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A Composite Solution With Just One Click

# Microsoft

## 70-517 PRACTICE EXAM

Recertification for MCSD: SharePoint Applications

## TOTAL QUESTIONS: 218/11 Case Study

### Question: 1

#### DRAG DROP

You connect to a front-end web server in a SharePoint farm for a company named Contoso, Ltd.

You start the SharePoint Management Shell by using an account that has administrator permissions for the user-profile store. You use Windows PowerShell to create a User Profile property. You add the profile type and sub type to the User Profile property.

You run the following Windows PowerShell cmdlets:

```
$ns | add-types "Microsoft.Office.Server.UserProfiles"
$site = Get-SPSite "https://internal.contoso.com"
$ctx = Get-SPServiceContext($site)
```

How should you complete the relevant Windows PowerShell cmdlets? (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.)

<div style="background-color: #ffffcc; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;">GetProfileSubType</div> <div style="background-color: #ffffcc; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;">GetProfileTypeProperties</div> <div style="background-color: #ffffcc; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;">GetPropertyByName</div> <div style="background-color: #ffffcc; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;">ProfilePropertyManager</div> <div style="background-color: #ffffcc; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;">UserProfileConfigManager</div>	<div style="background-color: #e0e0ff; border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;">Answer Area</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$mgr1 = new \$ns.</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$mgr2 = \$mgr1.</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$mgr3 = \$mgr2.GetCoreProperties()</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$mgr4 = \$mgr2.</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>(\$ns.ProfileType::User)</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$mgr5 = \$ns.ProfileSubTypeManager::Get(\$ctx)</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$profileName = \$ns.ProfileSubtypeManager::GetDefaultProfileName</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$ns.ProfileType::User</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$type1 = \$mgr5.</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$mgr6 = \$type1.Properties</pre> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <pre>\$prop1 = \$mgr6.</pre> </div>
--	--

**Answer:**

```

$mgr1 = new $ns. UserProfileConfigManager ($ctx)
$mgr2 = $mgr1. ProfilePropertyManager

$mgr3 = $mgr2.GetCoreProperties()
GetProfileTypeProperties

$mgr4 = $mgr2.

($ns.ProfileType::User)

$mgr5 = $ns.ProfileSubTypeManager::Get($ctx)

$profileName = $ns.ProfileSubtypeManager::GetDefaultProfileName
$ns.ProfileType::User

$type1 = $mgr5. GetProfileSubType ($profileName)

$mgr6 = $type1.Properties
GetPropertyByName ("Custom1")

```

## Question: 2

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### HOTSPOT

You develop a SharePoint app by using the client-side object model (CSOM.)

On each page of the app, you need to display the user profile picture for the user that is currently logged in.

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

```

function sharePointReady() {
    context = new SP.ClientContext.get_current();

    getProfilePic();
}

var a;
var b;
function getProfilePic() {

    a = new SP.UserProfiles. [ ] ;

    b = a.getMyProperties();
    context.load(b);
    context.executeQueryAsync(function () {
        if (b) {
            var c = [ ] ;

            $("#profilePic").attr([ ]);
        }
    }, onFailure);
}

```

```
function sharePointReady() {  
    context = new SP.ClientContext.get_current();  
  
    getProfilePic();  
}  
  
var a;  
var b;  
function getProfilePic() {  
  
    a = new SP.UserProfiles.  
         ;  
        SocialFollowingManager(context)  
UserProfile()  
PeopleManager(context)  
  
    b = a.getMyProperties();  
    context.load(b);  
    context.executeQueryAsync(function () {  
        if (b) {  
  
            var c =  ;  
            a.get_pictureUrl()  
b.get_pictureUrl()  
b.get_personalUrl()  
b.get_userUrl()  
  
            $("#profilePic").attr(  
                 ,  
                "src", c  
"src", b  
"src", pictureUrl  
"profilePic", c  
            );  
        }  
    }, onFail);  
}
```

---

Answer:

---

```

function sharePointReady() {
    context = new SP.ClientContext.get_current();

    getProfilePic();
}

var a;
var b;
function getProfilePic() {

    a = new SP.UserProfiles.UserProfile();
SocialFollowingManager(context)
UserProfile()
PeopleManager(context)

    b = a.getMyProperties();
    context.load(b);
    context.executeQueryAsync(function () {
        if (b) {

            var c = a.get_pictureUrl();
a.get_pictureUrl()
b.get_pictureUrl()
b.get_personalUrl()
b.get_userUrl()

            $("#profilePic").attr("src", c);
"src", c
"src", b
"src", pictureUrl
"profilePic", c

        }
    }, onFailure);
}

```

### Question: 3

You develop a SharePoint-hosted app. The app includes the following code segment: (Line numbers are included for reference only.)

```

01 var context;
02 var b;
03 var user;
04 $(document).ready(function () {
05     var e = ExecuteOrDelayUntilScriptLoaded(sharePointReady, "sp.userprofiles.js");
06 });
07 function sharePointReady() {
08     context = new SP.ClientContext.get_current();
09     getProperties();
10 }
11 function getProperties() {
12
13     b = a.getMyProperties();
14     context.load(b);
15     context.executeQueryAsync(onGetPropertiesSuccess, onGetPropertiesFail);
16 }

```

The app must display user profile data for the user that is logged in. The user profile data must include the PreferredName, Department, and WorkPhone properties.

You need to ensure that the app displays the required user profile data.

Which code segment should you insert at line 12?

- A. var a = new SP.UserProfiles.UserProfile();
- B. var a = new SP.UserProfiles.SocialFollowingManager(context);
- C. var a = SP.UserProfiles.Profileloader.GetProfileLoader(context);
- D. var a = new SP.UserProfiles.PeopleManager(context);

---

**Answer: D**

---

## Question: 4

### DRAG DROP

You develop a SharePoint app that includes microblog posts and conversations for a company named Contoso, Ltd. You must use various programming object models to determine the number of unread mentions in microblog posts for the current user.

You need to call methods for different programming object models.

How should you create the method calls? (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.)

GetMentions()

getMentions()

GetUnreadMentionCount()

getUnreadMentionCount()

GET https://www.contoso.com/\_api/social.feed/my/MentionFeed

GET https://www.contoso.com/\_api/social.feed/my/UnreadMentionCount

### Answer Area

CSOM:

JSON:

REST:

SSOM:

## Answer:

CSOM: GetUnreadMentionCount()

JSON: getUnreadMentionCount()

REST: GET https://www.contoso.com/\_api/social.feed/my/UnreadMentionCount

SSOM: GetUnreadMentionCount()

## Question: 5

### HOTSPOT

You create term sets and multi-lingual labels for a site collection. The default locale, language, and culture for the term sets are set to English. You develop a console application to create labels for a term named Memory. The console application uses the English locale. You develop the following labels for the term named Memory.

Culture	Default value	Synonyms
English	memory	storage
French	mémoire	stockage
Italian	memoria	conservazione
Spanish	memoria	almacenamiento
German	speicher	lagerung

You need to create German labels for the term named Memory.

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

```

var d = c.GetAllTerms();
ctx.Load(d, s =>s.Include(t => t.Name));
ctx.ExecuteQuery();

var e = d.SingleOrDefault(x => x.Name == [ ] );
e.CreateLabel([ ], [ ],
[ ], true);

e.CreateLabel("lagerung",
    System.Globalization.CultureInfo.CreateSpecificCulture("de-DE").LCID, [ ]);

ctx.ExecuteQuery();
var d = c.GetAllTerms();
ctx.Load(d, s =>s.Include(t => t.Name));
ctx.ExecuteQuery();

var e = d.SingleOrDefault(x => x.Name == [ ]);
e.CreateLabel([ ],
    [ "speicher", "storage", "memory" ],
    [ "memoria", "m moire", "speicher" ],
    [ ], true);

System.Globalization.CultureInfo.CreateSpecificCulture("it-IT").LCID
System.Globalization.CultureInfo.CreateSpecificCulture("de-DE")
System.Globalization.CultureInfo.CreateSpecificCulture("de-DE").LCID
System.Globalization.CultureInfo.CurrentCulture.LCID

e.CreateLabel("lagerung",
    System.Globalization.CultureInfo.CreateSpecificCulture("de-DE").LCID, [ ]);
ctx.ExecuteQuery();

```

**Answer:**

```

var d = c.GetAllTerms();
ctx.Load(d, s =>s.Include(t => t.Name));
ctx.ExecuteQuery();

var e = d.SingleOrDefault(x => x.Name == "speicher");
e.CreateLabel("memoria",
              "mémoire",
              "speicher");

```

**speicher**

"speicher"  
"storage"  
"memory"

```

e.CreateLabel("lagerung",
              System.Globalization.CultureInfo.CreateSpecificCulture("de-DE").LCID,
              ctx.ExecuteQuery());

```

**de-DE**

true  
**false**

**Question: 6****HOTSPOT**

A company uses SharePoint to manage a large number of documents.

The Document ID Service feature is enabled. You need to create a custom class that generates a unique ID for each document.

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

```

using [ ] ;

```

```

public class Custom : [ ]
{
    ...
}

using [ ];

```

Microsoft.SharePoint  
Microsoft.Office.Server  
Microsoft.SharePoint.Taxonomy  
Microsoft.Office.DocumentManagement  
Microsoft.Office.DocumentManagement.Server

```

public class Custom : [ ]
{
    ...
}

```

SPItem.Id  
DocumentId  
SPFile.UniqueId  
DefaultDocument  
DocumentIdProvider

**Answer:**

```

using Microsoft.SharePoint;
using Microsoft.Office.Server;
using Microsoft.SharePoint.Taxonomy;
using Microsoft.Office.DocumentManagement;
using Microsoft.Office.DocumentManagement.Server;

public class Custom : SPItem.Id
{
    ...
}

```

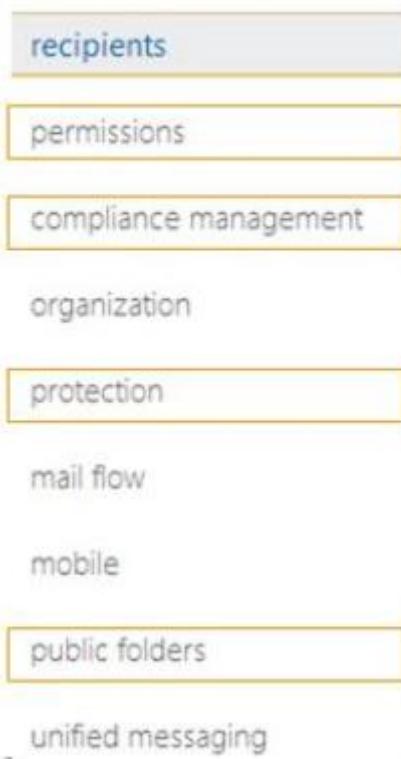
**Question: 7****HOTSPOT**

You implement eDiscovery in SharePoint to access Exchange Online mailbox data.

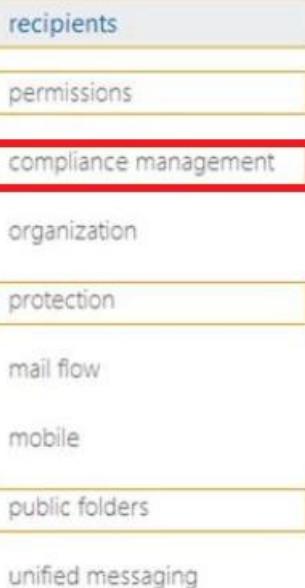
You need to ensure that users continue to have access to Exchange Online mailbox data after an In-Place Hold is applied.

On the Exchange admin center page, which option should you select? (To answer, select the appropriate option in the answer area.)

## Exchange admin center

**Answer:**

## Exchange admin center



### Question: 8

You use Visual Studio to design a SharePoint solution for a company that provides computer support services to customers around the world.

The solution must list the customer service representatives that resolve the highest number of support requests. The solution also must allow filtering of customer service representatives by region.

You need to configure the solution to meet the requirements.

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

- A. Add a Recommended Items Web Part to the page.
- B. Add and configure a Refinement Web Part to the page.
- C. Add regions as property filters to the Search Results Web Part.
- D. Configure the query for the Content Search Web Part.

**Answer: CD**

### Question: 9

#### DRAG DROP

You develop a SharePoint app that uses the client-side object model (CSOM) to retrieve items from the search index.

You need to implement the client-side query code.

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

Answer Area
<pre> searchExecutor.Retrieve()  using Microsoft.SharePoint.Client.Search.Applications;  searchExecutor.ExecuteQuery(query)  SearchExecutor searchExecutor = new SearchExecutor(clientContext); KeywordQuery query = new KeywordQuery (clientContext);  using Microsoft.SharePoint.Client.Search.Query;  var clientContext = TokenHelper.GetClientContextWithContextToken (hostWeb, contextToken, Request.Url.Authority)  Query query = new Query(clientContext); </pre>

**Answer:**

Box 1:

```
using Microsoft.SharePoint.Client.Search.Query;
```

Box 2:

```
var clientContext =
TokenHelper.GetClientContextWithContextToken
(hostWeb, contextToken,
Request.Url.Authority)
```

Box 3:

```
SearchExecutor searchExecutor =
new SearchExecutor(clientContext);
KeywordQuery query = new KeywordQuery
(clientContext);
```

Box 4:

```
searchExecutor.ExecuteQuery(query)
```

**Explanation:****Note:****Reference:****\* Step 1:**

First we need to add the necessary references such as.

using Microsoft.SharePoint.Client;

using Microsoft.SharePoint.Client.Search;

using Microsoft.SharePoint.Client.Search.Query;

**\* Step 2:**

Start by creating a ClientContext object and pass in the URL to a site. Put this in a using block.

using (ClientContext clientContext = new ClientContext("http://servername"))

We then need to create a KeywordQuery class to describe the query. This class is similar to the server side

[KeywordQuery](#) class but there are some differences. We pass the ClientContext into the constructor.

```
KeywordQuery keywordQuery = new KeywordQuery(clientContext);
```

\* Step 3:

Unlike the server object model, with the Client OM we have to use another class, SearchExecutor, to send the queries to the search engine. We pass a ClientContext to it as well:

```
SearchExecutor searchExecutor = new SearchExecutor(clientContext)
```

Step 4:

However, the query doesn't actually execute until you call ExecuteQuery() on the ClientContext object. If you have done a lot of Client OM work before, you might think you need to call Load() first but it is not required.

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

Reference: How to: Query Search with the SharePoint 2013 Client Object Model

## Question: 10

You develop a SharePoint app for a toy company that uses the Representational State Transfer (REST) API for search. The site collections in the app have been crawled recently and use the default search schema.

The app includes the following code segment: (Line numbers are included for reference only.)

```
01 function runQuery() {
02   var queryTerms = $("#searchBox").text();
03
04   spPageContextInfo.webAbsoluteUrl + "/_api/search/query?querytext='" + queryTerms +
05     "&sourceid=' + resultSourceId + "'";
06 }
```

You create the following result sources.

Result source name	ID	Scope level	QueryTransform
Web PDF	{82951A0C-6385-4E29-8D7F-4AD92FE9F536}	Web	{?{searchTerms}} fileextension:PDF
Farm PDF	{32FBAF57-367E-411D-B93F-F28E1EFF58B2}	Farm	{?{searchTerms}} filetype:pdf
Site PDF	{0F41A999-52BA-41ED-AAAD-9D414A0FCBB4}	Site Collection	{?{searchTerms}} "PDF"
Web Brands	{319BCF11-ACBE-4B77-A0E4-7225E31810EB}	Web	{?{searchTerms}} near ("deluxe brands")
Site PDF Extension	{A0EBE2E7-C7CA-4516-8208-F558827C75D6}	Site Collection	{?{searchTerms}} fileextension:PDF
Site PDF FileType	{4C50FE18-B254-47A1-ABAD-0B6C4577D914}	Site Collection	{?{searchTerms}} filetype:pdf

You need to ensure that the app only displays PDF documents.

Which code segment should you insert at line 03?

- A. var resultSourceId = "Site PDF";
- B. var resultSourceId = "4C50FE18-B254-47A1-ABAD-0B6C4577D914";
- C. var resultSourceId = "0F41A999-523A-41ED-AAAD-9D414A0FC3B4";
- D. var resultSourceId = "82951A0C-6385-4E29-8D7F-4AD92FE9F536";

---

Answer: D

## Question: 11

**HOTSPOT**

A SharePoint app displays the following search results:

<b>Model</b>	<b>Color</b>	<b>Manufacture</b>
A	Red	Year 2010
A	Black	Year 2010
A	Red	Year 2011
B	Blue	Year 2010
B	Red	Year 2012
C	White	Year 2011

You have the following requirements:

Group results by model.

Display only two rows per model.

Show a unique color for each model.

You need to define a query to meet the requirements.

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

```
var query = new KeywordQuery(context)
{
    QueryText = "Manufacture:Year",
    [ ] = "Model: [ ] [ ] Color: [ ]",
}
```

```
var query = new KeywordQuery(context)
{
    QueryText = "Manufacture:Year",
    [ ] = "Model: [ ] [ ] Color: [ ]",
    [ ]: QueryInfo
    [ ]: ReorderingRules
    [ ]: CollapseSpecification
```

```
var query = new KeywordQuery(context)
{
    QueryText = "Manufacture:Year",
    [ ] = "Model: [ ] [ ] Color: [ ]",
    [ ]: QueryInfo
    [ ]: ReorderingRules
    [ ]: CollapseSpecification
```

**Answer:**

## Question: 12

A legal company uses SharePoint for document and records management. You search all documents by using extractors and managed properties. FAST Query Language (FQL) is enabled for the result sources, and the content of the document is indexed as full text. All documents are named by using the following pattern: "AAA-Axxxx-AA".

You must find documents that were created in May 2012 and contain the ordered keywords "liable", "advocate", and "adjudication". Results that are returned must include only document names that begin with "HCT-Q" and end only

with "AB".

You need to create the FQL query that returns the required results.

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

- A. Write> =05/01/2012 and write<=05/31/2012
- B. string('liable advocate adjudication", mode="onear")
- C. title:HCT-Q\*
- D. title:HCT-Q????-AB
- E. NEAR (liable, advocate, adjudication)
- F. write:range (2012-05-01, 2012-05-31)

---

**Answer: BDF**

---

Explanation:

B (not E):

\* The ordered variant of NEAR, and requires an ordered match of the terms. The ONEAR operator can be used to restrict the result set to items that have N terms within a certain distance of Returns only items that don't match the operand. The operand may be any valid FQL expression.one another.

D (not C):

\* All documents are named by using the following pattern: "AAA-Axxxx-AA".

\* Results that are returned must include only document names that begin with "HCT-Q" and end only with "AB".

F (not A):

\* Range. Enables range matching expressions. The RANGE operator is used for numeric and date/time managed properties.

\* FQL provides the datetime data type for date and time.

The following ISO 8601-compatible datetime formats are supported in queries:

YYYY-MM-DD

YYYY-MM-DDThh:mm:ss

YYYY-MM-DDThh:mm:ssZ

YYYY-MM-DDThh:mm:ssfrZ

Reference: FAST Query Language (FQL) syntax reference

---

### **Question: 13**

---

You have a SharePoint farm. You create a web service that connects to an extension point in the Search service. The web service processes string content and returns the string in all capitalized letters.

The web service includes the properties in the following table.

Managed properties	Crawled properties
Title	ows_q_TEXT_Title
TitleInCaps	ows_q_TEXT_TitleInCaps

You start the SharePoint Management Shell. You create the following Windows PowerShell cmdlet: (Line numbers are included for reference only.)

```
01 $searchApp = Get-SPEnterpriseSearchServiceApplication
02 $config = New-SPEnterpriseSearchContentEnrichmentConfiguration
03 $config.Endpoint = http://localhost:8080/SearchProcessor.svc
04
05 Set-SPEnterpriseSearchContentEnrichmentConfiguration –
SearchApplication $searchApp -ContentEnrichmentConfiguration $config
```

You need to complete the Windows PowerShell cmdlet to register the Content Enrichment service. Which code segment should you insert at line 04?

- A. `$config.InputProperties = "ows_q_TEXT_Title"  
$config.OutputProperties = "ows_q_TEXT_TitleInCaps"`
- B. `$config.OutputProperties = "Title"  
$config.InputProperties = "TitleInCaps"`
- C. `$config.InputProperties = "Title"  
$config.OutputProperties = "TitleInCaps"`
- D. `$config.ManagedProperties = "Title", "TitleInCaps"`

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

---

**Answer: D**

---

#### **Question: 14**

---

##### HOTSPOT

You use the SharePoint 2013 Management Shell to access a SharePoint farm. A user reports an error in one of the apps that you have installed. The error message contains the correlation token ID of b49f64b3-4722-4336-9a5c-56c326b344d4.

You need to save a report of the complete error trace for all errors that were reported in the previous 30 minutes. How should you complete the Windows PowerShell cmdlet? (To answer, select the appropriate option from each drop-down list in the answer area.)

**get-splogevent**

**-starttime**  |

**where-object {**

|

**"b49f64b3-4722-4336-9a5c-56c326b344d4" }** |  
**> c:\errors.txt**

**get-splogevent**

-starttime

**where-object {**

\$_.tokenid	==
\$.correlation	-eq
\$_.correlation	-equals
\$.correlationid	-contains

"b49f64b3-4722-4336-9a5c-56c326b344d4" } |  
> c:\errors.txt

**Answer:**

**get-splogevent**

-starttime

**where-object {**

\$_.tokenid	==
\$.correlation	-eq
\$_.correlation	-equals
\$.correlationid	-contains

"b49f64b3-4722-4336-9a5c-56c326b344d4" } |  
> c:\errors.txt

**Question: 15**

You develop a SharePoint app that reads data from an external source by using Business Connectivity Services (BCS). The following markup defines the subscription: (Line numbers are included for reference only.)

```

01 <Subscription LobSystemInstanceName="ContosoLOBInstance"
02 EntityNamespace="Contoso" EntityName="Employee"
03 Name="ContosoEmployeeSubscription" View="GetEmployeeById"
04 IsCached="true" RefreshIntervalInMinutes="360"
05 xmlns="http://schemas.microsoft.com/office/2006/03/BusinessDataCatalog">
06
07 <Queries>
08   <Query Name="ContosoEmployeeQuery"
09     MethodInstanceName="GetEmployees"
10     DefaultDisplayName="Employee Read List"
11     RefreshIntervalInMinutes="180" IsCached="true" Enabled="true">
12
13   </Query>
14 </Queries>
15 </Subscription>
```

Employee identification (ID) numbers that are less than 100 must be ignored. You need to configure the subscription. What should you do?

- A. Insert the following markup at line 12 :

```
<FilterValues>
  <FilterValue FilterDescriptorName="MinEmployeeId"
    FilterIndex="0" Type="100"/>
</FilterValues>
```

- B. Insert the following markup at line 06 :

```
<Identities>
  <Identity>where "minValue" >100</Identity>
</Identities>
```

- C. Insert the following markup at line 12 :

```
<FilterValues>
  <FilterValue FilterDescriptorName="MinEmployeeId"
    FilterIndex="0" Type="System.Int32">100</FilterValue>
</FilterValues>
```

- D. Insert the following markup at line 12 :

```
<FilterValues>
  <FilterValue FilterDescriptorName="MinEmployeeId"
    FilterIndex="100" Type="System.Int32"/>
</FilterValues>
```

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

---

**Answer: D**

---

**Question: 16****DRAG DROP**

You deploy a solution to a SharePoint server.

You need to implement a method to programmatically access the health score of the SharePoint Server.

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

Answer Area
SharePointHealthScore = Int32.Parse (response.Headers["X-SharePointHealthScore"])
request.Method = "GET"; request.BeginGetResponse((asyncResult) => { HttpWebResponse response = request.EndGetResponse(asyncResult) as HttpWebResponse;
HttpWebRequest request = WebRequest.Create( new Uri ("uri", UriKind.Absolute) as HttpWebRequest;
SharePointHealthScore = Int32.Parse (response.Headers["SPHealthScore"])

---

**Answer:**

---

Box 1:

```
SharePointHealthScore = Int32.Parse  
(response.Headers["X-SharePointHealthScore"])
```

Box 2:

```
HttpWebRequest request =  
    WebRequest.Create( new Uri  
    ("uri", UriKind.Absolute) as HttpWebRequest;
```

Box 3:

```
request.Method = "GET";  
request.BeginGetResponse((asyncResult) => {  
    HttpWebResponse response =  
        request.EndGetResponse(asyncResult) as  
        HttpWebResponse;
```

**Explanation:**

**Note:**

\* (A, not D) SharePoint continuously calculates the Health Score and for each and every request the Health Score is sent as an HTTP Response Header, called X-SharePointHealthScore.

Reference: SharePoint 2013: SharePoint Health Score and Throttling deep dive

**Question: 17****DRAG DROP**

You develop a SharePoint site by using the Team Site template. Users share large images by using the team site.

You need to configure the SharePoint site so that images render at a maximum size of 400px wide and 200px high.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer).

Answer Area	
Create an image rendition that is 400px wide and 200px high.	
Enable the binary large object (BLOB) cache in the web.config file for the site. Enable publishing features for the site collection.	
Disable the binary large object (BLOB) cache in the web.config file of the site. Enable publishing features for the site collection.	
Create a placeholder container that is 400px wide and 200px high in the master template.	
Choose the configured rendition each time a new image needs to be rendered.	

---

**Answer:**

Box 1:

Enable the binary large object (BLOB) cache in the web.config file for the site. Enable publishing features for the site collection.

Box 2:

Create an image rendition that is 400px wide and 200px high.

Box 3:

Choose the configured rendition each time a new image needs to be rendered.

Explanation:

Note:

\* (step 1) When using Image Rendition you will have to enable BLOBCache to improve performance. To enable BLOBCache:

Open Web.config file for the web application

Locate BLOBCache line and set enabled = "true"

Set the folder path to another folder or keep the default c:\BlobCache\14 folder.

\* (step 2)

EDIT LINKS

## Edit Image Rendition

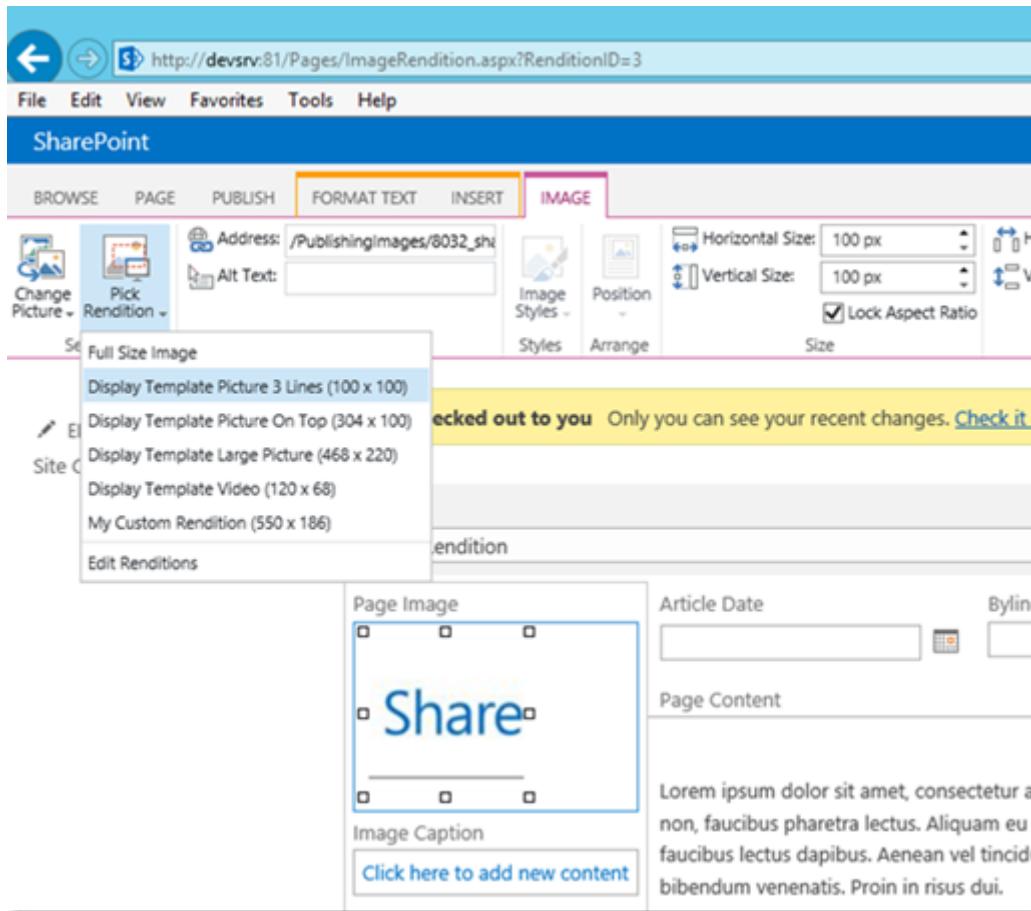
[dib|tif|tiff|themedbmp]  
4v|mov|mp3|mp4|mpeg|mpg|  
ryByParam=""

ID	5
Name *	My Custom Rendition
Width	550
Height	186

Save Cancel

\* (step 3)

Edit the page and add an image to on the left  
Select the image on the left  
On the top bar, click on Image, Click on Pick Rendition.  
Choose the required setting to show the image.



### Question: 18

You configure a SharePoint app to collect diagnostic information.

The app must meet the following requirements:

Record messages about all unrecoverable events that limit the functionality of the app, but do not stop the app.

Record all events that include unexpected exceptions.

Minimize the effects of logging on app performance.

You need to configure the application to meet the requirements.

Which trace log level should you use?

- A. High
- B. Medium
- C. Unexpected
- D. Monitorable
- E. Verbose

**Answer: D**

### **Question: 19**

#### **DRAG DROP**

You develop a Microsoft Office app to access external data by using Business Connectivity Services (BCS).

The app must access data from a Windows Communication Foundation (WCF) connector by using an external content type.

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

Answer Area	
Use the BDC model to query the client runtime for connection details.	
Use the BDC model to pass the request for the required data to the WCF connector.	
Use the app to send a request for data to the Business Data Catalog (BDC) model.	
Provide credentials to the client runtime and store the credentials.	
Use the client runtime to pass the request for data to the WCF connector.	
From the Office app, generate a request for data and pass it to the BDC client runtime.	
Use the BDC Client Runtime to query the BDC model for connection details and the credentials to use.	

**Answer:**

Box 1:

From the Office app, generate a request for data and pass it to the BDC client runtime.

Box 2:

Use the BDC Client Runtime to query the BDC model for connection details and the credentials to use.

Box 3:

Provide credentials to the client runtime and store the credentials.

Box 4:

Use the BDC model to pass the request for the required data to the WCF connector.

Explanation:

Note:

\* A BDC model is the heart of Business Data Connectivity (BDC) service. The data structures, such as Entity (external content type) and Method, that abstract out complex details about an external system are collectively named MetadataObjects and compose the BDC model. The BDC model for an external system is essentially an XML file.

