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Microsoft

70-491 PRACTICE EXAM

Recertification for MCSD: Windows Store Apps using C#

TOTAL QUESTIONS 91/8CASE STUDY

Question: 1

You are developing a Windows Store app.

You need to create and run unit tests for the 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
Modify the production classes to implement the test code.
Modify the Package.appxmanifest file with the appropriate settings.
Create a new unit test solution.
Add code to the test classes and run the tests.
Create a unit test project in the existing solution.
Create a Unittest.appxmanifest file to store the test settings.

Answer:

Answer Area
Create a unit test project in the existing solution.
Add code to the test classes and run the tests.
Create a Unittest.appxmanifest file to store the test settings.

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/ms182532.aspx>

Question: 2

You are developing a Windows Store app that will provide users with the ability to subscribe to content by using in-app purchases.

You need to test the in-app purchase functionality of the app before you deploy the app to the Windows Store.

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

- A. Modify the Package.appxmanifest file.
- B. Use the CurrentAppSimulator class.
- C. Modify the App.xaml file.
- D. Modify the Windowsstoreproxy.xml file.
- E. Use the CurrentApp class.

Answer: BE

Question: 3

You are developing a Windows Store app that will provide users with the ability to create photos by using the hardware on a device.

Once the users create the photos, they can save the photos to the Pictures library.

If the users sign in by using a Microsoft account, they can grant other users remote access to the photos.

You need to identify which capabilities must be enabled for the app.

Which three capabilities should you identify? (Each correct answer presents part of the solution. Choose three.)

- A. Webcam
- B. Pictures Library
- C. Proximity
- D. Internet (Client & Server)
- E. Private Networks (Client & Server)
- F. Enterprise Authentication

Answer: A, B, D

Explanation:

A: The webcam capability provides access to the webcam's video feed, which allows the app to capture snapshots and movies from a connected webcam.

B: The picturesLibrary capability provides programmatic access to the user's Pictures, allowing the app to enumerate and access all files in the library without user interaction. This capability is typically used in photo playback apps that need to access the entire Pictures library.

D: Internet and public networks

The internetClient capability provides outbound access to the Internet and public networks through the firewall. Almost all web apps use this capability. The internetClientServer capability provides inbound and outbound access to the Internet and public networks through the firewall.

<http://msdn.microsoft.com/en-us/library/windows/apps/hh464936.aspx>

Question: 4

You are developing a Windows Store app that will display a toast notification.

You need to ensure that when a toast notification is displayed, the first line of the notification is bold.

Which template should you use?

- A. TileSquareText03
- B. ToastText01
- C. TileSquarePeekImageAndText01
- D. ToastImageAndText02

Answer: D

Explanation:

ToastImageAndText02

A large image, one string of bold text on the first line, one string of regular text wrapped across the second and third lines.

Question: 5

You plan to develop several Windows Store apps.

You plan to use a CheckBox control in all of the apps. The CheckBox control will use a custom visual display.

You create XAML markup to customize the control. The code contains all of the necessary visual components for the control, including elements named checkedGlyph and indeterminateGlyph.

You need to ensure that the check box meets the following requirements:

If a value for the check box was NOT set, the check box must display indeterminateGlyph.

When the check box is selected, the check box must display checkedGlyph.

If the check box is cleared, the check box must NOT display any glyphs.

You have the following XAML markup:

```

<Target 1 Target 2="CheckBox"
    x:Key="myCheckbox">
    <Border BorderBrush="{TemplateBinding BorderBrush}"
        BorderThickness="{TemplateBinding BorderThickness}"
        Background="{TemplateBinding Background}">
        <VisualStateManager.VisualStateGroups>
            <VisualStateGroup x:Name="CheckStates">
                <VisualState x:Name="Target 3">
                    <Storyboard>
                        <DoubleAnimation Duration="0" To="1"
                            Storyboard.TargetProperty="Opacity"
                            Storyboard.TargetName="checkGlyph"/>
                    </Storyboard>
                </VisualState>
                <VisualState x:Name="Target 4"/>
                <VisualState x:Name="Target 5">
                    <Storyboard>
                        <DoubleAnimation Duration="0" To="1"
                            Storyboard.TargetProperty="Opacity"
                            Storyboard.TargetName="indeterminateGlyph"/>
                    </Storyboard>
                </VisualState>
            </VisualStateGroup>
        ...
    </Target 6>

```

Which code snippets should you insert in Target 1, Target 2, Target 3, Target 4, Target 5 and Target 6 to complete the XAML markup? (To answer, select the correct code snippet from each drop-down list in the answer area.)

Answer Area

Target 1:

Target 2:

Target 3:

Target 4:

Target 5:

Target 6:

Answer Area

Target 1:
ControlTemplate
CustomControl

Target 2:
ControlName
TargetType

Target 3:
Checked
Indeterminate
Unchecked

Target 4:
Checked
Indeterminate
Unchecked

Target 5:
Checked
Indeterminate
Unchecked

Target 6:
ControlTemplate
CustomControl

Answer:

Answer Area

- Target 1:
ControlTemplate
CustomControl
- Target 2:
ControlName
TargetType
- Target 3:
Checked
Indeterminate
Unchecked
- Target 4:
Checked
Indeterminate
Unchecked
- Target 5:
Checked
Indeterminate
Unchecked
- Target 6:
ControlTemplate
CustomControl

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/xaml/hh465374.aspx>

Question: 6

You plan to create a custom panel that displays a pie chart. Each value of the pie chart will have a control.
You need to register a custom dependency property to the panel.
Which code segment should you use?

- A. `public static readonly DependencyProperty MaketShareProperty = DependencyProperty.RegisterAttached("MaketShare", typeof(double), typeof(MarketSharePanel), new PropertyMetadata(1, OnMarketShareChanged));`
- B. `public static readonly DependencyProperty MaketShareProperty = DependencyProperty.Register("MaketShare", typeof(double), typeof(MarketSharePanel), new PropertyMetadata(1, OnMarketShareChanged));`
- C. `public static readonly DependencyProperty MaketShareProperty = DependencyProperty.RegisterAttached("MaketShare", typeof(double), typeof(MarketSharePanel), new PropertyMetadata(1.0, OnMarketShareChanged));`
- D. `public static readonly DependencyProperty MaketShareProperty = DependencyProperty.Register("MaketShare", typeof(double), typeof(MarketSharePanel), new PropertyMetadata(1.0, OnMarketShareChanged));`

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

Answer: C

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.ui.xaml.dependencyproperty.aspx>

Question: 7

You are developing a Windows Store app.

You need to create a service for the app to receive push notifications from Windows Push Notification Services (WNS). Which tool should you use?

- A. The Manifest Designer
B. The Developer Dashboard
C. The Microsoft Visual Studio XML Editor
D. The Windows App Certification Kit

Answer: A

Question: 8

You are developing a Windows Store app.

The app will store data in a text file.

You create the following method to store encrypted text in the text file:

```

01 public async void EncryptData(StorageFile file,
02     IBuffer data,
03     IBuffer password,
04     string algorithm)
05 {
06
07     WriteData(file, encrypted);
08 }

```

The WriteData method writes the contents of an IBuffer object to a StorageFile object.

You need to recommend a solution to encrypt the data. The solution must minimize the use of system resources and must ensure that the app can decrypt the data.

Which code segment should you recommend adding to line 06?

- A. `var provider = AsymmetricKeyAlgorithmProvider.OpenAlgorithm(algorithm);
var key = provider.CreateKeyPair(1024);
var encrypted = CryptographicEngine.Encrypt(key, data, null);`
- B. `var provider = SymmetricKeyAlgorithmProvider.OpenAlgorithm(algorithm);
var key = provider.CreateSymmetricKey(password);
var encrypted = CryptographicEngine.SignHashedData(key, data);`
- C. `var provider = AsymmetricKeyAlgorithmProvider.OpenAlgorithm(algorithm);
var key = provider.CreateKeyPair(1024);
var encrypted = CryptographicEngine.Sign(key, data);`
- D. `var provider = SymmetricKeyAlgorithmProvider.OpenAlgorithm(algorithm);
var key = provider.CreateSymmetricKey(password);
var encrypted = CryptographicEngine.Encrypt(key, data, null);`

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

Answer: D

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.security.cryptography.core.symmetrickeyalgorithmprovider.aspx>

Question: 9

You are developing a Windows Store app named VideoPlayer.

The app will provide user with the ability to select video files by using the file picker and to play the video.

You need to recommend a solution for the app that meets the following requirements:

If the app is terminated while playing a video, the next time the app starts, the video must play.

The app must minimize the amount of storage space used.

The app must NOT request any capabilities.

What should you include in the recommendation?

- A. Add the file to AccessCache.StorageApplicationPermissions.MostRecentlyUsedList.
- B. Store the StorageFile.Path property in ApplicationData.Current.LocalSettings.
- C. Store the video in ApplicationData.Current.RoamingFolder.
- D. Store the video in ApplicationData.Current.LocalFolder.

Answer: A

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.storage.accesscache.storageapplicationpermissions.mostrecentlyusedlist.aspx>

Question: 10

You are developing a Windows Store app.

The app will provide users with the ability to play music remotely on another user's device and then the other users will guess the name of the song.

You need to access the music storage and to retrieve files and folders.

You have the following code:

```
List<string> fileTypeFilter = new List<string>();
fileTypeFilter.Add(".mp3");
fileTypeFilter.Add(".wma");
fileTypeFilter.Add(".wav");
fileTypeFilter.Add(".ogg");
var qryParam = new Target 1(Target 2.OrderByName, fileTypeFilter);

var query = KnownFolders.Target 3.Target 4(qryParam);
```

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

Elements	Answer Area	
CommonFileQuery	Target 1:	Element
CreateFileQueryWithOptions	Target 2:	Element
CreateFolderQueryWithOptions	Target 3:	Element
CreateItemQueryWithOptions	Target 4:	Element
DocumentsLibrary		
MusicLibrary		
PicturesLibrary		
QueryOptions		

Answer:

- Target 1: **QueryOptions**
- Target 2: **CommonFileQuery**
- Target 3: **MusicLibrary**
- Target 4: **CreateFileQueryWithOptions**

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.storage.search.queryoptions.aspx>

Question: 11

You are developing a Windows Store app.

You need to encrypt data.

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

```
protected async void EncryptData(string data)
{
    String descriptor = "LOCAL=user";
    BinaryStringEncoding encoding = BinaryStringEncoding.Utf8;
    DataProtectionProvider provider =
        new DataProtectionProvider( [ ] );
    [ ]
    IBuffer buffer = CryptographicBuffer.
        ConvertStringToBinary([ ], [ ]);
    [ ]
    IBuffer encrypted = await provider.ProtectAsync([ ]) ;
}
```

Answer:

```

protected async void EncryptData(string data)
{
    String descriptor = "LOCAL=user";
    BinaryStringEncoding encoding = BinaryStringEncoding.Utf8;
    DataProtectionProvider provider =
        new DataProtectionProvider( [ ] );
    [ ]
        encoding
        buffer
        descriptor
        data
    IBuffer buffer = CryptographicBuffer.

    ConvertStringToBinary([ ], [ ] );
    [ ]
        encoding
        buffer
        descriptor
        data
    IBuffer encrypted = await provider.ProtectAsync([ ] );
}
[ ]
        encoding
        buffer
        descriptor
        data

```

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.security.cryptography.dataprotection.dataprotectionprovider.aspx>

Question: 12

You plan to develop a Windows Store app to create pictures.

Users of the app will be able to save the pictures that they create and to share the pictures with friends by using a web link.

You need to ensure that the friends can make comments on the shared pictures.

Which storage technology should you use? (More than one answer choice may achieve the goal. Select the BEST answer.)

- A. Roaming storage
- B. Microsoft Azure blob storage
- C. Microsoft Azure Mobile Services
- D. One Drive

Answer: D

Question: 13

You are developing a Windows Store app.

The app will store user names and passwords by using Windows Azure.
You need to recommend a method to store the passwords. The solution must minimize the likelihood that the passwords will be compromised.
Which algorithm should you recommend using?

- A. 3DES
- B. DES
- C. AES
- D. SHA512

Answer: D

Explanation:

Reference:

<http://apps.microsoft.com/windows/en-us/app/sha-512-encoder/6be865f2-4673-47c6-9354-1865c2ef82fe>

Question: 14

You are developing a Windows Store app that will be used as an IT support ticket system.
You need to ensure that user settings are available to only a single device.
Which property should you use?

- A. Windows.Storage.ApplicationData.Current.LocalFolder
- B. Windows.Storage.ApplicationData.Current.LiveSyncFolder
- C. Windows.Storage.ApplicationData.Current.RoamingFolder
- D. Windows.Storage.ApplicationData.DefaultRemoteFolder

Answer: A

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.storage.applicationdata.aspx>

Question: 15

You are developing a Windows Store app to view MP4 videos.
You need to ensure that when a user double-clicks an MP4 file, the app starts and plays back the video automatically.
Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- A. Add the Videos Library capability to the Appxmanifest file.
- B. Modify the OnActivated event of the App.xaml.cs file to pass ProtocolActivatedEventArgs to the page if ActivatedEventArgs.Kind == ProtocolActivatedEventArgs.
- C. Add a File Type Associations declaration to the Appxmanifest file.
- D. Add an OnFileActivated event handler to the App.xaml.cs file.
- E. Add an AutoPlay Content declaration to the Appxmanifest file.

Answer: C, D

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/xaml/jj191724.aspx>

Question: 16

You are designing a Windows Store app that creates large amounts of temporary binary data each time it is run. You need to ensure that data is persisted while the app is running but deleted when the app is closed. Which app data storage mechanism should you use? (Each correct answer presents a complete solution. Choose all that apply.)

- A. a temporary app data store
- B. the app files of the local app data store
- C. the app settings of the local app data store
- D. a roaming app data store

Answer: A, B, C

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/hh464917.aspx>

Question: 17

You are developing a Windows Store game. The game allows for interactive online play between users. The game authenticates users by using the credentials of a third-party site that provides OAuth2 authentication. You need to implement authentication that uses an implicit grant authorization. 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.)

```

IsAuthenticated =
ProcessOAuthResponse(AuthenticationResult.ResponseData);

using(HttpClient Client = new HttpClient())
{
    var Response = await
Client.GetStringAsync(RequestUrl);
    IsAuthenticated = ProcessOAuthResponse(Response);
}

var RequestUrl = new Uri(string.Format(
"https://localhost/oauth?grant={0}&ru={1}",
"authorization_code", ResponseUrl));

var RequestUrl = new Uri(string.Format(
"https://localhost/oauth?cid={0}&rt={1}&ru={2}",
"<CLIENT_ID>", "code", ResponseUrl));

var RequestUrl = new Uri(string.Format(
"https://localhost/oauth?cid={0}&rt={1}&ru={2}",
"<CLIENT_ID>", "token", ResponseUrl));

```

Answer Area

```

private bool IsAuthenticated { get; set; }
private async void AuthenticateUser()
{
    var ResponseUrl = new
    Uri("https://localhost/success.html");

    var AuthenticationResult = await
    WebAuthenticationBroker.AuthenticateAsync(
    WebAuthenticationOptions.None, RequestUrl, ResponseUrl);

    if (AuthenticationResult.ResponseStatus ==
    WebAuthenticationStatus.Success)
    {

    }
    else { ... }
}

```

Answer:

Box 1:

```
var RequestUrl = new Uri(string.Format(
    "https://localhost/oauth?cid={0}&rt={1}&ru={2}",
    "<CLIENT_ID>", "token", ResponseUrl));
```

For implicit grant authorization we use TOKEN response type.

Box 2:

```
IsAuthenticated =
    ProcessOAuthResponse(AuthenticationResult.ResponseData);
```

Respond with the RequestURL.

Explanation:

Note:

* The implicit grant flow can be used by both web-based and desktop apps. In this flow, the client makes an authorization request to https://login.live.com/oauth20_authorize.srf with `request_type=token`. This is a standard OAuth 2.0 flow.

Question: 18

You are developing a Windows Store app that will provide users with the ability to save annotations to text files. You have the following code segment: (Line numbers are included for reference only.)

```
01 public async void WriteData(StorageFile file, string data)
02 {
03
04 }
```

You need to add the contents of data to the beginning of file.

