option
	<p>App will be written by using HTML, JavaScript, and Web Parts.</p>	Hosting Option
	<p>App will run on a third-party web hosting service with an ASP.NET platform.</p>	Hosting Option

Correct Answer:

Hosting Options	Answer Area	
Provider-hosted		
SharePoint-hosted		
	<p>App needs to be written by using HTML, JavaScript, and PHP that accesses a MySQL database.</p>	Provider-hosted
	<p>App will be written by using HTML, JavaScript, and Web Parts.</p>	SharePoint-hosted
	<p>App will run on a third-party web hosting service with an ASP.NET platform.</p>	Provider-hosted

**Explanation**

**Explanation/Reference:**

- \* PHP requires the provider-hosted option.
- \* For Apps with just HTML, JavaScript and Web Parts SharePoint-hosted works fine.
- \* Server-sided scripts, like ASP.net, requires the Provider-hosted option.

Reference: Choose patterns for developing and hosting your app for SharePoint

<https://msdn.microsoft.com/en-us/library/office/fp179887.aspx>

**QUESTION 67**

You are developing a SharePoint solution for a government agency. The solution will include high-trust provider hosted apps.

You need to implement the solution.

Where should you host the app remote components?

- A. a SharePoint Online farm
- B. a Windows Azure Web Role
- C. an on-premises web app remote to the SharePoint farm
- D. the Office Store
- E. an on-premises SharePoint farm

Correct Answer: C

Explanation

**Explanation/Reference:**

A high-trust app for SharePoint is primarily intended for use in an on-premises environment. The high-trust app cannot be installed to Microsoft SharePoint Online, and the remote components are typically installed on premises, too, within the corporate firewall. Thus, the instances of the app for SharePoint are specific to each individual company.

High-trust apps require some configuration on the SharePoint farm and on the server hosting the remote web application.

Reference: Create high-trust apps for SharePoint 2013  
<https://msdn.microsoft.com/en-us/library/office/fp179901.aspx>

#### QUESTION 68

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. On-premises service
- B. App Deployment service
- C. Site Subscriptions Settings service
- D. Secure Store service

Correct Answer: C

Explanation

#### Explanation/Reference:

Apps rely on the App Management and Microsoft SharePoint Foundation Subscription Settings service applications. These service applications use the multi-tenancy features to provide app permissions and create the subdomains for apps.

Note: Deployed services are named service applications. A service application provides a resource that you can share across sites in a farm or sometimes across multiple farms, and users can access them through a hosting web application. Service applications are associated to web applications by service application connections.

Reference: Configure an environment for apps for SharePoint (SharePoint 2013)  
<https://technet.microsoft.com/en-us/library/fp161236.aspx>

#### QUESTION 69

HOTSPOT

You develop a SharePoint app that companies use to track and submit employee expenses.

You must create two versions of the app. VersionA is highly customized for a specific client. VersionB has reduced functionality and must be available to the general public.

You need to publish the apps.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Hot Area:

Answer Area	Publishing requirement	Yes	No
	You must publish VersionA in the App catalog.	<input type="radio"/>	<input checked="" type="radio"/>
	You must publish VersionB in the App catalog.	<input checked="" type="radio"/>	<input type="radio"/>
	You add licensing requirements to VersionB. You must publish VersionB to the SharePoint store.	<input type="radio"/>	<input checked="" type="radio"/>

Correct Answer:

Answer Area	Publishing requirement	Yes	No
	You must publish VersionA in the App catalog.	<input checked="" type="radio"/>	<input type="radio"/>
	You must publish VersionB in the App catalog.	<input type="radio"/>	<input checked="" type="radio"/>
	You add licensing requirements to VersionB. You must publish VersionB to the SharePoint store.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation

#### Explanation/Reference:

Explanation:

You've finished developing your app for SharePoint—the final step is making that app available to your users. You can do this by publishing the app to one of two places:

\* The public Office Store. Publish your app to the Office Store to make the app publicly available, so that it can be acquired by users of any SharePoint deployment.

When you upload your app for publication on the Office Store, you can choose the terms of the license you want to offer users when they download it.

\* An internal organization app catalog. Publish your apps to an internal organization app catalog, hosted on your SharePoint deployment, to make them available to users with access to that SharePoint deployment.