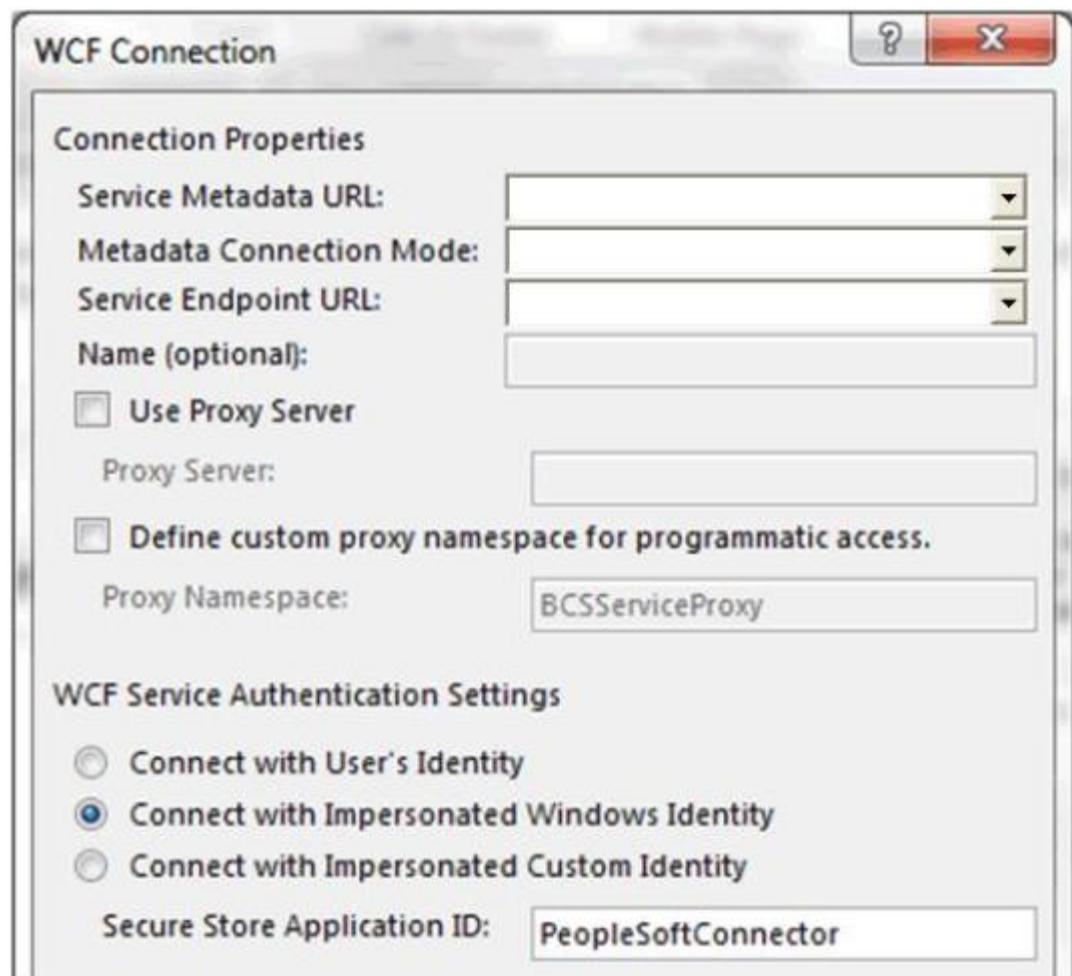
## **Question: 20**

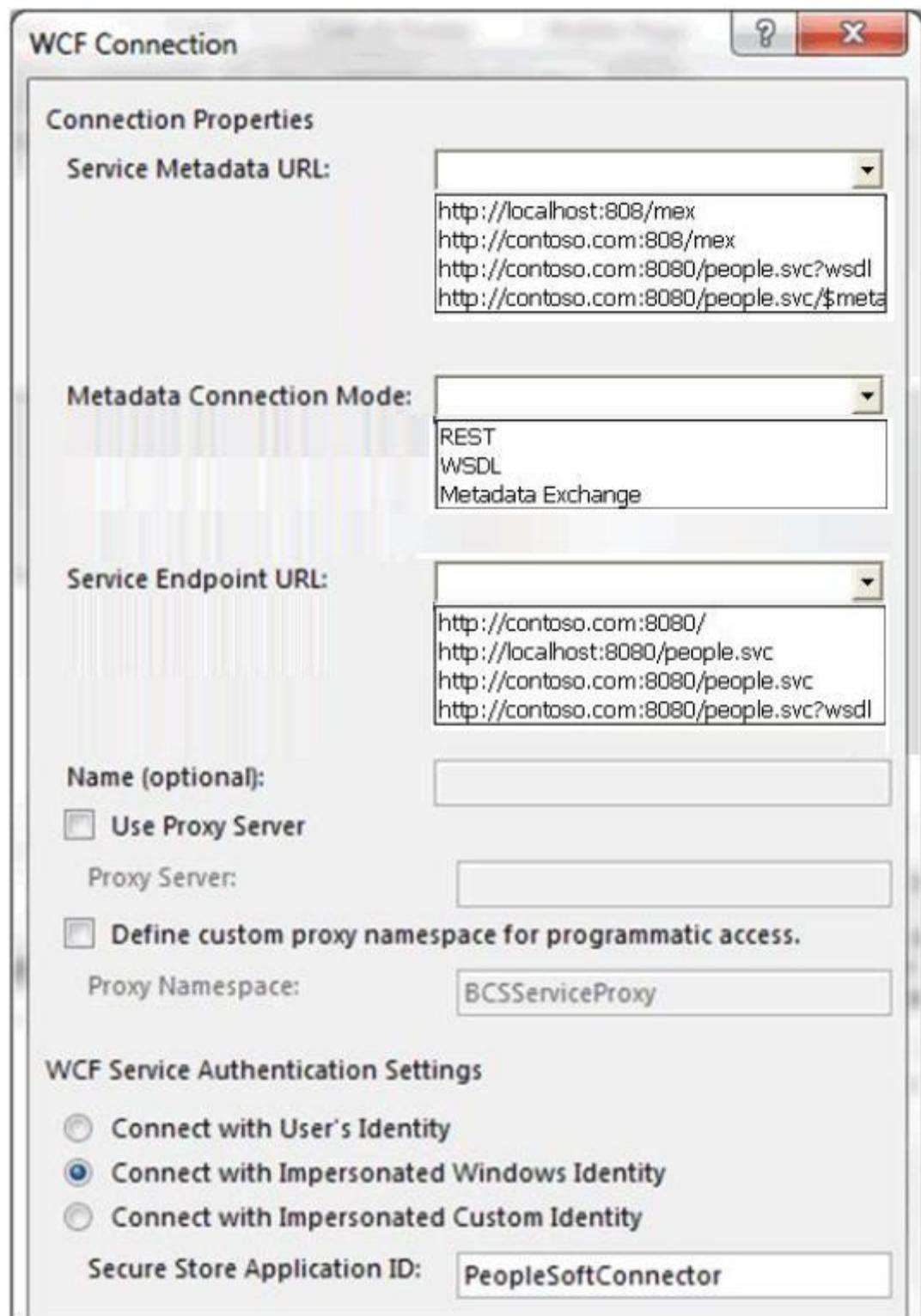
HOTSPOT

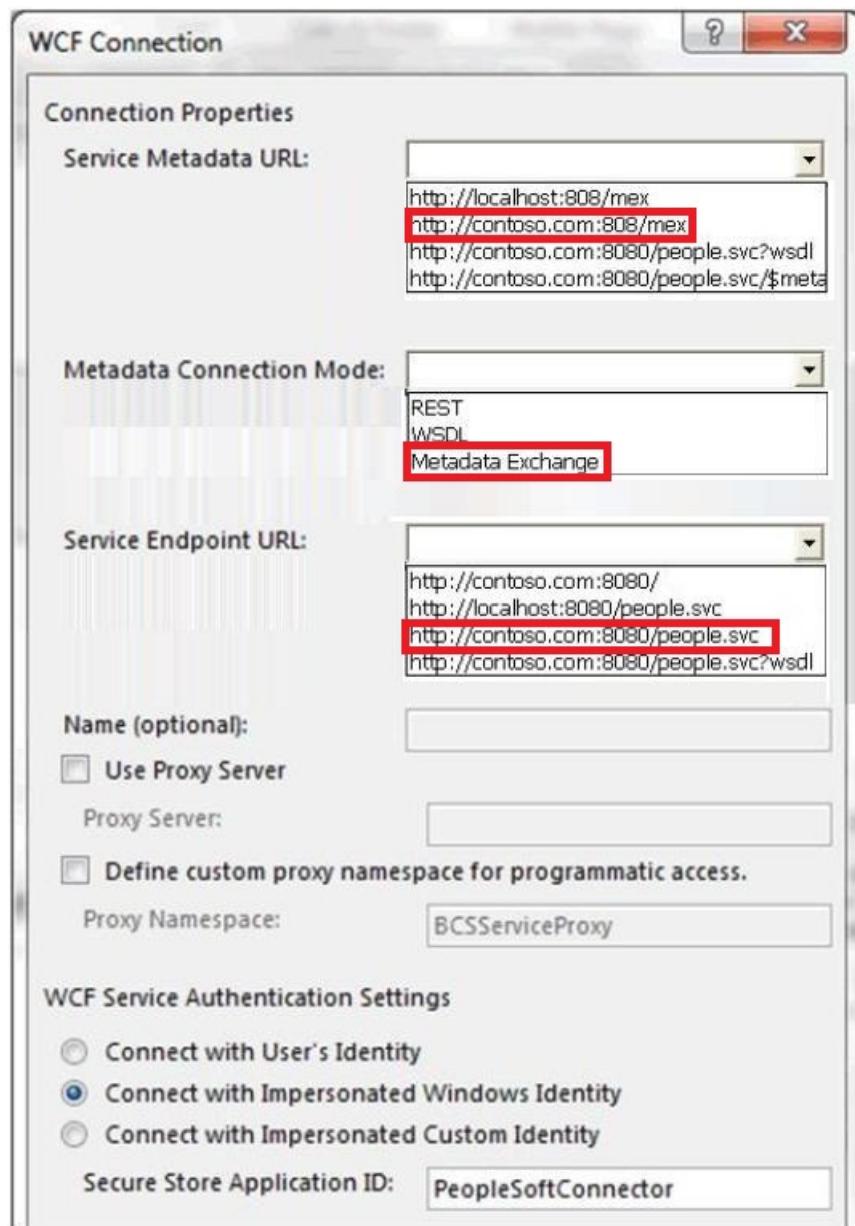
Contoso, Ltd. is integrating an Enterprise Resource Planning (ERP) system with SharePoint by using Business Connectivity Services (BCS). The ERP system is a Windows Communication Foundation (WCF) service that is hosted in Internet Information Services (IIS). The WCF service is named people.svc and is located at <http://contoso.com:8080>. The metadata for the service is found at <http://contoso.com:808/mex>.

You need to create a data connection for the ERP system.

In the WCF Connection dialog box, how should you configure the connection to the WCF service? (To answer, select the appropriate option from each drop-down list in the answer area.)



**Answer:**



### Question: 21

DRAG DROP

You develop a provider-hosted SharePoint app that retrieves and displays weather information from an external site. The site contains lists of temperatures for different cities.

You need to create a Representational State Transfer (REST) endpoint URL in the app to retrieve hourly temperatures for a specific city from the site.

How should you complete the relevant code? (To answer, drag the appropriate term to the correct location or locations in the answer area. Each term 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.)

**Answer Area**

GET
items
lists
  
POST
site=weather
weather

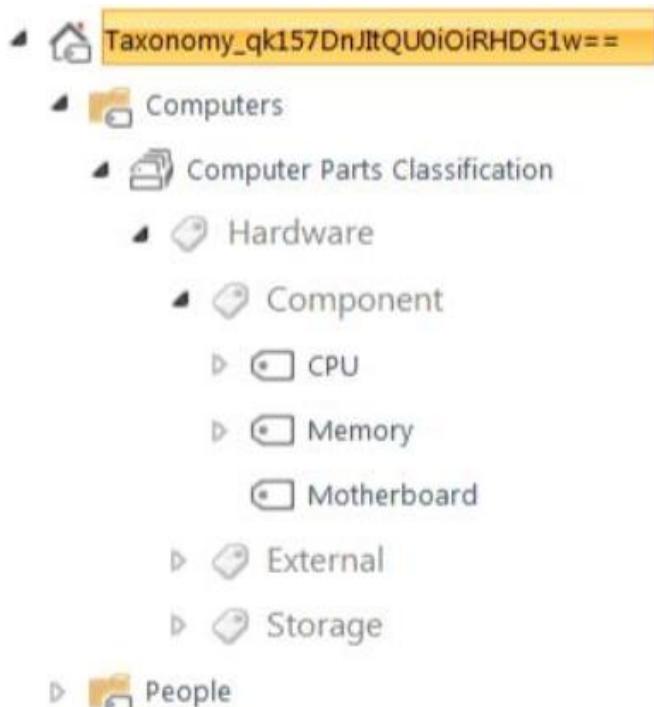
```
string url = "http://www.contoso.com/_api/web/_getbytitle('"+ cityName + "')/";  
var listRequest =  
(HttpWebRequest)HttpWebRequest.Create(url);  
listRequest.Method = "";
```

**Answer:**

```
string url = "http://www.contoso.com/_api/web/_getbytitle('"+ cityName + "')/";  
var listRequest =  
(HttpWebRequest)HttpWebRequest.Create(url);  
listRequest.Method = "";
```

**Question: 22****HOTSPOT**

You work for a company named Contoso, Ltd. that sells computer parts. You tag inventory lists by using a term set named Computer Parts Classification. The term set is structured as follows.



You must create a console application that accesses the SharePoint site and you must add a ClientContext object named ctx. You need to create a term named i7-2600K that is a child of the CPU node and add a shared property to the i7-2600K term.

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

```
var d = [dropdown];  
  
ctx.Load(d, s =>s.Include(t => t.Name));  
ctx.ExecuteQuery();  
var e = d.SingleOrDefault(x => x.Name == "CPU");  
var f = e.CreateTerm("i7-2600K", 1033,  
[dropdown]);  
  
f.IsAvailableForTagging = true;  
f.SetCustomProperty("Manufacturer", "Contoso");  
[dropdown];
```

```
var d = [dropdown];  
[c.GetAllTerms()  
c.Name  
c.Terms]  
  
ctx.Load(d, s =>s.Include(t => t.Name));  
ctx.ExecuteQuery();  
var e = d.SingleOrDefault(x => x.Name == "CPU");  
var f = e.CreateTerm("i7-2600K", 1033,  
[dropdown]);  
5  
new Guid()  
Guid.NewGuid()  
"HDNCET-HFNTYE-ANDGE-PITNI-BCGHE"  
  
f.IsAvailableForTagging = true;  
f.SetCustomProperty("Manufacturer", "Contoso");  
[dropdown];  
cbx.Load(f)  
cbx.LoadQuery(f)  
cbx.ExecuteQuery()  
cbx.GetFormDigestDirect()
```

---

Answer:

---

```

var d = [dropdown];
    c.GetAllTerms();
    c.Name
    c.Terms

ctx.Load(d, s =>s.Include(t => t.Name));
ctx.ExecuteQuery();
var e = d.SingleOrDefault(x => x.Name == "CPU");
var f = e.CreateTerm("i7-2600K", 1033,
[dropdown] );
5
new Guid()
Guid.NewGuid()
"HDNCET-HFNTYE-ANDGE-PITNI-BCGHE"

f.IsAvailableForTagging = true;
f.SetCustomProperty("Manufacturer", "Contoso");

[dropdown];
ctx.Load(f)
ctx.LoadQuery(f)
ctx.ExecuteQuery()
ctx.GetFormDigestDirect()

```

### Question: 23

You develop a SharePoint app that displays information about automobile parts.  
 You need to create a user profile property to classify automobile parts into categories.  
 Which property name should you specify?

- A. part-Classification
- B. part.classification
- C. part\_classification
- D. Part Classification

---

**Answer: B**

---

### Question: 24

#### DRAG DROP

You develop a .NET application named SPUserProfiles for a company called Contoso, Ltd. SPUserProfiles communicates with a SharePoint app by using SharePoint Web Services. The SharePoint web service reference name is ProfileService. SPUserProfiles includes the following code segment: (Line numbers are included for reference only.)

```

01 using SPUserProfiles.ProfileService;
02 namespace SPUserProfiles
03 {
04     class Program
05     {
06         public static UserProfileService svc = new UserProfileService();
07         static void Main(string[] args)
08         {
09             UpdatePhoneNumber();
10         }
11         ...
12     }
13 }
```

You need to implement the UpdatePhoneNumber method.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct target 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.)

Answer Area

new PropertyData[1];

new PropertyData();

new ValueData();

new ValueData[1];

true;

false;

```

private static void UpdatePhoneNumber()
{
    PropertyData[] data = [REDACTED]

    data[0] = [REDACTED]
    data[0].Name = "HomePhone";
    data[0].Values = [REDACTED]

    data[0].Values[0] = [REDACTED]
    data[0].Values[0].Value = "8321121101";
    data[0].IsValueChanged = [REDACTED]

    svc.Credentials = System.Net.CredentialCache.DefaultCredentials;
    svc.ModifyUserPropertyByAccountName("contoso\\Jhart", data);
}
```

---

**Answer:**

---

```
private static void UpdatePhoneNumber()
{
    PropertyData[] data = new PropertyData[1];

    data[0] = new PropertyData();
    data[0].Name = "HomePhone";
    data[0].Values = new ValueData[1];

    data[0].Values[0] = new ValueData();
    data[0].Values[0].Value = "8321121101";
    data[0].IsValueChanged = true;

    svc.Credentials = System.Net.CredentialCache.DefaultCredentials;
    svc.ModifyUserPropertyByAccountName("contoso\\Jhart", data);
}
```

---

### **Question: 25**

---

You develop a SharePoint app that reads social data from your company's SharePoint site.

You need to access the SocialFeedManager object.

Which object or URL should you use?

- A. `http://<siteUri>/_api/social.feed`
- B. `SocialFeedManager(ClientRuntimeContext, ObjectPath);`
- C. `http://<siteUri>/social.feed`
- D. `SPSocialFeedManager(UserProfile);`

---

**Answer: B**

---

---

### **Question: 26**

---

DRAG DROP

You develop a feature in a SharePoint solution by using Visual Studio 2012. You insert several breakpoints in the feature event receiver to debug performance issues.

You need to ensure that the code stops running when the solution reaches a breakpoint.

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.)

Answer Area	
Set the value of the project's <b>Active Deployment Configuration</b> property to <b>Default</b> .	
Add a registry key named <b>EnableDiagnostics</b> to the HKEY_CURRENT_USER \Software\Microsoft\VisualStudio\11.0 \SharePointTools node of the registry, and then set the registry key value to 1.	
Start to debug the SharePoint solution in Visual Studio.	
Set the value of the project's <b>Active Deployment Configuration</b> property to <b>No Activation</b> .	
Manually activate the feature in SharePoint by using Site Settings.	

**Answer:**

Box 1:

Set the value of the project's **Active Deployment Configuration** property to **No Activation**.

Box 2:

Start to debug the SharePoint solution in Visual Studio.

Box 3:

Manually activate the feature in SharePoint by using Site Settings.

Explanation:

Note:

\* Debugging Feature Event Receivers

By default, when you run a Visual Studio SharePoint application, its features are automatically activated for you on the SharePoint server. However, this causes problems when you debug feature event receivers, because when a feature is activated by Visual Studio, it runs in a different process than the debugger. This means that some debugging functionality, such as breakpoints, will not work correctly.

To disable the automatic activation of the feature in SharePoint and allow proper debugging of Feature Event Receivers, set the value of the project's Active Deployment Configuration property to No Activation before debugging. Then, after you start to debug your SharePoint application in Visual Studio, manually activate the feature in SharePoint. To activate the feature, open the Site Actions menu in SharePoint, choose Site Settings, choose the Manage Site Features link, and then choose the Activate button next to the feature, to continue debugging as normal.

Reference: Debugging SharePoint Solutions

**Question: 27**

You have a custom Web Part that retrieves data across multiple task lists.

Pages that contain the Web Part load slowly.

You need to ensure that pages load as quickly as possible.

Which methods should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. CrossListQueryCache.GetSiteData(SPContext.Current.Site, siteUrl)
- B. CrossListQueryCache.GetSiteData(SPContext.Current.Site)
- C. Cache.Get(siteUrl)
- D. SPList.GetItems(spQuery)

---

**Answer: AC**

---

Explanation:

A: GetSiteData method (SPSite, String)

Gets the cache data from the specified site and from the specified webUrl.

C: Cache.Get Method

Retrieves the specified item from the Cache object.

## Question: 28

---

DRAG DROP

You develop a SharePoint app for Contoso, Ltd. Contoso has offices in several countries. All of the local offices in each country are connected by using a Wide Area Network (WAN). Users store large data files in SharePoint document libraries. The users report that the files load very slowly.

You need to ensure that the files are cached the first time that the files are opened at a local office.

How should you complete the Windows PowerShell cmdlet? (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.)

Answer Area	
<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="button" value="Close()"/> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="button" value="Update();"/> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="button" value="CacheAllSchema"/> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="button" value="\$_.GetSiteData()"/> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="button" value="\$_.OpenWeb()"/> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="button" value="SetBranchCache"/> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="button" value="EnableBranchCacheHashGeneration"/> </div>	<pre>Get-SpSite("http://contoso.com")   ForEach {     \$spWeb = [REDACTED]     \$spWeb.[REDACTED] = \$true;     \$spWeb.[REDACTED] }</pre>

---

**Answer:**

---

```
Get-SpSite("http://contoso.com") | ForEach {
    $spWeb = $_.OpenWeb();
    $spWeb.[REDACTED] = $true;
    $spWeb.[REDACTED];
}
```

---

**Question: 29**

---

You have a SharePoint publishing site. The marketing team tags their documents by using a managed metadata field named Location. The site has been fully crawled. Documents are tagged with city names only.

A SharePoint app on the site displays search results by using the following term set.

Parent	Term name	Term ID
Term Store	Location	b49f64b3-4722-4336-9a5c-56c326b344d4
Location	Central	1acf8a-70b4-4ce0-bfbf-96c0e711f8df
Central	Houston	b4c95e2f-32d7-460a-90b3-f7d8787fc48e
Central	Dallas	577c8e48-d5d9-4e5f-8e35-408c723feb11
Location	West	a79557ce-3db6-43f7-bfe3-81c652a10bf6
West	Las Vegas	11aaac5b-61a2-42ba-9529-09cbf23bb1c8
West	San Francisco	1489db3e-8540-4b83-8eaa-919467108011
Central	East	d0f8b6ca-2b57-460a-ad0c-62cb1b0c049d
East	Miami	2b81a4e9-4209-4083-8610-e3d25c397204

You create the following code segment to query the contents of the site: (Line numbers are included for reference only.)

```

01 function executeQuery() {
02
03   Results = {
04     element: '', url: '', init: function (element) {
05       Results.element = element;
06       Results.url = _spPageContextInfo.webAbsoluteUrl +
07         "/_api/search/query?querytext='" + queryTerms + "'";
08     },
09   }
}

```

You need to create a Keyword Query Language (KQL) expression to return results for all assets in the Central region. Which code segment should you insert at line 02?

- A. var queryTerms = "Location";
- B. var queryTerms = "577c8e48-d5d9-4e5f-8e35-408c723feb11";
- C. var queryTerms = "b49f64b3-4722-4336-9a5c-56c326b344d4";
- D. var queryTerms = "owstaxidlocation: 1acf8a-70b4-4ce0-bfbf-96c0e711f8df"

---

**Answer: C**

---

---

**Question: 30**

---

**HOTSPOT**

You create a SharePoint app that displays a list of documents for a company that sells insurance policies. The documents have been crawled by the Search service.

You create managed properties named Underwriter and Bonded.

You must locate the documents that meet the following criteria:

Created by using Microsoft Word 2002

Contains the exact phrase "life policy"

Were underwritten by Woodgrove

You need to design a search query that locates the required documents.

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

```
function executeQuery() {
    var queryTerms = " [dropdown] [dropdown] "
    queryTerms += " [dropdown] write<10/01/2012";
}

function executeQuery() {
    var queryTerms = " [dropdown] [dropdown] "
    [dropdown] pol*
    [dropdown] life
    [dropdown] \"life policy\"
    [dropdown] 'life insurance'
    [dropdown] company:Woodgrove
    [dropdown] underwriter:'Woodgrove'
    [dropdown] underwriter=Woodgrove

    queryTerms += " [dropdown] write<10/01/2012";
    [dropdown] filetype:docx
    [dropdown] fileextension:doc
    [dropdown] filetype:pdf
    [dropdown] fileextension:txt
}
```

**Answer:**

```
function executeQuery() {
    var queryTerms = " [dropdown] [dropdown] "
    [dropdown] pol*
    [dropdown] life
    [dropdown] \"life policy\"
    [dropdown] 'life insurance'
    [dropdown] company:Woodgrove
    [dropdown] underwriter:'Woodgrove' [red box]
    [dropdown] underwriter=Woodgrove

    queryTerms += " [dropdown] write<10/01/2012";
    [dropdown] filetype:docx
    [dropdown] fileextension:doc [red box]
    [dropdown] filetype:pdf
    [dropdown] fileextension:txt
}
```

**Question: 31**

You create a SharePoint site collection for a law firm. You create the following objects in the site collection.

SharePoint object	Name	Description
Site column	CaseID	Contains numeric data
Content type	Case	Uses the CaseID site column
List	Cases	Uses the Case content type Contains archived and current legal case information Current cases have a CaseID that is more than 1000
Managed property	MPCaseID	Maps to the ows_CaseID crawled property

A user searches for a legal case. The search results must contain only current cases.

You need to create a custom result type that displays only current cases.  
Which object should you use?

- A. Cases
- B. MPCaseID
- C. case
- D. ows\_CaseID
- E. CaseID

---

**Answer: B**

---

### Question: 32

---

You access a Records Management site in SharePoint. You create the following segment: (Line numbers are included for reference only.)

```

01 <!--#
02     var deliveryMethod = $getItemValue(ctx, "DeliveryMethod");
03     var tax = $getItemValue(ctx, "Tax");
04     var curTax = parseFloat(tax).toFixed(2);
05
06     var airbillTimeDays = airbillTime + ' days';
07     var outForDel = $getItemValue(ctx, "OutForDelivery");
08 _#-->
09
10 <table class="boldness">
11   <tr>
12     <td>Delivery Method: _#= deliveryMethod.toString() =#_</td>
13
14
15     <td>Out For Delivery: _#= outForDel.toString() =#_</td>
16   </tr>
17 </table>
```

Search results must display documents that contain specific keywords by using the following custom display template:

Delivery Method: Consolidated Messenger	Sales Tax: 2.78	Air Bill Time: 2 days	Out for Delivery: No
---	-----------------	-----------------------	----------------------

You need to implement the custom display template.

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

- A. Insert the following code segment at line 14:

```
<td>Air Bill Time: _#= airbillTimeDays =#_</td>
```

- B. Insert the following code segment at line 14:

```
<td>Air Bill Time: _#= airbilltime =#_</td>
```

- C. Insert the following code segment at line 05:

```
var airbillTime = $getItemValue(ctx, "Air Bill Time");
```

- D. Insert the following code segment at line 13:

```
<td>Sales Tax: _#= curTax =#_</td>
```

- E. Insert the following code segment at line 14:

```
<td>Air Bill Time: _#= airbillTime =#_</td>
```

- F. Insert the following code segment at line 13:

```
<td>Sales Tax:<#= tax =#></td>
```

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

---

**Answer: ACF**

---

### **Question: 33**

---

You configure eDiscovery for a SharePoint Online site collection.

You need to configure permissions for eDiscovery users so that users are able to access all discoverable content.

What should you do?

- A. Add eDiscovery users to the Viewers group for the eDiscovery center.
- B. Grant eDiscovery users access to all content in each web application.
- C. Grant eDiscovery users Contribute permissions to the eDiscovery center.
- D. Grant eDiscovery users site collection administrator permissions on every site collection that contains discoverable content.

---

**Answer: D**

---

**Question: 34**

---

You use Visual Studio to design a SharePoint solution for a company that sells wine to customers around the world. The solution must return the total number of cases sold per country. The solution also must allow employees to sort cases of wine that are returned. Employees must sort cases by country, date, and reason for the return.

You need to configure the solution to meet the requirements.

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

- A. Add a Refinement Web Part to the page.
- B. Configure the query for the Content Search Web Part.
- C. Add country as a property filter to the Search Results Web Part.
- D. Add a Calendar Web Part to the page.

---

**Answer: ABC**

---

Explanation:

A:

\* From

**question:**

---

. Employees

must sort cases by country, date, and reason for the return.

\* On the REFINERS tab, you can choose to limit returned results by adding preselected refiners to your query.

You can specify that the search results that are returned in the Search Results Web Part should be limited to one or more values from the refiners. The list shows all managed properties that are enabled as refiners in the search schema.

B: The Search Results Web Part shows the search results of a query that was entered in a Search Box Web Part.

C: From question:

The solution must return the total number of cases sold per country.

Note:

Use property filters to query the content of managed properties that are set to queryable in the search schema.

Question: 35

You are developing an ASP.NET MVC application that uses forms authentication. The user database contains a user named LibraryAdmin.

You have the following requirements:

You must allow all users to access the GetBook method.

You must restrict access to the EditBook method to the user named LibraryAdmin.

You need to implement the controller to meet the requirements.

Which code segment should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. [Authorize]  
public class LibraryController : Controller  
{  
 [AllowAnonymous]  
 public ActionResult GetBook()  
 {  
 ...  
 return View();  
 }  
 [Authorize(Users = "LibraryAdmin")]  
 public ActionResult EditBook()  
 {  
 ...  
 return View();  
 }  
}
- B. [Authorize(Roles = "Anonymous")]  
public class LibraryController : Controller  
{  
 public ActionResult GetBook()  
 {  
 ...  
 return View();  
 }  
  
 [Authorize(Users = "LibraryAdmin")]  
 public ActionResult EditBook()  
 {  
 ...  
 return View();  
 }  
}

C. [Authorize]  

```
public class LibraryController : Controller
{
    [AllowAnonymous]
    public ActionResult GetBook()
    {
        ...
        return View();
    }

    [Authorize]
    public ActionResult EditBook()
    {
        if (this.HttpContext.User.Identity.Name != "LibraryAdmin")
        {
            return RedirectToAction("Login", "Account", new { ReturnUrl = "/Library/EditBook" });
        }
        else
        {
            ...
            return View();
        }
    }
}
```

D. [Authorize]  

```
public class LibraryController : Controller
{
    [Authorize(Roles="Anonymous")]
    public ActionResult GetBook()
    {
        ...
        return View();
    }

    [Authorize(Users = "LibraryAdmin")]
    public ActionResult EditBook()
    {
        ...
        return View();
    }
}
```

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

---

**Answer: A, C**

---

### Question: 36

---

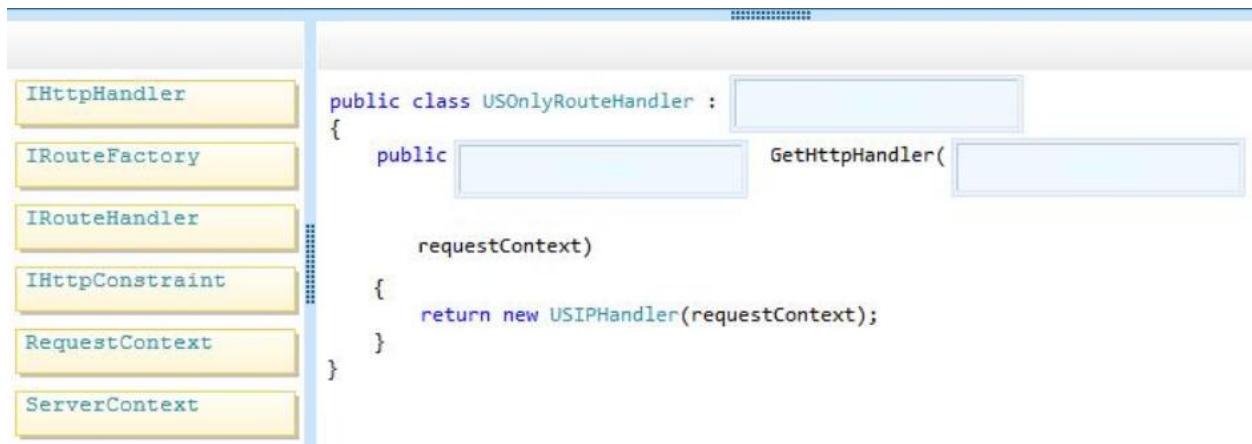
#### DRAG DROP

You are developing an ASP.NET MVC application that takes customer orders.

Orders are restricted to customers with IP addresses based in the United States.

You need to implement a custom route handler.

How should you implement the route handler? (To answer, drag the appropriate line of code to the correct location or locations. Each line of code 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.)

**Answer:****Explanation:**

<http://msdn.microsoft.com/en-us/library/system.web.routing.iroutehandler.gethttphandler.aspx>

**Question: 37**

You are designing an HTML5 website.

You need to design the interface to make the content of the web page viewable in all types of browsers, including voice recognition software, screen readers, and reading pens.

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

- A. Annotate HTML5 content elements with Accessible Rich Internet Application (ARIA) attributes.
- B. Convert HTML5 forms to XForms.
- C. Ensure that HTML5 content elements have valid and descriptive names.
- D. Use HTML5 semantic markup elements to enhance the pages.
- E. Use Resource Description Framework (RDF) to describe content elements throughout the entire page.

**Answer: A, D****Question: 38****DRAG DROP**

You are developing an ASP.NET MVC web application in Visual Studio 2012.

The application has a model named ReservationLocation that contains properties named City and State.

The view that displays reservations has a single text box named loc for entering the location information. The location

is entered as city, state.