Which code segment should you insert at line 03?

- A `string text = await FileIO.ReadTextAsync(file);
await FileIO.AppendTextAsync(file, data + text);`
- B `string text = await FileIO.ReadTextAsync(file);
await FileIO.WriteTextAsync(file, data + text);`
- C `await FileIO.AppendTextAsync(file, data);`
- D `await FileIO.WriteTextAsync(file, data);`

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

Answer: D

Question: 19

You are developing a Windows Store app.

You need to implement claims according to their appropriate use.

Which claim is appropriate for each purpose? (To answer, drag the appropriate claims to the correct locations in the answer area. Each claim 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	
Claim	Purpose
	Group and role
	Custom information
	UPN, email, and common name

Common

Custom

Extended

Group

Identity

Answer:

Box 1: Group

Box 2: Custom

Box 3: Identity

Explanation:

Note:

Active Directory Federation Services (ADFS) supports three types of claims:

* Identity claim. There are three types of identity claims:

User Principal Name (UPN). Indicates a Kerberos-style user UPN, such as user@realm.

E-mail. Indicates RFC 2822-style e-mail names of the form user@domain.

Common name. Indicates an arbitrary string that is used for personalization. Examples include John Smith or Tailspin Toys Employee. Note that you cannot guarantee the uniqueness of the common name claim. Therefore, use caution when you are using this claim type for authorization decisions.

* Group claim. Indicates a user's membership in a group or role.

* Custom claim. Contains custom information about a user, such as an employee ID number.

Reference: Claims-Aware Applications

Question: 20

You are developing a Windows Store app that will be used to access large files stored online.

The files will be shared between users worldwide.

You need to recommend a solution to ensure that the users can download the files as quickly as possible.

Which storage solution should you recommend?

- A. OneDrive
- B. Microsoft Azure Mobile Services
- C. A roaming folder
- D. Microsoft Azure Content Delivery Network (CDN)

Answer: D

Question: 21

You are developing a Windows Store multi-player game.

You need to ensure that the game can authenticate users by using the credentials of a third-party social networking site.

Which class should you use?

- A. PassportAuthenticationModule
- B. WindowsAuthenticationModule
- C. WebAuthenticationBroker
- D. FormsAuthentication

Answer: C

How can you take protocol modeled for the web and make it work in an app that is running on a Windows 8 device?

The answer is the WebAuthenticationBroker component in the Windows Runtime.

The web authentication broker is designed to assist you with single sign-on scenarios by emulating a fully web-based experience.

Question: 22

You are developing a Windows Store social media app. The app communicates with the server by using a secure web service.

You need to ensure that users can securely store and retrieve web service credentials.

You have the following code:

```
Target 1
public static void StoreCredentials (string resourceName,
    string userName, string password)
{
    var CurrentCredentials = new PasswordCredentials (resourceName,
        userName, password);
    CredentialStore.Add(CurrentCredentials);
}
public static string RetrievePasswordCredentials (string resourceName,
    string userName)
{
    Target 2
}
```

Which code snippets should you insert in target 1 and target 2 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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.)

```

private static PasswordVault CredentialStore = new PasswordVault();

private static PasswordCredentialPropertyStore CredentialStore =
    new PasswordCredentialPropertyStore();

return CredentialStore.FindByName(resourceName).GetSecureString();

return CredentialStore.Retrieve(resourceName, userName).Password;

return CredentialStore.Retrieve(resourceName, userName).GetSecureString();

```

Answer Area

Target 1:

Target 2:

Answer:

Answer Area

Target 1:

```
private static PasswordVault CredentialStore = new PasswordVault();
```

Target 2:

```
return CredentialStore.Retrieve(resourceName, userName).Password;
```

Question: 23

You are developing a Windows Store app.

You create a custom control named AppSettingsFlyout, which is inherited from the SettingsFlyout control.

You need to ensure that the Settings flyout of the app is available from the charm bar. When the flyout is dismissed, users must be returned to the Settings pane.

You have the following code. (Line numbers are included for reference only.)

```

01 SettingsCommand appUpdateSettingsCommand = new SettingsCommand(
02 "AppUpdateSettings", "App updates", (handler) =>
03 {
04     AppSettingsFlyout updatesFlyout = new AppSettingsFlyout();
05
06 }
07 );

```

Which code segment should you insert at line 05?

- A. updatesFlyout.Show();
- B. ApplicationSettings.SettingsPane.GetForCurrentView();
- C. ApplicationSettings.SettingsPane.Show();
- D. updatesFlyout.ShowIndependent();

Answer: A

Question: 24

You are developing an app that will be used to purchase and share music. Users will be allowed to share only content that they have purchased.

You need to display a message within the Share charm when users attempt to share content that they have not purchased.

What should you do?

- A. Use a toast notification.
- B. Use the SetText() method of the DataPackage object.
- C. Set the LegalInformation property of the DataPackage object.
- D. Use the FailWithDisplayText() method of the DataRequest object.

Answer: D

Explanation:

Use the FailWithDisplayText method when your app is unable to supply a DataPackage to a target app. This method cancels the share operation and supplies a text message to the target app. The target app can then display this text to the user to explain why the share operation failed.

Question: 25

DRAG DROP

You are developing an augmented reality app.

You need to retrieve the direction to which the device points.

You have the following code:

```
public void InitReadDirection()
{
    var compass = Compass.GetDefault();
    Target 1;
    compass.ReadingChanged += compass_ReadingChanged;
}
void compass_ReadingChanged(Compass sender, Target 2 args)
{
    var currentDirectionInformation = args.Reading;
    var currentHeading = Target 3;
}
```

Which code snippets should you include in Target 1, Target 2 and Target 3 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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 Snippets	Answer Area
compass.ReadingInterval = 20	Target 1: <input type="text"/> Code snippet
compass.ReportInterval = 20	Target 2: <input type="text"/> Code snippet
compass.UpdateInterval = 20	Target 3: <input type="text"/> Code snippet
CompassReadingChangedEventArgs	
EventArgs	
currentDirectionInformation.HeadingAccuracy	
currentDirectionInformation.HeadingMagneticNorth	

Answer:**Answer Area**Target 1: compass.ReportInterval = 20Target 2: CompassReadingChangedEventArgsTarget 3: currentDirectionInformation.HeadingMagneticNorth**Question: 26**

You are developing a Windows Store app.

The app has the following requirements:

Open the Search charm.

Provide query suggestions by using the GetSuggestions() method-

You need to ensure that the app meets the requirements. You have the following code:

```
private void FindRelated_Clicked(object s, RoutedEventArgs e)
{
    Target 1
    pane.SuggestionsRequested += (sender, args) => {
        var q = args.Request.SearchSuggestionCollection;
        Target 2
    };
    pane.Show("");
}
private IEnumerable<string> GetSuggestions(string data)...
```

Which code snippets should you insert in Target 1 and Target 2 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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.)

```

q.AddRange(GetSuggestions(args.QueryText));
q.AppendQuerySuggestions(GetSuggestions(args.QueryText));
var pane = new SearchPane();
var pane = SearchPane.GetForCurrentView();

```

Answer Area

Target 1:

Target 2:

Answer:Target 1: `var pane = SearchPane.GetForCurrentView();`Target 2: `q.AppendQuerySuggestions(GetSuggestions(args.QueryText));`

Explanation:

Note:

* GetForCurrentView

ApplicationView.GetForCurrentView, getForCurrentView method

Applies to Windows and Windows Phone

Gets the window (app view) for the current app.

* AppendQuerySuggestion

Appends a query suggestion to the list of search suggestions for the search pane.

Question: 27

You are developing a Windows Store app that uses a light sensor to detect and respond to light changes. An object named lightSensor is an instance of the sensor service.

The light sensor must detect changes once per second. If the sensor is unable to record as fast as once per second, then it must use the fastest interval possible.

You need to ensure that the app meets the requirements. You have the following code:

```

private LightSensor lightsensor;
public void Initialize()
{
    this.InitializeComponent();
    Target 1
    Target 2
}

```

Which code snippets should you include in Target 1 and Target 2 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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.)

```

lightSensor = Windows.Devices.Sensors.LightSensor.GetCurrentReading();
lightSensor = Windows.Devices.Sensors.LightSensor.GetDefault();
lightSensor.MinimumReportInterval = 1000;
lightSensor.MinimumReportInterval = lightSensor.ReportInterval < 1 ? 1 : lightSensor.ReportInterval;
lightSensor.ReportInterval = lightSensor.MinimumReportInterval < 1000 ? 1000 : lightSensor.MinimumReportInterval;

```

Answer Area

Target 1:

Target 2:

Answer:

Target 1:

```
lightSensor = Windows.Devices.Sensors.LightSensor.GetDefault();
```

Target 2:

```
lightSensor.ReportInterval = lightSensor.MinimumReportInterval < 1000 ? 1000 : lightSensor.MinimumReportInterval;
```

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.devices.sensors.lightsensor.aspx>

Question: 28

You are developing a Windows Store app that accesses a USB Human Interface Device (HID). The app has a default page and a settings page.

You need to ensure that when a user connects the USB device, the app starts automatically and opens the settings page.

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

- A. Override the OnLaunched method in the Application class and use the ApplicationViewEventArgs interface.
- B. Add a File Type Associations declaration to the app manifest.
- C. Add a Removable Storage capability to the app manifest.
- D. Override the OnActivated method in the Application class and use the ActivatedEventArgs interface.

E. Add an AutoPlay Device declaration to the app manifest.

Answer: A, D

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.ui.xaml.application.aspx>

Question: 29

You are developing a Windows Store app.

The app includes the following event procedure:

`Void OnSettingsPaneOpened(SettingsPanesettingsPane, SettingsPaneCommandsRequestedEventArgs e)`

You need to call the event procedure when the user opens the settings pane.

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

Answer Area	
<code>sp = SettingsPane.GetForCurrentView();</code>	
<code>sp = SettingsPane.Show();</code>	
<code>sp.CommandsRequested += OnSettingsPaneOpened;</code>	
<code>sp.CommandsRequested = OnSettingsPaneOpened;</code>	
<code>SettingsPane sp = new SettingsPane();</code>	
<code>SettingsPane sp = null;</code>	

Answer:

Box 1: `SettingsPanesp = null;`

Box 2: `sp = SettingsPane.GetForCurrentView();`

Box 3: `sp.CommandsRequested += OnSettingsPaneOpened;`

Explanation:

Note:

* The `SettingsPane` class is a static class that enables the app to control the Settings Charm pane. The app can add or remove commands, receive a notification when the user opens the pane, or open the pane programmatically.

* The `show` method displays the Settings Charm pane to the user.

* The `GetForCurrentView` method gets a `SettingsPane` object that is associated with the current app view (that is, with `CoreWindow`).

Question: 30

You are developing a Windows Store app.

You configure the app to support AutoPlay when a portable media player is connected to a Windows 8.1 device.

You need to verify whether the app was initiated from AutoPlay.

What code should you add to the `OnActivated` event handler? (To answer, select the appropriate options in the answer area.)

Answer Area

```
if ( [ ] == [ ] )
```

Answer Area

```
if ( [ ] == [ ] )
    [ args.Kind
      args.PreviousExecutionState ]
```

[ActivationKind.Device
 ActivationKind.Launch
 ActivationKind.Protocol
 ApplicationExecutionState.ClosedByUser]

Answer:

Answer Area

```
if ( [ args.Kind
      args.PreviousExecutionState ] == [ ActivationKind.Device
                                         ActivationKind.Launch
                                         ActivationKind.Protocol
                                         ApplicationExecutionState.ClosedByUser ] )
```

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/xaml/jj161017.aspx>

Question: 31

HOTSPOT

You are developing a Windows Store app.

You define an app bar named BottomAppBar.

You need to ensure that you can open the app bar programmatically.

You have the following code:

```
protected void OpenAppBar()
{
    AppBar myAppBar = Target 1
    if (myAppBar != null)
    {
        myAppBar.Target 2
    }
}
```

Which code snippets should you insert in Target 1 and Target 2 to complete the code? (To answer, select the correct code snippet from each drop-down list in the answer area.)

Answer Area

Target 1:

```
this.FindName("BottomAppBar") as AppBar;  
this.GetForCurrentView("BottomAppBar");
```

Target 2:

```
IsOpen = true;  
Show();
```

Answer:

Answer Area

Target 1:

```
this.FindName("BottomAppBar") as AppBar;  
this.GetForCurrentView("BottomAppBar");
```

Target 2:

```
IsOpen = true;  
Show();
```

Question: 32

DRAG DROP

You are developing a Windows Store app named App1.

You need to ensure that App1 meets the following requirements:

Must be able to display a list of items in rows and columns.

Must be able to display items one at a time.

What should you use for each requirement? (To answer, drag the appropriate elements to the correct requirements.

Each 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.)

Elements	Answer Area
GridView	Must be able to display a list of items in rows and columns. Element
ListView	Must be able to display items one at a time. Element
FlipView	
ListBox	
CommandBar	
PopupMenu	
MenuFlyout	
Flyout	

Answer:

Must be able to display a list of items in rows and columns.	GridView
Must be able to display items one at a time.	FlipView

Question: 33

DRAG DROP

You are developing a Windows Store app that includes three objects. A data template named SceneTemplate provides the correct view for all of the objects.

The objects must be rendered as full-screen scenes that users can navigate between by swiping.

You need to create the content of a page that renders each object to meet the requirement.

You have the following code:

```
<Target 1 ItemsSource="{Binding Scenes}">
<Target 2="{StaticResource SceneTemplate}" />
```

Which code snippets should you insert in Target 1 and Target 2 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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 Snippets	Answer Area
FlipView	Target 1: <input type="button" value="Code Snippet"/>
ItemView	Target 2: <input type="button" value="Code Snippet"/>
ListView	
DataTemplate	
ItemTemplate	
GroupTemplate	
...	

Answer:

Target 1:

Target 2:

Question: 34

You are developing a Windows Store app.

The app receives badge notifications from Windows Push Notification Services (WNS).

You configure the app to establish a communication channel with WNS. You use a variable named pushChannel to store the notification channel object used for communication. You add the following line of code to the app:

```
pushChannel.PushNotificationReceived += OnPushReceived;
```

You need to extract the data sent from the service to a class-level variable named **xmlData** of type string.

You have the following code:

```
void Target 1(PushNotificationChannel sender,
              PushNotificationReceivedEventArgs e)
{
    switch(e.Target 2)
    {
        case PushNotificationType.Badge:
            xmlData = e.Target 3;
            break;
        default:
            xmlData="";
    }
}
```

Which code snippets should you insert in Target 1, Target 2 and Target 3 to complete the code? (To answer, select the correct code snippet from each drop-down list in the answer area.)

Target 1:

Target 2:

Target 3:

Target 1:
OnPush
OnPushNotification
OnPushReceived

Target 2:
BadgeNotification
NotificationType
RawNotification

Target 3:
BadgeNotification.Content
BadgeNotification.Content.DocumentElement
BadgeNotification.Content.GetXml()

Answer:

Target 1:
OnPush
OnPushNotification
OnPushReceived

Target 2:
BadgeNotification
NotificationType
RawNotification

Target 3:
BadgeNotification.Content
BadgeNotification.Content.DocumentElement
BadgeNotification.Content.GetXml()

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.networking.pushnotifications.pushnotificationreceivedeventargs.aspx>

Question: 35

You are developing a Windows Store app.

The app contains a page named MainPage. The page contains a media element named mediaPlayer and a button named btnPlayTo.

You need to provide users with the ability to select a device that will display the contents of mediaPlayer when they click btnPlayTo.

Which code segment should you add to the Click event handler of btnPlayTo?

- A. `PlayToManager.GetForCurrentView();`
- B. `PlayToReceiver ptr = new PlayToReceiver();
await ptr.NotifyPlaying();`
- C. `PlayToReceiver ptr = new PlayToReceiver();
await ptr.StartAsync();`
- D. `PlayToManager.ShowPlayToUI();`

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

Answer: D

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.media.playto.playtomanager.showplaytoui.aspx>

Question: 36

You are developing a page for a Windows Store app.

You have the following requirements for the page:

Display a button on the bottom app bar that allows the user to insert a picture. This button must be bound to the Insert command in the view model.