Reference: Publish apps for SharePoint  
<https://msdn.microsoft.com/en-us/library/office/jj164070.aspx>

**QUESTION 70**

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. 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.
- D. 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.

**Correct Answer:** C

**Explanation**

**Explanation/Reference:**

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 71**

A company uses SharePoint as its collaboration platform.

The SharePoint site collection has many inactive sites.

You need to identify the inactive sites in each web application of the farm by using Windows PowerShell scripts.

Which property should you evaluate?

- A. \$site.DeadWebNotificationCount
- B. \$site.ExpirationDate
- C. \$site.CertificationDate
- D. \$site.LastContentModifiedDate
- E. \$site.CurrentResourceUsage

**Correct Answer:** D

**Explanation**

**Explanation/Reference:**

How to find Most Active SharePoint Site Collections?

Well, SPSite object has LastContentModifiedDate property, why don't we use it? Here is the nifty PowerShell script to find Most active Site collections based on content modified date. In a reverse, this can be used to find all In-active site collections also.

```
5
Add-PSSnapin Microsoft.SharePoint.PowerShell -ErrorAction SilentlyContinue
```

```
Get-SPWebApplication "https://sharepoint.company.com" | Get-SPSite -Limit All | foreach {
Write-Host $_.URL $_.LastContentModifiedDate
}
```

Reference: Find Active Inactive Site Collections in SharePoint  
<http://www.sharepointdiary.com/2012/12/find-active-inactive-site-collections.html>

**QUESTION 72**

You need to create a set of workflows for a company.

The tool that creates the workflows has the following requirements:

- The tool should allow for rapid development.
- The tool should have the ability to deploy the workflow to SharePoint.
- A workflow that is designed for one list or library should be re-usable by another list or library.
- The designer should be able to create the workflow by using a graphical interface without the need to write code.

You need to recommend a tool for creating the workflows.

Which tool would you recommend?

- A. SharePoint Designer
- B. Visio
- C. Napa
- D. InfoPath

**Correct Answer:** A

**Explanation**

**Explanation/Reference:**

To create a workflow based on the SharePoint 2013 Workflow platform

1. Click the Workflows node in the Navigation pane.
2. Click the List Workflow drop-down in the New section of the ribbon, as shown in the figure.
3. Select the list that you want to associate with the new workflow.
4. On the Create List Workflow dialog box, enter a name and description for the workflow and then make sure that the Platform Type is set to SharePoint

2013 Workflow, as shown in the figure.

5. Click OK to create the workflow.

Now that the workflow is created, you can add Actions, Conditions, Stages, Steps, and Loops to build your workflow. These workflow components are available in the ribbon of SharePoint Designer 2013, as shown in the figure.

Incorrect:

Not C: Napa does not support Workflow design through a graphical interface.

Reference: Creating a workflow by using SharePoint Designer 2013 and the SharePoint 2013 Workflow platform  
<https://msdn.microsoft.com/en-us/library/office/jj554671.aspx>

#### QUESTION 73

DRAG DROP

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:

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

Correct Answer:

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

#### Explanation

##### Explanation/Reference:

Explanation:

Box 1: Verify and use the out-of-the-box workflows for the objective.

First try to use only out-of-the box workflows.

Box 2: Verify and use SharePoint Designer workflows without creating any custom activities in Visual Studio.

If that is not enough use SharePoint Designer workflows as well.

Box 3: Use Microsoft Visual Studio 2012 to create the workflow custom activities.

If custom activities are required then use Microsoft Visual Studio 2012 to create these activities.

Box 4: Use SharePoint Designer to create a workflow definition by using the activities.

Then use these activities in SharePoint Designer workflows.

Note:

\* SharePoint Designer can consume and implement custom actions that are created and deployed by using Visual Studio.

\* SharePoint 2013 supports two primary workflow development environments for authoring workflows: SharePoint Designer and Visual Studio.

\* Among the greatest advantages of the workflow framework in SharePoint 2013 is the ease with which information workers can use the no-code environment of SharePoint Designer to create rich and powerful workflows.

**QUESTION 74**

You are developing a site-provisioning engine for a company. You create a site request page that employees use to specify the site template, title, and URL for a site. The site request page stores site requests in a list named Site Requests that is at the root of the site collection. You configure an approval workflow for the list.