There are action methods that have `ReservationLocation` as a parameter type. You need to ensure that the City and State properties are correctly populated.

How should you implement model binding for the `ReservationLocation` type? (To answer, drag the appropriate code segment to the correct location or locations. 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.)

```
bindingContext.ModelType = typeof
(ReservationLocation);

var raw = bindingContext.ValueProvider.GetValue
("loc");

dynamic data = bindingContext.ValueProvider.GetValue
("loc");

dynamic data = raw.RawValue
.ToString().Split(',');

bindingContext.ModelState.Add("city,state",
    new ModelState { Value = data });

dynamic data = controllerContext.RouteData
.Values[raw + "[city,state]"];
```

```
public class ReservationModelBinder : IModelBinder
{
    public object BindModel(ControllerContext controllerContext,
        ModelBindingContext bindingContext)
    {
        // Step 1: Create a new ReservationLocation object
        ReservationLocation location = new ReservationLocation();

        // Step 2: Extract the city and state from the raw value
        string[] parts = bindingContext.ValueProvider.GetValue("loc").RawValue
            .ToString().Split(',');

        location.City = parts[0];
        location.State = parts[1];

        return location;
    }
}
```

---

**Answer:**

```

bindingContext.ModelType = typeof
(ReservationLocation);

dynamic data = bindingContext.ValueProvider.GetValue
("loc");

bindingContext.ModelState.Add("city,state",
    new ModelState { Value = data });

dynamic data = controllerContext.RouteData
.Values[raw + "[city,state]"];
=====

public class ReservationModelBinder : IModelBinder
{
    public object BindModel(ControllerContext controllerContext,
        ModelBindingContext bindingContext)
    {
        var raw = bindingContext.ValueProvider.GetValue
        ("loc");

        dynamic data = raw.RawValue
            .ToString().Split(',');

        return new ReservationLocation
        {
            City = data[0],
            State = data[1],
        };
    }
}

```

**Question: 39**

You are developing an ASP.NET MVC web application in Visual Studio 2012. The application requires several thousand content files. All content is hosted on the same IIS instance as the application.

You detect performance issues when the application starts.

You need to resolve the performance issues.

What should you do?

- A. Implement HTTP caching in the ASP.NET MVC controllers.
- B. Combine the content files by using ASP.NET MVC bundling.
- C. Install a second IIS instance.
- D. Move the content to a Windows Azure CDN.

---

**Answer: B**

---

### **Question: 40**

You are developing an ASP.NET MVC application in Visual Studio 2012. The application supports multiple cultures.

The application contains three resource files in the Resources directory:

MyDictionary.resx  
MyDictionary.es.resx  
MyDictionary.fr.resx

Each file contains a public resource named Title with localized translation.

The application is configured to set the culture based on the client browser settings.

The application contains a controller with the action defined in the following code segment. (Line numbers are included for reference only.)

```
01 public ActionResult GetProducts()
02 {
03
04     List<ProductModel> products = DataBase.DBAccess.GetProducts();
05     return View(products);
06 }
```

You need to set ViewBag.Title to the localized title contained in the resource files.

Which code segment should you add to the action at line 03?

- A. ViewBag.Title = HttpContext.GetGlobalResourceObject("MyDictionary", "Title");
- B. ViewBag.Title = HttpContext.GetGlobalResourceObject("MyDictionary", "Title", new System.Globalization.CultureInfo("en"));
- C. ViewBag.Title = Resources.MyDictionary.Title;
- D. ViewBag.Title = HttpContext.GetLocalResourceObject("MyDictionary", "Title");

---

**Answer: C**

---

### **Question: 41**

You are testing an ASP.NET application.

The test plan requires that tests run against the application's business layer.

You need to use the test project template that meets this requirement.

Which template should you use?

- A. Web Test Project
- B. Load Test Project
- C. Unit Test Project
- D. Coded Test Project

---

**Answer: C**

---

## Question: 42

---

You are authoring unit tests.

The unit tests must test code that consumes sealed classes.

You need to create, maintain, and inject dependencies in the unit tests.

Which isolation method should you use?

- A. T4 text templates and code generation
- B. Stub types
- C. Shim types
- D. Hard-coded implementation

---

**Answer: C**

---

Explanation:

<http://msdn.microsoft.com/en-us/library/hh549176.aspx>

Shim types are one of two technologies that the Microsoft Fakes Framework uses to let you easily isolate components under test from the environment. Shims divert calls to specific methods to code that you write as part of your test. Many methods return different results dependent on external conditions, but a shim is under the control of your test and can return consistent results at every call. This makes your tests much easier to write.

---

## Question: 43

---

You are developing an ASP.NET MVC web application that includes the following method.

```
public double AccountBalance(double currentBalance, double transactionAmount)
{
    double finalBalance = 0.00;
    finalBalance = currentBalance + transactionAmount;
    return finalBalance;
}
```

You need to test the AccountBalance method.

Which unit test should you use?

- C A. [TestMethod()]  
private void AccountBalanceTest()  
{  
 double currentBalance = 175.05;  
 double transactionAmount = 76.03;  
 double finalBalance = 251.08;  
 double result = 0.00;  
  
 result = AccountBalance(currentBalance, transactionAmount);  
 Assert.AreEqual(finalBalance, result);  
}
- C B. [TestMethod()]  
public void AccountBalanceTest()  
{  
 double currentBalance = 175.05;  
 double transactionAmount = 76.03;  
 double finalBalance = 251.08;  
 double result = 0.00;  
  
 result = AccountBalance(currentBalance, transactionAmount);  
 Assert.IsTrue(finalBalance, result);  
}
- C C. [TestMethod()]  
public void AccountBalanceTest()  
{  
 double currentBalance = 175.05;  
 double transactionAmount = 76.03;  
 double finalBalance = 251.08;  
 double result = 0.00;  
  
 result = AccountBalance(currentBalance, transactionAmount);  
 Assert.AreEqual(finalBalance, result);  
}
- C D. [UnitTests()]  
public void AccountBalanceTest()  
{  
 double currentBalance = 175.05;  
 double transactionAmount = 76.03;  
 double finalBalance = 251.08;  
 double result = 0.00;  
  
 result = AccountBalance(currentBalance, transactionAmount);  
 Assert.AreEqual(finalBalance, result);  
}

- A. Option A  
B. Option B

- C. Option C
- D. Option D

---

**Answer: C**

---

Explanation:

<http://msdn.microsoft.com/en-us/magazine/cc163665.aspx>

[http://msdn.microsoft.com/en-us/library/microsoft.visualstudio.testtools.unittesting.assert.areequal\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/microsoft.visualstudio.testtools.unittesting.assert.areequal(v=vs.110).aspx)

---

### **Question: 44**

---

You are developing an ASP.NET MVC application by using Visual Studio 2012.

The application throws and handles exceptions when it runs.

You need to examine the state of the application when exceptions are thrown.

What should you do?

- A. From the DEBUG menu in Visual Studio 2012, select Exceptions. Enable the Thrown check box for Common Language Runtime Exceptions.
- B. From the DEBUG menu in Visual Studio 2012, select Exceptions. Disable the User-unhandled check box for Common Language Runtime Exceptions.
- C. Add the following code to the Web.config file of the application.

```
<customErrors mode="On">
<error statusCode="500" redirect="CustomErrors.html" />
</customErrors>
```

- D. Add the following code to the Web.config file of the application.

```
<customErrors mode="On" >
<error statusCode="404" redirect="CustomErrors.html"/>
</customErrors>
```

---

**Answer: A**

---

---

### **Question: 45**

---

You are developing an ASP.NET MVC news aggregation application that will be deployed to servers on multiple networks.

The application must be compatible with multiple browsers. A user can search the website for news articles. You must track the page number that the user is viewing in search results.

You need to program the location for storing state information about the user's search.

What should you do?

- A. Store search results and page index in Session.
- B. Use Application state to store search terms and page index.
- C. Use QueryString to store search terms and page index.
- D. Store search results and page index in TempData

---

**Answer: C**

---

---

### **Question: 46**

---

You are developing an ASP.NET MVC application. The application is deployed in a web farm and is accessed by many users.

The application must handle web server failures gracefully. The servers in the farm must share the state information. You need to persist the application state during the session.

What should you implement?

- A. A state server
- B. Cookieless sessions
- C. A web garden on the web servers
- D. An InProc session

---

**Answer: A**

---

### **Question: 47**

---

You are developing an ASP.NET MVC application that displays stock market information.

The stock market information updates frequently and must be displayed in real-time.

You need to eliminate unnecessary header data, minimize latency, and transmit data over a full-duplex connection.

What should you do?

- A. Implement long-running HTTP requests.
- B. Instantiate a MessageChannel object on the client.
- C. Implement WebSockets protocol on the client and the server.
- D. Configure polling from the browser.

---

**Answer: C**

---

### **Question: 48**

---

You are designing a distributed application that runs on the Windows Azure platform.

The application must store a small amount of insecure global information that does not change frequently.

You need to configure the application to meet the requirements.

Which server-side state management option should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Windows Azure application state
- B. Sql Azure
- C. Profile properties of the Windows Azure application
- D. Windows Azure session state

---

**Answer: B, D**

---

Explanation:

SQL Database provides a relational database management system for Windows Azure and is based on SQL Server technology. With a SQL Database instance, you can easily provision and deploy relational database solutions to the cloud, and take advantage of a distributed data center that provides enterprise-class availability, scalability, and security with the benefits of built-in data protection and self-healing.

Session States in Windows Azure.

If you are a Web developer, you are probably very familiar with managing user state - that is you are familiar with tracking user activity and actions across several request-response exchanges that occur in Web applications. Since

HTTP is a stateless protocol, developers over the years have developed all sorts of means to manage state. You'll even find an MSDN page providing alternatives and recommendations for state management [here](#). Cookies, hidden fields, and query strings are some client-side options to tracking user state. When it comes to managing that state on the server-side, most Web developers rely on session objects.

## Question: 49

### DRAG DROP

You are developing an ASP.NET MVC application that has pages for users who browse the site with Windows Phone 7. The pages for Windows Phone 7 include the following files:

\_Layout.WP7.cshtml  
Index.WP7.cshtml

You need to update the application so that it renders the customized files correctly to Windows Phone 7 users. How should you update the Application\_Start method? (To answer, drag the appropriate line of code to the correct location or locations. Each line of code 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.)

```

protected void Application_Start()
{
    DisplayModeProvider.Instance.Modes.Insert(0, new
    {
        ContextCondition = (context =>
            context.GetOverriddenUserAgent().IndexOf(
                "Windows Phone OS",
                StringComparison.OrdinalIgnoreCase) >= 0
        );
    });
    AreaRegistration.RegisterAllAreas();
}

```

### Answer:

```

protected void Application_Start()
{
    DisplayModeProvider.Instance.Modes.Insert(0, new
    {
        DefaultDisplayMode ("WP7")
    });
    ContextCondition = (context =>
        context.GetOverriddenUserAgent().IndexOf(
            "Windows Phone OS",
            StringComparison.OrdinalIgnoreCase) >= 0
    );
    AreaRegistration.RegisterAllAreas();
}

```

### Explanation:

<http://techbrij.com/1013/display-mode-mobile-tablet-tv-aspnet-mvc>

---

### **Question: 50**

You are developing an ASP.NET MVC web application for viewing a list of contacts. The application is designed for devices that support changes in orientation, such as tablets and smartphones. The application displays a grid of contact tiles in portrait mode.

When the orientation changes to landscape, each tile in the grid expands to include each contact's details. The HTML that creates the tiled interface resembles the following markup.

```
<ul class="contacts">
  <li>
    
    <div>Details</div>
  </li>
</ul>
```

The CSS used to style the tiles in landscape mode is as follows.

```
ul.contacts > li {
  width: 150px;
}

ul.contacts > li > div {
  display: block;
}
```

If this CSS is omitted, the existing CSS displays the tiles in portrait mode.

You need to update the landscape-mode CSS to apply only to screens with a width greater than or equal to 500 pixels.

Which code segment should you use?

- A. @media screen and (width >= 500px) {  
...  
}
- B. @media screen and (min-width: 500px) {  
...  
}
- C. @media screen (min-width: 500px, max-width: 1000px) {  
...  
}
- D. @media resolution (min-width: 500px) {  
...  
}

---

**Answer: B**

Explanation:

<http://www.javascriptkit.com/dhtmltutors/cssmediaqueries.shtml>

---

### **Question: 51**

You are developing an ASP.NET MVC application.

You need to authenticate clients by using NT LAN Manager (NTLM).

Which authentication method should you implement?

- A. Basic

- B. Windows
- C. Forms
- D. Kerberos

---

**Answer: B**

---

Explanation:

[http://msdn.microsoft.com/en-us/library/aa292114\(v=vs.71\).aspx](http://msdn.microsoft.com/en-us/library/aa292114(v=vs.71).aspx)

---

**Question: 52**

---

DRAG DROP

You are developing an ASP.NET MVC application in Visual Studio 2012. The application contains sensitive bank account data.

The application contains a helper class named SensitiveData.Helpers.CustomEncryptor.

```
public class CustomEncryptor
{
    public string Encrypt(string plaintext)
    {
        ...
    }
}
```

The application contains a controller named **BankAccountController** with two actions.

```
public class BankAccountController : Controller
{
    public ActionResult GetAccounts()
    {
        ...
    }

    public ActionResult EditAccount(string maskedAccountNum)
    {
        ...
    }
}
```

The application contains a model named **BankAccount**, which is defined in the following code segment.

```
public class BankAccount
{
    public string AccountNumber { get; set; }
    public string AccountName { get; set; }
    public double Balance { get; set; }
}
```

The application must not display AccountNumber in clear text in any URL.

You need to build the view for the GetAccounts action.

How should you build the view? (To answer, drag the appropriate code segment to the correct location or locations. 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.)

custEncrypt  
maskedAccountNum  
Html  
Encrypt(item.AccountNumber)  
Encode(item.AccountNumber)

```
@model IEnumerable<SensitiveData.Models.GamerAccount>
@(SensitiveData.Helpers.CustomEncryptor custEncrypt =
    new SensitiveData.Helpers.CustomEncryptor())
<h2>GetAccounts</h2>
<table>
    <tr>
        <th>Account Name</th>
        <th>Balance</th>
    </tr>
    @foreach (var item in Model)
    {
        <tr>
            <td>@Html.DisplayFor(modelItem => item.AccountName)</td>
            <td>@Html.DisplayFor(modelItem => item.Highscore)</td>
            <td>
                @Html.ActionLink("Edit", "EditAccount",
                    new {
                        maskedAccountNum = custEncrypt.Encrypt(item.AccountNumber)
                    })
            </td>
        </tr>
    }
</table>
```

**Answer:**

Html  
Encode(item.AccountNumber)

```
@model IEnumerable<SensitiveData.Models.GamerAccount>
@(SensitiveData.Helpers.CustomEncryptor custEncrypt =
    new SensitiveData.Helpers.CustomEncryptor())
<h2>GetAccounts</h2>
<table>
    <tr>
        <th>Account Name</th>
        <th>Balance</th>
    </tr>
    @foreach (var item in Model)
    {
        <tr>
            <td>@Html.DisplayFor(modelItem => item.AccountName)</td>
            <td>@Html.DisplayFor(modelItem => item.Highscore)</td>
            <td>
                @Html.ActionLink("Edit", "EditAccount",
                    new {
                        maskedAccountNum = custEncrypt.Encrypt(item.AccountNumber)
                    })
            </td>
        </tr>
    }
</table>
```

**Question: 53**

You are developing an ASP.NET MVC application.  
The application must allow users to enter JavaScript in a feedback text box only.

You need to disable request validation.  
What should you do?

- A. Apply and set the CausesClientSideValidation attribute on the text box to FALSE.
- B. Apply and set the ValidateInput attribute on the text box to FALSE.
- C. Use the HttpRequest.Unvalidated property to read the unvalidated form value.
- D. Use the HttpRequest.Form property to read the unvalidated form value.

---

**Answer: C**

---

Explanation:  
Provides access to HTTP request values without triggering request validation.

<http://msdn.microsoft.com/en-us/library/system.web.httprequest.unvalidated.aspx>

---

### **Question: 54**

---

You are developing an ASP.NET MVC application that will be deployed on a web farm.  
Passwords must be stored in the web.config file and must not be readable or in a format that is easily decodable  
You need to encrypt the passwords that are stored in the web.config file.  
Which command-line tool should you use?

- A. Aspnet\_regiis.exe
- B. Ngen.exe
- C. Aspnet\_merge.exe
- D. EdmGen.exe

---

**Answer: A**

---

Explanation:  
[http://msdn.microsoft.com/en-us/library/zhhdkxy\(v=vs.100\).aspx](http://msdn.microsoft.com/en-us/library/zhhdkxy(v=vs.100).aspx)

---

### **Question: 55**

---

HOTSPOT  
You are developing an ASP.NET MVC application that authenticates a user by using claims-based authentication.  
The application must:  
Use Windows Identity Foundation 4.5.  
Support the Windows Azure Access Control Service.  
You need to implement authentication.  
How should you build the class constructor? (To answer, select the appropriate option from the drop-down list in the answer area.)

## Work Area

```
using Microsoft.IdentityModel.Claims;

public class IdentityClaim
{
    private string _identityProvider;
    private string _identityValue;
    public const string ACSProviderClaim =
        "http://schemas.microsoft.com/accesscontrolservice/...";

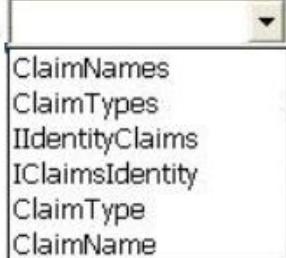
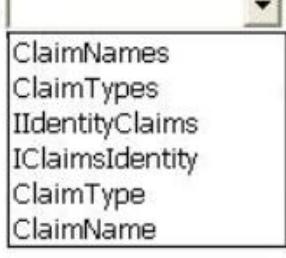
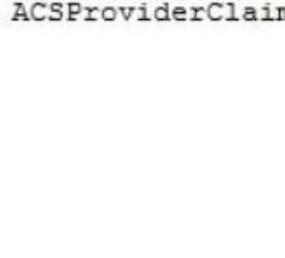
    public IdentityClaim([ ] identity)
    {
        if (identity != null)
        {
            foreach (var claim in identity.Claims)
            {
                if (claim.[ ] == [ ].NameIdentifier)
                {
                    _identityValue = claim.Value;
                }
                if (claim.[ ] == ACSProviderClaim)
                {
                    _identityProvider = claim.Value;
                }
            }
        }
    }
}
```

## Work Area

```

using Microsoft.IdentityModel.Claims;

public class IdentityClaim
{
    private string _identityProvider;
    private string _identityValue;
    public const string ACSProviderClaim =
        "http://schemas.microsoft.com/accesscontrolservice/...";

    public IdentityClaim(
        identity)
    {
        if (identity != null)
        {
            foreach (var claim in identity.Claims)
            {
                if (claim. == .NameIdentifier)
                    
                {
                    _identityValue = claim.Value;
                }
                if (claim. == ACSProviderClaim)
                    
                {
                    _identityProvider = claim.Value;
                }
            }
        }
    }
}

```

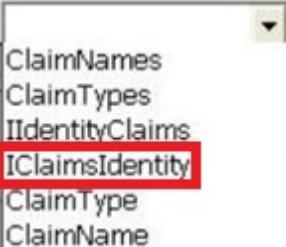
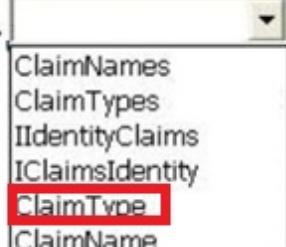
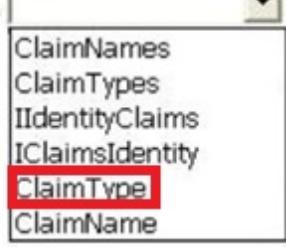
**Answer:**

## Work Area

```

using Microsoft.IdentityModel.Claims;

public class IdentityClaim
{
    private string _identityProvider;
    private string _identityValue;
    public const string ACSProviderClaim =
        "http://schemas.microsoft.com/accesscontrolservice/...";

    public IdentityClaim(
        identity)
    {
        if (identity != null)
        {
            foreach (var claim in identity.Cclaims)
            {
                if (claim. == .NameIdentifier)
                {
                    _identityValue = claim.Value;
                }
                if (claim. == ACSProviderClaim)
                {
                    _identityProvider = claim.Value;
                }
            }
        }
    }
}

```

Explanation:

[http://garvincasimir.wordpress.com/2012/04/05/tutorial-mvc-application-using-azure-acr-and-forms-authentication-](http://garvincasimir.wordpress.com/2012/04/05/tutorial-mvc-application-using-azure-acr-and-forms-authentication/)

[part-1/](#)**Question: 56****HOTSPOT**

You are developing an ASP.NET MVC application.

You need to store membership information in a Microsoft SQL Server database.

How should you configure the membership provider? (To answer, select the appropriate options in the answer area.)

**Work Area**

```
<configuration>
  <connectionStrings>
    <add name="SqlServices"
      connectionString="Data Source=localhost;
      Integrated Security=SSPI;Initial Catalog=aspnetdb;" />
  </connectionStrings>
  <system.web>
    <authentication mode="Forms" >
      <forms loginUrl="login.aspx"
        name=".ASPFXFORMSAUTH" />
    </authentication>
    <authorization>
      <deny users="?" />
    </authorization>
    <membership defaultProvider="SqlProvider">
      <providers>
        <add
          name="SqlProvider"

          <!-- Configuration for SqlProvider -->
          <!-- Configuration for ApplicationName -->
        </providers>
      </membership>
    </system.web>
  </configuration>
```

## Work Area

```
<configuration>
  <connectionStrings>
    <add name="SqlServices"
      connectionString="Data Source=localhost;
      Integrated Security=SSPI;Initial Catalog=aspnetdb;" />
  </connectionStrings>
  <system.web>
    <authentication mode="Forms" >
      <forms loginUrl="login.aspx"
        name=".ASPxFORMSAUTH" />
    </authentication>
    <authorization>
      <deny users="?" />
    </authorization>
    <membership defaultProvider="SqlProvider">
      <providers>
        <add
          name="SqlProvider"
          type="System.Web.Security.SqlMembershipProvider"
          type="System.Web.Security.SqlProvider"
          namespace="System.Web.Security.SqlMembershipProvider"
          namespace="System.Web.Security.SqlProvider"
          connectionString="SqlServices"
          connectionStringName="SqlServices"
          applicationName="MyApplication" />
      </providers>
    </membership>
  </system.web>
</configuration>
```

---

**Answer:**

---

## Work Area

```

<configuration>
  <connectionStrings>
    <add name="SqlServices"
      connectionString="Data Source=localhost;
      Integrated Security=SSPI;Initial Catalog=aspnetdb;" />
  </connectionStrings>
  <system.web>
    <authentication mode="Forms" >
      <forms loginUrl="login.aspx"
        name=".ASPxFORMSAUTH" />
    </authentication>
    <authorization>
      <deny users="?" />
    </authorization>
    <membership defaultProvider="SqlProvider">
      <providers>
        <add
          name="SqlProvider"
          type="System.Web.Security.SqlMembershipProvider"
          type="System.Web.Security.SqlProvider"
          namespace="System.Web.Security.SqlMembershipProvider"
          namespace="System.Web.Security.SqlProvider"
          connectionString="SqlServices"
          connectionStringName="SqlServices"
          applicationName="MyApplication" />
      </providers>
    </membership>
  </system.web>
</configuration>

```

Explanation:

<http://msdn.microsoft.com/en-us/library/system.web.security.sqlmembershipprovider.aspx>

### Question: 57

You are designing a distributed application.

The application must store a small amount of insecure global information that does not change frequently.

You need to configure the application to meet the requirements.

Which server-side state management option should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Application state

- B. Session state
- C. Database support
- D. Profile properties

---

**Answer: A, C**

---

### **Question: 58**

---

You are developing an ASP.NET MVC application. The application is deployed in a web farm and is accessed by many users.

The application must handle web server failures gracefully. The servers in the farm must share the short-term state information.

You need to persist the application state during the session.

What should you implement?

- A. ASP.NET session state
- B. A local database
- C. A state server
- D. Profile properties

---

**Answer: C**

---

### **Question: 59**

---

You are developing an ASP.NET MVC application that will be deployed to servers on multiple networks.

The application must be compatible with multiple browsers. You must track the page number that the user is viewing in search results.

You need to program the location for storing state information.

Where should you persist state information?

- A. Session
- B. QueryString
- C. Application
- D. TempData

---

**Answer: B**

---

### **Question: 60**

---

#### **HOTSPOT**

You are developing an ASP.NET MVC web application that enables users to open Microsoft Excel files.

The current implementation of the ExcelResult class is as follows.

```
public class ExcelResult : ActionResult
{
    public string Path { get; set; }

    public override void ExecuteResult(ControllerContext context)
    {
        ...
    }
}
```

You need to enable users to open Excel files.

How should you implement the ExecuteResult method? (To answer, select the appropriate options in the answer area.)

Work Area

```
var response = context.HttpContext.Response;
var request = context.HttpContext.Request;

if (canProcess)
{
    response.Clear();
}

response.WriteFile(context.HttpContext.Server.MapPath(Path));
```

## Work Area

```

var response = context.HttpContext.Response;
var request = context.HttpContext.Request;

var canProcess = request.AcceptTypes.Contains("application/vnd.ms-excel");
var canProcess = request.ContentType.Contains("application/vnd.ms-excel");

if (canProcess)
{
    response.Clear();

    response.AddHeader("content-disposition", "attachment; filename=dl");
    response.Output.Write("content-disposition", "application/vnd.ms-excel");

    response.ContentType = "application/vnd.ms-excel";
    response.ContentEncoding = new UTF8Encoding

    response.WriteFile(context.HttpContext.Server.MapPath(Path));
}

```

**Answer:**

## Work Area

```

var response = context.HttpContext.Response;
var request = context.HttpContext.Request;

var canProcess = request.AcceptTypes.Contains("application/vnd.ms-excel");
var canProcess = request.ContentType.Contains("application/vnd.ms-excel");

if (canProcess)
{
    response.Clear();

    response.AddHeader("content-disposition", "attachment; filename=dl");
    response.Output.Write("content-disposition", "application/vnd.ms-excel");

    response.ContentType = "application/vnd.ms-excel";
    response.ContentEncoding = new UTF8Encoding

    response.WriteFile(context.HttpContext.Server.MapPath(Path));
}

```

**Question: 61**

You are developing an ASP.NET MVC web application in Visual Studio 2012. The application requires several thousand content files. All content is hosted on the same IIS instance as the application.

You detect performance issues when the application starts.

You need to resolve the performance issues.

What should you do?

- A. Enable compression in IIS.
- B. Move the content to a second server.
- C. Combine the content files by using ASP.NET MVC bundling.
- D. Implement HTTP caching in IIS.

---

**Answer: C**

---

### **Question: 62**

---

You are designing an HTML5 website.

You need to design the interface such that the content is viewable in all types of browsers, including screen readers. What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Ensure that content elements have valid and descriptive names.
- B. Use Resource Description Framework (RDF) to describe content elements.
- C. Convert HTML forms to XForms.
- D. Use HTML5 semantic markup elements.
- E. Annotate content elements with Accessible Rich Internet Application (ARIA) attributes.

---

**Answer: D, E**

---

### **Question: 63**

---

You are developing an ASP.NET MVC application in Visual Studio 2012. The application supports multiple cultures.

The application contains three resource files in the Resources directory:

ProductDictionary.resx

ProductDictionary.es.resx

ProductDictionary.fr.resx

Each file contains a public resource named Currency with the localized currency symbol. The application is configured to set the culture based on the client browser settings.

The application contains a controller with the action defined in the following code segment. (Line numbers are included for reference only.)

```
01 public ActionResult GetProducts()
02 {
03
04     List<ProductModel> products = DataBase.DBAccess.GetProducts();
05     return View(products);
06 }
```

You need to set ViewBag.LocalizedCurrency to the localized currency contained in the resource files.

Which code segment should you add to the action at line 03?

- A. ViewBag.LocalizedCurrency = Resources.ProductDictionary.Currency;
- B. ViewBag.LocalizedCurrency = HttpContext.GetGlobalResourceObject("ProductDictionary", "Currency", new System.Globalization.CultureInfo("en-US"));
- C. ViewBag.LocalizedCurrency = HttpContext.GetLocalResourceObject("ProductDictionary", "Currency");
- D. ViewBag.LocalizedCurrency = HttpContext.GetGlobalResourceObject("ProductDictionary", "Currency");

---

**Answer: A**

---

**Question: 64**

---

You are developing an ASP.NET MVC application.  
You need to authenticate clients by using an ASP.NET membership database.  
Which authentication method should you implement?

- A. Kerberos
- B. Forms
- C. Basic
- D. Windows

---

**Answer: B**

---

**Question: 65**

---

DRAG DROP

You are developing an ASP.NET MVC application that authenticates a user by using claims-based authentication.  
The application must:  
Use Windows Identity Foundation 4.5.  
Support the Windows Azure Access Control Service.  
You need to implement authentication.  
How should you build the class constructor? (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.)

ClaimNames	using Microsoft.IdentityModel.Claims;
ClaimTypes	public class IdentityClaim
IIdentityCla	{
IClaimsIdent	private string _identityProvider;
ClaimType	private string _identityValue;
ClaimName	public const string ACSProviderClaim = "http://schemas.microsoft.com/accesscontrolservice/...";

```

        public IdentityClaim([ ] identity)
        {
            if (identity != null)
            {
                foreach (var claim in identity.Cclaims)
                {
                    if (claim. [ ] == [ ].NameIdentifier)
                    {
                        _identityValue = claim.Value;
                    }
                    if (claim. [ ] == ACSProviderClaim)
                    {
                        _identityProvider = claim.Value;
                    }
                }
            }
        }
    }
}

```

---

**Answer:**

---

Box 1: IClaimsIdent

Box 2: ClaimType

Box 3: ClaimTypes

Box 4: ClaimType

Explanation:

Similar example:

For Box 1, see line 15.

For Box 2, see line 22.

For Box 3, see line 22.

For Box 4, see line 26.

using System;

```

02     using System.Collections.Generic;
03     using System.Linq;
04     using System.Web;
05     using Microsoft.IdentityModel.Claims;
06
07     namespace MVC3MixedAuthenticationSample.Models
08     {
09         public class IdentityClaim
10         {
11             private string _identityProvider;
12             private string _identityValue;

```

```

13     public const string ACSProviderClaim
14         ="http://schemas.microsoft.com/accesscontrolservice/2010/07/claims/identityprovider";
15     public IdentityClaim(IClaimsIdentity identity)
16     {
17
18         if (identity != null)
19         {
20             foreach (var claim in identity.Claims)
21             {
22                 if (claim.ClaimType == ClaimTypes.NameIdentifier)
23                 {
24                     _identityValue = claim.Value;
25                 }
26                 if (claim.ClaimType == ACSProviderClaim)
27                 {
28                     _identityProvider = claim.Value;
29                 }
30
31             }
32         }
33
34     }

```

---

**Question: 66**

---

You are developing an ASP.NET MVC application that will be deployed on a web farm. Passwords must be stored in the web.config file and must not be readable or in a format that is easily decodable. You need to encrypt the passwords that are stored in the web.config file. Which command-line tool should you use?

- A. Aspnet\_regiis.exe
- B. Aspnet\_regbrowsers.exe
- C. Aspnet\_setreg.exe
- D. Aspnet\_compiler.exe

---

**Answer: A**

---

---

**Question: 67**

---

You are developing an ASP.NET MVC web application that includes the following method.

```

public double GoldMined(double currentGold, double newlyMinedGold)
{
    double totalGold = 0.00;
    totalGold = currentGold + newlyMinedGold;
    return totalGold;
}

```

You need to test the GoldMined method.

Which unit test should you use?