Display a button in the main content area of the page that allows the user to open documents. This button must be bound to the Open command in the view model.

You need to ensure that the requirements are met.

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.)

<pre> <Button Content="Insert picture" Command="ApplicationCommands.Insert"/> <Button Content="Insert picture" Command="{Binding Insert}"/> <Button Content="Open document" Command="ApplicationCommands.Open"/> <ButtonContent="Open document" Command="{BindingOpen}"/> <Button Content="Open document" Command="ApplicationCommands.Load"/> <ButtonContent="Insert picture" Command="{BindingAdd}"/> </pre>	<p>Answer Area</p> <pre> <Page.BottomAppBar> <AppBar> <StackPanel Orientation="Horizontal"> </StackPanel> </AppBar> </Page.BottomAppBar> </pre>
---	--

Answer:

Box 1:

```
<ButtonContent="Open document"
Command="{BindingOpen}"/>
```

Box 2:

```
<Button Content="Insert picture"
Command="{Binding Insert}"/>
```

Question: 37

You are developing your first Windows Store app and submitting it to the Windows Store.

The app uses a cloud server to send notifications by using Windows Push Notification Service (WNS).

You need to authenticate the cloud server with WNS.

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.)

<pre> Send the WNS response on the notification channel. Create and save a push notification channel. Obtain the identity values for the app. Register for a Windows Store developer account. Register the app with the Windows Store. Obtain the credentials for the app. Create the secure HTTP authentication request. </pre>	<p>Answer Area</p>
--	---------------------------

Answer:

Answer Area	
Send the WNS response on the notification channel.	Register the app with the Windows Store.
Create and save a push notification channel.	Create the secure HTTP authentication request.
	Obtain the identity values for the app.
	Obtain the credentials for the app.
	Register for a Windows Store developer account.

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/hh465407.aspx>

Question: 38

You are developing a Windows Store app.

The app contains a page named MainPage. The page contains a media element named videoPlayer.

You need to provide users with the ability to play the contents of videoPlayer on different devices by using the Devices charm.

Which two code segments should you add to the OnNavigateTo event handler on MainPage? (Each correct answer presents part of the solution. Choose two.)

- A.

```
if (mgr.State == PlayToConnectionState.Connected)
{
    videoPlayer.Play();
}
```
- B.

```
PlayToConnection mgr = videoPlayer.PlayToSource.Connection;
```
- C.

```
PlayToManager mgr = PlayToManager.GetForCurrentView();
```
- D.

```
mgr.SourceSelected += (PlayToManager sender, PlayToSourceSelectedEventArgs e) =>
{
    if (e.SupportsVideo)
    {
        mgr.ShowPlayToUI();
    }
}
```
- E.

```
mgr.SourceRequested += (PlayToManager sender, PlayToSourceRequestedEventArgs e) =>
{
    request = e.SourceRequest;
    PlayToSourceDeferral deferral = request.GetDeferral();
    request.SetSource(videoPlayer.PlayToSource);
    deferral.Complete();
}
```

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

Answer: B, D

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.media.playto.playtosource.aspx>

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.media.playto.playtosourceselectedeventargs.aspx>

Question: 39

DRAG DROP

You are developing a Windows Store social media app. The app communicates with the server by using a secure web service.

You need to ensure that users can securely store and retrieve web service credentials.

You have the following code:

```
Target 1
public static void StoreCredentials (string resourceName,
    string userName, string password)
{
    var CurrentCredentials = new PasswordCredentials (resourceName,
        userName, password);
    CredentialStore.Add(CurrentCredentials);
}
public static string RetrievePasswordCredentials (string resourceName,
    string userName)
{
    Target 2
}
```

Which code snippets should you insert in target 1 and target 2 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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.)

```
private static PasswordVault CredentialStore = new PasswordVault();  
  
private static PasswordCredentialPropertyStore CredentialStore =  
    new PasswordCredentialPropertyStore();  
  
return CredentialStore.FindByName(resourceName).GetSecureString();  
  
return CredentialStore.Retrieve(resourceName, userName).Password;  
  
return CredentialStore.Retrieve(resourceName, userName).GetSecureString();
```

Answer Area

Target 1:

Target 2:

Answer:

Answer Area

Target 1:

```
private static PasswordVault CredentialStore = new PasswordVault();
```

Target 2:

```
return CredentialStore.Retrieve(resourceName, userName).Password;
```

Question: 40

You are developing a Windows Store app. The app has the following requirements:

Files must be stored on a device's file system so other Windows Store apps can access them.

Additional configuration must be performed to make the location of the files available to other Windows Store apps.

You need to meet the requirements.

Where should you store the files? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Removable devices
- B. App data locations
- C. User's download folder
- D. Documents library
- E. App install directory

Answer: A, E

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/hh967755.aspx>

Question: 41

DRAG DROP

You are developing a Windows Store app that caches user application data in the local data store. The app must create a setting named UserName within a container named UserSettings. The app must store the user name in the local store. You need to meet the requirements. How should you complete the code segment? (To answer, drag the appropriate options to the correct location or locations. Each 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.)

Always

LocalSettings

localStore

LocalFolder

Existing

Values

Name

userContainer

```
Answer Area
```

```

var localStore = ApplicationData.Current.[ ];
var userContainer = localStore.CreateContainer("UserSettings",
    Windows.Storage.ApplicationDataCreateDisposition.[ ]);
if ([ ].Containers.ContainsKey("UserSettings"))
{
    localStore
        .Containers["UserSettings"]
        .[ ]["UserName"] = "TestUser";
}

```

Answer:

Localsettings

Values

Localstore

Always

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.storage.applicationdata.localsettings.aspx>

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.storage.applicationdatacontainer.aspx>

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.storage.applicationdatacreatedisposition.aspx>

Question: 42

You are designing a Windows Store app to manage image and video files.

The app must meet the following requirements:

Video files must be stored locally on each device.

The app must use local storage for data caching.

User settings must be shared across multiple devices.

Image files must be available across multiple devices.

Metadata for images must be stored in a central database.

Image files, video files, and their associated metadata must load as quickly as possible.

You need to identify which data must be cached based on the app requirements.

Which two types of data should you identify? (Each correct answer presents part of the solution. Choose two.)

- A. User settings
- B. Video files
- C. Image files
- D. Metadata

Answer: C, D

Explanation:

Image files, video files, and their associated metadata must load as quickly as possible.
[http://msdn.microsoft.com/en-us/library/windows/desktop/aa365201\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/aa365201(v=vs.85).aspx)

Question: 43

HOTSPOT

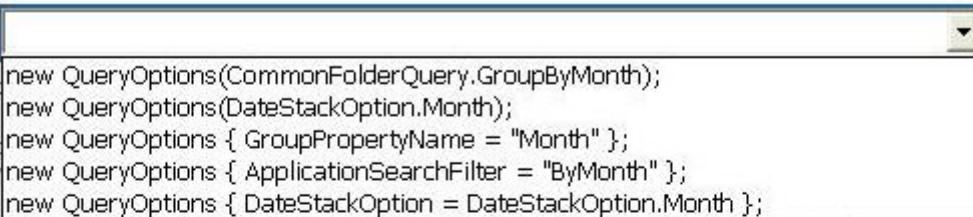
You are developing a Windows Store app that allows users to copy music from their local computers to removable storage.

The app displays songs grouped by the month the song was downloaded and allows individual songs to be copied to the removable storage device. The user interface for selecting and copying songs uses data binding.

You need to load and return songs in a format appropriate for data binding.

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

```
var queryOptions =
```



new QueryOptions(CommonFolderQuery.GroupByMonth);
 new QueryOptions(DateStackOption.Month);
 new QueryOptions { GroupPropertyName = "Month" };
 new QueryOptions { ApplicationSearchFilter = "ByMonth" };
 new QueryOptions { DateStackOption = DateStackOption.Month };

```
var fileQuery = KnownFolders.MusicLibrary  

  .CreateFileQueryWithOptions(queryOptions);  

var factory = new FileInformationFactory(fileQuery,  

  ThumbnailMode.MusicView);
```

```
var dataSource =
```



factory.GetVirtualizedFilesVector();
 factory.GetVirtualizedFoldersVector();
 factory.GetVirtualizedItemsVector();
 factory.GetItemsAsync();
 factory.GetFilesAsync();
 factory.GetFoldersAsync();

```
return dataSource;
```

Answer:

```
var queryOptions =
```

`new QueryOptions(CommonFolderQuery.GroupByMonth);
new QueryOptions(DateStackOption.Month);
new QueryOptions { GroupPropertyName = "Month" };
new QueryOptions { ApplicationSearchFilter = "ByMonth" };
new QueryOptions { DateStackOption = DateStackOption.Month };`

```
var fileQuery = KnownFolders.MusicLibrary  
.CreateFileQueryWithOptions(queryOptions);  
var factory = new FileInformationFactory(fileQuery,  
ThumbnailMode.MusicView);
```

```
var dataSource =
```

`factory.GetVirtualizedFilesVector();
factory.GetVirtualizedFoldersVector();
factory.GetVirtualizedItemsVector();
factory.GetItemsAsync();
factory.GetFilesAsync();
factory.GetFoldersAsync();`

```
return dataSource;
```

Explanation:

QueryOptions.QueryOptions(CommonFolderQuery) constructor (Windows)

FileInformationFactory.GetVirtualizedFilesVector | getVirtualizedFilesVector method (Windows)

Question: 44

HOTSPOT

You are developing a Windows Store app.

The app will use certificates issued by a standalone certification authority (CA) for authentication. The standalone CA certificate is stored in a file named Ca.cer.

You need to configure the app manifest to ensure that the app can use certificates issued by the standalone CA.

You have the following XAML markup in the app manifest:

```
<Extensions>  
  <Extension Category="windows.certificates">  
    <Certificates>  
      <Certificate StoreName="Target 1" Target 2="ca.cer" />  
    </Certificates>  
  </Extension>  
</Extensions>
```

Which code snippets should you insert in Target 1 and Target 2 to complete the XAML markup? (To answer, select the correct code snippet from each drop-down list in the answer area.)

Answer Area

Target 1:

Target 2:

Answer Area

Target 1:

CA
Root
TrustedPeople

Target 2:

Type
Content
ExclusiveTrust

Answer:

Answer Area

Target 1:

CA
Root
TrustedPeople

Target 2:

Type
Content
ExclusiveTrust

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/xaml/hh465016.aspx>

Question: 45

You are developing a Windows Store app.

The app will access several web resources that use an OAuth 2.0 authentication provider.

You need to recommend in which class to store user credentials so that users do not have to reenter their credentials when they access the web resources.

Which class should you recommend?

- A. System.Net.AuthenticationManager
- B. System.Net.NetworkCredential
- C. Windows.Security.Credentials.WebAccount
- D. Windows.Security.Credentials.PasswordVault

Answer: D

Explanation:

The task of storing and retrieving user credentials securely and allowing user credentials roam at no cost with the user's Microsoft account is simplified with the Credential Locker.

Storing user credentials in the Credential Locker is a quick, two-step process. 1. Obtain a reference to the Credential Locker using the PasswordVault object from the Windows.Security.Credentials namespace.

2. Create a PasswordCredential object that contains an identifier for your app, the username and the password, and pass that to the PasswordVault.Add method to add the credential to the locker.

Question: 46**DRAG DROP**

You are developing a Windows Store app.

The following code segment defines an event procedure. (Line numbers are included for reference only.)

```
01 void OnSettingsPaneOpened(SettingsPane settingsPane,
    SettingsPaneCommandsRequestedEventArgs eventArgs)

02 {
03
04 }
```

You need to define a custom help setting in the event procedure.

Which three code segments should you insert in sequence at line 03? (To answer, move the appropriate code segments to the answer area and arrange them in the correct order.)

Answer Area
<pre>eventArgs.Request.ApplicationCommands.Add (helpCommand);</pre>
<pre>UICommandInvokedHandler settingsHandler = new UICommandInvokedHandler();</pre>
<pre>SettingsCommand helpCommand = new SettingsComm and("Help", "Help", settingsHandler);</pre>
<pre>settingsHandler.Invoke(helpCommand);</pre>
<pre>UICommandInvokedHandler settingsHandler = new UICommandInvokedHandler(OnSettingsClicked);</pre>

Answer:

Box 1:

```
UICommandInvokedHandler settingsHandler = new
UICommandInvokedHandler(OnSettingsClicked);
```

Box 2:

```
SettingsCommand helpCommand = new SettingsComm
and("Help", "Help", settingsHandler);
```

Box 3:

```
eventArgs.Request.ApplicationCommands.Add
(helpCommand);
```

Explanation:**Note:****Example:**

void onCommandsRequested(

```
SettingsPane settingsPane,
SettingsPaneCommandsRequestedEventArgs eventArgs)
{
    UICommandInvokedHandler handler = new UICommandInvokedHandler(onSettingsCommand);
    SettingsCommand generalCommand = new SettingsCommand(
        "generalSettings", "General", handler);
    eventArgs.Request.ApplicationCommands.Add(generalCommand);
    SettingsCommand helpCommand = new SettingsCommand("helpPage", "Help", handler);
    eventArgs.Request.ApplicationCommands.Add(helpCommand);
}
```

Question: 47

You are developing a Windows Store app. You have the following requirements:
Enable the app to receive shared data.
Save the sharing settings for future use.
You need to ensure that the requirements are met.
What should you implement?

- A. a play to charm
- B. a Share target
- C. a share charm
- D. a QuickLink

Answer: D

Explanation:

* When people swipe from the side of the screen and tap the Share charm, the Share pane appears with a list of apps people can use to share their content. This list includes any installed apps that are “share targets” for a particular data format.

The links at the top of the image, called QuickLinks, allow users to complete specific share tasks directly.

* QuickLink class

Applies to Windows and Windows Phone

Represents shortcuts that help users share content with the apps they use most.

Question: 48

DRAG DROP

You are developing a Windows Store app that provides users with the ability to make short audio recordings if an audio device is available.

You need to ensure that the users can replay the audio recording before they save the recording.

You have the following code: (Line numbers are included for reference only.)

```
01 DeviceInformationCollection myDevices =  
02  
03 if (myDevices.Count >= 1)  
04 {  
05     var _mediaCapture = new MediaCapture();  
06     var captureInitSettings = new MediaCaptureInitializationSettings();  
07  
08     await _mediaCapture.InitializeAsync(captureInitSettings);  
09     var mp = MediaEncodingProfile.CreateMp3(AudioEncodingQuality.High);  
10  
11 }
```

Which code segments should you insert at lines 02, 07 and 10? (To answer, drag the appropriate code segments to the correct 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 Segments

```
await DeviceInformation.FindAllAsync(DeviceClass.AudioRender);
```

```
await DeviceInformation.FindAllAsync(DeviceClass.AudioCapture);
```

```
await DeviceInformation.FindAllAsync(DeviceClass.PortableStorageDevice);
```

```
captureInitSettings.StreamingCaptureMode =  
StreamingCaptureMode.AudioAndVideo;
```

```
captureInitSettings.StreamingCaptureMode =  
StreamingCaptureMode.Audio;
```

```
var audioStream = new InMemoryRandomAccessStream();  
await _mediaCapture.StartRecordToStreamAsync(mp, _audioStream);
```

```
var f = await Windows.Storage.KnownFolders.PicturesLibrary.CreateFileAsync(  
"myaudio.mp3", CreationCollisionOption.ReplaceExisting);  
await _mediaCapture.StartRecordToFileAsync(mp, f);
```

Answer Area

Line 02:

Code segment

Line 07:

Code segment

Line 10:

Code segment

Answer:

Answer Area

```
Line 02:  
await DeviceInformation.FindAllAsync(DeviceClass.AudioCapture);
```

```
Line 07:  
captureInitSettings.StreamingCaptureMode =  
StreamingCaptureMode.Audio;
```

```
Line 10:  
var audioStream = new InMemoryRandomAccessStream();  
await _mediaCapture.StartRecordToStreamAsync(mp, _audioStream);
```

Question: 49

You are developing a Windows Store app that beeps when a device is turned upside down.

You need to identify which type of sensor to use for the app.

Which sensor should you identify?