Site creation must start at 3:00 AM each day. You must create sites in batches of no more than 10 sites. You must not create sites until they are approved.

You need to create the site-provisioning engine.

Which two actions would you perform? Each correct answer presents part of the solution.

- A. Create an ItemUpdated event receiver for the Site Requests list. Initiate site provisioning if the value of the ModerationInformation property is set to the value SPModerationStatusType.Approved.
- B. Create a new timer job that derives from SPWorkItemJobDefinition. Schedule the timer job to run at 3:00 AM.
- C. Create a new timer job that derives from SPJobDefinition. Schedule the timer job to run at 3:00 AM.
- D. Create an ItemAdded event receiver for the Site Requests list. Initiate site provisioning if the value of the ModerationInformation property is set to the value SPModerationStatusType.Approved.
- E. Create an ItemUpdated event receiver for the Site Requests list. Create a new work item if the value of the ModerationInformation property is set to the value SPModerationStatusType.Approved.

**Correct Answer:** AB

**Explanation**

**Explanation/Reference:**

A: Site provision only initiated if it is approved.

B: A Work Item Job can be scheduled to run operations in SharePoint. A Work Item Timer Job is essentially a queue where you add list items that need to be processed. When the Work Item Timer Job runs, it pulls items from the queue and process the item.

Incorrect:

Not C: An SP Job would not be able to process items from a queue.

Reference: All About Sharepoint Work Item Timer Jobs

<http://www.ericgregorich.com/blog/2014/1/25/using-work-item-timer-jobs-in-sharepoint>

**QUESTION 75**

**HOTSPOT**

A company develops a SharePoint app that employees use to submit expense reports. Employees can approve their own expenses for purchases less than \$100. For expenses greater than \$100, the app will authenticate both itself and the user before approval is requested.