C A. [TestMethod()]  
 public void GoldMinedTest()  
 {  
 double currentGold = 175.05;  
 double newlyMinedGold = 76.03;  
 double totalGold = 251.08;  
 double result = 0.00;  
  
 result = GoldMined(currentGold, newlyMinedGold);  
 Assert.IsTrue(totalGold, result);  
 }

C B. [TestMethod()]  
 private void GoldMinedTest()  
 {  
 double currentGold = 175.05;  
 double newlyMinedGold = 76.03;  
 double totalGold = 251.08;  
 double result = 0.00;  
  
 result = GoldMined(currentGold, newlyMinedGold);  
 Assert.AreEqual(totalGold, result);  
 }

C C. [UnitTests()]  
 public void GoldMinedTest()  
 {  
 double currentGold = 175.05;  
 double newlyMinedGold = 76.03;  
 double totalGold = 251.08;  
 double result = 0.00;  
  
 result = GoldMined(currentGold, newlyMinedGold);  
 Assert.AreEqual(totalGold, result);  
 }

C D. [TestMethod()]  
 public void GoldMinedTest()  
 {  
 double totalGold = 175.05;  
 double newlyMinedGold = 76.03;  
 double totalGold = 251.08;  
 double result = 0.00;  
  
 result = GoldMined(currentGold, newlyMinedGold);  
 Assert.AreEqual(totalGold, result);  
 }

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

---

**Answer: D**

---

**Question: 68**

You are developing an ASP.NET MVC application by using Visual Studio 2012. The application throws and handles exceptions when it runs. You need to examine the state of the application when exceptions are thrown. What should you do?

- From the Debug menu in Visual Studio 2012, select Exceptions. Enable the Thrown check box for Common Language Runtime Exceptions.
- From the DEBUG menu in Visual Studio 2012, select Attach to Process. Select the IIS process.
- From the Debug menu in Visual Studio 2012, select Exceptions. Disable the User-unhandled check box for Common Language Runtime Exceptions.
- From the TOOLS menu in Visual Studio 2012, click Customize. Click the Commands tab and select Debug.

**Answer: A****Question: 69****HOTSPOT**

You are developing an ASP.NET MVC application that has pages for users who browse the site with Windows Phone 7. The pages for Windows Phone 7 include the following files:

\_Layout.WP7.cshtml

Index.WP7.cshtml

You need to update the application so that it renders the customized files correctly to Windows Phone 7 users.

How should you update the Application\_Start method? (To answer, select the appropriate option from the drop-down list in the answer area.)

**Work Area**

```
protected void Application_Start()
{
    DisplayModeProvider.Instance.Modes.Insert(0, new
    {
        ContextCondition = (context =>
            context.GetOverriddenUserAgent().IndexOf
            "Windows Phone" >= 0);
    });
}

AreaRegistration.RegisterAllAreas();
```

## Work Area

```
protected void Application_Start()
{
    DisplayModeProvider.Instance.Modes.Insert(0, new
    {
        DefaultDisplayMode("WP7")
        ("Windows Phone OS",
        StringComparison.OrdinalIgnoreCase
        DefaultDisplayMode("Mobile")
        ("Mobile",
        AreaRegistration.RegisterAllDevices());
    });

    ContextCondition = (context =>
        context.GetOverriddenUserAgent().IndexOf

        DefaultDisplayMode("WP7")
        ("Windows Phone OS",
        StringComparison.OrdinalIgnoreCase
        DefaultDisplayMode("Mobile")
        ("Mobile",
        AreaRegistration.RegisterAllDevices());

        ) >= 0)

        DefaultDisplayMode("WP7")
        ("Windows Phone OS",
        StringComparison.OrdinalIgnoreCase
        DefaultDisplayMode("Mobile")
        ("Mobile",
        AreaRegistration.RegisterAllDevices());

    });

    AreaRegistration.RegisterAllAreas();
}
```

---

**Answer:**

---

**Work Area**

```
protected void Application_Start()
{
    DisplayModeProvider.Instance.Modes.Insert(0, new
    {
        DefaultDisplayMode("WP7")
        ("Windows Phone OS",
        StringComparison.OrdinalIgnoreCase)
        DefaultDisplayMode("Mobile")
        ("Mobile",
        AreaRegistration.RegisterAllDevices());
    });
    ContextCondition = (context =>
        context.GetOverriddenUserAgent().IndexOf
        (
            DefaultDisplayMode("WP7")
            ("Windows Phone OS",
            StringComparison.OrdinalIgnoreCase)
            DefaultDisplayMode("Mobile")
            ("Mobile",
            AreaRegistration.RegisterAllDevices());
        ) >= 0)
    );
    AreaRegistration.RegisterAllAreas();
}
```

**Question: 70**

You are developing an ASP.NET MVC web application for viewing a photo album. The application is designed for devices that support changes in orientation, such as tablets and smartphones. The application displays a grid of photos in portrait mode.

When the orientation changes to landscape, each tile in the grid expands to include a description. The HTML that creates the gallery interface resembles the following markup.

```
<ul class="gallery">
  <li>
    
    <div>Description</div>
  </li>
</ul>
```

The CSS used to style the tiles in portrait mode is as follows.

```
ul.gallery > li {
  width: 100px;
}

ul.gallery > li > div {
  display: none;
}
```

If this CSS is omitted, the existing CSS displays the tiles in landscape mode.

You need to update the portrait mode CSS to apply only to screens with a width less than 500 pixels.  
Which code segment should you use?

- A. @media resolution(max-width: 500px) {  
...  
}
- B. @media screen(min-width: 0px, max-width: 500px) {  
...  
}
- C. @media screen and (width <= 500px) {  
...  
}
- D. @media screen and (max-width: 500px) {  
...  
}

---

**Answer: D**

---

<http://www.javascriptkit.com/dhtmltutors/cssmediaqueries.shtml>

### Question: 71

---

#### 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.)

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.	

---

**Answer:**

---

Box 1:

Use SharePoint Designer to save the workflow as a .wsp solution package.

Box 2:

Import the solution package into Visual Studio.

Box 3: Upload the solution package to the desired site.

Explanation:

Note:

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

Steps:

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

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

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

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

---

**Question: 72**

---

**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.)

- Set Workflow Status**
- Set Workflow Variable**
- 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**

---

**Answer:**

---

- Set Workflow Status**
- Set Workflow Variable
- 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**

---

**Question: 73**

---

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

---

**Answer: B**

---

---

**Question: 74**

---

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

---

**Answer: A**

---

### **Question: 75**

---

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

---

**Answer: B**

---

### **Question: 76**

---

**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.)

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.	

---

### Answer:

---

Box 1:

Create a new custom action by using SharePoint Designer.

Box 2:

Add new actions to the design surface and configure and connect the new actions as needed.

Box 3:

Package the custom activity as a SharePoint solution package (.wsp) file.

Box 4:

Deploy the SharePoint solution package (.wsp) file.

Box 5: Activate the feature

Explanation:

Note:

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

\* Task 2 – Deploy Custom Workflow Action to SharePoint

From the Solution Explorer window, right-click the SPDCustomWorkflowActions project and select Package to package the solution WSP.

Launch Internet Explorer and navigate to your top-level SharePoint site collection; e.g.: <http://intranet.contoso.com>.

Click SiteActions >> Site Settings.

Under Galleries, click on the Solutions link to view the site collection's SolutionGallery.

Click on the Solutions tab in the ribbon to view the Upload Solution button.

Click the Upload Solution button.

Browse to C:\%Office365TrainingKit%\Labs\3.2\Source\Before\Visual Studio\SPDCustomWorkflowAction\bin\Debug\SPDCustomWorkflowActions.wsp and click Open and OK.

In the Solution Gallery – Activate Solution dialog, click the Activate button on the Ribbon to activate the solution.

Click the Activate button on the ribbon to activate the solution.

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

---

### **Question: 77**

---

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.

---

**Answer: BCD**

---

Explanation:

B:

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

D:

\* A Composed Look is made up of:

Master Pages

CSS

Color palettes

Font palettes

Background image

---

### **Question: 78**

---

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.

---

Answer: AC

---

Explanation:

C: go into Central Administration and navigate to System Settings → Manage Services on Server and start the “Microsoft SharePoint Foundation Sandboxed Code Service” service.

---

### Question: 79

---

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.

---

Answer: C

---

---

### Question: 80

---

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.)

Answer Area	
Process to debug	
Location where the solution is deployed	

Drag and drop the items from the left pane to the answer area.

Left pane items:

- Farm
- W3wp.exe
- Solution Gallery
- Central Administration
- SPUCWorkerProcess.exe

---

**Answer:**

---

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

---

**Question: 81**

---

**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.)

**Answer Area**

```

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

```

**Answer:**

```

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

```

**Question: 82****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.)

Design

Manifest

Title: SharePointProject1234 Feature2

Description:

Scope:

Items in the Solution:

Design

Manifest

Title: SharePointProject1234 Feature2

Description:

Scope:

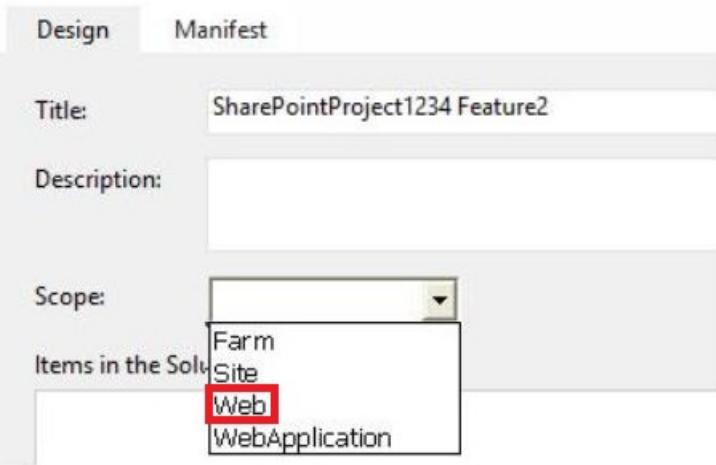
Items in the Solu

- Farm
- Site
- Web
- WebApplication

---

**Answer:**

---



### Question: 83

#### 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.)

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 <b>Web</b> .
Add a feature to the SharePoint project, set the feature scope to <b>Farm</b> , and then specify the <b>ReceiverAssembly</b> and the <b>ReceiverClass</b> attributes in the Feature.xml file.
Add a class library project to the SharePoint project, and add code to implement claims.
In Solution Explorer, right-click the SharePoint project, choose <b>Add Reference</b> , and then select the signed assembly of the claims provider project.
In the SharePoint project inside <b>Solution Explorer</b> , double-click the <b>Package.package</b> node, add the assembly, and then set the Deployment Target as <b>GlobalAssemblyCache</b> .
In the SharePoint management shell, run the Windows PowerShell cmdlet <b>Add-SPSolution</b> and then run the Windows PowerShell cmdlet <b>Install-SPSolution</b> with the <b>-GACDeployment</b> parameter.
Right-click the SharePoint project in Solution Explorer, choose <b>Package</b> , and then copy the .wsp file to the SharePoint server.
Right-click the SharePoint project in Solution Explorer, choose <b>Package</b> , and then copy the .wsp file to the SharePoint Solutions Gallery on the root site collection.

## Answer Area

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

**Answer:**

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

## Question: 84

### 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.)

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

**Answer:**

Box 1:

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

Box 2:

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

Box 3:

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

Box 4:

Select the **Stop Inheriting Permissions** button.

Box 5:

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

## Question: 85

Adventure Works uses SharePoint to store product and order information.

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

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

What should you do?

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

Answer: D

## Question: 86

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.)

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

**Answer:**

```

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

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

```

**Question: 87**

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

You notice that publicly registered users see the SharePoint ribbon.

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

What should you do?

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

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

Then place the control in the master page.

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

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

---

**Answer: B**

---

## Question: 88

---

### 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.)

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

---

**Answer:**

---

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

### Question: 89

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.)

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.

### Answer:

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

### Question: 90

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.

---

**Answer: C**

---

### **Question: 91**

---

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 copyappbincontent Stsadm 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.

---

**Answer: D**

---

### **Question: 92**

---

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

---

**Answer: C**

---

### Question: 93

---

#### 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.)

```

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

    public override string DisplayName
    {
        get { return WorkItemJobDisplayName; }
    }

    private bool IsTwoWeeksOldNow(SPListItem anItem)
}

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
    {
        get { return WorkItemJobDisplayName; }
    }

    public int BatchFetchLimit
    public override int BatchFetchLimit = 50;

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

    private bool IsTwoWeeksOldNow(SPListItem anItem)
}

```

---

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)
    }
}

```

#### Question: 94

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.)

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.

**Answer:**

Box 1:

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

Box 2:

Import Activity Designer from the Windows Azure websites.

Box 3:

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

Box 4:

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

Explanation:

Note:

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

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

Steps:

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

## Question: 95

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.)

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

Answer:

Box 1:

Add an item based on the Remote Event Receiver template.

Box 2:

Select the event type in the SharePoint Customization wizard.

Box 3:

Implement the **ProcessEvent** method.

Explanation:

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. On the menu bar, choose Project, Add New Item.
3. 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: 96

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.)

**Answer Area**

Column  
 Elements  
 FieldRef  
 FieldRefs  
 SiteColumn

```

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

**Answer:**

```

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

**Question: 97****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.)

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

**Answer:**

<input type="checkbox"/> public override void FeatureActivated   ( <spfeaturereceiverproperties <span="" document="spWeb." properties)="" spweb="(SPWeb)properties.Feature.Parent;" style="background-color: #ffffcc;" var="" {="">[ ] ;      SPWorkflowTemplate wfTemplate =       spWeb.WorkflowTemplates.GetTemplateByName         ("Litware Document Approval", spWeb.Locale);      var wfTaskList = <span style="background-color: #ffffcc;">[ ]</span> ;     var wfHistoryList = <span style="background-color: #ffffcc;">[ ]</span> ;      SPWorkflowAssociation wfAssociation =       SPWorkflowAssociation. <span style="background-color: #ffffcc;">[ ]</span>          (wfTemplate, "Document Approval", wfTaskList, wfHistoryList);     document.WorkflowAssociations.Add(wfAssociation);     document.Update();   } </spfeaturereceiverproperties>
---

**Question: 98****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.)

Scope	Permission
User Profiles	QueryAsUserIgnoreAppPrincipal
Web	Read

Scope	Permission
Search Reporting Enterprise Search Enterprise Resources	QueryAsUserIgnoreAppPrincipal
BCS Tenant Workflow Site Collection	Read

User Profiles	Permission
	Read Write Manage Full Control

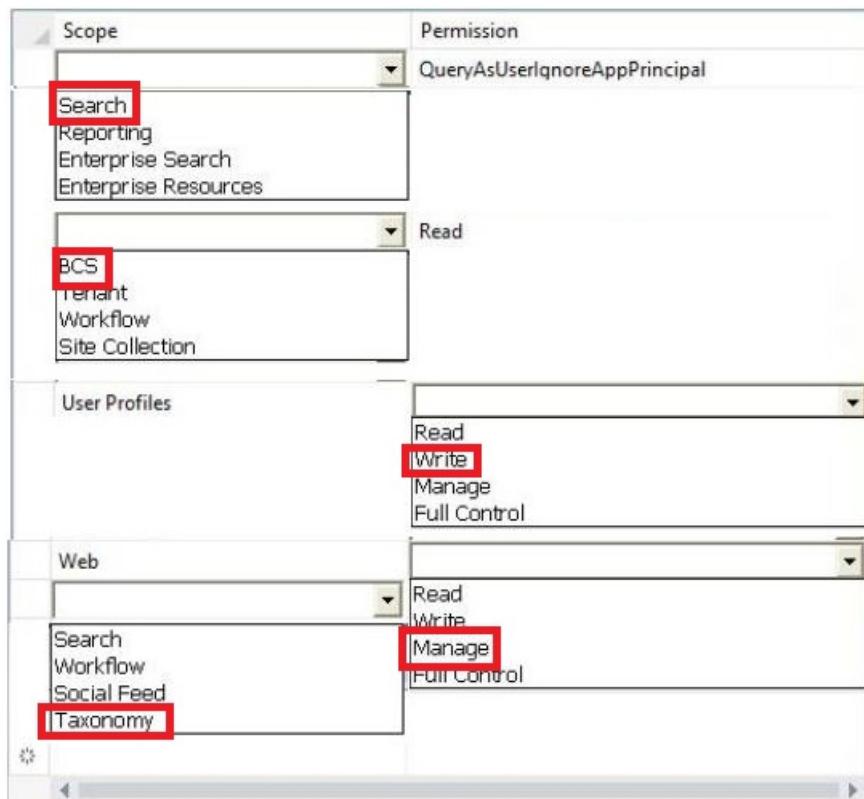
  

Web	Permission
Search Workflow Social Feed Taxonomy	Read Write Manage Full Control

---

**Answer:**

---



## Question: 99

### 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.)

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

**Answer:**

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

clientContext.Load(collListItem);

clientContext.ExecuteQuery();

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

## **Question: 100**

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

You notice that publicly registered users see the SharePoint ribbon.

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

What should you do?

- A. Open the current site master page in SharePoint Designer, place the SharePoint:SPSecurityTrimmedControl control around the div tag with the s4-ribbonrow ID. Set the PermissionsString to ManageSubWeb.
- B. Open the current site master page in SharePoint Designer, find a div tag with the s4-ribbonrow ID, and then remove all of the contents of the div.
- C. Open the current site master page in SharePoint Designer and then place the SharePoint:SPSecurityTrimmedControl control around the div tag with the 34-ribbonrow ID. Set the PermissionsString to AddAndCustomizePages.
- D. In the SharePoint project, add an Empty Element and then use the <HideCustomAction> tag to hide the ribbon.

---

## **Answer: B**

## **Question: 101**

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

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

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

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

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

F. Preview the master page and select Snippets to get HTML segments of the SharePoint top navigation, quick launch, and body. Then, edit the master page by using Microsoft Notepad and replace the HTML with the new segments.

---

**Answer: BDE**

---

Explanation:

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

---

### **Question: 102**

---

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

---

**Answer: A**

---

---

### **Question: 103**

---

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?

- 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.
- 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.
- 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.
- 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.

---

**Answer: B**

---

### Question: 104

---

#### 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.)

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

---

**Answer:**

---

Scope	Permissions
▼ Business Connectivity Services (BC) Search <b>Web</b> Workflow	▼ FullControl Manage <b>Read</b> Write

## **Case Study: 1**

### **Olympic Marathon**

#### **Background**

You are developing an ASP.NET MVC application in Visual Studio 2012 that will be used by Olympic marathon runners to log data about training runs.

#### **Business Requirements**

The application stores date, distance, and duration information about a user's training runs. The user can view, insert, edit, and delete records.

The application must be optimized for accessibility.

All times must be displayed in the user's local time.

#### **Technical Requirements**

##### **Data Access:**

Database access is handled by a public class named RunnerLog.DataAccess.RunnerLogDb.

All data retrieval must be done by HTTP GET and all data updates must be done by HTTP POST.

##### **Layout:**

All pages in the application use a master layout file named \Views\Shared\\_Layout.cshtml.

##### **Models:**

The application uses the \Models\LogModel.cs model.

##### **Views:**

All views in the application use the Razor view engine.

Four views located in \Views\RunLog are named:

- \_CalculatePace.cshtml
- EditLog.cshtml
- GetLog.cshtml
- InsertLog.cshtml

The application also contains a \Views\Home\Index.cshtml view.

##### **Controllers:**

The application contains a \Controllers\RunLogController.cs controller.

##### **Images:**

A stopwatch.png image is located in the \Images folder.

**Videos:**

A map of a runner's path is available when a user views a run log. The map is implemented as an Adobe Flash application and video. The browser should display the video natively if possible, using H264, Ogg, or WebM formats, in that order. If the video cannot be displayed, then the Flash application should be used.

**Security:**

You have the following security requirements:

- The application is configured to use forms authentication.
- Users must be logged on to insert runner data.
- Users must be members of the Admin role to edit or delete runner data.
- There are no security requirements for viewing runner data.
- You need to protect the application against cross-site request forgery.
- Passwords are hashed by using the SHA1 algorithm.

RunnerLog.Providers.RunLogRoleProvider.cs contains a custom role provider.

Relevant portions of the application files follow. (Line numbers are included for reference only.)

**Application Structure**

**Controllers\RunLogController.cs**

```
RC01  public class RunLogController : Controller
RC02  {
RC03      public ActionResult GetLog()
RC04      {
RC05          List<LogModel> log = RunnerLogDb.GetLogsFromDatabase();
RC06          return View(log);
RC07      }
RC08
RC09      public ActionResult InsertLog()
RC10      {
RC11          LogModel log = new LogModel();
RC12          log.RunDate = DateTime.Now;
RC13          return View(log);
RC14      }
RC15
RC16      [HttpPost]
RC17      public ActionResult InsertLog(LogModel log)
RC18      {
RC19          RunnerLogDb.InsertLog(log);
RC20          return RedirectToAction("GetLog");
RC21      }
RC22
RC23      public ActionResult DeleteLog(int id)
RC24      {
RC25          RunnerLogDb.DeleteLog(id);
RC26          return RedirectToAction("GetLog");
RC27      }
RC28
RC29      public ActionResult EditLog(int id)
RC30      {
RC31          LogModel log = RunnerLogDb.GetRunnerLog(id);
RC32          return View(log);
RC33      }
RC34 }
```

**Models\LogModel.cs**

```

LM01  public class LogModel
LM02  {
LM03      [Required]
LM04      public int Id { get; set; }
LM05
LM06      [Required]
LM07      public DateTime RunDate { get; set; }
LM08
LM09      [Required]
LM10      [Range (0.01, 1000.00)]
LM11      public double Distance { get; set; }
LM12
LM13      [Required]
LM14      public TimeSpan Time { get; set; }
LM15
LM16      public string ShortDate
LM17      {
LM18          get
LM19          {
LM20              return RunDate.ToLocalTime().ToString("dd/MM/yyyy");
LM21          }
LM22      }
LM23  }

```

**Views\RunLog\\_CalculatePace.cshtml**

```

CP01  @model RunnerLog.Models.LogModel
CP02  @(Convert.ToInt32(Model.Time.TotalMinutes / Model.Distance)) Min
CP03  @(Convert.ToInt32(Model.Time.TotalSeconds % 60 / Model.Distance)) Seconds

```

**Views\RunLog>EditLog.cshtml**

```
EL01 @model RunnerLog.Models.LogModel
EL02 <h2>Edit Log Item</h2>
EL03 <script src="@Url.Content("~/Scripts/jquery.validate.min.js")"></script>
EL04 <script src="@Url.Content("~/Scripts/jquery.validate.unobtrusive.min.js")"></
script>
EL05 @using (Html.BeginForm()) {
EL06     @Html.AntiForgeryToken()
EL07     @Html.ValidationSummary(true)
EL08     <fieldset>
EL09         <legend>LogModel</legend>
EL10         <h3>
EL11             Log Id: @Model.Id
EL12         </h3>
EL13         <div>
EL14             @Html.LabelFor(model => model.Distance)
EL15         </div>
EL16         <div>
EL17             @Html.EditorFor(model => model.Distance)
EL18             @Html.ValidationMessageFor(model => model.Distance)
EL19         </div>
EL20         <div>
EL21             @Html.LabelFor(model => model.Time)
EL22         </div>
EL23         <div>
EL24             @Html.EditorFor(model => model.Time)
EL25             @Html.ValidationMessageFor(model => model.Time)
EL26         </div>
EL27         <p>
EL28             <input type="submit" value="Save" />
EL29         </p>
EL30     </fieldset>
EL31 }
```

**Views\RunLog\GetLog.cshtml**

```
GL01 @model List<RunnerLog.Models.LogModel>
GL02 <h2>View Runs </h2>
GL03 <table>
GL04     <tr>
GL05         <th>Id </th>
GL06         <th>Date </th>
GL07         <th>Distance </th>
GL08         <th>Duration </th>
GL09         <th>Avg Mile Pace </th>
GL10     </tr>
GL11     @foreach (RunnerLog.Models.LogModel log in Model)
GL12     {
GL13         <tr>
GL14             <td>
GL15                 @Html.DisplayFor(model => log.Id)
GL16             </td>
GL17             <td>
GL18
GL19             </td>
GL20             <td>
GL21                 @Html.DisplayFor(model => log.Distance)
GL22             </td>
GL23             <td>
GL24                 @Html.DisplayFor(model => log.Time)
GL25             </td>
GL26             <td>
GL27
GL28             </td>
GL29             <td>
GL30                 @Html.ActionLink("Edit", "EditLog", new { id = log.Id })
GL31             </td>
GL32             <td>
GL33                 @Html.ActionLink("Delete", "DeleteLog", new { id = log.Id })
GL34             </td>
GL35         </tr>
GL36     }
GL37 </table>
```

## Views\RunLog\InsertLog.cshtml

```
IL01 @model RunnerLog.Models.LogModel
IL02 <script src="@Url.Content("~/Scripts/jquery.validate.min.js")"></script>
IL03 <script src="@Url.Content("~/Scripts/jquery.validate.unobtrusive.min.js")"></
script>
IL04 @using (Html.BeginForm())
IL05 {
IL06     @Html.ValidationSummary(true)
IL07     <fieldset>
IL08         <legend>LogModel</legend>
IL09
IL10         <div>
IL11             @Html.LabelFor(model => model.RunDate)
IL12         </div>
IL13         <div>
IL14             @Html.EditorFor(model => model.RunDate)
IL15             @Html.ValidationMessageFor(model => model.RunDate)
IL16         </div>
IL17         <div>
IL18             @Html.LabelFor(model => model.Distance)
IL19         </div>
IL20         <div>
IL21             @Html.EditorFor(model => model.Distance)
IL22             @Html.ValidationMessageFor(model => model.Distance)
IL23         </div>
IL24         <div>
IL25             @Html.LabelFor(model => model.Time) HH:MM:SS
IL26         </div>
IL27         <div>
IL28             @Html.EditorFor(model => model.Time)
IL29             @Html.ValidationMessageFor(model => model.Time)
IL30         </div>
IL31         <p>
IL32             <input type="submit" value="Create" />
IL33         </p>
IL34     </fieldset>
IL35 }
```

**Views\Shared\\_Layout.cshtml**

```

L001  <!DOCTYPE html>
L002  <html lang="en">
L003  <head>
L004  ...
L005  </head>
L006  <body>
L007  ...
L008  <footer>
L009
L010     <script type="text/javascript">
L011         var c = document.getElementById('myCanvas');
L012         var ctx = c.getContext('2d');
L013         ctx.font = '30pt Calibri';
L014         ctx.strokeStyle = 'gray';
L015         ctx.lineWidth = 3;
L016         ctx.strokeText('London 2012', 80, 30);
L017     </script>
L018 </footer>
L019 </body>
L020 </html>

```

**Question: 1****DRAG DROP**

You need to implement the Views\RunLog\\_CalculatePace.cshtml partial view from Views\Runlog \GetLog.cshtml to display the runner's average mile pace.

How should you implement the view? (To answer, drag the appropriate code segments to the correct location or locations. 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.)

<code>@Html.Partial(</code>	<code>&lt;td&gt;</code>	<code>    @Html.DisplayFor(model =&gt; log.Time)</code>
<code>@Html.Action(</code>	<code>&lt;/td&gt;</code>	
<code>"_CalculatePace.cshtml", log)</code>	<code>&lt;td&gt;</code>	
<code>"_CalculatePace", log)</code>	<code>&lt;/td&gt;</code>	
<code>"_CalculatePace")</code>	<code>&lt;td&gt;</code>	<code>    @Html.ActionLink(</code>
		<code>        "Delete", "DeleteLog",</code>
		<code>        new { id = log.Id })</code>

**Answer:**

```
@Html.Action(
```

```
"_CalculatePace.cshtml", log)
```

```
_CalculatePace")
```

```
<td>
    @Html.DisplayFor(model => log.Time)
</td>
<td>
    @Html.Partial(
        "_CalculatePace", log)
</td>
<td>
    @Html.ActionLink(
        "Delete", "DeleteLog",
        new { id = log.Id })
</td>
```

## Question: 2

### DRAG DROP

You need to implement security according to the business requirements.

How should you modify RunLogController? (To answer, drag the appropriate code segment to the correct location or locations. 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.)

```
[Authorize(Roles = "Admin")]
```

```
[Authorize]
```

```
[Authorize(Users = "Admin")]
```

```
[AllowAnonymous]
```

```
[Authorize(Users = "*")]
```

```
public class RunLogController : Controller
{
    public ActionResult GetLog()
    ...

    public ActionResult InsertLog()
    ...

    public ActionResult DeleteLog(int id)
    ...

    public ActionResult EditLog(int id)
    ...
}
```

---

**Answer:**

---

[Authorize(Roles = "Admin")]  
[Authorize(Users = "Admin")]  
[Authorize(Users = "\*")]

```
[Authorize]
public class RunLogController : Controller
{
    [AllowAnonymous]
    public ActionResult GetLog()
    ...

    public ActionResult InsertLog()
    ...
    [Authorize(Roles = "Admin")]
    public ActionResult DeleteLog(int id)
    [Authorize(Roles = "Admin")]
    public ActionResult EditLog(int id)
    ...
}
```

### Question: 3

You need to make the "Distance" header of the table bold in the Views/RunLog/GetLog.cshtml view.  
Which code segment should you use?

- A. table>tr{ font-weight: bold; }
- B. table>th:last-child{ font-weight: bold; }
- C. table+first-child{ font-weight: bold; }
- D. table>tr>th:nth-child (2) { font-weight: bold; }

**Answer: D**

### Question: 4

You need to extend the edit functionality of RunLogController.  
Which code segment should you use?

- C A. [HttpGet]  
[ActionName("EditLog")]  
[ValidateAntiForgeryToken]  
public ActionResult EditLog(LogModel log)  
{  
 ...  
}
- C B. [HttpPost]  
[ActionName("EditLog")]  
public ActionResult EditLogValidated(LogModel log)  
{  
 ...  
}
- C C. [HttpPost]  
[ActionName("EditLog")]  
[ValidateAntiForgeryToken]  
public ActionResult EditLogValidated(LogModel log)  
{  
 ...  
}
- C D. [HttpPost]  
[ActionName("EditLog")]  
[RequireHttps]  
public ActionResult EditLogValidated(LogModel log)  
{  
 ...  
}

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

---

**Answer: C**

---

### Question: 5

---

**HOTSPOT**

You need to implement the map of the runners' paths.

How should you build the video viewer? (To answer, select the appropriate options in the answer area.)

## Work Area

```
<video width="320" height="240">
<[ ]>
<[ ]>
<[ ]>
<[ ] width="320" height="240">
<[ ] name="movie" value="map.swf" />
<[ ] src="map.swf" />
</[ ]>
</video>
```

## Work Area

---

**Answer:**

## Work Area

```

<video width="320" height="240">
  <source src="map.mp4" type="video/mp4">
  <source src="map.ogv" type="video/ogg">
  <source src="map.webm" type="video/webm">

  <source src="map.mp4" type="video/mp4">
  <source src="map.ogv" type="video/ogg">
  <source src="map.webm" type="video/webm">

  <source src="map.mp4" type="video/mp4">
  <source src="map.ogv" type="video/ogg">
  <source src="map.webm" type="video/webm">

  <!-- width="320" height="240" -->
  <!-- object -->
    <!-- embed -->
    <!-- object -->
      <!-- param -->
      <!-- option -->
      <!-- embed -->
    <!-- src="map.swf" -->
      <!-- video -->
      <!-- param -->
      <!-- embed -->
      <!-- source -->

  </!-- object -->
  <!-- embed -->
    <!-- object -->

```

</video>

**Question: 6**

HOTSPOT

You need to ensure that only valid parameters are passed to the EditLog action.  
How should you build the route? (To answer, select the appropriate options in the answer area.)

## Work Area

```
routes.MapRoute(  
    name: "EditLog",  
    controller = "RunLog",  
,  
{  
}  
);
```

## Work Area

```
routes.MapRoute(  
    name: "EditLog",  
    id = @"\d+"  
    url: "RunLog/EditLog/{id}",  
    action = "EditLog",  
    defaults: new  
    constraints: new  
  
    id = @"\d+"  
    url: "RunLog/EditLog/{id}",  
    action = "EditLog",  
    defaults: new  
    constraints: new  
  
{  
    controller = "RunLog",  
    id = @"\d+"  
    url: "RunLog/EditLog/{id}",  
    action = "EditLog",  
    defaults: new  
    constraints: new  
  
},  
id = @"\d+"  
url: "RunLog/EditLog/{id}",  
action = "EditLog",  
defaults: new  
constraints: new  
{  
    id = @"\d+"  
    url: "RunLog/EditLog/{id}",  
    action = "EditLog",  
    defaults: new  
    constraints: new  
  
}  
);
```

---

**Answer:**

---

Work Area

```
routes.MapRoute(
    name: "EditLog",
    id = @"\d+"
    url: "RunLog/EditLog/{id}",
    action = "EditLog",
    defaults: new
    constraints: new

    id = @"\d+"
    url: "RunLog/EditLog/{id}",
    action = "EditLog",
    defaults: new
    constraints: new

{
    controller = "RunLog",
    id = @"\d+"
    url: "RunLog/EditLog/{id}",
    action = "EditLog",
    defaults: new
    constraints: new

},
    id = @"\d+"
    url: "RunLog/EditLog/{id}",
    action = "EditLog",
    defaults: new
    constraints: new

{
    id = @"\d+"
    url: "RunLog/EditLog/{id}",
    action = "EditLog",
    defaults: new
    constraints: new

}
);
```

**Question: 7**

DRAG DROP

You need to ensure that the application uses RunLogRoleProvider custom role provider.

How should you modify the web.config file? (To answer, drag the appropriate line of code to the correct location or locations. Each line of code 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.)

<img alt="A drag-and-drop interface for modifying a web.config file. The left pane contains five code snippets: 'RunnerLog.Providers.RunLogRoleProvider', 'System.Web.Providers.RunLogRoleProvider', 'System.Web.Providers.DefaultRoleProvider', 'defaultProvider="DefaultProvider"', and 'defaultProvider="RLRoleProvider"'. The right pane shows the XML structure of a &lt;roleManager&gt; section. A blue vertical split bar is positioned between the two panes. A red box highlights the 'type=' attribute in the XML, indicating where one of the code snippets from the left pane should be dropped."/>

```

<roleManager enabled="true" >
  <providers>
    <add name="RLRoleProvider"
      type= "RunnerLog.Providers.RunLogRoleProvider"
      Application="RunnerLog"/>
  </providers>
</roleManager>

```

**Answer:**

<img alt="The same drag-and-drop interface after modification. The 'defaultProvider="RLRoleProvider"' attribute has been moved from the left pane to the 'type=' attribute in the XML code on the right. A red box highlights the 'type=' attribute, confirming the correct placement."/>

```

<roleManager defaultProvider="RLRoleProvider"
  enabled="true" >
  <providers>
    <add name="RLRoleProvider"
      type= "RunnerLog.Providers.RunLogRoleProvider"
      Application="RunnerLog"/>
  </providers>
</roleManager>

```

## Question: 8

DRAG DROP

You need to ensure that only valid parameters are passed to the EditLog action.

How should you build the route? (To answer, drag the appropriate code segments to the correct location or locations. 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.)