- A. GPS
- B. Inclinometer
- C. Accelerometer
- D. Gyrometer

Answer: B

Question: 50

You are developing a Windows Store app.

You declare a Search declaration in the app manifest and you add a search results page.

You plan to display search results by using a Query Text property that derives from EventArgs,

You need to ensure that users can use the Search charm to search for content within the app.

What should you do?

- A. Add an event handler for the SearchPane.QuerySubmitted event to App.xaml.cs. Register the event handler in the constructor of the page.
- B. Add an event handler for the SearchPane.QueryChanged event to MainPage.xaml.cs. Register the event handler in the OnWindowCreated method in MainPage.xaml.cs.
- C. Add an event handler for the SearchPane.QuerySubmitted event to MainPage.xaml.cs. Register the event handler in the OnWindowCreated method in MainPage.xaml.cs.
- D. Add an event handler for the SearchPane.QuerySubmitted event to App.xaml.cs. Register the event handler in the OnWindowCreated method of the page.

Answer: D

Question: 51

You are developing a Windows Store app that allows users to record audio and video files and save them to their devices.

You have the following requirements:

The audio and video files must be shorter than three minutes in duration.

The app must finalize recording automatically when the time limit is reached.

You cannot use continuous polling to test when the time limit is reached.

You need to ensure that the app meets the requirements.

What should you do?

- A. Handle the RecordLimitationExceeded event.
- B. Assign a handler to the DefaultAudioCaptureDeviceChanged event.
- C. Handle the AudioTransferRequested event.
- D. Call the StopRecordAsync() method.

Answer: C

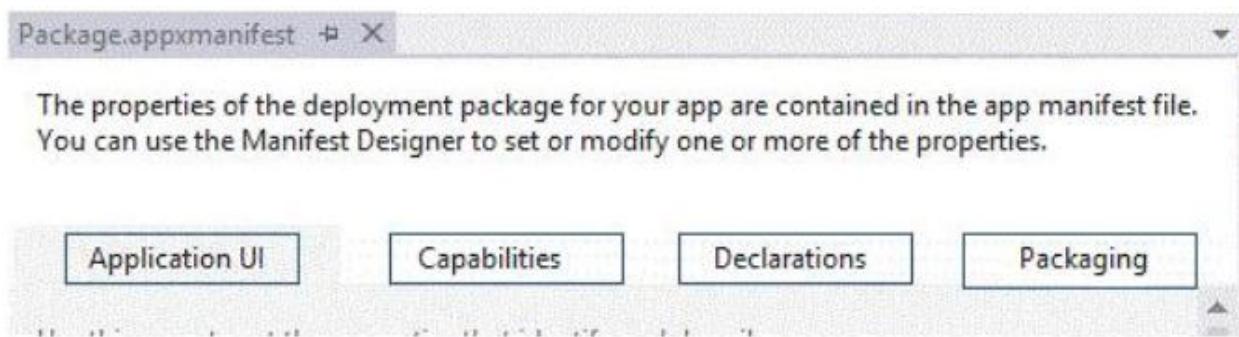
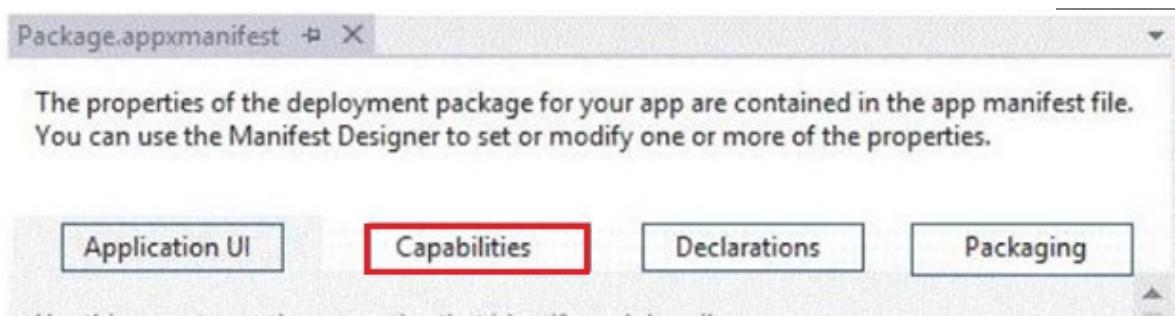
Question: 52**HOTSPOT**

You are developing a Windows Store app that detects and displays users' geographic location details.

During the unit testing of the app, the location details are not displayed.

You need to ensure that the user's location data is displayed.

Which tab in Visual Studio should you use to reconfigure the app to display the location data? (To answer, select the appropriate object in the answer area.)

**Answer:****Question: 53****DRAG DROP**

You are developing an app that converts text to speech.

You need to ensure that the app can read text from open documents.

You have the following code for the reading function of the app. (Line numbers are included for reference only.)

```
01 public async void ReadText(string TextToRead, MediaElement media)
02 {
03
04     {
05
06         {
07             media.AutoPlay = true;
08
09         }
10     }
11 }
```

Which code segments should you insert at lines 03, 05, and 08? (To answer, drag the appropriate code segments to the correct 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 Segments

```
media.SetSource(stream, stream.ContentType);
media.Play();
```

```
SpeechSynthesizer synth = new SpeechSynthesizer();
```

```
SpeechSynthesisStream stream =
await synth.SynthesizeTextToStreamAsync(TextToRead);
```

```
SpeechSynthesisStream stream =
synth.SynthesizeTextToStreamAsync(TextToRead);
```

```
using (SpeechSynthesizer synth =
new SpeechSynthesizer())
```

```
using (SpeechSynthesisStream stream =
await synth.SynthesizeTextToStreamAsync(TextToRead))
```

```
using (SpeechSynthesisStream stream =
synth.SynthesizeTextToStreamAsync(TextToRead))
```

Answer Area

Line 03:

Code segment

Line 05:

Code segment

Line 08:

Code segment

Answer:

```

Line 03: using (SpeechSynthesizer synth =
    new SpeechSynthesizer())

Line 05: using (SpeechSynthesisStream stream =
    await synth.SynthesizeTextToStreamAsync(TextToRead))

Line 08: media.SetSource(stream, stream.ContentType);
media.Play();

```

Question: 54**DRAG DROP**

You need to develop an app to measure whether a surface is level. The app will be used on devices that have a gyrometer.

You have the following code:

```

public void InitReadLevel()
{
    var gyro = Gyrometer.GetDefault();
    Target 1;
    gyro.ReadingChanged += gyro_ReadingChanged;
}

void gyro_ReadingChanged(Gyrometer sender, Target 2 args)
{
    var currentGeoInformation = Target 3;
}

```

Which code snippets should you include in Target 1, Target 2 and Target 3 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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 Snippets	Answer Area
args.Reading	Target 1: <input type="text"/> Code snippet
EventArgs	Target 2: <input type="text"/> Code snippet
gyro.MinimumReportInterval = 20	Target 3: <input type="text"/> Code snippet
gyro.ReportInterval = 20	
GyrometerReadingChangedEventArgs	
RoutedEventArgs	

Answer:

Target 1: **gyro.ReportInterval = 20**

Target 2: **GyrometerReadingChangedEventArgs**

Target 3: **args.Reading**

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.devices.sensors.gyrometer.aspx>

Question: 55

DRAG DROP

You are developing a Windows Store app.

The app consumes data from a business layer.

You need to develop a unit test.

The test method must ensure that the collection of person objects returned by the business layer meets the following requirements:

Always contains elements

Orders elements consistently between calls

You have the following code:

```
[Target 1]
public class UnitTest1
{
    [Target 2]
    public void TestMethod1()
    {
        var persons = ExampleApp.BLL.PersonService.GetPersons();
        var persons2 = ExampleApp.BLL.PersonService.GetPersons();
        Assert.Target 3(persons);
        Assert.IsTrue(persons.Count > 0);
        Assert.IsTrue(persons.Count == persons2.Count);
        for (int i = persons.Count; i >= 0; i--)
        {
            Assert.Target 4(persons[i].Id, persons2[i].Id);
        }
    }
}
```

Which code snippets should you include in Target 1, Target 2, Target 3 and Target 4 to complete the code? {To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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 Snippets	Answer Area
AreEqual	Target 1: Code snippet
AreSame	Target 2: Code snippet
IsNotNull	Target 3: Code snippet
IsNull	Target 4: Code snippet
TestCategory	
TestClass	
TestInitialize	
TestMethod	

Answer:

Target 1: TestClass**Target 2:** TestMethod**Target 3:** IsNotNull**Target 4:** AreEqual

Question: 56

You are developing a Windows Store app named GeoLoc.

You have the following code:

```
Geolocator geo = null;
if (geo == null)
    geo = new Geolocator();
Geoposition pos = await geo.GetGeopositionAsync();
```

When you run the app on some devices, you receive the following error message: "An exception of type 'System.UnauthorizedAccessException' occurred in mscorelib.dll but was not handled in user code."

You need to resolve the issue that causes the exception to occur.

Which file should you modify?

- A. Package.appxmanifest

- B. Assemblyinfo.es
- C. App.xaml
- D. Geoloc.csproj

Answer: A

Explanation:

Reference:

<http://stackoverflow.com/questions/22753843/an-exception-of-type-system-unauthorizedaccessexception-occurred-in-mscorlib-d>

Question: 57

You are developing a Windows Store app.

The app will access a web service.

You need to declare the web service Uniform Resource Identifier (URI).

Which file should you modify?

- A. AppxManifest
- B. AppConfig
- C. WebConfig
- D. Wsp
- E. xap

Answer: E

Question: 58

HOTSPOT

You are developing a Windows Store app to check the weather.

You need to ensure the app polls an external web service once per hour for tile updates.

You have the following code:

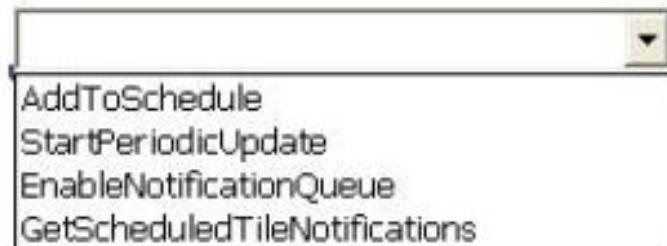
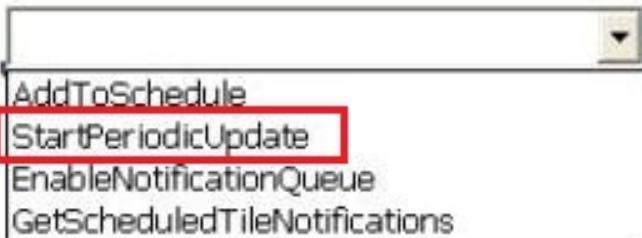
```
private void StartPolling(Uri urlToPoll,
Windows.UI.Notifications.PeriodicUpdateRecurrence recurrence)
{
    var updater =
        Windows.UI.Notifications.TileUpdateManager.CreateUpdaterForApplication();
    updater.Target 1(urlToPoll, recurrence);
}
```

Which code snippet should you insert in Target 1 to complete the code? (To answer, select the correct code snippet from the dropdown list in the answer area.)

Answer Area

Target 1: |



Answer Area**Target 1:****Answer:****Answer Area****Target 1:****Explanation:**

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.ui.notifications.tileupdater.startperiodicupdate.aspx>

Question: 59**DRAG DROP**

You are developing a Windows Store app.

You need to ensure that the app meets the following requirements:

When the app is started, the app bar must appear at the top of the app.

When the app is resized, if the new width of the app is less than 400 pixels, the app bar must be hidden. Users must be able to show the app bar by right-clicking.

When the app is resized, if the new width is greater than 400 pixels, the app bar must be visible. Users must be able to hide the app bar by right-clicking, pressing Windows + Z, or swiping in from the top edge of the screen.

You have the following XAML markup in a file named MainPage.xaml. (Line numbers are included for reference only.)

```

01 <Page.TopAppBar>
02
03 <StackPanel Orientation="Horizontal">
04 <AppBarButton Label="Pictures" Icon="Pictures" Click="PhotoPageButton_Click"/>
05 <AppBarButton Label="Videos" Icon="Video" Click="VideoPageButton_Click"/>
06 </StackPanel>
07 </AppBar>
08 </Page.TopAppBar>
```

You have the following code in a file named MainPage.xaml.es. {Line numbers are included for reference only.)

```
01 private void mainPage_SizeChanged(object sender, SizeChangedEventArgs e)
02 {
03     if (e.NewSize.Width < 400)
04     {
05
06     }
07     else
08     {
09
10     }
11 }
```

Which code segments should you insert in MainPage.xaml and MainPage.xaml.cs? (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.)

Code Segments

```
<AppBar x:Name="topAppBar" Opened="True">
```

```
<AppBar x:Name="topAppBar" Visibility="Visible">
```

```
<AppBar x:Name="topAppBar" IsOpen="True">
```

```
TopAppBar.Visibility =  
Windows.UI.Xaml.Visibility.Collapsed;
```

```
TopAppBar.IsOpen = true;  
TopAppBar.IsSticky = true;
```

```
TopAppBar.IsOpen = false;
```

```
TopAppBar.Visibility =  
Windows.UI.Xaml.Visibility.Collapsed;  
TopAppBar.IsSticky = true;
```

```
TopAppBar.Height = TopAppBar.MinHeight;
```

Answer Area

MainPage.xaml

Line 02: Code segment

MainPage.xaml.cs

Line:05: Code segment

Line 09: Code segment

Answer:

MainPage.xaml	
Line 02:	<AppBar x:Name="topAppBar" IsOpen="True">
MainPage.xaml.cs	
Line:05:	TopAppBar.IsOpen = false ;
Line 09:	TopAppBar.IsOpen = true ; TopAppBar.IsSticky = true ;

Question: 60

You are developing a Windows Store app that includes the following controls:

The ApplicationView control, which is entirely opaque, displays content that the app displays under normal circumstances.

The MessageView control, parts of which are transparent displays information messages in exceptional circumstances.

You are creating an app page that includes the ApplicationView and MessageView controls.

When both controls are visible, you have the following requirements:

The controls must expand to fill the entire page.

The ApplicationView control must be recognizable through the transparent portions of the MessageView control.

You need to create the page content.

Which code segment should you use?

- A. <Grid>


```
<ApplicationView/>
<MessageView/>
</Grid>
```
- B. <Grid>


```
<MessageView/>
<ApplicationView/>
</Grid>
```
- C. <StackPanel Style="Layer">


```
<ApplicationView/>
<MessageView/>
</StackPanel>
```
- D. <StackPanel Style="Layer">


```
<MessageView/>
<ApplicationView/>
</StackPanel>
```

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

D. Option D

Answer: A

Question: 61

DRAG DROP

You are developing a Windows Store app that uses the Windows Push Notification Service (WNS) to provide real-time updates to users. The app uses an HTTP request to authenticate a cloud service to interact with WNS.

The Package Security Identifier (SID) prefix is app://.

Parameter values must be URL encoded.

You need to ensure that the authentication request provides the required parameters.

Which parameters should you use? (To answer, drag the appropriate parameters to the correct location or locations. Each parameter 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;">"notify.windows.com"</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;">"App%3A%2F%2F123-abc"</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;">"client_credentials"</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;">"DIAW1-JCU80YV"</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;">"app://cab-123"</div>	<pre>WebClient webCl = new WebClient(); webCl.Headers.Add("grant_type=" + "App%3A%2F%2F123-abc" + "&client_id=" + "client_credentials" + "&client_secret=" + "DIAW1-JCU80YV" + "&scope=" + "notify.windows.com"); </pre>

Answer:

Answer Area	
<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"></div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"></div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"></div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"></div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;">"app://cab-123"</div>	<pre>WebClient webCl = new WebClient(); webCl.Headers.Add("grant_type=" + "App%3A%2F%2F123-abc" + "&client_id=" + "client_credentials" + "&client_secret=" + "DIAW1-JCU80YV" + "&scope=" + "notify.windows.com"); </pre>

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/hh465407.aspx>

Question: 62

DRAG DROP

You are developing your first Windows Store app and submitting it to the Windows Store.

The app uses a cloud server to send notifications by using Windows Push Notification Service (WNS).

You need to authenticate the cloud server with WNS.