The expense reporting app includes the following code. Line numbers are included for reference only.

```
01 string contextTokenString = TokenHelper.GetContextTokenFromRequest(Request);
02 if (contextTokenString != null)
03 {
04     SharePointContextToken contextToken = TokenHelper.ReadAndValidateContextToken(contextTokenString,
Request.Url.Authority);
05     Uri sharepointUrl = new Uri(Request.QueryString["SPHostUrl"]);
06     string accessToken01 = TokenHelper.GetAccessToken(contextToken, sharepointUrl.Authority).AccessToken;
07     ClientContext clientContext = TokenHelper.GetClientContextWithAccessToken(sharepointUrl.ToString(),
accessToken01);
08     string accessToken02 = TokenHelper.GetAppOnlyAccessToken(contextToken.TargetPrincipalName,
sharepointUrl.Authority, contextToken.Realm).AccessToken;
09 }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

**Hot Area:**

Answer Area		Yes	No
The variable accessToken01 is used to retrieve the token for the User+app authorization policy type.		<input type="radio"/>	<input checked="" type="radio"/>
The variable accessToken02 is used to retrieve the token for the User+app authorization policy type.		<input checked="" type="radio"/>	<input type="radio"/>
The TokenHelper class can be used to implement User-only authorization.		<input checked="" type="radio"/>	<input type="radio"/>

**Correct Answer:**

**Answer Area**

	Yes	No
The variable accessToken01 is used to retrieve the token for the User+app authorization policy type.	<input type="radio"/>	<input checked="" type="radio"/>
The variable accessToken02 is used to retrieve the token for the User+app authorization policy type.	<input checked="" type="radio"/>	<input type="radio"/>
The TokenHelper class can be used to implement User-only authorization.	<input checked="" type="radio"/>	<input type="radio"/>

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

\* Token01 is used to retrieve the token for the User authorization policy only.

\* Token02 is used to retrieve the token for the User+App authorization policy.

\* Token01 is of the TokenHelper class. Token01 is used to retrieve the token for the User authorization policy only.

**QUESTION 76**

Contoso, Ltd., uses SharePoint to manage projects and collaborate with a third-party contractor. The contractor stores employee account information in a MySQL database that the contractor manages.

You must grant the contractor access to certain SharePoint sites. You must not add the contractor's employees to the Contoso Active Directory Domain Services domain.

You need to implement a solution to authenticate the contractor's employees with SharePoint.

What should you do?

- A. Create an empty project as a sandboxed solution. Implement a custom claims provider.
- B. Create an empty project as a farm solution. Implement a custom claims provider.
- C. Create an empty project as a farm solution. Implement a custom membership provider.
- D. Create an empty project as a deployment solution. Implement a custom membership provider.

**Correct Answer: B****Explanation****Explanation/Reference:**

We need to setup the web application to use claims authentication and then implement a custom membership provider.

Reference: Is it possible to store SharePoint users in a MySQL database?

<http://stackoverflow.com/questions/19119776/is-it-possible-to-store-sharepoint-users-in-a-mysql-database>

**QUESTION 77****HOTSPOT**

A company uses SharePoint for project organization and collaboration with contractors. Contractors can download each of the following SharePoint apps:

App	Description
Purchase request	a tool that allows contractors to submit purchase requests under \$100 to the company for approval
Contractor information	detailed information about the contractors that the company works with

The apps have the following requirements:

- The purchase request app must approve all purchases without user authentication.
- The contractor information app must display only information the current user is authorized to view.

You need to configure authorization for the apps.

Which authorization types should you use? To answer, select the appropriate authorization type in each list in the answer area.

**Hot Area:**

**Answer Area**

App	Authorization Type
Purchase request	<input type="button" value="▼"/> App-only App+user User-only
Contractor information	<input type="button" value="▼"/> App-only App+user User-only

Correct Answer:

**Answer Area**

App	Authorization Type
Purchase request	<input checked="" type="button" value="▼"/> App-only App+user User-only
Contractor information	<input checked="" type="button" value="▼"/> App-only <input checked="" type="button" value="▼"/> App+user User-only

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

Explanation:

\* App-only policy—When the app-only policy is used, SharePoint checks only the permissions of the app principal. Authorization check succeeds only if the current app has sufficient permissions to perform the action in question, regardless of the permissions of the current user (if any).

\* User+app policy—When the user+app policy is used, SharePoint checks the permissions of both the user and the app principal. Authorization checks succeed only if both the current user and the app have permissions to perform the action in question.

Incorrect:

User-only policy— When the user-only policy is used, SharePoint checks only the permissions for the user. SharePoint uses his policy is enforced is when the user is accessing resources directly without using an app. (This policy was always used in SharePoint 2010.)

Reference: App authorization policy types in SharePoint 2013  
<https://msdn.microsoft.com/en-us/library/office/fp179892.aspx>

**QUESTION 78**

You are developing a SharePoint solution for a company. You create one site collection for each department. Sites may use data from internal or external web service endpoints. You are developing an application that allows site owners to add or change web service endpoints.

The application must run in the context of the site owner.

You need to complete the application.

What should you do?

- A. Use the SPWebConfigModification class to add a list of web service endpoint URLs to the web.config file.
- B. Add a property named WebSvcEndpoint to the SPSite.Properties property bag. Store a web service endpoint URL as a value.
- C. Add a property named WebSvcEndpoint to the SPWeb.AllProperties property bag. Store a web service endpoint URL as a value.
- D. Add a list of web service endpoint URLs to the SPFarm.Properties hashtable.

Correct Answer: A

Explanation

**Explanation/Reference:**

The SPWebConfigModification class holds modifications that are made to the web.config.

Each endpoint supported by your WCF service application must be defined in the web.config settings for the application.

Reference: Using Service Endpoints

[https://msdn.microsoft.com/en-us/library/office/ee535060\(v=office.14\).aspx](https://msdn.microsoft.com/en-us/library/office/ee535060(v=office.14).aspx)

**QUESTION 79**

DRAG DROP

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
ListHelper	Target 1: Code Segment
SecureAgent	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
ListHelper	Target 1: TokenHelper
SecureAgent	Target 2: contextTokenStr
TokenHelper	Target 3: TokenHelper
GetAccessToken	Target 4: TokenHelper
contextTokenStr	Target 5: contextTokenStr
	Target 6: GetAccessToken

#### Explanation

##### Explanation/Reference:

\* (Target1) TokenHelper.TrustAllCertificates

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

\* (target3) Tokenhelper.GetContextTokenFromRequest

\* (Target2, Target4, target5)Tokenhelper.ReadAndValidateContextToken

Example:

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

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

\*(Target6) TokenHelper.GetAccessToken

Example:

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

```
string accessToken =
```

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

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