```
id = @"\d+"

url: "RunLog/EditLog/{id}",

action = "EditLog",

defaults: new

constraints: new
```

```
routes.MapRoute(
    name: "EditLog",
    [REDACTED]
    [REDACTED]
{
    controller = "RunLog",
    [REDACTED]
},
[REDACTED]
{
    [REDACTED]
}
);
});
```

## **Answer:**

```

routes.MapRoute(
    name: "EditLog",
    url: "RunLog/EditLog/{id}",
    defaults: new
    {
        controller = "RunLog",
        action = "EditLog",
    },
    constraints: new
    {
        id = @"\d+"
    }
);

```

**Question: 9**

If the canvas element is supported by the client browser, the application must display "London 2012" in the footer as text formatted by JavaScript at the end of the \_Layout.cshtml file.

You need to modify the layout to ensure that "London 2012" is displayed as either formatted text or as plain text, depending on what the client browser supports.

Which code segment should you add?

- A. <canvas id="myFooter">
 @(Request.Browser.JavaApplets ? new HtmlString("London 2012") : null)
 </canvas>
- B. <canvas id="myFooter"London 2012</canvas>
- C. <canvas id="myCanvas">London 2012</canvas>
- D. <canvas id="myCanvas"><canvas>
 <p>London 2012</p>

**Answer: C****Question: 10**

You need to add an action to RunLogController to validate the users' passwords.

Which code segment should you use?

C A. 

```
public ActionResult Login(string username, string password)
{
    byte[] buffer = Encoding.UTF8.GetBytes(password + username);
    byte[] hash = MD5.Create().ComputeHash(buffer);
    ComparePassword(username, hash);
    return ContextDependentView();
}
```

C B. 

```
[RequireHttps]
public ActionResult Login(string username, string password)
{
    byte[] buffer = Encoding.UTF8.GetBytes(password + username);
    byte[] hash = SHA1.Create().ComputeHash(buffer);
    ComparePassword(username, hash);
    return ContextDependentView();
}
```

C C. 

```
public ActionResult Login(string username, string password)
{
    byte[] buffer = Encoding.UTF8.GetBytes(password + username);
    byte[] hash = SHA1.Create().ComputeHash(buffer);
    ComparePassword(username, hash);
    return ContextDependentView();
}
```

C D. 

```
[RequireHttps]
public ActionResult Login(string username, string password)
{
    byte[] buffer = Encoding.UTF8.GetBytes(password + username);
    byte[] hash = MD5.Create().ComputeHash(buffer);
    ComparePassword(username, hash);
    return ContextDependentView();
}
```

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

---

**Answer: B**

---

### Question: 11

---

You need to make all of the rows in the table bold in the Views/RunLog/GetLog.cshtml view.  
Which code segment should you use?

- A. Table > th:last-child { font-weight: bold; }
- B. Table+first-child{ font-weight: bold; }
- C. Table>tr>th:nth-child(2){font-weight: bold; }
- D. Table > tr { font-weight: bold; }

---

Answer: D

---

**Question: 12**

---

You need to display the "miles" unit description after the distance in the GetLog view.

Which line of code should you use to replace line GL21? (Each correct answer presents a complete solution. Choose all that apply.)

- A. @log.Distance miles
- B. @Htrml.DisplayFor(model => log.Distance) miles
- C. @log.Distance.ToString() @Html.TextArea ("miles")
- D. @Htmr.DisplayFor(model => log.Distance.ToString() + " miles")

---

Answer: A, B

---

**Case Study: 2**

**Web Application**

**Background**

You are developing an online shopping web application.

**Business Requirements**

- A user is not required to provide an email address. If a user enters an email address, it must be verified to be a valid email address.
- Information about the first product on the product page must fade out over time to encourage the user to continue browsing the catalog.
- Administrators must be able to edit information about existing customers.
- Administrators also must be able to specify a default product on the product page.

**Technical Requirements**

**General:**

- The web store application is in a load-balanced web farm. The load balancer is not configured to use server affinity.
- The web store application is an ASP.NET MVC application written in Visual Studio 2012.
- Products:
- The value of the productId property must always be greater than 0.
- The Products page for mobile devices must display to mobile users. The Products page for desktop devices must display to desktop users.

**Storage:**

- The data must be stored in a serialized XML data format.
- Serialized objects must be schema-independent.

**Exception handling:**

- Exceptions originating from IIS must display a page with support contact information.
- Some page links expire, and users who access these links encounter 404 errors.
- Exceptions must be logged by using the WriteLog method of the Utility class.

**Browser and device support:**

- The application must support image format conversions from .bmp to .jpeg for mobile devices.
- The application must support image format conversions from .bmp to .png for desktop devices.

**Application Structure**

**MvcApplication / Global.asax**

```
public class MvcApplication : HttpApplication
{
    public static string DefaultProduct { get; set; }

    public static void RegisterRoutes(RouteCollection routes)
    {
        routes.IgnoreRoute("{resource}.axd/{*pathInfo}");

        routes.MapRoute(
            "",
            "{controller}/{action}/{productName}",
            new { action = "Show", productName = DefaultProduct });
    }
}
```

**ProductController.cs**

```
public class ProductController : Controller
{
    [HttpGet]
    public Product GetDealPrice(int productId)
    {
        ...

        public ActionResult Show(string productName)
        {
            var price = DataLoader.GetProductPrice(productName);
            return View(new { productName, price });
        }
    }
}
```

**DataLoader.cs**

```
public class DataLoader
{
    public static string GetProductPrice(string productName)
    {
        var currencySymbol = CultureInfo.CurrentCulture.NumberFormat.CurrencySymbol;
        var product = InternalLoad().FirstOrDefault(x => x.Name == productName);
        return currencySymbol + product.Price;
    }

    private static IEnumerable<Product> InternalLoad()
    {
        ...
    }
}
```

**Customer.cs**

```
public class Customer
{
    const string EmailRegex = @"(^|([A-Za-z0-9_\.-])*@[A-Za-z0-9-]*\.[A-Za-z]*)";
    const string EmailErrorMessage = "Please enter a valid email address";

    public string Email { get; set; }
    public string Name { get; set; }
}
```

**Customer.cs**

```
public class Customer
{
    const string EmailRegex = @"(^|([A-Za-z0-9_\.-])*@[A-Za-z0-9-]*\.[A-Za-z]*)";
    const string EmailErrorMessage = "Please enter a valid email address";

    public string Email { get; set; }
    public string Name { get; set; }
}
```

**Product.cs**

```
public class Product
{
    public string ProductId { get; set; }
    public string Name { get; set; }
    public decimal Price { get; set; }
}
```

**ImageConverter.cs**

```
public class ImageConverter : MvcHandler
{
    private void WriteImage(HttpResponse response, string format)
    {
        ...
    }
}
```

**web.config**

```
<?xml version="1.0" encoding="utf-8"?>
```

**web.config**

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
    <appSettings>
        <add key="PreserveLoginUrl" value="true" />
        <add key="ClientValidationEnabled" value="true" />
        <add key="UnobtrusiveJavaScriptEnabled" value="true" />
    </appSettings>
    <system.web>
        <compilation debug="true" targetFramework="4.5" />
        <httpRuntime targetFramework="4.5" />
        <encoderType>System.Web.Security.AntiXss.AntiXssEncoder,
        System.Web, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a" />
        <machineKey compatibilityMode="Framework45" />
        <sessionState mode="..." customProvider="DefaultSessionProvider">
            <providers>
                <add name="DefaultSessionProvider"
                    type="System.Web.Providers.DefaultSessionStateProvider,
                    System.Web.Providers, Version=1.0.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35
                " connectionStringName="DefaultConnection" applicationName="/" />
            </providers>
        </sessionState>
    </system.web>
    <system.webServer>
        <validation validateIntegratedModeConfiguration="false" />
        <modules runAllManagedModulesForAllRequests="true" />
    </system.webServer>
</configuration>
```

**Question: 1**

You need to ensure that new customers enter a valid email address.

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

- A. 

```
[RegularExpression (emailPattern, ErrorMessage = EmailErrorMessage)]
[DataType(DataType.EmailAddress)]
public string Email { get; set; }
```
- B. 

```
[RegularExpression(EmailRegex, ErrorMessage = EmailErrorMessage,
    ErrorMessageResourceType = DataType.EmailAddress)]
[ComplexType]
public string Email { get; set; }
```
- C. 

```
<%: Html.Raw(m => m.Email) %>
```
- D. 

```
<%: Html.TextBoxFor(m => m.Email) %>
```

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

---

**Answer: A, D**

---

## Question: 2

---

You are designing a Windows Communication Foundation (WCF) service that uses the Product class.

You need to update the class to meet the storage requirement.

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

- A. Mark the Product class with the DataContract attribute.
- B. Mark the public members of the Product class with the DataContractFormat attribute.
- C. Mark the Product class with the CollectionDataContract attribute.
- D. Mark the public members of the Product class with the DataMember attribute.

---

**Answer: A, D**

---

Explanation:

So as of .NET 3.5 SP1, you don't have to add data contract or data member attributes anymore - if you don't then the data contract serializer will serialize all public properties on your class, just like the XML serializer would.

HOWEVER: by not adding those attributes, you lose a lot of useful capabilities:

without [DataContract], you cannot define an XML namespace for your data to live in

without [DataMember], you cannot serialize non-public properties or fields

without [DataMember], you cannot define an order of serialization (Order=) and the DCS will serialize all properties alphabetically

without [DataMember], you cannot define a different name for your property (Name=)

without [DataMember], you cannot define things like IsRequired= or other useful attributes

without [DataMember], you cannot leave out certain public properties - all public properties will be serialized by the DCS

## Question: 3

---

You need to implement the requirements for handling IIS errors.  
What should you do?

- C A. Update the **customErrors** attribute in the web.config file as follows.

```
<customErrorsmode="On" defaultRedirect="CustomErrorView">  
<errorstatusCode="404" redirect="Error/Error404"/>  
</customErrors>
```

- C B. Update the **customErrors** attribute in the app.config file as follows.

```
<customErrorsmode="Off" defaultRedirect="CustomErrorView">  
<errorstatusCode="404" redirect="Error/Error404"/>  
</customErrors>
```

- C C. Update the **customErrors** attribute in the app.config file as follows.

```
<customErrorsmode="On" defaultRedirect="CustomErrorView">  
<errorstatusCode="401" redirect="Error/Error401"/>  
</customErrors>
```

- C D. Update the **customErrors** attribute in the web.config file as follows.

```
<customErrorsmode="On" defaultRedirect="CustomErrorView">  
<errorstatusCode="403" redirect="Error/Error403"/>  
</customErrors>
```

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

---

**Answer: A**

---

**Question: 4**

You need to add a method to the ProductController class to meet the exception handling requirements for logging. Which code segment should you use?

- A. 

```
protected override void OnException(ExceptionContext filterContext)
{
    Utility.WriteLine(filterContext.Exception);

    if (filterContext.HttpContext.IsCustomErrorEnabled)
    {
        filterContext.ExceptionHandled = true;
        this.View("Error").ExecuteResult(this.ControllerContext);
    }
}
```
- B. 

```
protected override void OnException(ExceptionContext filterContext)
{
    Utility.WriteLine(filterContext.Exception);

    if (System.Diagnostics.Debugger.IsAttached)
    {
        filterContext.ExceptionHandled = true;
        this.View("Error").ExecuteResult(this.ControllerContext);
    }
}
```
- C. 

```
protected override void OnException(ExceptionContext filterContext)
{
    if (!System.Diagnostics.Debugger.IsLogging())
    {
        Utility.WriteLine(filterContext.Exception);
        filterContext.ExceptionHandled = true;
        this.View("Error").ExecuteResult(this.ControllerContext);
    }
}
```
- D. 

```
protected override void OnException(ExceptionContext filterContext)
{
    Utility.WriteLine(filterContext.Exception);

    if (filterContext.HttpContext.IsDebuggingEnabled)
    {
        filterContext.ExceptionHandled = true;
        this.View("Error").ExecuteResult(this.ControllerContext);
    }
}
```

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

---

**Answer: A**

---

**Question: 5**

An advertising campaign was recently launched. Some of the ads contain a link to products that no longer exist or have IDs that have changed.

You need to ensure that all product links display a product.

Which code segment should you use to configure the route?

- A. 

```
routes.MapRoute(
    "Product",
    "Product/{action}/{productName}",
    new { action = "Show", productName = DefaultProduct }
);
```
  - B. 

```
routes.MapRoute(
    "Product",
    "{productName}/{action}/{id}",
    new { action = "Show", productName = DefaultProduct }
);
```
  - C. 

```
routes.MapPageRoute(
    "Product",
    "{ProductName}/{action}/{id}",
    "~/product.aspx",
    false,
    new RouteValueDictionary { { "action", "Show" }, { "productName",
DefaultProduct } });
```
  - D. 

```
routes.MapPageRoute(
    "Product",
    "Product/{action}/{productName}",
    "~/product.aspx",
    false,
    new RouteValueDictionary { { "action", "Show" }, { "productName",
DefaultProduct } });
```
- A. Option A  
B. Option B  
C. Option C  
D. Option D

---

**Answer: A**

---

**Question: 6**

You need to modify the application to meet the productId requirement.

What should you do?

- A. Modify the RegisterGlobalFilters method of the Global.asax.cs file as follows.

```
Contract.Assume<ArgumentException>(productId != 0);
B. Modify the GetDealPrice method of ProductController as follows.
Contract.Requires<ArgumentException>(productId > 0);
C. Modify the RegisterGlobalFilters method of the Global.asax.es file as follows.
Contract.Requires<ArgumentException>(productId > 0);
D. Modify the GetDealPrice method of ProductController as follows.
Contract.Assume<ArgumentException>(productId > 0);
```

---

**Answer: B**

---

Explanation:

The Contract.Requires(Of TException) method specifies a precondition contract for the enclosing method or property, and throws an exception if the condition for the contract fails.

Syntax:

```
'Declaration
Public Shared Sub Requires(Of TException As Exception) ( _
    condition As Boolean _
)
Type Parameters
TException
The exception to throw if the condition is false.
Parameters
condition
Type: System.Boolean
The conditional expression to test.
Reference: Contract.Requires(Of TException) Method (Boolean)
```

---

### **Question: 7**

---

You need to implement the business requirements for managing customer data.

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

- A. Add a class named Customer-Controller to the Controllers folder. Then add a method named Edit to the class.
- B. Create a new controller named Administration in the Controllers folder. Add an action named EditCustomer to the controller.
- C. Add a folder named Customer to the Views folder. Then create a view inside this folder named Edit.aspx.
- D. Create a new folder named EditCustomer to the Views folder. In the new folder, create a new file named Administration.aspx.

---

**Answer: A, C**

---

---

### **Question: 8**

---

When users attempt to retrieve a product from the product page, a run-time exception occurs if the product does not exist.

You need to route the exception to the CustomException.aspx page.

Which method should you add to MvcApplication?

- C A. 

```
public static void RegisterGlobalFilters(GlobalFilterCollection filters)
{
    filters.Add(new HandleErrorAttribute
    {
        ExceptionType = typeof(IndexOutOfRangeException),
        View = "CustomException",
    });
}
```
- C B. 

```
public static void RegisterGlobalFilters(GlobalFilterCollection filters)
{
    filters.Add(new HandleErrorAttribute
    {
        ExceptionType = typeof(NullReferenceException),
        View = "CustomException",
    });
}
```
- C C. 

```
public static void RegisterGlobalFilters(GlobalFilterCollection filters)
{
    filters.Add(new HandleErrorAttribute
    {
        ExceptionType = typeof(IndexOutOfRangeException),
        Handler = "CustomException",
    });
}
```
- C D. 

```
public static void RegisterGlobalFilters(GlobalFilterCollection filters)
{
    filters.Add(new HandleErrorAttribute
    {
        ExceptionType = typeof(NullReferenceException),
        Handler = "CustomException",
    });
}
```

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

---

**Answer: B**

---

### Question: 9

---

You updated the web.config file with the HTTP run-time value required to display an alternative version of the site. You need to ensure that the correct page displays to the users. Which code segment should you use to update the controller?

- A. If (Request.IsTabletDevice)
- B. If (Request.Browser.IsBrowser("Mobile"))
- C. If (Request.UserAgent["Tablet"])
- D. If (Request.Browser.IsMobileDevice)

---

**Answer: D**

---

### **Question: 10**

---

You need to implement client-side animations according to the business requirements.

Which line of code should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. \$("body h1:nth-child(1)").fadeIn(1000);
- B. \$("body h1:nth-child(1)").fadeOut(1000);
- C. \$("body h2:nth-child(1)").animate({ opacity: 0 });
- D. \$("body h1:nth-child(1)").animate({ opacity: 1 });

---

**Answer: B, C**

---

---

### **Question: 11**

---

You need to implement client-side animations according to the business requirements.

Which line of code should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. \$("h1: first") .animate ({ opacity: 0 });
- B. \$("h1:first").fadeIn(1000);
- C. \$("h1:first").animate({ opacity: 1 });
- D. \$("h1:first").fadeOut(1000);

---

**Answer: A, D**

---

---

### **Question: 12**

---

You need to configure session storage in the web.config file to meet the technical requirements for scalability.

Which SessionState mode should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. StateServer
- B. InProc
- C. AutoDetect
- D. SqlServer

---

**Answer: A, D**

---

---

### **Question: 13**

---

You need to update the routes to ensure that a product is always displayed on the product page.

Which code segment should you use?

- C A. 

```
routes.MapRoute(
    "Product",
    "{productName}/{action}/{id}",
    new { action = "Show", productName = DefaultProduct }
);
```
- C B. 

```
routes.MapRoute(
    "Product",
    "Product/{action}/{productName}",
    new { action = "Show", productName = DefaultProduct }
);
```
- C C. 

```
routes.MapPageRoute(
    "Product",
    "Product/{action}/{productName}",
    "~/product.aspx",
    false,
    new RouteValueDictionary { { "action", "Show" }, { "productName", DefaultProduct } }
);
```
- C D. 

```
routes.MapPageRoute(
    "Product",
    "{ProductName}/{action}/{id}",
    "~/product.aspx",
    false,
    new RouteValueDictionary { { "action", "Show" }, { "productName", DefaultProduct } }
);
```

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

---

**Answer: B**

---

#### **Question: 14**

---

The GetDealPrice method must be called by using Ajax.

You need to get the price of a product by using the GetDealPrice method of the ProductController.

Which code segment should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. `$.ajax({  
 type: "POST",  
 dataType: "json",  
 contentType: "application/json",  
 url: "Product/GetDealPrice",  
 data: "{'productId': '" + productId + "'}",  
 success: function (data) {  
 $(".price").html(data.d);  
 }  
});`
- B. `$.load({  
 dataType: "json",  
 contentType: "application/json",  
 url: "Product/GetDealPrice/" + productId,  
 success: function (data) {  
 $(".price").html(data.d);  
 }  
});`
- C. `$.ajax({  
 type: "GET",  
 dataType: "json",  
 contentType: "application/json",  
 url: "Product/GetDealPrice/" + productId,  
 success: function (data) {  
 $(".price").html(data.d);  
 }  
});`
- D. `$.getJSON("Product/GetDealPrice/" + productId  
 function (data) {  
 $(".price").html(data.d);  
 }  
);`

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

---

Answer: C, D

---

**Question: 15**

---

**HOTSPOT**

You need to implement the mobile device support requirements.

How should you build the ProcessRequest method? (To answer, select the appropriate options in the answer area.)

**Work Area**

```
protected override void ProcessRequest(HttpContext httpContext)
{
    var response = httpContext.Response;
    var mobileFormat = [REDACTED];
    var normalFormat = [REDACTED];
    if (httpContext. [REDACTED].ContentType == [REDACTED])
    {
        if (httpContext. [REDACTED].[REDACTED])
        {
            WriteImage(response, mobileFormat);
        }
        else
        {
            WriteImage(response, normalFormat);
        }
    }
    else
    {
        base.ProcessRequest(httpContext);
    }
}
```

## Work Area

```

protected override void ProcessRequest(HttpContext httpContext)
{
    var response = httpContext.Response;
    var mobileFormat = dropdown;
    "image/png"
    "image/gif"
    "image/jpeg"
    "image/bmp"

    var normalFormat = dropdown;
    "image/png"
    "image/gif"
    "image/jpeg"
    "image/bmp"

    if (httpContext.dropdown.ContentType == dropdown)
    {
        Response
        Request
        Application
        Handler
    }
    else
    {
        if (httpContext.dropdown.dropdown)
        {
            Response
            Request
            Application
            Handler
        }
        else
        {
            WriteImage(response, mobileFormat);
        }
    }
}
else
{
    base.ProcessRequest(httpContext);
}
}

```

**Answer:**

Work Area

```

protected override void ProcessRequest(HttpContext httpContext)
{
    var response = httpContext.Response;
    var mobileFormat = "image/png";
    var normalFormat = "image/png";

    if (httpContext.Response.ContentType == "image/png")
    {
        if (httpContext.Request.Browser.IsMobileDevice ||
            Browser.IsBrowser("MobileDevice") ||
            Mobile == "android|iPhone|iPod" ||
            Mobile == "+mobile|tablet")
        {
            WriteImage(response, mobileFormat);
        }
        else
        {
            WriteImage(response, normalFormat);
        }
    }
    else
    {
        base.ProcessRequest(httpContext);
    }
}

```

### Case Study: 3

## **Video Transcoding Service**

### **Background**

You are developing a video transcoding service. This service is used by customers to upload video files, convert video to other formats, and view the converted files. This service is used by customers all over the world.

### **Business Requirements**

The user-facing portion of the application is an ASP.NET MVC application. It provides an interface for administrators to upload video and schedule transcoding. It also enables administrators and users to download the transcoded videos.

When videos are uploaded, they are populated with metadata used to identify the video. The video metadata is gathered by only one system when the video upload is complete.

Customers require support for Microsoft Internet Explorer 7 and later.

The application contains a header that is visible on every page.

If the logged-on user is an administrator, then the header will contain links to administrative functions. This information is read from a cookie that is set on the server. The administrative links must not be present if an error condition is present.

### **Technical Requirements**

#### **User Experience:**

- The front-end web application enables a user to view a list of videos.
- The main view of the application is the web page that displays the list of videos.
- HTML elements other than the list of videos are changed with every request requiring the page to reload.

#### **Compatibility:**

- Some customers use browsers that do not support the HTTP DELETE verb.
- These browsers send a POST request with an HTTP header of X-Delete when the intended action is to delete.

#### **Transcoding:**

- The video transcoding occurs on a set of Windows Azure worker roles.
- The transcoding is performed by a third-party command line tool named transcode.exe. When the tool is installed, an Environment variable named transcode contains the path to the utility.
- A variable named license contains the license key. The license for the transcoding utility requires that it be unregistered when it is not in use.
- The transcoding utility requires a significant amount of resources. A maximum of 10 instances of the utility can be running at any one time. If an instance of the role cannot process an additional video, it must not prevent any other roles from processing that video.
- The utility logs errors to a Logs directory under the utilities path.
- A local Azure directory resource named perf is used to capture performance data.

#### **Development:**

- Developers must use Microsoft Remote Desktop Protocol (RDP) to view errors generated by the transcode.exe utility.
- An x509 certificate has been created and distributed to the developers for this purpose.
- Developers must be able to use only RDP and not any other administrative functions.

**Application Structure****TranscodeWorkerRole.cs**

```
public class TranscodeWorkerRole : RoleEntryPoint
{
    public override void Run()
    {
        while (true)
        {
            var nextWorkItem = GetWorkItem();
            TranscodeService.Start(new [] { nextWorkItem } );
        }
    }

    private string GetWorkItem()
    {
        ...
    }
}
```

**ThumbnailGenerator.cs**

```
public class ThumbnailGenerator : IHttpHandler
{
    public bool IsReusable
    {
        get { return true; }
    }

    public void ProcessRequest(HttpContext context)
    {
        var videoId = context.Request.QueryString["videoId"];
        var startBytes = File.ReadAllBytes(videoId);
        var bytes = BuildThumbnail(videoId);
        StreamResults(context, bytes);
    }

    private Task<byte[]> BuildThumbnail(string videoId)
    {
        return new Task<byte[]>(() => File.ReadAllBytes(videoId));
    }

    private void StreamResults(HttpContext context, byte[] content)
    {
    }
}
```

**VideoController.cs**

```
[Authorize]
public class VideoController : Controller
{
    public FileResult DownloadVideo(string videoId)
    {
        var stream = GetVideoStream(videoId);
        return File(stream, "video/mpeg");
    }

    [HttpPost]
    public ActionResult UploadVideo(string videoId)
    {
        return View();
    }

    [HttpDelete]
    public ActionResult DeleteVideo(string videoId)
    {
        return View();
    }

    public ActionResult VideoMetadata(string videoId)
    {
        var metadata = HttpRuntime.Cache[videoId];
        if (metadata == null)
        {
            metadata = LoadMetadata(videoId);
            HttpRuntime.Cache[videoId] = metadata;
        }
        return View(metadata);
    }

    public ActionResult ListVideos()
    {
        return View();
    }
}
```

**DeleteHandler.cs**

```
public class DeleteHandler : DelegatingHandler
{
    protected override Task<HttpResponseMessage> SendAsync(
        HttpRequestMessage request,
        CancellationToken cancellationToken)
    {
        ...
    }
}
```

**VideoAdminAttributes.cs**

```
public class VideoAdminAttribute : Attribute
{
    private IEnumerable<string> Admins()
    {
        ...
    }
}
```

**AdminVerifierFactory.cs**

```
public class AdminVerifierFactory : DefaultControllerFactory
{
    public override IController CreateController(RequestContext requestContext,
        string controllerName)
    {
        return base.CreateController(requestContext, controllerName) as Controller;
    }
}
```

**Question: 1**

You need to ensure that developers can connect to a Windows Azure role by using RDP.  
What should you do?

- Export a certificate without a private key. Upload the .cer file to the Management Certificates section on the Azure Management Portal.
- Export a certificate with a private key. Upload the .pfx file to the Management Certificates section on the Azure Management Portal.
- Export a certificate without a private key. Upload the .cer file to the Certificates section under the TranscodeWorkerRole hosted service on the Azure Management Portal.
- Export a certificate with a private key. Upload the .pfx file to the Certificates section under the TranscodeWorkerRole hosted service on the Azure Management Portal.

**Answer: D****Question: 2**

Customers download videos by using HTTP clients that support various content encodings.  
You need to configure caching on the DownloadVideo action to maximize performance.  
Which attribute should you add?

- C A. [OutputCache(Location = OutputCacheLocation.Downstream, VaryByParam = "videoId", VaryByCustom = "browser")]
- C B. [OutputCache(Location = OutputCacheLocation.Any, VaryByCustom = "compressionMethod", VaryByContentEncoding = "all")]
- C C. [OutputCache(Location = OutputCacheLocation.ServerAndClient, VaryByHeader = "Cache-Control")]
- C D. [OutputCache(Location = OutputCacheLocation.Downstream, VaryByContentEncoding = "gzip;q=1.0, compress; q=0.5, \*;q=0")]
- C E. [OutputCache(Location = OutputCacheLocation.Any, VaryByParam = "videoId", VaryByContentEncoding = "gzip;q=1.0, compress; q=0.5, \*;q=0")]

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

---

**Answer: E**

---

### **Question: 3**

---

You need to ensure that all the MVC controllers are secure.

Which code segment should you use as the body for the CreateController method in AdminVerifierFactory.es?

C A. varcontroller = base.CreateController(requestContext, controllerName) asController;  
 varattributes = controller.GetType().Attributes.ToString();  
 if(!attributes.Contains("VideoAdminAttribute"))  
 thrownewException("Not an Administrator");  
 returncontroller;

C B. if(requestContext.HttpContext.Items["Administrator"] == null)  
 thrownewException("Not an Administrator");  
 returnbase.CreateController(requestContext, controllerName) asController;

C C. varcontroller = base.CreateController(requestContext, controllerName) asController;  
 varhasFilter = controller.GetType().CustomAttributes.Any  
 (x => x.AttributeType.Name == "VideoAdminAttribute");  
 if(hasFilter == null)  
 thrownewException("Not an Administrator");  
 returncontroller;

C D. if(requestContext.RouteData.Values["Administrator"] == null)  
 thrownewException("Not an Administrator");  
 returnbase.CreateController(requestContext, controllerName) asController;

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

---

**Answer: C**

---

#### **Question: 4**

---

You are creating a new authentication system that uses an HTTP header value.

The existing authentication system must continue to operate normally.

You need to implement the custom authentication.

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

- A. Create a class derived from ActionResult and check for a valid HTTP header value in the ExecuteResult method. Change all actions to return this new class.
- B. Create an HttpHandler to check for a valid HTTP header value in the ProcessRequest method.
- C. Create an HttpModule and check for a valid HTTP header value in the AuthenticateRequest event.
- D. Create a class derived from AuthorizeAttribute and check for a valid HTTP header value in the AuthorizeCore method. Change usages of the existing AuthorizeAttribute to use the new class.

---

**Answer: C, D**

---

#### **Question: 5**

---

**HOTSPOT**

The designer for the website gave you the following image as the design for the page.



The normal color for the tab is `*2da4c2`, and the color when the mouse is over the tab is `#ffd800`.  
The HTML that implements the navigation tab is as follows.

```
<ul id="nav">
    <li><a href="/">Home</a></li>
    <li><a href="/">About</a></li>
    <li><a href="/">Contact</a></li>
</ul>
```

You need to implement the design.

What should you do? (To answer, select the appropriate options in the answer area.)