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
Send the WNS response on the notification channel.
Create and save a push notification channel.
Obtain the identity values for the app.
Register for a Windows Store developer account.
Register the app with the Windows Store.
Obtain the credentials for the app.
Create the secure HTTP authentication request.

Answer:

Answer Area
Send the WNS response on the notification channel.
Create and save a push notification channel.
Register the app with the Windows Store.
Create the secure HTTP authentication request.
Obtain the identity values for the app.
Obtain the credentials for the app.
Register for a Windows Store developer account.

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/hh465407.aspx>

Question: 63

DRAG DROP

You are creating a Windows Store app that contains a StackPanel named myItemPanel.

You need to ensure that myItemPanel displays contents horizontally when the device is in landscape mode and vertically when the device is in portrait mode.

You have the following code:

```
public MainPage()
{
    this.InitializeComponent();
    this.Target 1 += OrientationChanged;
}

void OrientationChanged(object sender, Target 2 e)
{
    if (Target 3)
    {
        myItemPanel.Orientation = Orientation.Vertical;
    }
    else
    {
        myItemPanel.Orientation = Orientation.Horizontal;
    }
}
```

Which code snippets should you include in Target 1, Target 2, and Target 3 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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 Snippets

```
ApplicationView.GetForCurrentView() ==  
Orientation.Vertical
```

```
e.NewSize.Height / e.NewSize.Width >= 1
```

```
EventArgs
```

```
LayoutUpdated
```

```
RoutedEventArgs
```

```
SizeChanged
```

```
SizeChangedEventArgs
```

Answer Area

Target 1: Code snippet

Target 2: Code snippet

Target 3: Code snippet

Answer:

Answer Area

Target 1:	<code>SizeChanged</code>
Target 2:	<code>SizeChangedEventArgs</code>
Target 3:	<code>e.NewSize.Height / e.NewSize.Width >= 1</code>

Question: 64

DRAG DROP

You are developing a Windows Store app.

The app has the following accessibility requirements:

The automation name of each text box must be the same as the text box caption.

Each Label element must be associated with its corresponding text box.

You need to create an interface that meets the requirements.

You have the following code:

```
<TextBlock x:Name="Comment" Text="Comment:"  
Style="{StaticResource BasicTextStyle}"  
Grid.Column="0" Grid.Row="1" />  
<TextBox Width="80"  
Grid.Column="1" Grid.Row="1"  
Target 1="Comment"  
Target 2=  
"{Binding ElementName=Comment}" />
```

Which code snippets should you include in Target 1 and Target 2 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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	
AutomationProperties.HelpText	Target 1:
AutomationProperties.ItemType	Target 2:
AutomationProperties.LabeledBy	
AutomationProperties.Name	

Answer:

Answer Area	
AutomationProperties.HelpText	Target 1: AutomationProperties.ItemType
AutomationProperties.Name	Target 2: AutomationProperties.LabeledBy

Question: 65

DRAG DROP

You are developing a Windows Store app.

You need to identify the effects of applying Microsoft design principles to the user interface.

Which effects result from the design principles? (To answer, drag the appropriate effects to the correct locations in the answer area. Each effect 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.)

Effects	Answer Area	
Clean and open layout	Design Principal	Effect
Clear information hierarchy	Remove unnecessary lines, boxes or gradients	Effect
Direct interaction with content	Use gestures rather than commands to manipulate content	Effect
Accessibility-optimized content		
Separation of touch and mouse interaction	Use predefined typography templates	Effect

Answer:

Design Principal	Effect
Remove unnecessary lines, boxes or gradients	Clean and open layout
Use gestures rather than commands to manipulate content	Direct interaction with content
Use predefined typography templates	Clear information hierarchy

Case Study: 1

Scenario 1

Overview

Fabrikam, Inc. is a non-profit organization that manages three museums located in Miami, New York, and Seattle. All of the museums offer Wi-Fi connectivity and Internet access to visitors.

Existing Environment

General Information

Fabrikam provides visitors with two pamphlets as they enter each museum. One pamphlet contains pictures

of the different paintings in the museum. The other pamphlet contains pictures of the sculptures in the museum.

Visitors are encouraged to take pictures of the sculptures and the paintings.

Each museum has a kiosk that provides information to visitors about the exhibits. The kiosk uses a data access component that only runs on an x86 processor.

Requirements

Business Goals

Fabrikam plans to provide a more interactive experience for the visitors.

Fabrikam purchases 200 Windows 8.1 RT devices for each museum. Fabrikam plans to develop an app to replace the paper pamphlets.

Fabrikam plans to minimize development effort and reuse the data access component, if possible.

General Requirements

Fabrikam identifies the following requirements for the app:

- The app must be available from the Windows App store.
- The app must be available to devices that run Windows 8.1 and Windows 8.1 RT.
- If a user switches to a different app, the new app must enter a Not Running state after 10 seconds.
- The app must provide users with the ability to share pictures with other apps.
- Users must be able to search for paintings and sculptures by name from within the app.
- When users type in search terms, the app must present users with a suggested list of painting and sculpture names.

Page Requirements

The app must have four pages: a main page, a group detail page, an item detail page, and a capture photo page.

Main Page:

- The main page must display grouped items.
- Once the users tap on a group on the main page, the app must open the group detail page.
- The main page must display all of the items for a selected group.

Group Detail Page:

- The group detail page must have two groups, named Paintings and Sculptures, and must display a list of the paintings and sculptures in the museum with the name and a small image of the item.
- The group detail page must display a list of all the items in the group. The list must contain the image and the name of the item.
- The app must have a second view of the group details that displays the name, a description, and an image of each item.
- Users must be able to use the mouse wheel or pinch gestures to move between the two views of the group detail page.

Item Detail Page:

- The item detail page must display the name, a full description, and a large image of the item.
- When the user taps the image of an item on the item detail page, an element named FoundNotFoundFlyout must be displayed. The FoundNotFoundFlyout element will be declared in the Resources section of the page.
- As an alternative to tapping an image on the item detail page, users must be able to use a check gesture to mark the item as found.

Capture Photo Page:

- A page named CapturePhoto will be created to capture and display pictures.
- When a picture is taken, its path must be saved in an application setting property named picturePath.
- Pictures must have an aspect ratio of 16 by 9.
- As new pictures are taken, the app must update the app tile to show the current number of pictures taken.
- A method named UpdatePictureCount will be called any time a new picture is saved. The method will take an integer parameter named pictureCount. The method will use NotificationExtensions library to handle updates.
- The tile will have a text block named outputText.

Question: 1

DRAG DROP

You need to recommend a solution to share images from the capture photo page.

You have the following code. (Line numbers are included for reference only.)

```

01 protected override bool GetShareContent(DataRequest request)
02 {
03     bool succeeded = false;
04     if (this.picturePath != null)
05     {
06
07         RandomAccessStreamReference imageStream =
08         RandomAccessStreamReference.CreateFromFile(this.picturePath);
09         requestData.Properties.Thumbnail = imageStream;
10         requestData.SetBitmap(imageStream);
11         succeeded = true;
12
13     }
14     else
15     {
16         request.FailWithDisplayText(
17             "Select an image you would like to share and try again.");
18     }
19     return succeeded;
20 }
```

Which code segments should you recommend inserting at lines 06 and 12? (To answer, drag the appropriate code segments to the correct 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 Segments

```
List<IStorageItem> items = new List<IStorageItem>();
items.Add(this.picturePath);
requestData.SetDataProvider(items);
```

```
List<IStorageItem> items = new List<IStorageItem>();
items.Add(this.picturePath);
requestData.SetStorageItems(items);
```

```
DataPackage requestData = request.Source;
requestData.Properties.Title = TitleInputBox.Text;
requestData.Properties.ContentSourceApplicationLink =
ApplicationLink;
```

```
DataPackage requestData = request.Data;
requestData.Properties.Title = TitleInputBox.Text;
requestData.Properties.ContentSourceApplicationLink =
ApplicationLink;
```

Answer Area

Line 06: Code segment

Line 12: Code segment

Answer:

Line 06:

```
DataPackage requestData = request.Data;
requestData.Properties.Title = TitleInputBox.Text;
requestData.Properties.ContentSourceApplicationLink =
ApplicationLink;
```

Line 12:

```
List<IStorageItem> items = new List<IStorageItem>();
items.Add(this.picturePath);
requestData.SetStorageItems(items);
```

Explanation:

Note: •

Scenario: The app must provide users with the ability to share pictures with other apps.

Question: 2

DRAG DROP

You need to write code for the method that will be called when a user takes a picture. (Develop the solution by arranging the code snippets. You will need all of the code snippets.)

Answer Area

```

CameraCaptureUI dialog =
    new CameraCaptureUI();

}

dialog.PhotoSettings.CroppedAspe
ctRatio =
    new Size(16, 9);

StorageFile file =
    await dialog.CaptureFileAsync
(CameraCaptureUIMode.Photo);

BitmapImage image = new BitmapIm
age();
image.SetSource(stream);
CapturedPhoto.Source = image;
appSettings
[picturePath] = file.Path;

IRandomAccessStream stream =
    await file.OpenAsync
(FileAccessMode.Read);

if (file != null)
{

```

Answer:

Box 1:

```
CameraCaptureUI dialog =
    new CameraCaptureUI();
```

Box 2:

```
dialog.PhotoSettings.CroppedAspe
ctRatio =
    new Size(16, 9);
```

Box 3:

```
StorageFile file =
    await dialog.CaptureFileAsync
(CameraCaptureUIMode.Photo);
```

Box 4:

```
if (file != null)
{
```

Box 5:

```
IRandomAccessStream stream =
    await file.OpenAsync
(FileAccessMode.Read);
```

Box 6:

```
BitmapImage image = new BitmapImage();
image.SetSource(stream);
CapturedPhoto.Source = image;
appSettings
[picturePath] = file.Path;
```

Box 7:

```
}
```

Question: 3

HOTSPOT

You need to write code to comply with the search requirements of the item detail page.

You have the following code:

```

public sealed partial class ItemDetail : Page
{
    private SearchPane searchPane;
    private static readonly string[] suggestionList =
    {
        "Painting1", "Painting2", "Painting3", "Painting4",
        "Sculpture1", "Sculpture2", "Sculpture3", "Sculpture4"
    };
    public ItemDetail()
    {
        this.InitializeComponent();
        searchPane = Target 1
    }
    private void OnSearchPaneSuggestionsRequested(SearchPane sender,
        SearchPaneSuggestionsRequestedEventArgs e)
    {
        var queryText = e.QueryText;
        if (!string.IsNullOrEmpty(queryText))
        {
            var request = e.Request;
            foreach (string suggestion in suggestionList)
            {
                if (suggestion.StartsWith(queryText,
                    StringComparison.CurrentCultureIgnoreCase))
                {
                    request.SearchSuggestionCollection.Target 2
                }
            }
        }
    }
    protected override void Target 3(NavigationEventArgs e)
    {
        searchPane.SuggestionsRequested +=
            new TypedEventHandler<SearchPane,
            SearchPaneSuggestionsRequestedEventArgs>
            (OnSearchPaneSuggestionsRequested);
    }
    protected override void Target 4(NavigationEventArgs e)
    {
        searchPane.SuggestionsRequested -=
            new TypedEventHandler<SearchPane,
            SearchPaneSuggestionsRequestedEventArgs>
            (OnSearchPaneSuggestionsRequested);
    }
}

```

Which code snippets should you insert in Target 1, Target 2, Target 3, and Target 4 to complete the code? (To answer, select the correct code snippet from each drop-down list in the answer area.)

Answer Area

Target 1:	<input type="text"/>
Target 2:	<input type="text"/>
Target 3:	<input type="text"/>
Target 4:	<input type="text"/>

Answer Area**Target 1:**

```
new SearchPane();
SearchPane.GetForCurrentView();
SearchPane.Show();
```

Target 2:

```
AppendQuerySuggestion(suggestion);
AppendQuerySuggestions(suggestion);
AppendResultSuggestion(suggestion);
```

Target 3:

```
OnLaunched
OnNavigateFrom
OnNavigateTo
OnSuspend
```

Target 4:

```
OnLaunched
OnNavigateFrom
OnNavigateTo
OnSuspend
```

Answer:**Answer Area****Target 1:**

```
new SearchPane();
SearchPane.GetForCurrentView();
SearchPane.Show();
```

Target 2:

```
AppendQuerySuggestion(suggestion);
AppendQuerySuggestions(suggestion);
AppendResultSuggestion(suggestion);
```

Target 3:

```
OnLaunched
OnNavigateFrom
OnNavigateTo
OnSuspend
```

Target 4:

```
OnLaunched
OnNavigateFrom
OnNavigateTo
OnSuspend
```

Case Study: 2**Scenario 2****Overview**

Fabrikam, Inc. is a realtor in the United States.

Fabrikam grants its customers access to a web site, where they can search for houses for rent and for sale. Its customers can enter basic requirements, such as location, number of rooms, dimensions, and a price range.

The web site displays a list of houses that meet the customers' criteria. The customers can then view more details about each house and can add a listing to a favorites list.

Requirements

Business Goals

Fabrikam plans to provide a more interactive experience for its customers. Fabrikam is creating a video tour for each listing. The video tours can be used to visit the property virtually.

Fabrikam plans to create a Windows Store app on Windows 8.1 RT and Windows 8.1 Pro devices.

General Requirements

Fabrikam identifies the following general requirements for the app:

- The app interface must be available in English, Spanish, and French.
- The app must provide the customers with the ability to perform searches the same way that the current web site does.
- It is expected that the customers will view more than 3,000 pictures annually. The main page of the app must show a list of the last 10 pictures that were viewed.
- If pictures are added to a listing that is in a customer's favorites list, the pictures must be downloaded automatically from Microsoft Azure. This must occur if the app is suspended or not running.

Printing Requirements

Customers must be able to print the details of a listing from the details page by clicking a button within the app. You plan to add the following XAML markup to the listing details page:

```
<Button x:Name="btnPrint" Content="Print" Click="InvokePrint" />
```

Video Tour Requirements

Fabrikam identifies the following requirements for the video tours:

- Customers must be able to play the video tour on a different device by using a button within the app.
- When a customer clicks the details of a listing, the app must start downloading the video tour in the background.
- When the app starts, the app must verify whether there are any pending downloads, and resume any paused downloads.
- The last five viewed video tours that are not on the customer's favorites list must be cached for subsequent viewing.
- Customers must be able to download all of the video tours for the properties that they added to their favorites list.
- The property details page must contain a MediaElement control that will be used to play the video tour of the property.
- When downloading the video tours, the app must remain responsive, and each download must be processed on a separate thread.

Package appxmanifest

```
01 <Extension Category="windows.backgroundTasks">
02   <EntryPoint="Tasks.DownloadPictures">
03   <BackgroundTasks>
04
05 </BackgroundTasks>
06 </Extension>
```

Question: 1**DRAG DROP**

You add a MediaElement named VideoTour and a button named playToButton to the properties details page. You need to ensure that video tours can be played to other devices.

You have the following code: (Line numbers are included for reference only.)

```

01 PlayToManager playToManager = null;
02 CoreDispatcher dispatcher = null;
03 protected override void OnNavigatedTo(NavigationEventArgs e)
04 {
05     dispatcher = Window.Current.CoreWindow.Dispatcher;
06     playToManager = PlayToManager.Target 1();
07     playToManager.SourceRequested += playToManager_SourceRequested;
08 }
09 void playToManager_SourceRequested(PlayToManager sender,
10     PlayToSourceRequestedEventArgs args)
11 {
12     var deferral = args.SourceRequest.GetDeferral();
13     var handler = dispatcher.RunAsync(CoreDispatcherPriority.Normal, () =>
14     {
15         args.SourceRequest.SetSource(VideoTour.Target 2);
16         deferral.Complete();
17     });
18 }
19 private void playToButton_Click(object sender, RoutedEventArgs e)
20 {
21     playToManager.Target 3();
22 }
```

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

Elements	Answer Area
<input type="button" value="GetForCurrentView"/>	Target 1: <input type="text"/>
<input type="button" value="PlayRequested"/>	Target 2: <input type="text"/>
<input type="button" value="PlayToSource"/>	Target 3: <input type="text"/>
<input type="button" value="ShowPlayToUI"/>	
<input type="button" value="SourceSelected"/>	

Answer:

Target 1: **GetForCurrentView**

Target 2: **PlayToSource**

Target 3: **ShowPlayToUI**

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.media.playto.aspx>

Question: 2

HOTSPOT

You need to verify whether the app conforms to the Windows Store requirements.

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

Answer Area

-appxpackagepath	C:\app\re.appx
-reportoutputpath	C:\reports\report.xml

Answer Area

appcert.exe	-appxpackagepath C:\app\re.appx
appcertui.exe	reset test
-apptype	-reportoutputpath C:\reports\report.xml
-appusage	Desktop desktopdevice windowstoreapp
-testid	

Answer:

Answer Area

<input type="checkbox"/> appcert.exe <input type="checkbox"/> appcertui.exe <input type="checkbox"/> fusagent.exe	<input type="checkbox"/> reset <input checked="" type="checkbox"/> test	-appxpackagepath C:\app\re.appx
<input type="checkbox"/> -apptype <input type="checkbox"/> -appusage <input type="checkbox"/> -testid	<input type="checkbox"/> Desktop <input type="checkbox"/> desktopdevice <input checked="" type="checkbox"/> windowstoreapp	-reportoutputpath C:\reports\report.xml

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/hh694081.aspx>

Question: 3

You create a mobile service to send push notifications to the app.

You configure the service and the app to work with Windows Push Notification Services (WNS).

You add the following code to the App.xaml.cs file:

```
using Windows.Networking.PushNotifications;
...
public static PushNotificationChannel pushChannel
{get; private set; }
private async void GetChannel()
{
    pushChannel = await PushNotificationChannelManager.
        CreatePushNotificationChannelForApplicationAsync();
}
```

You need to ensure that the app can access the push notification channel.

What should you do first?

- Add a call to GetChannel in the OnLaunched event handler of the app.
- Set the Uri property of pushChannel in the OnActivated event handler of the app.
- Set the Uri property of pushChannel in the OnLaunched event handler of the app.
- Add a call to GetChannel in the OnActivated event handler of the app.

Answer: A

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.ui.xaml.application.onlaunched.aspx>

Case Study: 3**Scenario 3****Background**

You are developing a Windows Store app. The app will allow ornithologists to photograph migrating geese,

taking note of the location, heading, and weather conditions at the time each photo is taken.

Business Requirements

The app must adhere to the following requirements:

- Create and store photographs of migrating geese.
- Record the location and weather conditions where the photograph was taken.
- Record the heading and time that the photograph was taken.
- Allow the user to display the information on any device that supports the PlayTo feature.

Technical Requirements

General:

The app must meet the following technical requirements:

- The app must store images and image metadata in the Pictures Library.
- The metadata logic must be encapsulated within a reusable component named LogicComponent1.
- The metadata logic must be available to Windows Store apps written in Visual Basic, C#, JavaScript, and C++.

Hardware:

- The app requires a device with camera, compass, and GPS features.
- The app requires a device with Internet capabilities.

CurrentEnvironment.es

```

CE01 namespace CurrentEnvironment
CE02 {
CE03     public sealed class Environment
CE04     {
CE05         private Compass _compass = null;
CE06         private LightSensor _light = null;
CE07         public IAsyncOperation<EnvironmentalStatus> GetCurrentEnvironmentAsync()
CE08         {
CE09             LoadSensors();
CE10             return (IAsyncOperation<EnvironmentalStatus>)AsyncInfo.Run(
CE11                 (System.Threading.CancellationToken ct) => InternalGetCurrentEnvironmentAsync());
CE12         }
CE13
CE14         private async Task<EnvironmentalStatus> InternalGetCurrentEnvironmentAsync()
CE15         {
CE16             EnvironmentalStatus es = new EnvironmentalStatus();
CE17             es.Location = await GetLocationAsync();
CE18             ...
CE19             es.Temperature = await GetWeatherAsync();
CE20             es.Time = DateTime.UtcNow.ToString();
CE21
CE22             return es;
CE23         }
CE24
CE25         private async Task<string> GetLocationAsync()
CE26     {

```

```
CE27     var locator = new Geolocator();
CE28     Geoposition location = await locator.GetGeopositionAsync();
CE29     string curPosition = location.Coordinate.Latitude.ToString() + ", "
CE30         + location.Coordinate.Longitude.ToString();
CE31     if(_compass != null)
CE32         curPosition += ", " + _compass.GetCurrentReading().HeadingTrueNorth.Value;
CE33     return curPosition;
CE34 }
CE35
CE36     private async Task<string> GetWeatherAsync()
CE37     {
CE38         IList<WeatherData> weatherData = GooseLogic.GetWeatherData();
CE39     }
CE40
CE41     private void LoadSensors()
CE42     {
CE43
CE44     {
CE45         _compass = Compass.GetDefault();
CE46     }
CE47 }
CE48 }
CE49
CE50     public struct EnvironmentalStatus
CE51     {
CE52         public string Location;
CE53         public string Time;
CE54         public string Temperature;
CE55     }
CE56 }
```

MainPage.xaml.es

```

MP01 private async void CapturePhoto_Click(object sender, RoutedEventArgs e)
MP02 {
MP03     try
MP04     {
MP05         CameraCaptureUI cameraUI = new CameraCaptureUI();
MP06         Size aspectRatio = new Size(16, 9);
MP07         cameraUI.PhotoSettings.CroppedAspectRatio = aspectRatio;
MP08
MP09         StorageFile file = await cameraUI.CaptureFileAsync(CameraCaptureUIMode.Photo);
MP10         if (file != null)
MP11         {
MP12             var newFile = await Windows.Storage.KnownFolders.PicturesLibrary.CreateFileAsync(file.Name);
MP13             await file.CopyAndReplaceAsync(newFile);
MP14             BitmapImage bitmapImage = new BitmapImage();
MP15             using (IRandomAccessStream fileStream = await newFile.OpenAsync(FileAccessMode.Read))
MP16             {
MP17                 bitmapImage.SetSource(fileStream);
MP18             }
MP19             capturedPhoto.Source = bitmapImage;
MP20
MP21             var env = new CurrentEnvironment.Environment();
MP22             var envData = await env.GetCurrentEnvironmentAsync();
MP23
MP24             Info.Text = envData.Location;
MP25         }
MP26         else
MP27         {
MP28             Info.Text = "An error has occurred";
MP29         }
MP30     }
MP31     catch (Exception ex)
MP32     {
MP33     ...
MP34     }
|MP35 }

```

Package.appxmanifest

```

PA01 <?xml version="1.0" encoding="utf-8"?>
PA02 <Package xmlns="http://schemas.microsoft.com/appx/2010/manifest">
PA03     <Identity Name="7d32c109-5e1d-432a-a53f-df00440658f0" Publisher="CN=Admin" Version="1.0.0.0"/>
PA04     <Properties>
PA05         <DisplayName>GooseTracker</DisplayName>
PA06         <PublisherDisplayName>Admin</PublisherDisplayName>
PA07         <Logo>Assets\StoreLogo.png</Logo>
PA08     </Properties>
PA09     <Prerequisites>
PA10         <OSMinVersion>6.2.1</OSMinVersion>
PA11         <OSMaxVersionTested>6.2.1</OSMaxVersionTested>
PA12     </Prerequisites>
PA13     <Resources>
PA14         <Resource Language="x-generate"/>
PA15     </Resources>
PA16     <Applications>
PA17         <Application Id="App" Executable="$targetnametoken$.exe" EntryPoint="GooseTracker.App">
PA18             <VisualElements DisplayName="GooseTracker" Logo="Assets\Logo.png" SmallLogo="Assets
\SmallLogo.png"
                Description="GooseTracker" ForegroundText="light" BackgroundColor="#464646">
PA19                 <DefaultTile ShowName="allLogos"/>
PA20                 <SplashScreen Image="Assets\SplashScreen.png"/>
PA21             </VisualElements>
PA22         </Application>
PA23     </Applications>
PA24     <Capabilities>
PA25
PA26         <Capability Name="internetClient"/>
PA27         <DeviceCapability Name="webcam"/>
PA28         <DeviceCapability Name="location"/>
PA29     </Capabilities>
PA30 </Package>

```

GooseTracker.csproj

```

G001 <Project ToolsVersion="4.0" DefaultTargets="Build"
      xmlns="http://schemas.microsoft.com/developer/msbuild/2003">
G002
G003   <ItemGroup>
G004
G005   </ItemGroup>
G006 </Project>

```

GoosePlayTo.es

```

PT00  public class GoosePlayTo
PT01  {
PT02    private Windows.Media.PlayTo.PlayToManager playToManager;
PT03    private Windows.UI.Core.CoreDispatcher dispatcher;
PT04    private MediaElement element;
PT05
PT06    public GoosePlayTo(MediaElement element)
PT07    {
PT08      dispatcher = Window.Current.CoreWindow.Dispatcher;
PT09      playToManager = Windows.Media.PlayTo.PlayToManager.GetForCurrentView();
PT10      playToManager.SourceRequested += SourceRequested;
PT11      this.element = element;
PT12    }
PT13
PT14    private void SourceRequested(Windows.Media.PlayTo.PlayToManager sender,
PT15      Windows.Media.PlayTo.PlayToSourceRequestedEventArgs args)
PT16    {
PT17      var def = args.SourceRequest.GetDeferral();
PT18      var evthander = dispatcher.RunAsync(Windows.UI.Core.CoreDispatcherPriority.Normal,
PT19        () =>
PT20        {
PT21          args.SourceRequest.SetSource(element.PlayToSource);
PT22          def.Complete();
PT23        }
PT24      );
PT25    }
PT26
PT27    private async void LoadFile(Windows.Storage.StorageFile videoFile, string contentType)
PT28    {
PT29      var stream = await videoFile.OpenAsync(Windows.Storage.FileAccessMode.Read);
PT30    }
PT31
PT32
PT33    private void Play()
PT34    {
PT35      element.Play();
PT36    }
PT37
PT38    private void Pause()
PT39    {
PT40      element.Pause();
PT41    }
PT42  }

```

Camera.cs

```

CA01 public class Camera: Windows.Media.Devices.IMediaDeviceController
CA02 {
CA03     private Windows.Media.Capture.MediaCapture media;
CA04     private Windows.Media.Devices.VideoDeviceController video;
CA05     public double WhiteBalance
CA06     {
CA07         get
CA08         {
CA09             double wbValue = -1.0;
CA10
CA11             return wbValue;
CA12         }
CA13     }
CA14
CA15     public bool SupportsBacklightCompensation
CA16     {
CA17         get
CA18         {
CA19             ...
CA20         }
CA21     }
CA22
CA23     public Camera()
CA24     {
CA25         media = new Windows.Media.Capture.MediaCapture();
CA26         ...
CA27         video = media.VideoDeviceController;
CA28
CA29
CA30     }
CA31 }

```

Question: 1

You place a breakpoint at line MP31 in the app.

When you debug the app, the debugger continuously catches a System.UnauthorizedAccess exception.

You need to resolve the exception.

What should you do?

- A. Wrap lines CE43 through CE46 in a try-catch statement.
- B. At line MP10, change the code segment to the following line of code.
read if(cameraUI != null)
- C. Move line CE09 to CE16.
- D. At line PA25, insert the following line of code.
<Capability Name="picturesLibrary"/>

Answer: D

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/hh464936.aspx>

Question: 2

DRAG DROP

You need to allow users to capture video instead of photos.

You have the following code:

```
try
{
    Target 1
    cameraUI.VideoSettings.Format =
        CameraCaptureUIMediaFormat.Mp4;
    StorageFile file = null;
    file = await cameraUI.CaptureFileAsync
    Target 2
    if (file != null)
}
```

Which code snippets should you include in Target 1 and Target 2 to complete the code? (To answer, drag the appropriate code snippets to the correct targets in the answer area. Each code snippet 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 Snippets	Answer Area
CameraCaptureUI cameraUI = new CameraCaptureUI();	Target 1: <input type="text"/>
VideoCaptureUI cameraUI = new VideoCaptureUI();	Target 2: <input type="text"/>
(CameraCaptureUIMode.Video);	
(CameraCaptureUIMode.Mp4);	
(VideoCaptureUIMode.Mp4);	
(VideoCaptureUIMode.Video);	

Answer:

Answer Area

Target 1: CameraCaptureUI cameraUI = new CameraCaptureUI();

Target 2: (CameraCaptureUIMode.Video);

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.media.capture.cameracaptureui.aspx>

Question: 3

Users report performance issues when getting the location information associated with a photo. You suspect the app is encountering performance issues in the GetLocationAsync() method of the Environment class.

You need to enhance the performance of the GetLocationAsync() method of the app.

What should you do?

- A. Remove the Compass initialization from the LoadSensors() method and initialize it within the GetLocationAsync() method.
- B. set the ReportInterval property of the Compass object to 16.
- C. set the ReportInterval property of the Compass object to 0.
- D. Move the locator variable to a class level variable and initialize it in the Environment constructor.

Answer: D

Case Study: 4

Scenario 4

Background

You are developing a Windows Store app named Picture Sharer. The app will allow users to capture, modify, caption, and share pictures.

Application Structure

The ShareImageButton and GetContactsButton controls use the same foreground color. The foreground color might change in the future.

The following code defines a custom button style named ButtonStyleRed:

```
<Style TargetType="Button" x:Key="ButtonStyleRed">
    <Setter Property="Foreground" Value="#FFC34343"/>
    <Setter Property="BorderBrush" Value="#FFC34343"/>
    ...
</Style>
```

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

Business Requirements

The app must meet the following business requirements:

- Allow users to capture and retrieve pictures, modify pictures by adding a shading effect, and add captions to images.
- Support only Landscape and Landscape-flipped orientation.
- Allow users to capture and retrieve pictures, modify pictures by adding a shading effect, and add captions to images.
- Support only Landscape and Landscape-flipped orientations.
- Ensure that users can select and modify images from the PictureChooserPage page.
- Ensure that users can change the magnification of the selected image and resize the image by using pinch and stretch gestures. Scaling should be fluid and precisely controlled by the user.

The app must be localized for the French Canadian market

Technical Requirements

The app must meet the following technical requirements:

- Scroll bars must not be visible.
- The CaptionTextBlock and CaptionTextBox controls must appear side by side, without overlapping and on the same line. The CaptionTextBox control should appear to the right of the CaptionTextBlock control.
- The ContactPicker object must be filtered to display only email addresses.

- Minimize the code that is required to implement optical zoom functionality.

You must perform the following tasks:

- Handle the Click event of the GetPictureButton control to switch from the current page to the PictureChooserPage page.
- After the user selects an image on the PictureChooserPage page, ensure that the app navigates back to the PictureSharer MainPage page.
- Track the current screen orientation and page size by updating the _currentViewState, _currentHeight and _currentWidth fields every time the screen orientation or page size changes.
- Create a style named ButtonStyleWhite that inherits all the style settings of the ButtonStyleRed style except the border color; the border color must be white. The ButtonStyleWhite style must automatically update with any changes that are made to the ButtonStyleRed style.
- Create a resource named ButtonForegroundColor to implement the button foreground color so that it can be referenced in XAML by using the following standard syntax: Foreground="{StaticResource ButtonForegroundColor}"
- Ensure that the OnNavigatedToO method updates the current picture when a new picture is selected.
- Change the background for the root Grid element to a vertical gradient that transitions from black at the top to maroon at the bottom. Create a resource named GridBackgroundGradientBrush to hold the requested gradient.

While testing the app, you observe the following results:

- An exception is being thrown in the GetContactsCompleted event handler when the retrieved email address is assigned to the RecipientsTextBlock control. The exception message states: "The application called an interface that was marshalled for a different thread."
- When users navigate away from the PictureSharer MainPage page, information that was entered in the CaptionTextBox control is lost.