**Work Area**

```
ul#nav {
    font-size: 1.3em;
    font-weight: 600;
}

ul#nav li {
    text-align: center;
}

ul#nav li a {
    color: #FFF;
    border-radius: 12px 12px 0 0;
    padding: 0 12px 0 12px;
    margin: 0 4px 0 4px;
}

ul#nav li a:hover {
    color: #333;
}
```

## Work Area

```

ul#nav {
    font-size: 1.3em;
    font-weight: 600;
}

ul#nav li {
    float: left;
    background-color: #ffd800;
    background-color: #2da4c2
    text-decoration: none;
}

    text-decoration: none;
    list-style: none;
    border-radius: 15px;
    word-wrap: break-word;

    text-align: center;
}

ul#nav li a {
    background-clip: border-box;
    background-color: #2da4c2
    border-radius: 15px;
    word-wrap: break-word;

    color: #FFF;
}

    background-clip: padding-box;
    text-decoration: none;
    background-color: #ffd800;
    float: left;

    border-radius: 12px 12px 0 0;
    padding: 0 12px 0 12px;
    margin: 0 4px 0 4px;
}

ul#nav li a:hover {
    color: #333;
}

    float: left;
    background-color: #ffd800;
    background-color: #2da4c2
    list-style: none;

    cursor: pointer;
    background-clip: border-box;
    text-decoration: none;
    background-origin: border-box;
}

}

```

---

Answer:

## Work Area

```
ul#nav {  
    font-size: 1.3em;  
    font-weight: 600;  
}  
  
ul#nav li {  
    float: left;  
    background-color: #ffd800;  
    background-color: #2da4c2  
    text-decoration: none;  
}  
  
ul#nav li {  
    text-decoration: none;  
    list-style: none;  
    border-radius: 15px;  
    word-wrap: break-word;  
    text-align: center;  
}  
  
ul#nav li a {  
    background-clip: border-box;  
    background-color: #2da4c2  
    border-radius: 15px;  
    word-wrap: break-word;  
    color: #FFF;  
}  
  
ul#nav li a {  
    background-clip: padding-box;  
    text-decoration: none;  
    background-color: #ffd800;  
    float: left;  
}  
  
ul#nav li a {  
    border-radius: 12px 12px 0 0;  
    padding: 0 12px 0 12px;  
    margin: 0 4px 0 4px;  
}  
  
ul#nav li a:hover {  
    color: #333;  
}  
  
ul#nav li a {  
    float: left;  
    background-color: #ffd800;  
    background-color: #2da4c2  
    list-style: none;  
}  
  
ul#nav li a {  
    cursor: pointer;  
    background-clip: border-box;  
    text-decoration: none;  
    background-origin: border-box;  
}
```

**Question: 6**

You need to maximize performance of video delivery.

Which code segment should you use as the body of the GetVideoStream function in the Video-Controller class?

C A. `MemoryStream stream = new MemoryStream();  
new GZipStream(System.IO.File.OpenRead(videoId), CompressionMode.Compress).CopyTo  
(stream);  
return stream;`

C B. `if (Request.ContentEncoding.BodyName == "application/x-gzip")  
{  
 return new GZipStream(System.IO.File.OpenRead(videoId), CompressionMode.Compress);  
}  
return System.IO.File.OpenRead(videoId);`

C C. `return new GZipStream(System.IO.File.OpenRead(videoId), CompressionMode.Compress);`

C D. `if (Request.Headers["Accept-Encoding"].Contains("gzip"))  
{  
 return new GZipStream(System.IO.File.OpenRead(videoId), CompressionMode.Compress);  
}  
return System.IO.File.OpenRead(videoId);`

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

---

**Answer: D**

---

### **Question: 7**

---

The transcode.exe utility activates its license online when it is installed.  
You need to ensure that the registration of the transcode utility is handled as specified in its license.  
Which method should you add to the TranscodeWorkerRole class?

- C A. 

```
public override void OnStop()
{
    RoleEnvironmentStopping += (sender, args) =>
    {
        var task = Process.Start("transcode.exe", "unregister");
        if (task.HasExited)
            base.OnStop();
    };
}
```
- C B. 

```
public override void OnStop()
{
    RoleEnvironmentStopping += (sender, args) =>
    {
        Process.Start("transcode.exe", "unregister").WaitForExit();
        base.OnStop();
    };
}
```
- C C. 

```
public override void OnStop()
{
    Process.Start("transcode.exe", "unregister");
    base.OnStop();
}
```
- C D. 

```
public override void OnStop()
{
    Process.Start("transcode.exe", "unregister").WaitForExit();
    base.OnStop();
}
```

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

---

**Answer: D**

---

### Question: 8

---

DRAG DROP

You need to ensure that the transcode.exe utility is installed before the worker role starts.

How should you implement the startup task? (To answer, drag the appropriate values to the correct element or attribute. 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.)

Variable      Environment      foreground      background      simple

```

<Startup>
  <Task commandLine="msiexec transcode.msi" taskType="simple">
    <Environment>
      <Variable name="license" value="825534"></Variable>
    </Environment>
  </Task>
</Startup>

```

**Answer:**

Variable      Environment      foreground      background

```

<Startup>
  <Task commandLine="msiexec transcode.msi" taskType="simple">
    <Environment>
      <Variable name="license" value="825534"></Variable>
    </Environment>
  </Task>
</Startup>

```

**Question: 9**

You need to ensure that all customers can delete videos regardless of their browser capability.  
 Which code segment should you use as the body of the SendAsync method in the DeleteHandler class?

C A. `var response = base.SendAsync(request, cancellationToken);  
if(request.Headers.Contains("X-Delete"))  
{  
 response.Result.StatusCode = HttpStatusCode.NotImplemented;  
}  
return response;`

C B. `if(request.Headers.Contains("X-Delete"))  
{  
 request.Method = new HttpMethod("DELETE");  
}  
returnbase.SendAsync(request, cancellationToken);`

C C. `var response = base.SendAsync(request, cancellationToken);  
if(response.Result.Headers.Contains("X-Delete"))  
{  
 request.Method = new HttpMethod("DELETE");  
}  
return response;`

C D. `if(request.Method == HttpMethod.Delete)  
{  
 request.Headers.Add("X-Delete", "true");  
}  
returnbase.SendAsync(request, cancellationToken);`

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

---

**Answer: B**

---

## Case Study: 4

### 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

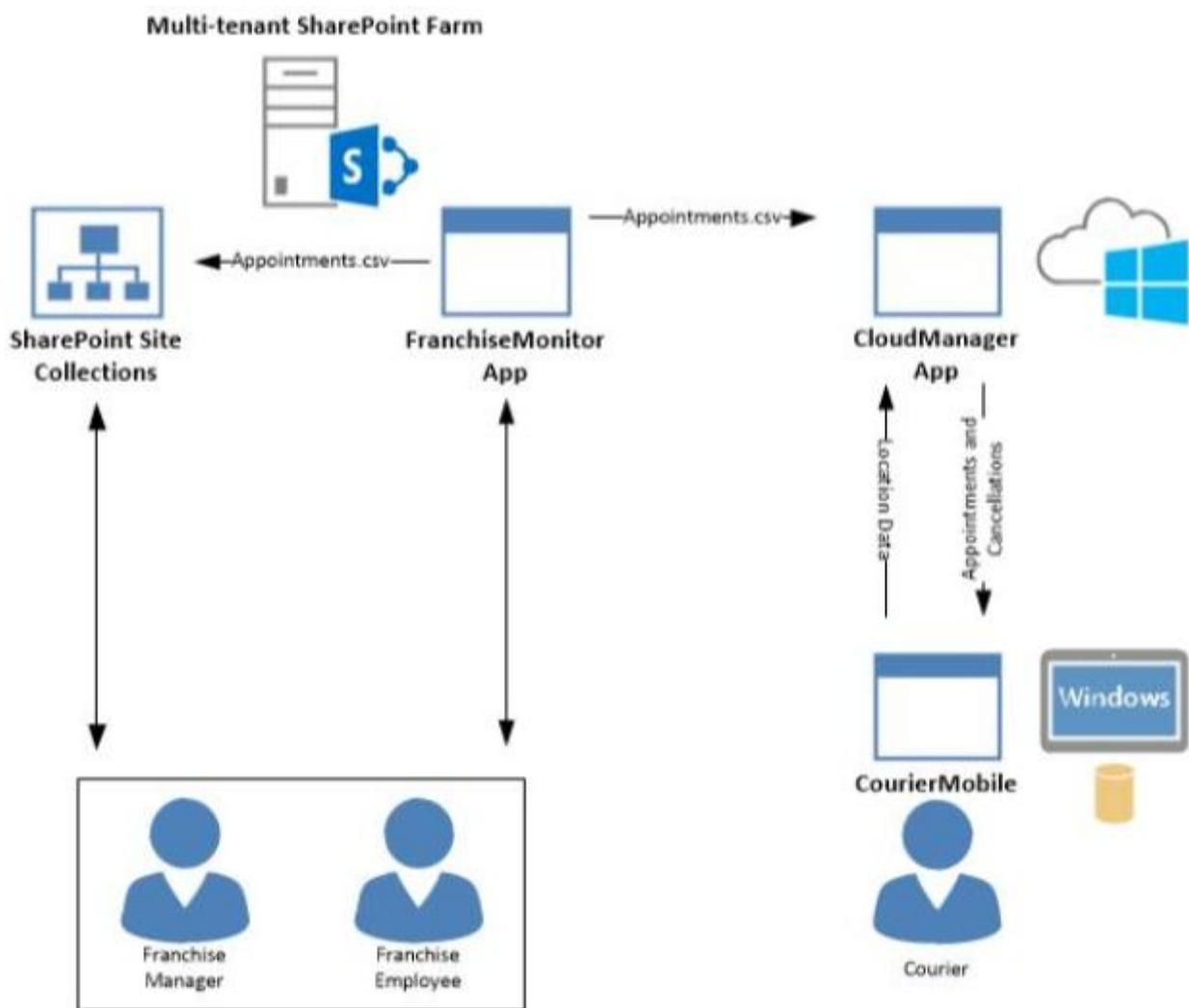
#### Technical Scenario

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

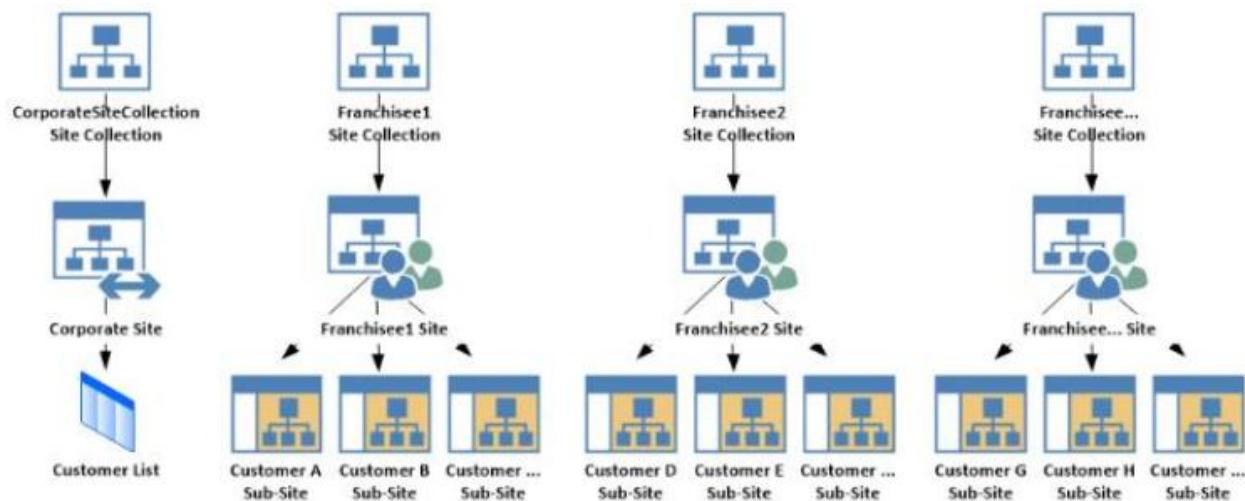
- Access to Consolidated Messenger's SharePoint 2013 multi-tenant farm located at <https://sp.consolidatedmessenger.com>
- Access to a Customers list in the Corporate site collection, named CorporateSiteCollection, which includes a list of all Customers across all franchisees
- A single site collection 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 add 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.es**

```

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

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

```

## 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?

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

---

**Answer: C**

---

**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.

---

**Answer: C**

---

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

**Question: 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.

---

**Answer: ABDE**

---

Explanation:

\* From scenario:

/ Business Requirements

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

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

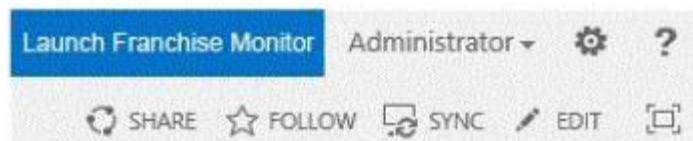
/ The CloudManager app must implement business logic that parses Appointments.csv and geo-location data and sends Appointments or Appointment cancellations to the CourierMobile app.

**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.)

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.

---

**Answer:**

Box 1:

Create a new SharePoint 2013 Empty Project.

Box 2:

Add a new user control named SuiteLinksDelegate.

Box 3:

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

Box 4:

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

Explanation:

Note:

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

### Question: 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 FillClaimValueTypeTypes(List<String> claimValueTypeTypes);
protected abstract void FillEntityTypeTypes(List<String> entityTypeTypes);
```
  
- 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

---

**Answer: BDF**

---

Explanation:

\* From scenario:  
MyClaimsProvider.es

```

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

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

```

---

## Question: 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.

---

**Answer: B**

---

---

## 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

---

**Answer: DE**

---

Explanation:

From scenario:

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

### **Question: 8**

---

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

---

**Answer: AD**

---

Explanation:

A: SQL Azure in the cloud.

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

From scenario:

- \* CourierMobile App

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

- \* Cloudmanager App

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

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

### **Question: 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.)



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

**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

### 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?

- A. Create an app for SharePoint. Set the trust level to Sandbox solution. Create an application page that writes a

cookie named FedAuth. Deploy the app and configure the Sign In Page URL in Central Administration Authentication Provider for the zone.

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

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

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

---

**Answer: B**

---

### 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.)

Create the **CourierManagerApp** app as an .

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

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

---

**Answer:**

---

Create the **CourierManagerApp** app as an .

- App for Office 2013
- App for SharePoint 2013

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

- Part
- UI Custom Action
- Immersive Full Page

### Case Study: 5

#### 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.

<b>Group</b>	<b>Description</b>
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.es

```

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

**SystemMessage.es**

```

SM01 public void SetSystemMessage(string message)
SM02 {
SM03     string url = "https://sharepoint.contoso.com/tasks";
SM04     string property = "SystemMessage";
SM05     var context = new ClientContext(url);
SM06     NetworkCredential credentials =
    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.es**

```

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

```

### RetrieveTaskList.es

```

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

```

### CanDeleteTask.es

```

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

```

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

```

---

### Question: 1

---

You need to 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

---

**Answer: DE**

---

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

---

**Answer: D**

---

**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.)

**Answer Area**

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

```
Field completed = list.Fields.AddFieldAsXml(
  "<Field DisplayName='Completed'"

  Type= Choice />",
  true,
  AddFieldOptions.DefaultValue);
FieldChoice completedField =
  context.CastTo<FieldChoice>(completed);

completedField.EditFormat =
  ChoiceFormatType.RadioButtons ;
string[] choices = {"Yes", "No" };
completedField.Choices = choices;
```

---

**Answer:**

---

```
Field completed = list.Fields.AddFieldAsXml(
  "<Field DisplayName='Completed'"

  Type= Choice />",
  true,
  AddFieldOptions.DefaultValue);
FieldChoice completedField =
  context.CastTo<FieldChoice>(completed);

completedField.EditFormat =
  ChoiceFormatType.RadioButtons ;
string[] choices = {"Yes", "No" };
completedField.Choices = choices;
```

---

**Question: 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>.

---

**Answer: A**

---

---

**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

---

**Answer: A****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

---

**Answer: D****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

---

**Answer: D**

---

**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

---

**Answer: C**

---

### **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.

---

**Answer: A**

---

## **Case Study: 6**

### **Coho Winery**

#### **Background**

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

#### **Business Requirements**

##### **Site Collection**

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

##### **New Features**

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

##### **Technical Requirements**

##### **General**

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

- When Payment Confirmation documents are generated, a workflow must send a notification to the customer by email.

## **User Authorization**

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

## **Application Lifecycle Management**

- Versioning of the solution artifacts must adhere to industry best practices.
- In a future upgrade process, a new site column named Division must be added to the Finance content type programmatically.
- Only one version of an assembly must be available at runtime.
- Code based hot fixes must be deployed directly to the Global Assembly Cache on all SharePoint servers.
- During maintenance periods, content must be available but must not be modified.

## **Backup and Recovery**

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

## **Performance Optimization and Memory Usage**

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

## **Automation**

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

## **Application Structure**

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

## **ContentType.es**

```

CT01  public override void
      FeatureActivated(SPFeatureReceiverProperties spFtRcvProperties)
CT02  {
CT03      SPWeb web =
((SPSite)spFtRcvProperties.Feature.Parent).RootWeb;
CT04      string financeColumnName = "Finance Columns";
CT05      string customerFieldName =
web.Fields.Add("Customer Name", SPFieldType.Text, true);
CT06
CT07      string transDateFieldName = web.Fields.Add("Transaction
Date", SPFieldType.DateTime, true);
CT08      ...
CT09      string contentTypeGroup = "Finance Content Types";
CT10      SPContentType docContentType =
web.AvailableContentTypes[SPBuiltInContentTypeId.Document];
CT11
CT12      docContentType1 = web.ContentTypes.Add(docContentType1);
CT13      docContentType1.Group = contentTypeGroup;
CT14      SPFieldLink transDateFieldRef =
new SPFieldLink(transDateField);
CT15      transDateFieldRef.Required = true;
CT16      docContentType1.FieldLinks.Add(transDateFieldRef);
CT17      docContentType1.Update();
CT18      docContentType2 = web.ContentTypes.Add(docContentType2);
CT19      docContentType2.Group = contentTypeGroup;
CT20      SPFieldLink titleODFieldRef =
docContentType2.FieldLinks[SPBuiltInFieldId.Title];
CT21      ...
CT22      titleODFieldRef.Required = true;
CT23      ...
CT24      docContentType2.Update();
CT25      docContentType3 = web.ContentTypes.Add(docContentType3);
CT26      docContentType3.Group = contentTypeGroup;
CT27      SPFieldLink titlePmtFieldRef =
docContentType3.FieldLinks[SPBuiltInFieldId.Title];
CT28      ...
CT29      titlePmtFieldRef.Required = true;
CT30      ...
CT31      docContentType3.Update();
CT32  }
CT33
CT34  {
CT35      SPWeb parentWeb = (SPWeb)properties.Feature.Parent;
CT36      switch (upgradeActionName)
CT37  {
CT38      case "                               ":
CT39          ...
CT40          break;
CT41      default:
CT42          ...
CT43          break;
CT44  }
CT45  }
CT46  }

```

UserAuthorization.es

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

ContentType.Finance.Template.xml

```

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

---

**Answer: AC**

---

Explanation:

- \* 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

---

DRAG DROP

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

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

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

```

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




```

```





```

**Answer:**

```

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




```

```





```

**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.

**Answer: AC**

**Explanation:**

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

can still be loaded:

/ Find and update every reference to the previous assembly version.

/ Use a binding redirect in the relevant .config file (e.g. web.config) to point to the new version of the assembly.

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

Incorrect:

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

From scenario:

\* solution artifacts must adhere to industry best practices.

\* Code based hot fixes must be deployed directly to the Global Assembly Cache on all SharePoint servers.

\* Only one version of an assembly must be available at runtime.

## Question: 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.)

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

Answer:

## Answer Area

```
SPContentType docContentType1 = new  
    (docContentType,  
     web.ContentTypes, "Finance");  
  
SPContentType docContentType2 = new  
    (docContentType1,  
     web.ContentTypes, "Order Details");  
  
SPContentType docContentType3 = new  
    (docContentType1,  
     web.ContentTypes, "Payment Confirmation");
```

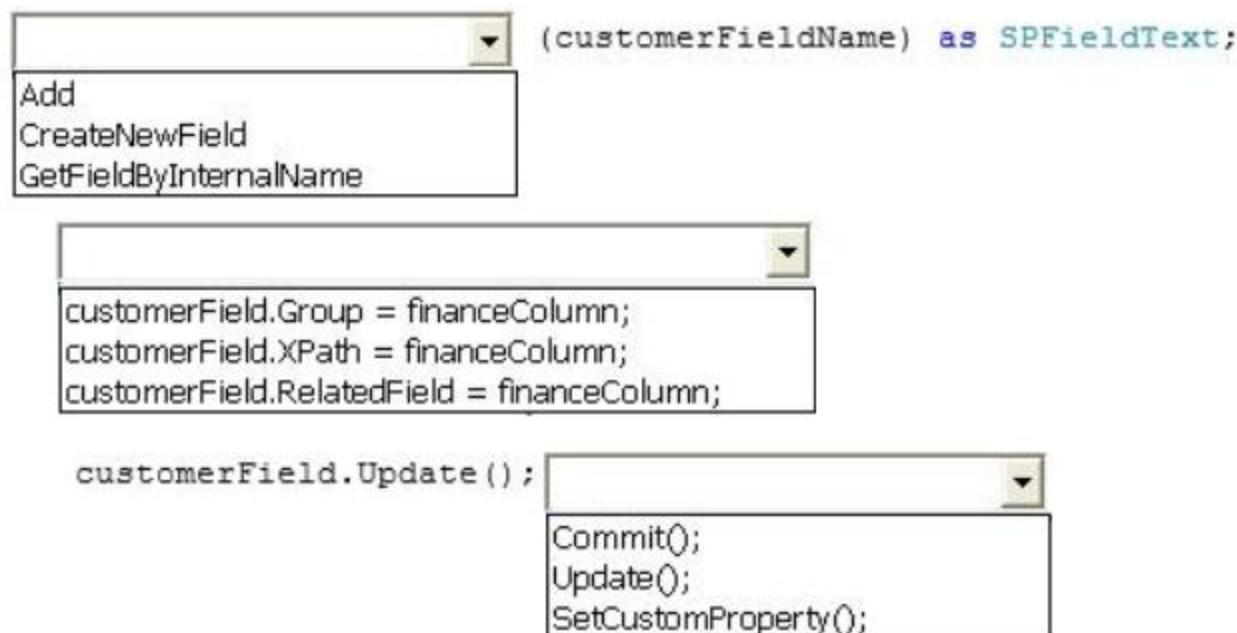
**Question: 5****HOTSPOT**

You need to create the required site columns.

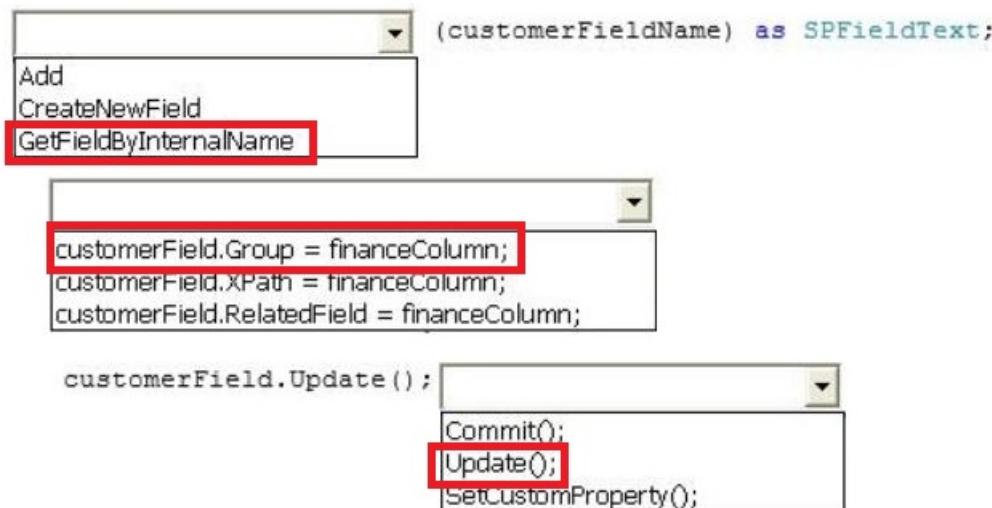
How should you complete the relevant code? (To answer, select the appropriate code segment from each drop-down list in the answer area.)

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

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

**Answer:**

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

**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?

- Ensure that the user has the correct permissions to start a workflow.
- 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.

---

**Answer: D**

---

### **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;`

---

**Answer: B**

---

## **Case Study: 7**

### **Litware Inc.**

#### **Background**

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

#### **Business Requirements**

##### **Intranet**

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

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

##### **Collaboration**

Litware has the following collaboration requirements:

- The collaboration space must include a start page containing information about site owners, contact data, and statistics on site usage. This information must be available for each collaboration space, directly after its

- creation.
- The project must be delivered in multiple phases.
  - The solution must support changes and updates on the structure and functionality of the collaboration spaces.

## **Marketing collaboration space**

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

## **Technical Requirements**

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

Litware will use the following web application for the intranet: <https://intranet.litwareinc.com>.

The publishing site design is delivered as a set of HTML files (`litwarepublishing.html`), CSS (`Litwarepublishing.css`), and image files from the marketing company. A design package must be created for easier deployment over various platforms. During the creation and application of the design package to the publishing site, SharePoint 2013 out-of-the-box capabilities must be used as much as possible to ensure simple design changes and to simplify the upgrade procedures. The publishing site must support rendering on a number of devices, starting with Windows Phone. Apart from being deployed on all existing publishing sites, the design package must be automatically applied each time a publishing site is created. A search box must be available on all publishing sites.

## **Collaboration**

Litware will use two additional web applications for the collaboration:

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

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

### **Feature IDs:**

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

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

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

Litware.Intranet.Templates contains two features:

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

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

## Marketing site collection

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

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

## Application Structure

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

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

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

### MarketingAudit.ascx.es

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

---

### **Question: 1**

---

You 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;

---

**Answer: B**

---

---

### **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.

---

**Answer: D**

---

---

### **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.)

Name

Title

Template

TemplateID

WebTemplate

DisplayCategory

BaseTemplateName

Answer Area

```

<?xml version="1.0" encoding="utf-8"?>

<Elements xmlns="http://schemas.microsoft.com/sharepoint/">
  <WebTemplate>
    <BaseTemplateName>STS</BaseTemplateName>
    <BaseTemplateID>0</BaseTemplateID>
    <BaseConfigurationID>0</BaseConfigurationID>
    <Name>LitwareTeamSite</Name>
    <Title>Litware Team Site</Title>
    <DisplayCategory>Litware</DisplayCategory>
  </WebTemplate>
</Elements>
```

### Answer:

```

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

### 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.)

.....

Answer Area
LitwareIncTemplate#0
OSRV#0
FeatureTemplate
FeatureTemplateStapler
BLANKINTERNET#0
WTLitwareTeamSite
litware.teamsite.wt_ID
FeatureWebTemplateAssociation
FeatureSiteTemplateAssociation

---

**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>
```

---

**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.

---

**Answer: C**

---

---

**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.)

## Columns

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

Column (click to edit)	Type	Required
Title	Single line of text	
Project	Lookup	
<hr/>		
<ul style="list-style-type: none"> <li><a href="#">Create column</a></li> <li><a href="#">Add from existing site columns</a></li> <li><a href="#">Column ordering</a></li> <li><a href="#">Indexed columns</a></li> </ul>		

## Answer:

## Columns

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

Column (click to edit)	Type	Required
Title	Single line of text	
Project	Lookup	
<hr/>		
<ul style="list-style-type: none"> <li><a href="#">Create column</a></li> <li><a href="#">Add from existing site columns</a></li> <li><a href="#">Column ordering</a></li> <li><a href="#">Indexed columns</a></li> </ul>		

## 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.)

Design      Manifest

Title: Litware Web Template

Description:

Scope:

Items in the Solution:

WebTemplatePrope...  
Element

Files

Items in the Feature:

LitwareTeamSite (Lit...  
Element

Files

>>  
>  
<

Design      Manifest

Title: Litware Web Template

Description:

Scope:

Farm  
Site  
Web  
WebApplication

Items in the Solution: **WebTemplatePrope...** Element

Items in the Feature: **LitwareTeamSite (Lit...)** Element

Files

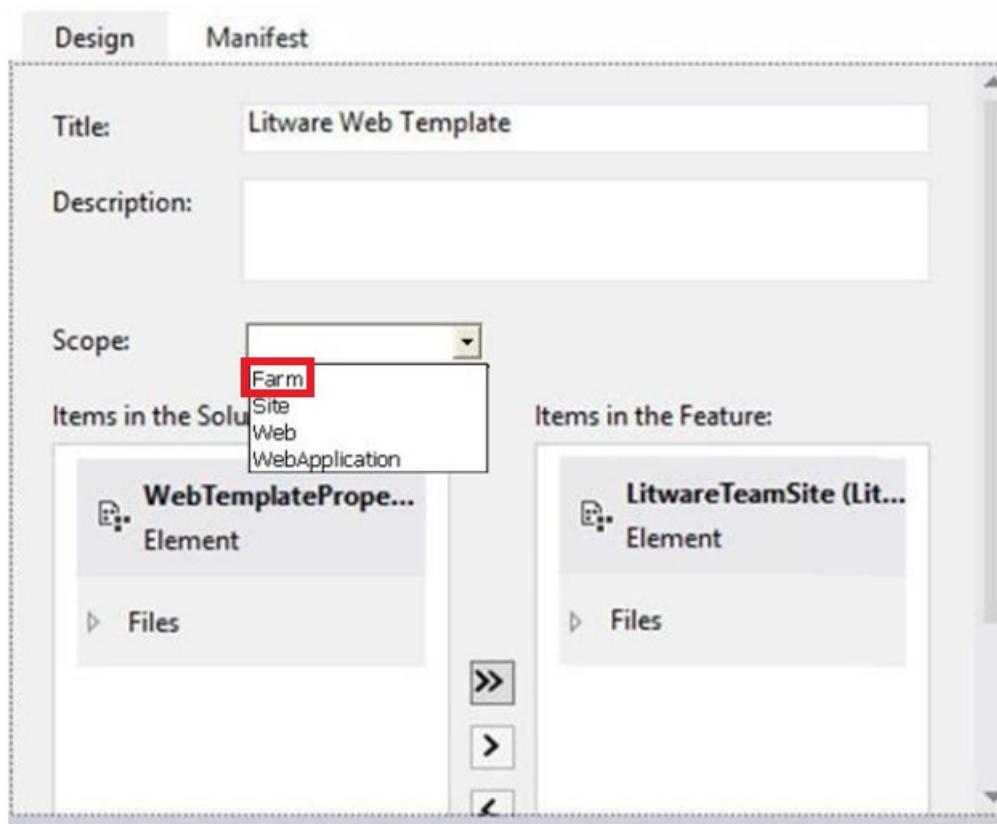
Files

»   
»

---

**Answer:**

---



### 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.)

## 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](#)

---

**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

---

**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.)

WebFeatures

FarmFeatures

SiteCollectionFeatures

DBF805AB-03D9-43DC-9154-52D6AC54689F

FDE5D850-671E-4143-950A-87B473922DC7

**Answer Area**

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

---

**Answer:**

```

<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>

```

## Case Study: 8

### Trey Research Background

You develop an intranet portal for Trey Research. End users of the portal are researchers and office staff.

#### Business Requirements

All end users must be able to customize their profile with relevant information. Researchers must store research papers, upload supporting documents, and search content.

#### Storage

The portal must use an existing Microsoft SQL Server database to access and store work profile information and research papers.

#### Data Access

- The portal must use Business Connectivity Services (BCS) to access data from external systems.
- Researchers must search content from SharePoint and external systems.
- Researchers must manage a research topic and related content as a single entity.

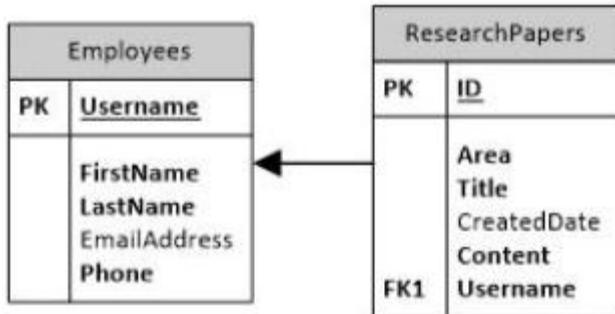
#### User Profile

- Employees must be able to customize their profile.
- Administrators must be able to create new profile properties.

#### Technical Requirements

##### Data Store

The data model for the database entities is shown below:



Users must not be allowed to update the Employees.Username and ResearchPapers.ID fields. The fields uniquely distinguish the corresponding entity.

## Access External Data

- You must create an external content type named TreyResearch to access the SQL data source. During development, the data source will be accessible locally.
- You must develop an app to access the fields named Employee Name and Research Paper Title.
- Researchers must be able to find all research papers that are written by a particular employee.
- A research paper always must be associated with the employee that wrote it.

## Document Management

- Researchers must be able to upload research papers and relevant supporting materials into a document set named Research Content.
- All the document sets must be stored in a list named ResearchPapers.
- All documents that are uploaded must contain the prefix DOC in the file name.

## Environment

The SQL database will be on a different physical server when the solution is deployed to a production environment. The solution must use the SQL Server user named sqltrey to connect to the database. The BCS service is configured and running in the production environment.

## Personalize

- You must use custom profile properties to add a new section to the user profile properties page.
- The solution must use the client-side object model (CSOM) to upload employee profile pictures.
- Employees must be able to change their display name on the site.
- Each employee's page must display the value of the DisplayName and Title fields.

## Search

- The Microsoft Bing API web service must be used to search for research papers. No code must be written.
- The app must use a Content Enrichment web service named AbstractIndexer. The app must use the AbstractIndexer service to index search content.
- The solution must store large-sized media files in a dedicated SQL Server database.
- The database must use the ResearchPapers.ID field as the foreign key to associate the field with the TreyResearch external content type.

## Application Structure

Relevant portions of the solution 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.)

**App.js**