PictureSharer MainPage.xaml

```

XA01 <Page
XA02   x:Class="PictureSharer.PictureSharer MainPage"
XA03   xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
XA04   xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
XA05   xmlns:local="using:PictureSharer"
XA06   xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
XA07   xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
XA08   mc:Ignorable="d">
XA09
XA10   <Grid Background="{StaticResource ApplicationPageBackgroundBrush}">
XA11     <Image x:Name="SelectedImage" Source="Images/blank.jpg" Width="800" Height="800" />
XA12     <TextBlock x:Name="RecipientsTextBlock"/>
XA13     <StackPanel>
XA14       <TextBlock x:Name="CaptionTextBlock" Text="Caption"/>
XA15       <TextBox x:Name="CaptionTextBox"/>
XA16     </StackPanel>
XA17     <Button x:Name="ShareImageButton" Click="ShareImageButton_Click" Foreground="#FFC34343">
XA18       Send Image</Button>
XA19     <Button x:Name="GetContactsButton" Click="GetContactsButton_Click" Foreground="#FFC34343">
XA20       Get Contacts</Button>
XA21     <Button x:Name="GetPictureButton" Click="GetPictureButton_Click" Foreground="#FFC34343" >
XA22       Get Picture</Button>
XA23   </Grid>
XA24 </Page>
```

PictureSharer MainPage.xaml.es

```
CS01 public sealed partial class PictureSharer MainPage : Page
CS02 {
CS03     private ApplicationViewState _currentViewState;
CS04     private double _currentHeight, _currentWidth;
CS05     public PictureSharer MainPage()
CS06     {
CS07         this.InitializeComponent();
CS08
CS09     }
CS10     protected override void OnNavigatedTo(NavigationEventArgs e)
CS11     {
CS12
CS13     }
CS14     }
CS15     private void GetContactsButton_Click(object sender, RoutedEventArgs e)
CS16     {
CS17         var picker = new ContactPicker();
CS18
CS19         var results = picker.PickSingleContactAsync();
CS20         results.Completed += GetContactsCompleted;
CS21     }
CS22     private void GetContactsCompleted(IAsyncOperation<ContactInformation> op,
CS23         AsyncStatus status)
CS24     {
CS25         var emailList = new List<string>();
CS26         var contact = op.GetResults();
CS27         if (contact Emails.Count == 0)
CS28             return;
CS29         foreach (var info in contact Emails)
CS30             emailList.Add(info.Value);
CS31         var email = string.Join(";", emailList);
CS32         RecipientsTextBlock.Text = email;
CS33     }
CS34     private void ShareImageButton_Click(object sender, RoutedEventArgs e)
CS35     {
CS36         SendImageToCloud();
CS37     }
CS38     private void SendImageToCloud()
CS39     {
CS40         ...
CS41     }
CS42
CS43 }
```

PictureChooserPage.xaml

```
PC01 <Page  
PC02   x:Class="PictureSharer.PictureChooserPage"  
PC03   xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"  
PC04   xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"  
PC05   xmlns:local="using:PictureSharer"  
PC06   xmlns:d="http://schemas.microsoft.com/expressionblend/2008"  
PC07   xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"  
PC08   mc:Ignorable="d">  
PC09     <Grid Background="{StaticResource ApplicationPageBackgroundBrush}">  
PC10       <Image x:Name="SelectedImage" Source="Images/image1234.jpg"/>  
PC11       <Button Content="Back" HorizontalAlignment="Left" Margin="227,25,0,0"  
PC12         VerticalAlignment="Top" Width="75" Click="Button_Click_1"/>  
PC13     </Grid>  
PC14 </Page>
```

Question: 1

You need to localize the Picture Sharer app in the required language.

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

- A. Add a Uid attribute to any XAML elements that must be localized.
- B. Create a folder named fr-CA at the root of the project.
- C. Create a resource file named resources.res.
- D. Create a resource file named resources.resw.
- E. Create a folder named es-ES at the root of the project.
- F. Add a Name attribute to any XAML elements that must be localized.

Answer: A, B, D

Explanation:

- * (A) To localize a certain property of a XAML element you only need to add a x:Uid="SomeKey" attribute to the element and add the appropriate resource to the .resw file.
- * (B) The app must be localized for the French Canadian market.
- * (BD) Example: A French language resource named "Greeting" whose value is " Bonjour!". To create the resource file, add a folder named fr-FR to your project, and then add a resource file named Resources.resw to the folder.
- * In Windows Store apps, you designate the names of localized resource files by creating a folder to store the resources and images of a supported culture. You can then describe the resource by using the culture name (such as "ko-kr") followed by the default resource name and resource file extension (such as "ko-kr\Resources.resw").

URL: [http://msdn.microsoft.com/en-us/library/windows/apps/hh694557\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/windows/apps/hh694557(v=vs.110).aspx)

Question: 2

You need to configure the Picture Sharer app to support only the required device orientations.

What should you do?

- A. In the App.xaml file, configure the Portrait and Portrait-flipped orientations.
- B. In the Package.appxmanifest file, configure the Snapped and Filled orientations.
- C. In the PictureSharer MainPage.xaml file, configure the Landscape and Landscape-flipped orientations.
- D. In the App.xaml file, configure the Portrait and Landscape orientations.
- E. In the App.manifest file, configure the Portrait and Portrait-flipped orientations.
- F. In the Package.appxmanifest file, configure the Landscape and Landscape-flipped orientations.

Answer: F

Question: 3

You need to create the ButtonForegroundColor resource.

Which code segment should you insert at line XA09?

- A.

```
<Page.Resources>
    <SolidColorBrush x:Key="ButtonForegroundColor" Color="#FFC34343"/>
</Page.Resources>
```
- B.

```
<Page.Resources>
    <Style TargetType="Button" x:Key="ButtonForegroundColor">
        <Setter Property="Foreground" Value="#FFC34343"/>
    </Style>
</Page.Resources>
```
- C.

```
<Page.Resources>
    <ButtonForegroundColor>#FFC34343</ButtonForegroundColor>
</Page.Resources>
```
- D.

```
<Page.Resources>
    <Color x:Key="ButtonForegroundColor">#FFC34343</Color>
</Page.Resources>
```

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

Answer: A

Explanation:

- * Create a resource named ButtonForegroundColor to implement the button foreground color so that it can be referenced in XAML by using the following standard syntax: Foreground-"{StaticResource ButtonForegroundColor}"
- * SolidColorBrush

Question: 4

You need to track the screen orientation and page size.

Which code segment should you insert at line CS09?

A. `this.SizeChanged += (object sender, WindowSizeChangedEventArgs e) =>`
`{`
 `_currentViewState = Windows.UI.ViewManagement.ApplicationView.GetForCurrentView();`
 `_currentHeight = e.Size.Height;`
 `_currentWidth = e.Size.Width;`
`};`

B. `this.SizeChanged += (object sender, WindowSizeChangedEventArgs e) =>`
`{`
 `_currentViewState = Windows.UI.ViewManagement.ApplicationView.Value;`
 `_currentHeight = e.Size.Height;`
 `_currentWidth = e.Size.Width;`
`};`

C. `this.SizeChanged += (object sender, SizeChangedEventArgs e) =>`
`{`
 `_currentViewState = Windows.UI.ViewManagement.ApplicationView.Value;`
 `_currentHeight = e.NewSize.Height;`
 `_currentWidth = e.NewSize.Width;`
`};`

D. `this.SizeChanged += (object sender, SizeChangedEventArgs e) =>`
`{`
 `_currentViewState = Windows.UI.ViewManagement.ApplicationView.GetForCurrentView();`
 `_currentHeight = e.NewSize.Height;`
 `_currentWidth = e.NewSize.Width;`
`};`

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

Answer: A

Case Study: 5

Scenario 5

Background

You are developing a Windows Store style e-reader app.

Business Requirements

- Users must be able to upload e-books and documents and download them to e-reader devices.
- Users must be able to set a password to restrict access to their e-books and documents.
- Users must be able to create and store encrypted metadata about their e-books and documents.
- The app must replace system-generated error messages with custom-defined messages. These custom messages must come from a list of approved text.
- User actions such as printing pages, saving users' current locations in documents, and taking notes should be enabled from buttons on an AppBar control.
- The app must provide trial functionality that will expire after 14 days. If the app expires while it is running, the app must display an expiration message to the user and prompt the user to purchase the app.

Technical Requirements

General:

- Configuration files must be read-only. All user settings must be stored in the Contoso Settings Service.
- The SocialPoller background task must run the code in the DoWork() method to collect content from the Contoso feed.
- The UI must always remain responsive to user actions.

Security:

- Secured e-book and document passwords must be encrypted so that only the user who created the passwords can retrieve the metadata associated to the e-books and documents.
- The system must log all exceptions through the auditing object and notify technicians of the issue.

Storage:

- The app must cache the next two chapters to the local device for users to read while disconnected from the network. This cache must be persisted if a reboot is performed.
- User state such as the current location in an e-book or document must be stored in the Microsoft Azure SQL database.
- User settings such as font sizes and colors must be stored through the Contoso Settings Service.

Network:

- Communication between the app and e-book vendors must occur over an encrypted communication channel.
- Communication must use certificates to enable the SSL connection.

Trial Functionality:

- The isPrintEnabled variable must determine if the user can print.
- The isMarketEnabled variable must determine if the user can use the marketplace.
- The isTrialEnabled variable must determine if the application is still in trial mode.

Printing:

- The default printing options are portrait orientation and grayscale color mode.
- The app must enable the user to select the media size and printing orientation.

SocialPoller.es

```
SP01 using System;
SP02 using System.Collections.Generic;
SP03 using System.Linq;
SP04 using System.Net.Http;
SP05 using System.Text;
SP06 using System.Threading;
SP07 using System.Threading.Tasks;
SP08 using Windows.ApplicationModel.Background;
SP09 namespace Ereader.Background
SP10 {
SP11     public class SocialPoller : IBackgroundTask
SP12     {
SP13
SP14         public async Task<string> DoWork()
SP15         {
SP16             HttpClient client = new HttpClient();
SP17             client.BaseAddress = new Uri("http://feed.contoso.com/");
SP18             HttpResponseMessage response = await client.GetAsync(client.BaseAddress,
SP19                 HttpCompletionOption.ResponseContentRead);
SP20             string content = await response.Content.ReadAsStringAsync();
SP21             return content;
SP22         }
SP23     }
```

Auditor.cs

```

AU01 using System;
AU02 using System.Collections.Generic;
AU03 using System.Linq;
AU04 using System.Text;
AU05 using System.Threading.Tasks;
AU06 namespace Ereader.Code
AU07 {
AU08     public class Auditor
AU09     {
AU10         public enum ErrorType
AU11         {
AU12             General,
AU13             NullReference,
AU14             InvalidCast,
AU15             Network
AU16         }
AU17         public static string GetMessage(ErrorType type)
AU18         {
AU19             string output = String.Empty;
AU20             switch (type)
AU21             {
AU22                 case ErrorType.General:
AU23                     output = "An unknown error has occurred.";
AU24                     break;
AU25                 case ErrorType.NullReference:
AU26                     output = "An attempt was made to reference an unknown object.";
AU27                     break;
AU28             }
AU29             return output;
AU30         }
AU31         public static async void WriteAuditAsync(string errorMessage)
AU32         {
AU33             ...
AU34         }
AU35     }
AU36 }

```

ContentPage.es

```

CP01 namespace Ereader.Model.BookObjects
CP02 {
CP03     public class ContentPage
CP04     {
CP05         public int ID { get; set; }
CP06         public string Content { get; set; }
CP07     }
CP08 }

```

Book.cs

```
B001 using System;
B002 using System.Collections.Generic;
B003 namespace Ereader.Model.BookObjects
B004 {
B005     public class Book
B006     {
B007         public int ID { get; set; }
B008         public string Title { get; set; }
B009         public string ShortDescription { get; set; }
B010         public string LongDescription { get; set; }
B011         public string Author { get; set; }
B012         public List<ContentPage> Pages { get; set; }
B013         public DateTime ReleaseDate { get; set; }
B014         public string Cover { get; set; }
B015         public Book() { }
B016     }
B017 }
```

SocialPost.es

```
SP01 namespace Ereader.Model.Social
SP02 {
SP03     public class SocialPost
SP04     {
SP05         public string Message { get; set; }
SP06         public string Username { get; set; }
SP07         public string UserId { get; set; }
SP08         public string Source { get; set; }
SP09         public SocialPost() { }
SP10     }
SP11 }
```

Page1.xaml.es

```

PG01 using System;
PG02 using Windows.ApplicationModel.Background;
PG03 using Windows.Graphics.Printing;
PG04 using Windows.UI.Xaml.Controls;
PG05 using Windows.UI.Xaml.Navigation;
PG06 using Windows.UI.Xaml.Printing;
PG07 namespace Ereader
PG08 {
PG09     public sealed partial class Page1 : Page
PG10    {
PG11        private PrintManager printManager = null;
PG12        private IPrintDocumentSource printDocumentSource = null;
PG13        private PrintDocument printDocument = null;
PG14
PG15        public Page1()
PG16        {
PG17            this.InitializeComponent();
PG18            var builder = new BackgroundTaskBuilder { Name = "SocialPollerTask" };
PG19            BindData();
PG20        }
PG21
PG22
PG23
PG24        private void BindData()
PG25        {
PG26            lvBooklist.DataContext = App.Books;
PG27            lvBooklist.ItemsSource = App.Books;
PG28        }
PG29
PG30        private void printManager_PrintTaskRequested(PrintManager sender, PrintTaskRequestedEventArgs e)
PG31        {
PG32            Windows.Graphics.Printing.PrintTask printTask = e.Request.CreatePrintTask("Print Page Title",
                GetPrintSource => GetPrintSource.SetSource(printDocumentSource));
PG33
PG34
PG35        }
PG36    }
PG37 }

```

App.xaml.cs

```

AX01 namespace Ereader
AX02 {
AX03     sealed partial class App : Application
AX04     {
AX05         private static List<Book> _books = new List<Book>();
AX06         public static List<Book> Books { get { return _books; } }
AX07         private Windows.ApplicationModel.Store.LicenseInformation licenseInformation =
                Windows.ApplicationModel.Store.CurrentAppSimulator.LicenseInformation;
AX08         private bool isPrintingEnabled = true;
AX09         private bool isMarketEnabled = true;
AX10         private bool isTrialComplete = false;
AX11         public App()
AX12         {
AX13             this.InitializeComponent();
AX14             this.Suspending += OnSuspending;
AX15             for (int i = 0; i < 10; i++)
AX16             {
AX17                 _books.Add(new Book()
AX18                 {
AX19                     ...
AX20                 });
AX21             }
AX22
AX23         }
AX24     }
AX25 }

```

Question: 1

You need to enable the capabilities that allow communication according to the technical requirements. Which capabilities should you enable? (Each correct answer presents part of the solution. Choose all that apply.)

- A. Shared User Certificates
- B. SSL Certificates
- C. Internet (Client)
- D. Default Windows Credentials

Answer: B, C

Explanation:

B: From scenario:

Communication between the app and e-book vendors must occur over an encrypted communication channel. Communication must use certificates to enable the SSL connection.

C:

Use this page to specify system features or devices that your app can use.

Capabilities:

- Documents Library
- Enterprise Authentication
- Internet (Client)
- Internet (Client & Server)
- Location
- Microphone
- Music Library
- Pictures Library
- Private Networks (Client & Server)
- Proximity
- Removable Storage
- Shared User Certificates
- Videos Library
- Webcam

Description:

Provides outbound access to the Internet and networks in public places like airports and coffee shops. For example, Intranet networks where the user has designated the network as public. Most apps that require Internet access should use this capability.

[More information](#)

<http://msdn.microsoft.com/en-us/library/windows/apps/Hh770532.aspx>

<http://msdn.microsoft.com/en-us/library/windows/apps/Hh986970.aspx>

Question: 2

You need to protect the metadata for the secure documents.

Which protection descriptor should you use for the DataProtectionProvider object?

- A. SID
- B. WEBCREDENTIALS=userpassword
- C. LOCAL=user
- D. USER=current

Answer: C

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.security.cryptography.dataprotection.dataprotectionprovider.aspx>

Question: 3

DRAG DROP

You need to meet the app caching requirements.