```

AJ01  var context;
AJ02  var web;
AJ03  var user;
AJ04
AJ05
AJ06      $.ajax({
AJ07          url: listURL,
AJ08          headers: {
AJ09              "accept": "application/json",
AJ10              "X-RequestDigest": $("#__REQUESTDIGEST").val()
AJ11          },
AJ12          success: this.showItems,
AJ13          error: this.failMethod
AJ14      });
AJ15  }
AJ16
AJ17  this.showItems = function (data) {
AJ18      $("#Container").children().remove();
AJ19      $.each(data.d.results, function (key, val) {
AJ20          var item = $("#EmployeeInfoTemplate").clone()
AJ21              .attr("id", val.BdcIdentity)
AJ22              .fadeIn("slow");
AJ23          ...
AJ24          item.appendTo("#Container");
AJ25      });
AJ26  }
AJ27
AJ28  this.failMethod = function (jqXHR, textStatus, errorThrown) {
AJ29      alert('failed: ' + errorThrown);
AJ30  }
AJ31  }
AJ32  ExecuteOrDelayUntilScriptLoaded(getEmployees, "sp.js");
AJ33  });
AJ34
AJ35  function getEmployees() {
AJ36      var grid = new AppLevelECT.Grid
("ColumnContainer", 3, _spPageContextInfo.webServerRelativeUrl);
AJ37      grid.init();
AJ38  }

```

**ManageUserProfiles.es**

```

MP01  namespace ManageUserProfiles
MP02  {
MP03      class ProfileProperties
MP04      {
MP05          public static void AddProfileProperty(string name, string displayName,
bool isMultivalued)
MP06          {
MP07              using (SPSite site = new SPSite("http://treyresearch.com/users"))
MP08              {
MP09                  SPSvcContext svcContext = SPSvcContext.GetContext(site);
MP10                  try
MP11                  {
MP12                      ProfilePropertyManager prfPropMgr;
MP13                      ProfileSubtypeManager prfTypeMgr;
MP14                      ProfileSubtypePropertyManager prftypePropMgr;
MP15                      ProfileTypePropertyManager typPropMgr;
MP16                      ProfileSubtypeProperty prfTypeProp;
MP17                      ProfileTypeProperty prfProp;
MP18                      ProfileSubtype prfType;
MP19                      CorePropertyManager corePropMgr;
MP20                      CoreProperty coreProp;
MP21                      prfPropMgr = new UserProfileConfigManager(svcContext)
                        .ProfilePropertyManager;
MP22
MP23                      prfTypeProp = prftypePropMgr.Create(prfProp);
MP24                      prfTypeProp.IsUserEditable = true;
MP25                      prfTypeProp.DefaultPrivacy = Privacy.Public;
MP26                      prfTypeProp.UserOverridePrivacy = true;
MP27                      prftypePropMgr.Add(prfTypeProp);
MP28                  }
MP29                  catch (System.Exception e)
MP30                  {
MP31                      throw new Exception("Error occurred: " + e.ToString());
MP32                  }
MP33              }
MP34          }
MP35      }
MP36  }
MP37
MP38
MP39
MP40  public void UploadPicture(string account, string picURL)
MP41  {
MP42      try
MP43      {
MP44
MP45      }
MP46      catch (Exception e)
MP47      {
MP48          throw new Exception("Error occurred: " + e.ToString());
MP49      }
MP50  }
MP51
MP52  public UserProfileProperties GetUserProfileProperties(string account)
MP53  {
MP54      var userprfProps = new UserProfileProperties();
MP55
MP56      var clientContext = new ClientContext("http://treyresearch.com/users");

```

ContentManagement.es

```

CM01  private void CreateDocumentSets()
CM02  {
CM03      using (SPSite site = new SPSite("http://treyresearch.com/sites"))
CM04      {
CM05          using (SPWeb web = site.RootWeb)
CM06          {
CM07          }
CM08      }
CM09  }
CM10 }
```

**Question: 1****DRAG DROP**

You need to add code to line MP22 to create the custom profile property.

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

Create(coreProp)

Create(corePropMgr)

Create(true)

Create(false)

GetProfileSubtypeProperties

GetProfileTypeProperties

GetCoreProperties

Answer Area

```

corePropMgr = prfPropMgr.GetCoreProperties();

coreProp = corePropMgr. [REDACTED];
```

coreProp.Name = name;  
 coreProp.DisplayName = displayName;  
 coreProp.IsMultivalued = isMultivalued;  
 coreProp.Type = PropertyDataType.StringMultiValue;  
 coreProp.Length = 1024;  
 corePropMgr.Add(coreProp);
 typPropMgr = prfPropMgr

```

    . [REDACTED] (ProfileType.User);
```

prfProp = typPropMgr. [REDACTED];

```

    prfProp.IsVisibleOnViewer = true;
    typPropMgr.Add(prfProp);
    .
    prftypePropMgr = prfPropMgr
```

```

    . [REDACTED] (prfType.Name);
```

**Answer:**

```

corePropMgr = prfPropMgr.GetCoreProperties();
coreProp = corePropMgr. Create(true) ;
coreProp.Name = name;
coreProp.DisplayName = displayName;
coreProp.IsMultivalued = isMultivalued;
coreProp.Type = Property DataType.StringMultiValue;
coreProp.Length = 1024;
coreProp.Add(coreProp);
typPropMgr = prfPropMgr
. GetProfileTypeProperties (ProfileType.User);

prfProp = typPropMgr. Create(coreProp) ;
prfProp.IsVisibleOnViewer = true;
typPropMgr.Add(prfProp);
.
prftypePropMgr = prfPropMgr

. GetProfileSubtypeProperties (prfType.Name);

```

**Question: 2****DRAG DROP**

You need to add code to line MP57 to display the required properties for the user profile.

How should you complete the relevant code? (To answer, drag the appropriate code segments to the correct 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.)

Answer Area

```

var peopleManager = new PeopleManager(clientContext);

var usrPfrProps = new UserProfilePropertiesForUser(clientContext,
account, prfProps);
var profilePropertyValues = peopleManager.

clientContext.ExecuteQuery();

```

**Answer:**

```

var peopleManager = new PeopleManager(clientContext);
string[] prfProps = new string[] { "DisplayName", "Title" };

var usrPfrProps = new UserProfilePropertiesForUser(clientContext,
account, prfProps);
var profilePropertyValues = peopleManager.

.GetUserProfilePropertiesFor(usrPfrProps);

clientContext.Load(usrPfrProps);

clientContext.ExecuteQuery();

```

**Question: 3**

You need to configure the external content type to search for research papers.

Which indexing connector should you use?

- A. .NET Type Connector
- B. WCF Service Connector
- C. Custom Connector
- D. SQL Server Connector

---

**Answer: B**

---

#### **Question: 4**

---

You need to generate document identifiers for each new document that is uploaded to the site.  
What should you do?

- A. Create a derived class that inherits from the abstract class named Microsoft.Office.DocumentManagement.DocumentId and then override all of the abstract methods.
- B. Create a derived class that inherits from the abstract class named Microsoft.Office.DocumentManagement.DocumentIdProvider and then override all of the virtual members.
- C. Create a derived class that inherits from the Microsoft.Office.DocumentManagement.DocumentIdProvider abstract class and then implement all abstract members.
- D. Create a class to implement the Microsoft.Office.DocumentManagement.IDocumentId interface and then override all of the virtual members.

---

**Answer: B**

---

#### **Question: 5**

---

**DRAG DROP**

You need to configure authentication for the external content type in the production environment.  
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.)

Answer Area	
Add the sqltrey user login to the Secure Store Service.	
Configure permissions to allow the user that is logged in to have access to the Secure Store Service.	
Stop the Business Data Connectivity service.	
Create a Secure Store Service application as a target application.	
Connect to the external data source by using the Impersonated Custom Identity and the target application name.	
Connect to the external data source by using the Impersonated Windows Identity and the target application name.	

---

### Answer:

Box 1:

Stop the Business Data Connectivity service.

Box 2:

Add the sqltrey user login to the Secure Store Service.

Box 3:

Connect to the external data source by using the Impersonated Windows Identity and the target application name.

Explanation:

Note:

\* From scenario:

/ You must create an external content type named TreyResearch to access the SQL data source. During development, the data source will be accessible locally.

/ The solution must use the SQL Server user named sqltrey to connect to the database.

### Question: 6

DRAG DROP

You need to add code at line AJ05 to complete the implementation of the app.

How should you complete the relevant code? (To answer, drag the appropriate code segment to the correct location 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.)

Answer Area

context.load(user);

context.init(user);

Lists/GetByTitle

Lists/GetByName

FirstName,LastName,Title

FirstName,LastName,Phone

```

function sharePointReady() {
    context = new SP.ClientContext.get_current();
    web = context.get_web();
    user = web.get_currentUser();

    context.executeQueryAsync($('#message').text('Hello ' +
        user.get_title()), alert('Failed to get user name.'));
}

$(document).ready(function () {
    window.AppLevelECT = window.AppLevelECT || {};
    AppLevelECT.Grid = function (surlWeb) {
        this.init = function () {
            var listURL = surlWeb +
                "_api/<span style='border: 1px solid #ccc; padding: 2px; width: 150px; height: 20px; display: inline-block;"> ('Employees')/items?" +
                "$select=BdcIdentity, <span style='border: 1px solid #ccc; padding: 2px; width: 150px; height: 20px; display: inline-block;"> ";

```

### Answer:

```

function sharePointReady() {
    context = new SP.ClientContext.get_current();
    web = context.get_web();
    user = web.get_currentUser();

    context.load(user);

    context.executeQueryAsync($('#message').text('Hello ' +
        user.get_title()), alert('Failed to get user name.'));
}
$(document).ready(function () {
    window.AppLevelECT = window.AppLevelECT || {};
    AppLevelECT.Grid = function (surlWeb) {
        this.init = function () {
            var listURL = surlWeb +
                "_api/<span style='border: 1px solid #ccc; padding: 2px; width: 150px; height: 20px; display: inline-block;"> ('Employees')/items?" +
                "$select=BdcIdentity, <span style='border: 1px solid #ccc; padding: 2px; width: 150px; height: 20px; display: inline-block;"> ";

```

### Question: 7

HOTSPOT

You need to create the external content type to support the data model.

In the Return Parameter Configuration dialog box, in the properties section, which options should you select? (To answer, select the appropriate setting or settings in the answer area.)

**Properties**

Data Source Element:	Username
.NET Type:	System.String
Map to Identifier:	<input checked="" type="checkbox"/>
Identifier:	Username
Field:	Username
Display Name:	Username
Foreign Identifier:	<a href="#">(Click to Add)</a>
Required:	<input type="checkbox"/>
Read-Only:	<input type="checkbox"/>
Office Property:	Unmapped
Show In Picker:	<input type="checkbox"/>
Timestamp Field:	<input type="checkbox"/>

---

**Answer:**

---

**Properties**

Data Source Element:	Username
.NET Type:	System.String
Map to Identifier:	<input checked="" type="checkbox"/>
Identifier:	<input type="text" value="Username"/>
Field:	<input type="text" value="Username"/>
Display Name:	<input type="text" value="Username"/>
Foreign Identifier:	<a href="#">(Click to Add)</a>
Required:	<input type="checkbox"/>
Read-Only:	<input type="checkbox"/>
Office Property:	Unmapped
Show In Picker:	<input type="checkbox"/>
Timestamp Field:	<input type="checkbox"/>

Explanation:

\* From scenario:

/ You must create an external content type named TreyResearch to access the SQL data source. During development, the data source will be accessible locally.

**Question: 8****HOTSPOT**

You need to add code to line CM07 to create the Research Content document set.

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

```
SPList lst = web.Lists[""];
SPFolder folder = lst.RootFolder;
SPContentType docsetCT = lst.ContentTypes["Document Set"];

Hashtable properties = new ();
properties.Add("Name", "Research Name");
properties.Add("Description", "Research Description");
properties.Add("Content1", "Video File Name");
properties.Add("Content2", "Audio File Name");
var docSet = DocumentSet.  

;
```

```

SPList lst = web.Lists[""];
SPFolder folder = lst.RootFolder;
SPContentType docsetCT = lst.ContentTypes["Document Set"];

Hashtable properties = new ();

()

properties.Add("Name", "Research Name");
properties.Add("Description", "Research Description");
properties.Add("Content1", "Video File Name");
properties.Add("Content2", "Audio File Name");
var docSet = DocumentSet.  



```

**Answer:**

```

SPList lst = web.Lists[""];


();

SPFolder folder = lst.RootFolder;
SPContentType docsetCT = lst.ContentTypes["Document Set"];

Hashtable properties = new ();

()

properties.Add("Name", "Research Name");
properties.Add("Description", "Research Description");
properties.Add("Content1", "Video File Name");
properties.Add("Content2", "Audio File Name");
var docSet = DocumentSet.  



```

**Question: 9**

You need to configure authentication to access the SQL data source during development. Which authentication mechanism should you use?

- A. Impersonated Windows Identity
- B. Pass Through

- C. Impersonated Custom Identity
- D. Forms Based Authentication

---

**Answer: B**

---

### Question: 10

---

You need to ensure that users can upload pictures.  
Which code segment should you insert at line MP57?

- A. 

```
using (SPSite site = new SPSite("http://treyresearch.com/users"))
{
    var upm = new UserProfileManager(clientContext);
    var up = upm.GetUserProfile(account);
    up["PictureUrl"].Value = picURL;
    up.Commit();
}
```
- B. 

```
var peopleManager = new PeopleManager(clientContext);
var personProperties = peopleManager.GetPropertiesFor(account);
...
Stream sr = new System.IO.FileStream(picURL, FileMode.Open);
peopleManager.SetMyProfilePicture(sr);
...
```
- C. 

```
using (SPSite site = new SPSite("http://treyresearch.com/users"))
{
    var upm = new UserProfileManager(clientContext);
    var up = upm.GetUserProfile(account);
    Stream sr = new System.IO.FileStream(picURL, FileMode.Open);
    up.PictureUrl.SetMyProfilePicture(sr);
    up.Commit();
}
```
- D. 

```
var peopleManager = new PeopleManager(clientContext);
var personProperties = peopleManager.GetPropertiesFor(account);
...
Stream sr = new System.IO.FileStream(picURL, FileMode.Open);
personProperties.PictureUrl = picURL;
...
```

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

---

**Answer: B**

---

### Question: 11

---

You need to ensure that employees can change their display name.  
Which object model should you use?

- A. Use the server-side object model.
- B. Use a Representational State Transfer (REST) based service.
- C. Use the JavaScript object model.
- D. Use the .Net client-side object model.

---

**Answer: A**

---

## **Case Study: 9**

### **Lucerne Publishing Background**

You are hired by Lucerne Publishing to design and implement a new public-facing Internet site by using SharePoint. Lucerne Publishing also needs an intranet site to host sensitive documents and content.

#### **Business Requirements**

##### **Internet**

- Content owners must be able to:
- Modify content in pages that are published for anonymous site visitors.
- Modify search engine optimization (SEO) properties to optimize visibility of the web site.
- Create content in multiple languages and use automatic translation.

##### **Intranet**

- Each department must have its own site. Each department home page must display relevant information about the department and contact information for employees.
- Each user is encouraged to create their own blog, on which they will publish information about current projects and get feedback from other users in the company.
- Personalized content must be displayed for an employee when an employee accesses the intranet. The page must include a feed that displays updates from other users' blog posts.

#### **Technical Requirements**

##### **Service Applications**

- The Internet and intranet web applications must use the Managed Metadata Service (MMS). Both web applications use a separate MMS service application and do not share term sets.
- The intranet web application uses the User Profile Service Application (UPA).
- The intranet uses all available social features of the UPA.

Users follow, mention, and identify documents and people. Users often discuss news by using hash tags. You must develop an app part that allows the current user to show different top feeds from user profiles.

##### **Hardware**

The hardware that hosts the Internet site must handle thousands of concurrent users.

## URLs

The following table lists the URLs that the SharePoint sites will use.

Site	URL
Public-facing Internet site	<a href="http://www.lucernepublishing.com">http://www.lucernepublishing.com</a>
Intranet	<a href="http://intranet.lucernepublishing.com">http://intranet.lucernepublishing.com</a>
My Sites	<a href="http://my.lucernepublishing.com">http://my.lucernepublishing.com</a>

## Search Engine Optimization (SEO)

- You must implement search engine optimization for the public-facing Internet site. SharePoint must produce a site map file.
- You must publish data from the intranet site to the Internet web site by using cross-site publishing. You must define a catalog, add the data, and publish it to the Internet site.
- You must create a custom tool that site collection administrators use to manage catalog connections.
- You must define the API calls to remove or update existing catalog connections.

## Filtering

You must enable canonical URL filtering to improve ranking by Internet search engines. The Internet site that must use canonical filtering has the following URL:

<http://www.lucernepublishing.com/products/pages/products.aspx?<num>&productCategory=<category>> = productID =

You must define the filters that the site collection administrator uses.

## Internet

You publish the Internet site for multiple device types, such as mobile phones and tablet devices. The solution uses multiple master pages. Device channels select the master page to display based upon the capabilities of the device that connects to the site.

The following table lists the device channels and master pages that the site uses.

Master page	Device channels
Phone	Three device channels use the Phone master page, including one called Windows Phone that has an alias named WinPhone.
Tablet	There are two device channels that use the Tablet master page.
Default	Any device that is not included in other device channels uses a device channel named Default. The Default channel uses the Default master page.

You create a Windows Phone app. When users access the site by using a Windows phone, a message must appear on every page of the mobile site. The message must notify users that they can download the Windows Phone app to their phone. The HTML that contains the message must render only to the Windows phones.

## Intranet

- Each department must have its own site collection.
- Each employee must have Reader permissions to their department site collection.
- Employees access the intranet site by using a wide variety of devices.
- Some employees report that the home page loads slowly. You investigate the issue and find out that the size of some images is very large. You must enable image renditions on the intranet site collection.
- You must develop an app part that displays information from the users' personal sites and news feeds.

## Custom Development

- You design an application framework. The framework is used by other developers on the team. The framework must include entry points that are used to log errors and exceptions. You need the entry points.
- You create a custom Visual Web Part in a solution package. You deploy the solution package as a farm solution by using Windows PowerShell. An error message that includes a correlation ID displays when you add the custom Visual Web Part to a SharePoint site.
- You must create a tool to maintain social links. The tool must:
  - Allow the current user to follow another user.
  - Return true if the target user is currently being followed by the current user.
- You develop a Windows Store app that synchronizes data between the intranet sites and the app to allow users to work offline.

## Performance Improvement

- You have not modified the Request Management configuration.
- You must implement caching in your custom code to improve the performance of the company's intranet site.
- The SharePoint front-end web servers are load-balanced. Each request within a user session can be processed by different front-end web servers.
- Objects that are cached must always be available, regardless of which front-end web server processes the request.
- You must monitor the amount of memory that is available and the number of current requests for each server.

### Question: 1

You need to configure filtering for the Product page.

Which filtering option should you use?

- A. products/pages/products.aspx?productId=\*&.productCategory=\*
- B. products.aspx;productId;productCategory; lucernepublishing.com
- C. products; productId; productCategory; lucernepublishing.com
- D. products/pages/products.aspx?\*
- E. productId;productCategory

**Answer: E**

### Question: 2

You create a custom Visual Web Part. You deploy the solution package to the farm by using Windows PowerShell. When you try to add the custom Visual Web Part to a SharePoint site, an error message displays that includes a correlation ID.

You need to determine the cause of the error.

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

- A. Run the Get-SPLogEvent Windows PowerShell cmdlet.
- B. Run the Get-SPDiagnosticConfig Windows PowerShell cmdlet.
- C. Run the Get-SPHealthAnalysisRule Windows PowerShell cmdlet.
- D. View the Service Calls tab on the Developer Dashboard.
- E. View the Unified Logging Service (ULS) tab on the Developer Dashboard.

---

**Answer: AE**

---

Explanation:

<http://ittechnotebook.blogspot.co.uk/2013/07/how-to-find-real-error-in-sharepoint.html>

### Question: 3

---

HOTSPOT

You need to implement the social maintenance tool.

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

```
protected bool follow(ClientContext context,
 SocialFollowingManager fm, string user)
{
    SocialActorInfo info = new SocialActorInfo();
    info.AccountName = user

    ClientResult<SocialFollowResult>
    result = fm. [ ] (info);
    context.ExecuteQuery();

    if (result.Value ==
        SocialFollowResult. [ ] )
    {
        return true;
    }
    return false;
}
```

```

protected bool follow(ClientContext context,
 SocialFollowingManager fm, string user)
{
    SocialActorInfo info = new SocialActorInfo();
    info.AccountName = user

    ClientResult<SocialFollowResult>
    result = fm. [ ] (info);
        Follow
        StopFollowing
        IsFollowed
        AlreadyFollowing

    context.ExecuteQuery();

    if (result.Value ==
        SocialFollowResult. [ ] )
    {
        return true;
    }
    return false;
}

```

**Answer:**

```

protected bool follow(ClientContext context,
 SocialFollowingManager fm, string user)
{
    SocialActorInfo info = new SocialActorInfo();
    info.AccountName = user

    ClientResult<SocialFollowResult>
    result = fm. [ ] (info);
        Follow
        StopFollowing
        IsFollowed
        AlreadyFollowing

    context.ExecuteQuery();

    if (result.Value ==
        SocialFollowResult. [ ] )
    {
        return true;
    }
    return false;
}

```

**Question: 4**

You need to implement caching in your code.  
Which caching option should you use?

- A. Object Cache
- B. Distributed Cache
- C. Windows Server AppFabric Cache
- D. ASP.NET cache

---

**Answer: C**

---

### Question: 5

---

#### DRAG DROP

You need to notify Windows phone users about the new Windows phone app.

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.)

Answer Area

- Use JavaScript to set the value of the **display** property to **block** if the master page is being accessed by a Windows phone.
- Add a <div> tag that contains the notification message to the master page and set the default Cascading Style Sheets (CSS) **display** property to **none**.
- Edit the master page named Default.
- Set the value of the **IncludedChannels** property to **WinPhone**.
- Edit the master page named Phone.
- Add a device channel panel that contains the notification message to the master page.
- Set the value of the **IncludedChannels** property to **Default**.

---

**Answer:**

---

Box 1:

Edit the master page named Default.

Box 2:

Add a device channel panel that contains the notification message to the master page.

Box 3:

Set the value of the **IncludedChannels** property to **WinPhone**.

Explanation:

Note:

\* A device channel panel is a container that can be used on a master page or page layout when you want specific content to render based on the alias of a given device channel, or set of channels. For example, you may have a web part or control that you want revealed only on the desktop view of the site, and not on any mobile device. The device channel panel can enable you to encapsulate this web part in code, and enable you to render it only through a designated device channel.

\* From scenario:

/ You create a Windows Phone app. When users access the site by using a Windows phone, a message must appear on every page of the mobile site. The message must notify users that they can download the Windows Phone app to their phone. The HTML that contains the message must render only to the Windows phones.

/

Master page	Device channels
Phone	Three device channels use the Phone master page, including one called Windows Phone that has an alias named WinPhone.

## Question: 6

You need to resolve the image loading issue.

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

- A. Set the size of the site collection object cache to at least 100 MB.
- B. Enable the binary large object (BLOB) cache on each front-end web server.
- C. Activate the Content Organizer site feature.
- D. Enable authenticated cache profiles for the site output cache.
- E. Enable publishing features for the site collection.
- F. Set the default device channel to the active channel.

---

**Answer: AB**

Explanation:

A: The object cache is used internally to optimize page rendering by storing properties of sites, page layouts, and pages. The object cache reduces the amount of traffic between the Web server and a SQL database. This results in higher throughput of rendered pages, thereby increasing the number of pages that can be delivered to clients.

B: SharePoint Server 2013 provides a disk-based cache that stores files that are used by web pages to help them load quickly in the browser, and reduces the load on the database server when it uses those files. These files are known as

binary large objects (BLOBs), and the cache is known as the BLOB cache. The BLOB cache is stored directly on the hard disk drive of a front-end web server computer.

- \* When using Image Rendition you will have to enable BLOBCache to improve performance
- \* By using Device Channel Renditions you can create smaller image sizes designed specifically for mobile use. This allows the mobile user to browse the smaller version, increasing the overall performance for the device they are using. Image Rendition enables you to have large files stored within your website along with smaller scaled variations for mobile users.

When using Image Rendition you will have to enable BLOBCache to improve performance

From scenario:

- \* Some employees report that the home page loads slowly. You investigate the issue and find out that the size of some images is very large. You must enable image renditions on the intranet site collection.

---

### **Question: 7**

---

You need to raise the visibility of the sites.

What should you do?

- A. Enable the Reports and Data Search feature for the site collection.
- B. Create a custom timer job that generates the SiteMap.xml file in the root directory of the web application.
- C. Add a Script Editor Web Part to the landing page of the publishing site. In the web part, enter the location of the SiteMap.xml file.
- D. In Internet Information Services (IIS), enable the SiteMap ISAPI filter for the web application.
- E. Enable the Search Engine Sitemap Site Collection feature for the site collection.

---

**Answer: E**

---

---

### **Question: 8**

---

You need to implement connection management for catalog connections.

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

- A. Public void UpdateCatalogConnection(CatalogConnectionSettings catalogInfo)
- B. Public void OnPublishCatalog(string catalogPath)
- C. Public void DeleteCatalogConnection(string catalogPath)
- D. Public void SetCatalogConnection(string catalogPath, bool disconnect)

---

**Answer: AC**

---

Explanation:

\* From scenario:

/ You must create a custom tool that site collection administrators use to manage catalog connections.

/ You must define the API calls to remove (C) or update (A) existing catalog connections.

---

### **Question: 9**

---

HOTSPOT

You need to implement the social features.

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

```
[ ] feedManager =  
new [ ] (clientContext);  
SocialFeedOptions feedOptions = new SocialFeedOptions();  
feedOptions.MaxThreadCount = 10;  
ClientResult<SocialFeed> GetCurrentUserFeed =  
feedManager.GetFeed([ ] , feedOptions);  
ClientResult<SocialFeed> GetInformativeFeed =  
feedManager.GetFeed([ ] , feedOptions);  
ClientResult<SocialFeed> GetMyHRManagerFeed =  
[ ] (HRManager, feedOptions);  
clientContext.ExecuteQuery();
```

```

feedManager =
SocialFeed
SocialFeedManager
SocialFeedAttributes

new [ ] (clientContext);
SocialFeed
SocialFeedManager
SocialFeedAttributes

SocialFeedOptions feedOptions = new SocialFeedOptions();
feedOptions.MaxThreadCount = 10;
ClientResult<SocialFeed> GetCurrentUserFeed =
feedManager.GetFeed( [ ] , feedOptions);
SocialFeedType.Personal
SocialFeedType.Likes
SocialFeedType.Everyone

ClientResult<SocialFeed> GetInformativeFeed =
feedManager.GetFeed( [ ] , feedOptions);
SocialFeedType.TimeLine
SocialFeedType.Like
SocialFeedType.News

ClientResult<SocialFeed> GetMyHRManagerFeed =
[ ] (HRManager, feedOptions);
feedManager.GetFeed
feedManager.GetFeedFor
feedManager.GetUnreadMentionCount

clientContext.ExecuteQuery();

```

---

Answer:

---

```

feedManager =
SocialFeed
SocialFeedManager
|SocialFeedAttributes

new [ ] (clientContext);
SocialFeed
SocialFeedManager
|SocialFeedAttributes

SocialFeedOptions feedOptions = new SocialFeedOptions();
feedOptions.MaxThreadCount = 10;
ClientResult<SocialFeed> GetCurrentUserFeed =
feedManager.GetFeed( [ ] , feedOptions);
SocialFeedType.Personal
SocialFeedType.Likes
SocialFeedType.Everyone

ClientResult<SocialFeed> GetInformativeFeed =
feedManager.GetFeed( [ ] , feedOptions);
SocialFeedType.TimeLine
SocialFeedType.Like
SocialFeedType.News

ClientResult<SocialFeed> GetMyHRManagerFeed =
feedManager.GetFeed( [ ] , feedOptions);
feedManager.GetFeedFor
feedManager.GetUnreadMentionCount

clientContext.ExecuteQuery();

```

### Question: 10

You need to ensure that the data synchronization does not affect the end user experience on the intranet. What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Add the following code to the application:

```
clientContext.ApplicationName = "Lucerne Win8 Sync";
```

- B. Add the following code to the application:

```
clientContext.ExecutingWebRequest += (s, e) => {
    e.WebRequestExecutor.WebRequest.CookieContainer =
        createCookieContainer();
    e.WebRequestExecutor.WebRequest.UserAgent =
        "Lucerne Publishing/1.0 (Lucerne Win8 Sync; Version 1.0.0.0)";
};
```

- C. Run the following PowerShell cmdlet:

```
$spWebApp = Get-SPWebApplication -Identity http://intranet.lucernepublishing.com
$rmSettings = Get-SPRequestManagementSettings -Identity $spWebApp
$throttleCriteria = New-SPRequestManagementRuleCriteria
-Property UserAgent -MatchType Regex -Value ".*Lucerne Win8 Sync*"
Add-SPTrottlingRule -RequestManagementSettings $rmSettings
Name "Lucerne Win8 Sync" -Criteria $throttleCriteria -Threshold 8
```

- D. Run the following PowerShell cmdlet:

```
$spWebApp = Get-SPWebApplication -Identity http://intranet.lucernepublishing.com
$rmSettings = Get-SPRequestManagementSettings -Identity $spWebApp
$throttlingRule = Get-SPTrottlingRule -RequestManagementSettings
$rmSettings -Name "Lucerne Win8 Sync"
$throttleCriteria = New-SPRequestManagementThrottleCriteria
-Property UserAgent -MatchType Regex -Value ".*Lucerne Win8 Sync*"
Set-SPTrottlingRule -Identity $throttlingRule -Criteria $throttleCriteria -Threshold 8
```

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

---

**Answer: AC**

---

### **Question: 11**

---

You need to implement logging.

Which items should you implement? (Each correct answer presents a complete solution. Choose all that apply.)

- A. SPDiagnosticsServiceBase.WriteEvent
- B. Microsoft.SharePoint.Diagnostics.ULSLogEntry
- C. SPUser.Sid
- D. PortalLog.LogString
- E. SPArtTemplate
- F. SPSecurity.RunWithElevatedPrivileges

---

**Answer: BF**

**Explanation:**

F: The SPSecurity.RunWithElevatedPrivileges executes the specified method with Full Control rights even if the user does not otherwise have Full Control.

\* From Scenario:

/ You design an application framework. The framework is used by other developers on the team. The framework must include entry points that are used to log errors and exceptions. You need the entry points.

Incorrect:

Not D: PortalLog.LogString method

This member is reserved for internal use and is not intended to be used directly from your code.

## Case Study: 10

### Contoso Ltd

#### Background

Contoso Ltd. is a global real estate company. You are hired to replace the company's existing ASP.NET website at <http://www.contoso.com> with a new SharePoint 2013 public-facing website. The site will display data about the company and information about residential properties that the individual agents in the company are selling. You have SharePoint Server environments for development, staging, and production.

#### Search

The website has the following requirements:

- Site visitors must be able to search for documents that are located anywhere on the site.
- When site visitors search for real estate properties, they must see information about a property.
- When a visitor searches for the word Guidelines, a PDF document named Real Estate Guidelines must appear at the top of the search results.

#### Search Engine Optimization

The company wants to ensure that the website displays prominently in Internet search results when people search for real estate.

The website has the following requirements:

- Internet search engines must properly rank pages so that the more popular pages on the site appear first in the Internet search engine results.
- SharePoint must generate the sitemap.xml and robots.txt files that are used by Internet search engines.

When an Internet search engine crawls the site, the search engine must recognize that the following URLs display information about different agents:

- <http://www.contoso.com/FindAnAgent?agentName=JohnDoe&officelId = Sacramento>
- <http://www.contoso.com/FindAnAgent?agentName=JohnDoe&officelId = Houston>

The search engine must recognize that the following URLs display the same information about the same agent:

- <http://www.contoso.com/FindAnAgent?agentName=JohnDoe&officId=Sacramento>
- <http://www.contoso.com/FindAnAgent?agentName=JohnDoe&officId = Sacramento&certs=true>

## Managed Metadata Service (MMS)

The MMS must include three term sets named Offices, Cities, and Features.

### Offices Term Set

The Offices term set has the following requirements:

- The Offices term set must be a child of the group named Navigation.
- The Offices term set must be configured to use friendly URLs in the Offices sub-site.
- The name for each new office must be added to the Offices term set programmatically.
- The left navigation pane for the Offices page on the website must use the terms in the Offices term set.
- When the company opens a new office, a link for each new office must display in the left navigation pane.

### Cities Term Set

The Cities term set has the following requirements:

- The Cities term set must contain a list that contains the names of major metropolitan areas.
- Many of the cities that are included in the Offices term set may also appear in the Cities term set, but the term sets may not be identical.
- If a city is required in both term sets, it must first be added to the Offices term set before it can be added to the Cities term set.
- If a term is changed in the Offices term set, it must automatically change in the Cities term set.
- The term Dallas must have a term ID of {b6ell481-3445-413c-9da0-bl5ae5d5cbd4}.

### Features Term Set

You have an Excel file that contains a list of possible features for each property. The Features term set has the following requirements:

- The Features term set must contain the terms that describe details about each property, such as whether the building is a single family house or a condominium.
- The list of possible features must be programmatically imported from the Excel file into the term store in each server environment.

## Web Application

The Internet Information Services (IIS) website contains a folder named \_ConfigurationFiles. The web application has the following requirements:

- Anonymous access must be enabled on the web application.
- Internet search engines must index the site.
- Internet search engines must not index the files in the \_ConfigurationFiles folder.

## Site Collections and Content

The web application includes the following three site collections.

### Board Member Site Collection

The Board Member site collection is only accessible to the board members so that they can view private company information.

The Board Member site collection has the following requirements:

- Only board members can log in to the site collection.
- A page within the site collection must display a list of all the board members.
- The website must be located at <http://www.contoso.com/sites/board>.

### **Internet Site Collection**

Anonymous access is enabled on the Internet site collection. The Internet site collection has the following requirements:

- The site collection must include a sub-site named Offices.
- The URL of the Offices sub-site is <http://www.contoso.com/Offices>.
- Each office must have its own page on the site.
- The pages for each office must have the same style and structure.
- Each office page must contain a Content Search Web Part that displays a listing of all the properties that are being sold by agents in the office.
- The Content Search Web Part must use a custom display template named Real Estate Property to render search results when site visitors search for a property.
- The target page for terms in the Office term set must point to a page named Office.aspx that is in the Pages library of the Offices sub-site.
- The site must contain an About Us section that contains a Content Search Web Part that lists the members of the board of directors for the company.
- Each member of the board must have a page that contains biographical information about that board member.
- The list of board members must be available in the Board Member site collection.
- Site visitors must be able to view information about individual agents, including their contact information, certifications, and picture.
- When agents visit the Internet site collection, the agents may add information about each of the real estate properties that they are selling.
- The agents must be able to tag real estate properties according to their features.
- Real estate agents must enter real estate property information into a web form that is used specifically for data collection.

The web form must collect the following information:

- The property address.
- Up to five pictures of the property.
- The selling price.
- The number of bedrooms and bathrooms.
- The name of the real estate agent.
- Tags that will further describe the property.

### **Agent Site Collection**

The Agent site collection is in the same web application and is accessible only to agents. The Agent site collection has the following requirements:

- The site collection must include a site that contains instructions for real estate agents that tells them how to add property information to the website.
- The website must be located at <http://www.contoso.com/sites/agents>.
- A Web Part must use the .NET client-side object model (CSOM) to retrieve all of the terms from only the Features term set.

### **Page Layouts and Web Parts**

## Page Layouts

You must create the following page layouts: About Us, Biography With Image, Biography No Image, and Office.

The page layouts have the following requirements:

- The About Us page layout must include a field to which the user may add Web Parts.
- The Biography With Image and Biography No Image page layouts must display biographical information about the board of directors.
- You must create a content type named Biography. Biography With Image and Biography No Image page layouts must use the Biography content type.
- The Office page layout must display information for each office and must use the fields that are defined in the Elements.xml file.

## Web Parts

The Agent Web Part has the following requirements:

- The Web Part must display information about an individual agent.
- The Web Part must display information that is based on query string parameters.
- The URL of the page that hosts the Web Part must be <http://www.contoso.com/FindAnAgent>.

The following table lists the query string parameters and the way that each parameter must be used by the Web Part.

Parameter name	Parameter description	Required
<b>agentName</b>	The agent's name. When used in conjunction with the <b>officeId</b> parameter, the <b>agentName</b> parameter is used by the Web Part to determine which agent's name to display.	Yes
<b>officeId</b>	The unique identification number of the office to which the agent belongs. When used in conjunction with the <b>agentName</b> parameter, the <b>officeId</b> is used by the Web Part to determine which agent's information to display.	Yes
<b>certs</b>	A Boolean that indicates whether or not the agent's certifications should display.	No

## Application Structure

Relevant portions of the markup and code for the solution 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.)

### Elements.xml

```

EL01 <Field
ID="{dcdfd660-0d71-47b4-89a6-9a6deba6657b}"
Name="SiteColumn1"
DisplayName="Site Column 1"
Type="HTML"
RichText="TRUE"
RichTextMode="FullHTML"
Group="Custom Columns"/>
EL02 <Field
ID="{15468e57-ea01-4077-b074-d323ea98cb94}"
Name="SiteColumn2"
DisplayName="Site Column 2"
Type="Note"
RichText="TRUE"
RichTextMode="FullHTML"
Group="Custom Columns"/>
```

## FeaturesTermSet.es

```

FE01 ClientContext clientContext =
new ClientContext("http://www.contoso.com");
FE02 TaxonomySession taxonomySession =
TaxonomySession.GetTaxonomySession(clientContext);
FE03 TermStore termStore =
taxonomySession.GetDefaultSiteCollectionTermStore();
FE04
FE05 clientContext.ExecuteQuery();
```

## Import.cs

```

IM01 StreamReader reader = File.OpenText("C:\\Import.xls");
IM02 using (SPSite site = new SPSite("http://www.contoso.com"))
IM03 {
IM04     TaxonomySession taxonomySession = new TaxonomySession(site);
IM05     TermStore termStore = taxonomySession.TermStores[0];
IM06     Group group = termStore.Groups[0];
IM07
IM08 }
```

---

### Question: 1

---

DRAG DROP

You need to make updates when an agent saves information about a new office.

How should you complete the relevant code? (To answer, drag the appropriate code segment to the correct location or location 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.)

```

NavigationTermSet navTermSet =
    NavigationTermSet.GetAsResolvedByWeb(termSet,
    site.RootWeb, "SPNavigationProvider");

SPNavigationNode newNavigationNode =
    new SPNavigationNode(newOffice, newOffice);

SPNavigationNode baseNode =
    site.RootWeb.Navigation.Home;
baseNode.AddAsLast(newNavigationNode);

NavigationTerm navTerm =
    navTermSet.CreateTerm(newOffice,
    NavigationLinkType.FriendlyUrl, Guid.NewGuid());

SPNavigationNodeCollection quickLaunchNodes =
    site.RootWeb.Navigation.QuickLaunch;
quickLaunchNodes.AddAsLast(newNavigationNode);

SPNavigationNode newNavigationNode =
    new SPNavigationNode(newOffice, newOffice);
navTermSet.CreateTerm(newNavigationNode);

```

## Answer Area

```

public void AddOffice(string newOffice)
{
    SPSite site = SPContext.Current.Site;
    TaxonomySession taxSession = new TaxonomySession(site);
    TermStore termStore = taxSession.TermStores[0];
    Group termGroup = termStore.Groups["Navigation"];
    TermSet termSet = termGroup.TermSets["Offices"];

    termStore.CommitAll();
}

```

**Answer:**

```

public void AddOffice(string newOffice)
{
    SPSite site = SPContext.Current.Site;
    TaxonomySession taxSession = new TaxonomySession(site);
    TermStore termStore = taxSession.TermStores[0];
    Group termGroup = termStore.Groups["Navigation"];
    TermSet termSet = termGroup.TermSets["Offices"];

    NavigationTermSet navTermSet =
        NavigationTermSet.GetAsResolvedByWeb(termSet,
        site.RootWeb, "SPNavigationProvider");

    NavigationTerm navTerm =
        navTermSet.CreateTerm(newOffice,
        NavigationLinkType.FriendlyUrl, Guid.NewGuid());

    termStore.CommitAll();
}

```

**Question: 2**

You need to add the field control to the About Us page layout.  
Which control should you add?

- A. <PublishingWebControls:RichHtmlField  
  FieldName="dcdfd660-0d71-47b4-89a6-9a6deba6657b"  
  runat="server"  
/>
- B. <SharePointWebControls:NoteField  
  FieldName="SiteColumn2"  
  runat="server"  
/>
- C. <PublishingWebControls:RichHtmlField  
  FieldName="SiteColumn2"  
  runat="server"  
/>
- D. <PublishingWebControls:RichHtmlField  
  FieldName="15468e57-ea01-4077-b074-d323ea98cb94" runat="server"/>

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

---

**Answer: A**

---

### Question: 3

---

You need to configure search engine optimization for the site collection.

On the Search Engine Optimization Settings page, what should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Select the Do not filter link parameters option.  
B. In the Filter link parameters text box, enter agentName&officId&certs  
C. In the Filter link parameters text box, enter agentName;officId  
D. In the Filter link parameters text box, enter agentName&officId  
E. Select the Filter link parameters option.  
F. In the Filter link parameters text box, enter agentName;officId;certs

---

**Answer: BE**

---

Explanation:

\* From scenario:

The search engine must recognize that the following URLs display the same information about the same agent:

http://www.contoso.com/FindAnAgent?agentName=JohnDoe&officId=Sacramento

http://www.contoso.com/FindAnAgent?agentName=JohnDoe&officId = Sacramento&certs=true

---

### Question: 4

---

You must create a search results page for the real estate properties that are available in each real estate office.

You need to display the search result for the internet site collection.

Which types of files should you create? (Each correct answer presents part of the solution. Choose all that apply.)

- A. JavaScript (.js)
- B. Active Server Page (.aspx)
- C. Master Page (.master)
- D. HTML (.html)
- E. XML (.xml)

---

**Answer: BC**

---

Explanation:

Note:

- \* Master Page defines "placeholders" which can be overridden in child page
- \* Content Page of a Master Page defaults to default.aspx

---

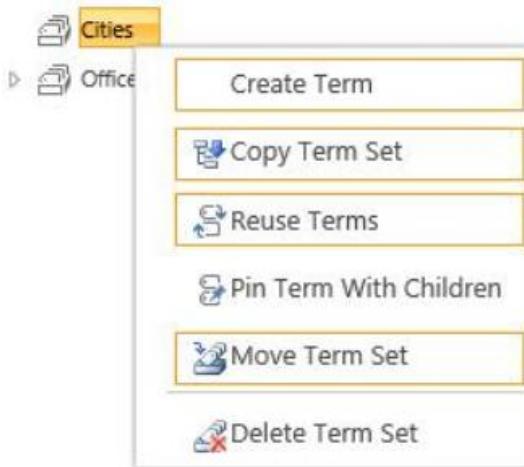
### Question: 5

---

HOTSPOT

You need to add the city of Dallas to the Cities term set.

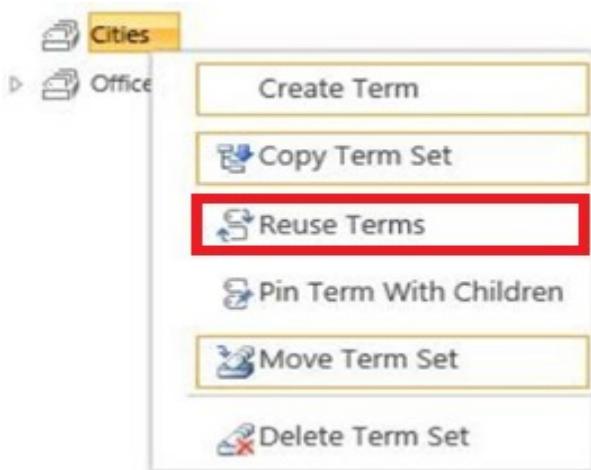
On the Term Store Management Tool page, which option should you select? (To answer, select the appropriate option in the answer area.)



---

**Answer:**

---



### Question: 6

#### HOTSPOT

You need to configure search results to meet the requirements for the Real Estate Guidelines document. On the Site Settings page in the top level site of the site collection, which link should you select? (To answer, select the appropriate link in the answer area.)

Search
Result Sources
Result Types
Query Rules
Schema
Search Settings
Searchable columns
Search and offline availability
Configuration Import
Configuration Export

Site Collection Administration
Recycle bin
Search Result Sources
Search Result Types
Search Query Rules
Search Schema
Search Settings
Search Configuration Import
Search Configuration Export
Site collection features

**Answer:**

Search
Result Sources
Result Types
Query Rules
Schema
Search Settings
Searchable columns
Search and offline availability
Configuration Import
Configuration Export

Site Collection Administration
Recycle bin
Search Result Sources
Search Result Types
Search Query Rules
Search Schema
Search Settings
Search Configuration Import
Search Configuration Export
Site collection features

### Question: 7

You need to create a link to the Dallas office page. Which URL should you use?

- A. <http://www.contoso.com/Offices/Dallas.aspx>
- B. <http://www.contoso.com/Offices/Pages/Office.aspx>
- C. <http://www.contoso.com/Offices/Pages/Office.aspx?Office=Dallas>
- D. <http://www.contoso.com/Offices/Dallas>
- E. <http://www.contoso.com/Offices/Pages/Office.aspx?TermID=b6e11481-3445-413c-9da0-b15ae5d5cbd4>

**Answer: D**

### Question: 8

DRAG DROP

You need to publish biographical information to the board member site collection.

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.)

Answer Area
Activate the Cross-Site Publishing feature.
Browse to the Internet site collection.
Add the Content Search Web Part and configure it to display the biographical information.
Browse to the Board Member site collection.
Browse to the agents' site collection.
Navigate to the library where the biography pages are stored and then enable the library as a catalog.

**Answer:**

Cross-site publishing feature

Box 1:

Browse to the Internet site collection.

Box 2:

Activate the Cross-Site Publishing feature.

Box 3:

Navigate to the library where the biography pages are stored and then enable the library as a catalog.

Box 4:

Browse to the Board Member site collection.

Box 5:

**Explanation:**

**Note:**

\* From scenario:

**Site Collections and Content**

The web application includes the following three site collections.

1/ **Board Member Site Collection**

The Board Member site collection is only accessible to the board members so that they can view private company information.

The Board Member site collection has the following requirements:

- Only board members can log in to the site collection.
- A page within the site collection must display a list of all the board members.
- The website must be located at <http://www.contoso.com/sites/board>.

2/ **Internet Site Collection**

Requirements include:

Each member of the board must have a page that contains biographical information about that board member.

The list of board members must be available in the Board Member site collection.

3/ **Agent Site Collection**

\* Main steps:

Create site collections for cross-site publishing

(box 1, box2) Activate the Cross-Site Collection Publishing feature

Create and manage term sets for tagging content on authoring sites

Create catalog content by using SharePoint lists

(box 3) Share a library or list as a catalog

Make a term set available to other site collections

(box 5) Configure search for cross-site publishing

\* Before you can use cross-site collection publishing to reuse content across site collections, you have to activate the Cross-Site Collection Publishing feature on the authoring site collection.

To activate the Cross-Site Collection Publishing feature

1. Verify that the user account that performs this procedure is a site collection administrator on the authoring site collection.

2. On the top-level site of the authoring site collection, on the Settings menu, click Site Settings.

3. On the Site Settings page, in the Site Collection Administration section, click Site collection features.

4. On the Site Collection Features page, next to Cross-Site Collection Publishing, click Activate.

\* Cross-site publishing is a new publishing method that lets you create and maintain content in one or more authoring site collections and publish this content in one or more publishing site collections by using Search Web Parts. Cross-site publishing complements the already existing publishing method, author-in-place, where you use a single site collection to author content and make it available to readers of your site.

Reference: Configure cross-site publishing in SharePoint Server 2013

---

**Question: 9**

---

You need to configure search engine optimization for the site.

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

- A. Disable anonymous access to the web application while you make changes.
- B. Activate the Search Engine Sitemap feature in the site collection.
- C. Disable anonymous access to the site collection while you make changes.
- D. On the Search Engine Optimization Settings page, in the Include these meta tags in pages text box, enter <meta name="do-not-follow" value="/\_Configuration Files/" />
- E. Ensure that the Search Engine Sitemap job is running.
- F. On the Search Engine Sitemap Settings page, enter Disallow: /\_ConfigurationFiles/ to the exclusion rules.

---

**Answer: BCD**

---

Explanation:

\* Steps in the SEO process:

/ Configure SEO settings for the site collection.

/ (B, not E) Configure sitemap settings for the site collection.

/ Add and edit SEO metatags.

\* D (not F): Configure SEO settings for the site collection

Verify site ownership

1. Sign in to the webmaster tools portal for your desired search engine and provide requested information about your website.

2. From your SharePoint Public Website home page, click Settings Small Settings gear that took the place of Site Settings. > Site settings > Site Collection Administration > Search engine optimization settings.

3. Click Include these meta tags in pages.

4. Copy the meta tag provided by the webmaster tools portal, and paste it into the box.

5. Click OK.

6. From the webmaster tools portal, ask the search engine to verify your ownership of this website.

---

### **Question: 10**

---

**DRAG DROP**

You need to configure the content types and page layouts that are used to display information about the members of the board of directors.

How should you configure the content types and page layouts? (To answer, drag the appropriate content types to the correct location in the answer area. Each content type 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.)

Answer Area		
	Inherits from this content type	Associated with this content type
Biography		
Biography No Image		
Biography With Image		
Page		
Page Layout		

---

**Answer:**

---

	Inherits from this content type	Associated with this content type
Biography content type	Page	
Biography With Image page layout	Page Layout	Biography
Biography No Image page layout	Page Layout	Biography

## Case Study: 11

### Adventure Works Background

Adventure Works needs to develop a solution that tracks internal and external projects for both on-site and off-site employees. The company plans to create a project tracking site by using SharePoint.

### Business Requirements

The company has the following requirements:

- The solution must use data from an existing line of business (LOB) system.
- The solution must provide secure access to data.
- The solution must allow users to search for projects by department or job role.
- The portal for the solution must contain an overview of all the active projects.
- Navigation for all sites must be managed centrally.
- Project members must be notified when project information changes.

- Project leads must be able to view a list of departments and job roles.
- Project leads must be notified when project tasks change.
- Users must be able to filter project documents by file type.

## Technical Requirements

The solution must include the following components.

Component type	Name	Description
Custom List app	Admin	Allows users to create and enter project information.
Document Library app	Project Documents	Allows users to upload and download files that are related to projects.
Page	Project Information	Allows users to view project information.
Tasks app	Tracking	Allows users to create and manage project tasks.
External Content Type	Project	Allows the app to connect to external data.

## Business Connectivity Services (BCS)

- You must use BCS to connect to a SQL Server database to retrieve project information and display it on a Project Information Page.
- The Admin Custom List app must use a remote event receiver to send an email message to each team member when information is updated.
- The Project external content type must use the root namespace proj\_info.

## Managed Metadata Service (MMS)

You must use MMS to ensure that team members can search and filter project information.

- Managed data must be grouped and controlled by department leaders. The project lead must have full control of the term store. The project leader creates groups for each department and assigns the leader of each department to the group manager role.
- Group managers must be able to grant Contribute permissions to the remaining team members in their department.
- You must create a Department term set to store team member roles and organize them by department types. The import file for the Department term set is the default for all new projects. The import file contains terms for System Architect, Programmer, Producer, and Manager. Each term is contained within two parent groups, Engineering or Production. Managers are members of the Production group only. All of the parent groups use a shared root-level term.
- You must create a site collection to store content that is used across multiple site collections. The site collection stores term sets for cross-site navigation and searches.
- The navigation site must use the URL <http://adventureworks/sites/navigation>.
- The publishing site must use the URL <http://adventureworks/sites/portal>.

- Navigation links on the top and left sides of each page must use term sets.
- The Document Library app named Project Documents must include a local term set for document types. The term set must contain the default terms .docx, .png, and -jpg.
- You must develop a console app to print the current term sets and each root term for the app by using the following style:  
TermSet : name Term : name

### **Application Structure**

Relevant segments 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.)

#### **DocumentLibApp.es**

```

DL01  private void CreateDocumentTypeTermSet(string siteUrl)
DL02  {
DL03      var contextToken = TokenHelper.GetContextTokenFromRequest(Page.Request);
DL04      var hostWeb = Page.Request["SPHostUrl"];
DL05
DL06      using (var clientContext = TokenHelper.GetClientContextWithContextToken
DL07          (hostWeb, contextToken, Request.Url.Authority))
DL07      {
DL08          TaxonomySession taxonomySession =
DL09              TaxonomySession.GetTaxonomySession(clientContext);
DL10          clientContext.Load(taxonomySession,
DL10          ts => ts.TermStores.Include(
DL11              store => store.Name,
DL12              store => store.Groups.Include(
DL13                  group => group.Name)));
DL14          clientContext.ExecuteQuery();
DL15
DL16          if (taxonomySession != null)
DL17          {
DL18
DL19              if (termStore != null)
DL20              {
DL21                  TermGroup myGroup = termStore.CreateGroup("DocLibAppGroup", Guid.NewGuid
DL21 ());
DL22                  TermSet myTermSet = myGroup.CreateTermSet("Document Types", Guid.NewGuid
DL22 (), 1033);
DL23                  myTermSet.Description = "File Types";
DL24
DL25                  ...
DL26                  clientContext.ExecuteQuery();
DL27              }
DL28          }
DL29      }
DL30  }
DL31
DL32  private void DumpTaxonomyItems(string siteUrl)
DL33
DL34  ClientContext clientContext = new ClientContext(siteUrl);
DL35
DL36  TermStore termStore = taxonomy.GetDefaultSiteCollectionTermStore();
DL37  clientContext.Load(termStore,
DL38      store => store.Name,
DL39      store => store.Groups.Include(
DL40          group => group.Name,
DL41          group => group.TermSets.Include(
DL42              termSet => termSet.Name,
DL43              termSet => termSet.Terms.Include(
DL44                  term => term.Name)));
DL45  clientContext.ExecuteQuery();
DL46
DL47  if( taxonomy != null )
DL48  {
DL49      if (termStore != null)
DL50      {
DL51          foreach( TermGroup group in termStore.Groups)
DL52          {

```

```

DL53     Console.WriteLine("Group " + group.Name);
DL54     foreach( TermSet termSet in group.TermSets )
DL55     {
DL56         foreach(Term term in termSet.Terms)
DL57         {
DL58             }
DL59         }
DL60     }
DL61   }
DL62   }
DL63   }
DL64   }
DL65   }
DL66
DL67   private void TranslateFile(string culture, string input, string output,
DL68   string name)
DL69   {
DL70       var contextToken = TokenHelper.GetContextTokenFromRequest(Page.Request);
DL71       var hostWeb = Page.Request["SPHostUrl"];
DL72       using (var clientContext = TokenHelper.GetClientContextWithContextToken
DL73       (hostWeb, contextToken, Request.Url.Authority))
DL74       {
DL75           job.AddFile(input, output);
DL76           job.Name = name;
DL77
DL78
DL79
DL80
DL81           clientContext.Load(job);
DL82           clientContext.ExecuteQuery();
DL83       }
DL84   }

```

**TeamRemoteEventReceiver.es**

```

RR01   public class RemoteEventReceiver1 : IRemoteEventService
RR02   {
RR03       public SPRemoteEventResult ProcessEvent(SPRemoteEventProperties properties)
RR04   {
RR05       return new SPRemoteEventResult();
RR06   }
RR07
RR08
RR09   public void ProcessOneWayEvent(SPRemoteEventProperties properties)
RR10   {
RR11
RR12   }
RR13
RR14   public static void ListRemoteEventReceiver(SPRemoteEventProperties properties)
RR15   {
RR16       ...
RR17   }
RR18 }

```

**TodoEventReceiver.es**

```

ER01  using System;
ER02  using System.Security.Permissions;
ER03  using Microsoft.SharePoint;
ER04  using Microsoft.SharePoint.Utilities;
ER05  using Microsoft.SharePoint.Workflow;
ER06  namespace Adventureworks
ER07  {
ER08
ER09  {
ER10      public override void ItemAdded(SPItemEventProperties properties)
ER11      {
ER12          base.ItemAdded(properties);
ER13      }
ER14  }
ER15 }
```

## ImportTermSet.es

```

IT01 termStore = Taxosession.TermStores[0];
IT02 termGroup = termStore.CreateGroup("MyGroup");
IT03 FileStream TermsFile = new FileStream(CSVFilePath, FileMode.Open, FileAccess.Read);
IT04 reader = File.OpenText(CSVFilePath);
IT05 bool allTermsAdded; string errorMessage = "";
IT06 ImportManager importManager = termStore.GetImportManager();
IT07
```

---

### Question: 1

---

You need to implement the notifications for the custom list app named Admin. Which code segment should you add at line ER08?

- A. public class EventReceiver1
- B. public class EventReceiver1 : SPListEventReceiver
- C. public class EventReceiver1 : SPItemEventReceiver
- D. public class EventReceiver1 : SPEventReceiverBase

---

**Answer: C**

---

### Question: 2

---

#### DRAG DROP

You need to implement the term set import file to enable item assignments to be filtered.

How should you structure the term sets? (To answer, drag the appropriate term to the correct level in the answer area. Each term 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.)

Answer Area		
Level 1 Term	Level 2 Term	Level 3 Term
	Engineering	System Architect
	Engineering	Programmer
Department	Production	
Department		Manager

Department  
Engineering  
Manager  
Producer  
Production  
System Architect

**Answer:**

Level 1 Term	Level 2 Term	Level 3 Term
Department	Engineering	System Architect
Department	Engineering	Programmer
Department	Production	Producer
Department	Production	Manager

**Question: 3**

You need to ensure that end users can access the project's external content type and model by using the provided naming specifications.

Which properties in the external content-type editor must you set when you create the external content type in SharePoint Designer? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Set the value of the Display Name property to Project.
- B. Set the value of the Namespace property to http://adventureworks/sites/portal.
- C. Set the value of the Namespace property to proj\_info.
- D. Set the value of the Name property to proj\_info.
- E. Set the value of the Display Name property to proj\_info.
- F. Set the value of the Name property to Project.

---

**Answer: CE**

---

From scenario:

/ (C) The Project external content type must use the root namespace proj\_info.

/ E:

Component type	Name	Description
Custom List app	Admin	Allows users to create and enter project information.
Document Library app	Project Documents	Allows users to upload and download files that are related to projects.
Page	Project Information	Allows users to view project information.
Tasks app	Tracking	Allows users to create and manage project tasks.
External Content Type	Project	Allows the app to connect to external data.

---

#### Question: 4

---

You need to create the term set for the Document Library app named Project Documents.

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

- A. Insert the following code segment into line DL18:

```
TermStore termStore = taxonomySession.GetDefaultKeywordsTermStore();
```

- B. Insert the following code segment into line DL18:

```
TermStore termStore = taxonomySession.GetDefaultSiteCollectionTermStore();
```

- C. Insert the following code segment into line DL24:

```
myTermSet.CreateTerm("-png", 1033, Guid.NewGuid());
```

- D. Insert the following code segment into line DL24:

```
myTermSet.CreateTerm(".bmp", 1033, Guid.NewGuid());
```

---

**Answer: AC**

---

Explanation:

\* From scenario:

/ You must develop a console app to print the current term sets and each root term for the app by using the following style:

TermSet : name Term : name

/ (A, C, Not B, not D) The Document Library app named Project Documents must include a loca term set for document types. The term set must contain the default terms .docx, .png, and -jpg.

### **Question: 5**

DRAG DROP

You need to implement the site collection for managed navigation.

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.)

Answer Area	
<input type="checkbox"/> Create a Product Catalog.	
<input type="checkbox"/> Add relevant terms and content types.	
<input type="checkbox"/> Create a new Term Set.	
<input type="checkbox"/> Start a full crawl from the Search Service Applications.	

### **Answer:**

Box 1: Create a Product Catalog

Box 2: Create a new Term Set

Box 3: Add relevant terms and content types.

Explanation:

Note:

\* If you will use cross-site publishing, you should also know the structure of the tagging term sets, and you should have an idea of which pages will be used to display which catalog items. You should also know the navigation hierarchy that you want to implement for your site.

Reference:

### **Question: 6**

You need to configure a new site collection in Central Administration. You will use the site collection to manage navigation terms.

What should you do?

- A. Create a site collection by using the Publishing Portal template.
- B. Create a site collection by using the Enterprise Search Center template.
- C. Create a site collection by using the Records Center template.
- D. Set the website address to <http://adventureworks.com/sites/navigation>

---

**Answer: A**

---

**Question: 7**

You need to implement the remote event receiver for the Admin Custom List app.  
What should you do?

- A. Insert the following code segment at line RR05:  
ListRemoteEventReceiver(properties);
- B. Insert the following code segment at line RR05:  
ProcessOneWayEvent(properties);
- C. Insert the following code segment at line RR11:  
ProcessEvent(properties);
- D. Insert the following code segment at line RR11:  
ListRemoteEventReceiver(properties);

---

**Answer: B**

---

**Question: 8**

You need to configure permissions for the publishing portal in the Term Store Manager.  
What should you do?

- A. Add the URL <http://adventureworks.com/sites/portal> to the site collection access list.
- B. Add the URL <http://adventureworks.com/sites/portal> to the Contributors list.
- C. Add the URL <http://adventureworks.com/navigation> to the site collection access list.
- D. Add the URL <http://adventureworks.com/pages/navigation.aspx> to the site collection access list.

---

**Answer: B**

---

**Question: 9**

You need to print out the terms and term sets for the Document Library app named Project Documents.  
What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Insert the following code segment at line DL59:  
Console.WriteLine("TermSet : = + termSet.Name + " Term : " + term.Name);
- B. Insert the following code segment at line DL70:  
Console.WriteLine("TermSet : " + termSet.Name);
- C. Insert the following code segment at line DL35:  
TaxonomySession taxonomy = TaxonomySession.GetTaxonomySession(clientContext);
- D. Insert the following code segment at line DL56:  
Console.WriteLine("TermSet : " + termSet.Name);
- E. Insert the following code segment at line DL35:  
TaxonomyItem taxonomy = TaxonomySession.GetTaxonomySession(clientContext);

---

**Answer: AE**

Explanation:

From scenario:

/ You must develop a console app to print the current term sets and each root term for the app by using the following style:

TermSet : name Term : name

/ You must create a Department term set to store team member roles and organize them by department types. The import file for the Department term set is the default for all new projects. The import file contains terms for System Architect, Programmer, Producer, and Manager. Each term is contained within two parent groups, Engineering or Production. Managers are members of the Production group only. All of the parent groups use a shared root-level term.

## Question: 10

DRAG DROP

You need to configure permission roles for the team members.

What should you do? (To answer, drag the appropriate role to the correct location in the answer area. Each role 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.)

Answer Area	
Team Member Title	Permission Role
Project Leader	
Department Asset Lead	
Team Members	
Department Programming Lead	

**Contributors**

**Group Managers**

**Term Store Administrators**

**Answer:**

Team Member Title	Permission Role
Project Leader	Term Store Administrators
Department Asset Lead	Group Managers
Team Members	Contributors
Department Programming Lead	Group Managers