Which caching technique should you use in each scenario? (To answer, drag the appropriate technique to the correct scenario. Each technique 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="remote web service"/> <input type="button" value="LocalSettings object"/> <input type="button" value="SQL Azure"/> <input type="button" value="TemporaryFolder object"/> <input type="button" value="local configuration file"/>	<p>Last page read: <input type="text"/></p> <p>Future chapters in the book: <input type="text"/></p> <p>Default page color: <input type="text"/></p>

Answer:

Last page read:	<input checked="" type="button" value="SQL Azure"/>
Future chapters in the book:	<input checked="" type="button" value="LocalSettings object"/>
Default page color:	<input checked="" type="button" value="remote web service"/>

Case Study: 6**Scenario 6****Business Requirements**

The app must enable users to perform the following tasks:

- Define a feed title.
- Define a list of RSS feeds that the users want to subscribe to.
- View information about topics that are popular on the users' selected social networks.
- Share content that is aggregated by the app.
- Search aggregated content by using only the Search charm.
- Share RSS feed content by using the Share charm.
- Display general help information by using the Settings charm.

The app must list the name of each social network to which the user subscribes. The app must indicate whether the user is authenticated to that social networking site.

The available data sources will be expanded to include JSON data from a third-party social networking site that is hosted by Litware, Inc. An SSL connection to the Litware social network is available.

Technical Requirements

The app has the following technical requirements:

- Retrieve user data from the social network services by using the authentication credentials.
- When making an HTTP request for content, read all content prior to acting on the response.
- When SSL is available, use SSL to retrieve data from social network providers.

The code that is used to retrieve data from RSS feeds must be reusable.

The app must display the information about the user's social network subscriptions in a layout control. The app must display authentication screens from the social networking sites when an authentication screen is available.

The custom XAML code that was provided by the design team must be available for all ListView controls in the app.

Data from the FeedRetriever class must be presented in a data control.

Two developers will create the SocialRetriever class, with the following assignments:

- Developer1 must update methods for getting data.
- Developed must implement three new methods for exposing data to the user interface.

All methods must be self-contained and must not affect other methods in the SocialRetriever class. Multiple developers must not work in the same file at the same time.

NewsItem.cs

```

NI01 using System;
NI02 using System.Text;
NI03 namespace NewsReader.Code
NI04 {
NI05     public class NewsItem
NI06     {
NI07         public string Title { get; set; }
NI08         public StringBuilder Author { get; set; }
NI09         public string Content { get; set; }
NI10         public DateTime PubDate { get; set; }
NI11         public Uri Link { get; set; }
NI12         public string Summary { get; set; }
NI13     }
NI14 }
```

NewsSource.es

```

NS01 using System;
NS02 using System.Collections.Generic;
NS03 namespace NewsReader.Code
NS04 {
NS05     public class NewsSource
NS06     {
NS07         public string Title { get; set; }
NS08         public string Description { get; set; }
NS09         public DateTime PublicationDate { get; set; }
NS10         public string Image { get; set; }
NS11         private List<NewsItem> _items = new List<NewsItem>();
NS12         public List<NewsItem> Items
NS13         {
NS14             get
NS15             {
NS16                 return this._items;
NS17             }
NS18         }
NS19     }
NS20 }

```

FcedRetriever.es

```

FR01 using System;
FR02 using System.Collections.Generic;
FR03 using System.Collections.ObjectModel;
FR04 using System.Threading.Tasks;
FR05 using Windows.Web.Syndication;
FR06 namespace NewsReader.Code
FR07 {
FR08     public class FeedRetriever
FR09     {
FR10         private ObservableCollection<NewsSource> _news = new ObservableCollection<NewsSource>();
FR11         public ObservableCollection<NewsSource> News
FR12         {
FR13             get { return this._news; }
FR14         }
FR15         public async Task GetNewsSources(List<string> addresses)
FR16         {
FR17             ...
FR18         }
FR19         private async Task<NewsSource> GetNewsSourceAsync(string address)
FR20         {
FR21             NewsSource source = new NewsSource();
FR22             try
FR23             {
FR24                 ...
FR25             }
FR26             catch (Exception ex)
FR27             {
FR28                 throw ex;
FR29             }
FR30             return source;
FR31         }
FR32     }
FR33 }

```

SocialItem.es

```

SI01 using System;
SI02 namespace NewsReader.Code
SI03 {
SI04     public class SocialItem
SI05     {
SI06         public string ProfileImgUrl { get; set; }
SI07         public string Content { get; set; }
SI08         public DateTime PostTime { get; set; }
SI09         public Uri Link { get; set; }
SI10     }
SI11 }
```

SocialSources.cs

```

SS01 using System;
SS02 using System.Collections.Generic;
SS03 namespace NewsReader.Code
SS04 {
SS05     public class SocialSource
SS06     {
SS07         public string Name { get; set; }
SS08         public Uri RequestUri { get; set; }
SS09         public Uri CallbackUri { get; set; }
SS10         public bool isAuthenticated { get; set; }
SS11         private List<SocialItem> _items = new List<SocialItem>();
SS12         public List<SocialItem> Items
SS13         {
SS14             get
SS15             {
SS16                 if (this._items == null)
SS17                     this._items = new List<SocialItem>();
SS18                 return this._items;
SS19             }
SS20         }
SS21     }
SS22 }
```

SocialRetriever.cs

```
SR01 using System;
SR02 using System.Collections.Generic;
SR03 using System.Collections.ObjectModel;
SR04 using System.Net.Http;
SR05 using System.Threading.Tasks;
SR06 using Windows.Security.Authentication.Web;
SR07 namespace NewsReader.Code
SR08 {
SR09     public class SocialRetriever
SR10     {
SR11         private ObservableCollection<SocialSource> _social = new
SR12             ObservableCollection<SocialSource>();
SR13         public ObservableCollection<SocialSource> SocialFeeds
SR14         {
SR15             get
SR16             {
SR17                 return this._social;
SR18             }
SR19         }
SR20         public async Task GetSocialSources(List<string> socialNetworks)
SR21         {
SR22             foreach (string network in socialNetworks)
SR23             {
SR24                 SocialSource source = new SocialSource();
SR25                 switch (network)
SR26                 {
SR27                     case "Contoso":
SR28                         string contosoUrl = "https://www.contoso.com/auth/oauth";
SR29                         string clientId = "1234";
SR30                         source.CallbackUri = new Uri("https://www.contoso.com/auth/login_success.html");
SR31                         source.RequestUri = new Uri(
```

```

SR31     source.RequestUri = new Uri(
SR32         string.Format("{0}?client_id={1}&redirect_uri={2}&response_type=token",
SR33             contosoUrl,
SR34             clientId,
SR35             source.CallbackUri),
SR36             UriKind.RelativeOrAbsolute);
SR37         source.Name = "Contoso Social";
SR38         WebAuthenticationResult authenticationResult = await
SR39             WebAuthenticationBroker.AuthenticateAsync(
SR40                 source.CallbackUri
SR41             );
SR42             switch (authenticationResult.ResponseStatus)
SR43             {
SR44                 case WebAuthenticationStatus.Success:
SR45                     source.isAuthenticated = true;
SR46                     this._social.Add(source);
SR47                     break;
SR48                     case WebAuthenticationStatus.ErrorHttp:
SR49                         throw new Exception("Error occurred while authenticating");
SR50                         break;
SR51                         case WebAuthenticationStatus.UserCancel:
SR52                             source.isAuthenticated = false;
SR53                             break;
SR54                         }
SR55                         break;
SR56                     case "Litware Inc.":
SR57                         break;
SR58                     case "Northwind":
SR59                         ...
SR60                         break;
SR61                     }
SR62             }
SR63         }
SR64     }
SR65     }
SR66 }
SR67 }

```

Question: 1

You need to implement storage for the user preferences.

Which storage solutions can you use to meet the specification for the app? (Each correct answer presents a complete solution. Choose all that apply.)

- A. TheWindows.Storage.StorageItem object
- B. TheWindows.Storage.ApplicationData.Current.RoamingSettings object
- C. Windows Azure
- D. The await Windows.Storage.ApplicationData.Current.LocalFolder method

Answer: A, D

Explanation:

* Scenario: The app will run locally on the user's device. User preferences will be available locally.

Question: 2

You need to make available the content that is provided by the design team.

Which markup segment should you use?

- A.

```
<ListView x:Name="lvSocial" ItemsSource="{Binding SocialFeeds}">
    <ListView.ItemTemplate>
        <DataTemplate Name="{StaticResource newTemplate}" />
    </ListView.ItemTemplate>
</ListView>
```
- B.

```
<ListView x:Name="lvSocial" ItemTemplate="{StaticResource newTemplate}"
    ItemsSource="{Binding News}" />
```
- C.

```
<ListView x:Name="lvSocial" ItemTemplate="{StaticResource newTemplate}"
    ItemsSource="{Binding SocialFeeds}" />
```
- D.

```
<ListView x:Name="lvSocial" ItemsSource="{Binding SocialFeeds}">
    <ListView.ItemTemplate Name="{StaticResource newTemplate}" />
</ListView>
```

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

Answer: B

Question: 3

You need to create a custom template for a Listview control that will be located on a page that has the NewsSource object bound to the DataContext property.

Which code segment should you use?

- A.

```
<ListView x:Name="lvNews" ItemsSource="{Binding NewsFeeds}">
    <ListView.ItemTemplate>
        <StackPanel>
            <TextBlock Text="{Binding Name}" FontSize="24" Margin="5,0,0,0" />
        </StackPanel>
    </ListView.ItemTemplate>
</ListView>
```
- B.

```
<ListView x:Name="lvNews" ItemsSource="{Binding Items}">
    <ListView.ItemTemplate>
        <StackPanel>
            <TextBlock Text="{Binding Item.Content}" FontSize="24" Margin="5,0,0,0" />
        </StackPanel>
    </ListView.ItemTemplate>
</ListView>
```
- C.

```
<ListView x:Name="lvNews" ItemsSource="{Binding Items}">
    <ListView.ItemTemplate>
        <DataTemplate>
            <StackPanel>
                <TextBlock Text="{Binding Content}" FontSize="24" Margin="5,0,0,0" />
            </StackPanel>
        </DataTemplate>
    </ListView.ItemTemplate>
</ListView>
```
- D.

```
<ListView x:Name="lvNews" ItemsSource="{Binding NewsFeeds}">
    <ListView.ItemTemplate>
        <DataTemplate>
            <StackPanel>
                <TextBlock Text="{Binding Name}" FontSize="24" Margin="5,0,0,0" />
            </StackPanel>
        </DataTemplate>
    </ListView.ItemTemplate>
</ListView>
```

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

Answer: C

Question: 4

You need to authenticate to a social networking site.

Which code segments should you insert at line SR40? (Each correct answer presents part of the solution. Choose all that apply.)

- A. WebAuthenticationOptions.SilentMode,
B. source.RequestUri,
C. source.RequestUri.SecureString,
D. WebAuthenticationOptions.None,

Answer: A, C

Explanation:

A (not D): Scenario: Retrieve user data from the social network services by using the authentication credentials.

*

C (not B): Scenario: When SSL is available, use SSL to retrieve data from social network providers.

Case Study: 7

Scenario 7

Background

You are developing a Windows Store media sharing app for the sales and marketing team at Margie's Travel. The app will allow team members to download documents and media about current and proposed products and services from the company's cloud-based media manager service. Team members will be able to add new content to the cloud service and to print and share content.

Business Requirements

Behavior:

- Team members must be able to download product information data sheets, marketing materials, and product demonstration video clips from the company's server.
- Team members must be able to select and upload multiple files that contain new and modified content as a batch.
- Team members must be able to stream video clips to other devices in the vicinity of the team member's device. The app will not support the streaming of photographs.
- The app must allow team members to pause, restart, or cancel uploads and downloads of files. The app must report both the progress and completion status of these operations. It must also return results about upload and download operations.

User Interface:

- The app must include a photo viewer. When photos are added or deleted in the photo viewer window, they must animate in and out of the field of view. Remaining photos must move to fill the empty space created when photos are deleted. The photo viewer must support semantic zoom.
- The app must display information on the lock screen of the device. The information must include text-based alerts and a value indicating the number of pending file downloads.

Technical Requirements

Behavior:

- The company has an existing component named VideoProcessor. This component compresses video clips and performs other processing before the video clips are uploaded to the media manager service. The component was written with managed code. The VideoProcessor component will also be used by Windows Store apps developed in HTML5 and JavaScript. The apps must be able to call the overload of the ProcessVideoO method that accepts a string and a Boolean value as parameters.
- When a team member selects a video clip to download, the app must download the file as a background task. After a download has started, the app should maintain the network connection to the server even when the app is suspended.

User Interface:

- The app must include a custom photo viewer control. The control will be updated frequently and may be deployed separately from the rest of the app. The photo viewer control must support templates and styles.
- The app must use a Grid control as the root layout control. The photo viewer must be placed in the

second row of the grid.

- The appearance of the app must change when the app is not in full screen mode. The first row of the root layout grid must not change height- The second row must fill all available space.
- Available video clips must be displayed in an extended ListView control class named DownloadedVideoList
- The template for the DownloadedVideoList is already defined.
- New video clips should be added to DownloadedVideoList when the DownloadVideo() method completes.
- New video clip items in the DownloadedVideoList should color change periodically to alert the team member.

Application Structure

Relevant portions of the app files are as follows. (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.xaml.cs

```

AP01 cts = new CancellationTokenSource();
AP02 private List<DownloadOperation> MyPendingDownloads;
AP03 private async Task HandleMyPendingDownloads(DownloadOperation download, bool start)
AP04 {
AP05     MyPendingDownloads.Add(download);
AP06     Progress<DownloadOperation> progressCallback = new Progress<DownloadOperation>(DownloadProgress);
AP07     if (start)
AP08     {
AP09         await download.StartAsync().AsTask(cts.Token, progressCallback);
AP10     }
AP11     else
AP12     {
AP13         await download.AttachAsync().AsTask(cts.Token, progressCallback);
AP14     }
AP15 }
AP16 private async void UploadContent()
AP17 {
AP18     FileOpenPicker picker = new FileOpenPicker();
AP19
AP20     List<BackgroundTransferContentPart> uploadGrp = new List<BackgroundTransferContentPart>();
AP21     for (int fileNum = 0; fileNum < files.Count; fileNum++)
AP22     {
AP23         BackgroundTransferContentPart uploadItem = new BackgroundTransferContentPart("File" + fileNum,
AP24             files[fileNum].Name);
AP25         uploadItem.SetFile(files[fileNum]);
AP26         uploadGrp.Add(uploadItem);
AP27     }
AP28     BackgroundUploader uploader = new BackgroundUploader();
AP29     await HandleUploadAsync(upload, true);
AP30 }

```

VideoProcessores

```
IP01 public class VideoProcessor
IP02 {
IP03
IP04     public VideoProcessor(int videoID)
IP05     {
IP06         ...
IP07     }
IP08
IP09     public VideoProcessor(string videoName)
IP10     {
IP11         ...
IP12     }
IP13
IP14
IP15     public void ProcessVideo(string videoName, string videoType)
IP16     {
IP17         ...
IP18     }
IP19
IP20     public void ProcessVideo(string videoName, bool compressFile)
IP21     {
IP22         ...
IP23     }
IP24 }
```

MainPage.xaml

```
MP01 <Grid x:Name="LayoutRoot">
MP02     <Grid.RowDefinitions>
MP03         <RowDefinition Height="100"/>
MP04         <RowDefinition Height="200"/>
MP05     </Grid.RowDefinitions>
MP06     <VisualStateManager.VisualStateGroups>
MP07
MP08     </VisualStateManager.VisualStateGroups>
MP09 </Grid>
```

MainPage.xaml.es

```

MC01 private PlayToManager ptMgr = PlayToManager.GetForCurrentView();
MC02
MC03 protected override void OnNavigatedTo(NavigationEventArgs e)
MC04 {
MC05
MC06
MC07 }
MC08 private void SourceRequestHandler(PlayToManager sender,
    PlayToSourceRequestedEventArgs e)
MC09 {
MC10
MC11     e.SourceRequest.SetSource(mediaElement.PlayToSource);
MC12 }
MC13 public void StartNewVideoAnimation()
MC14 {
MC15     NewVideoStoryboard.Begin();
MC16 }
MC17 public void DownloadVideo(string videoName)
MC18 {
MC19     ...
MC20     videoList.Items.Add(videoName);
MC21 }

```

Question: 1

You need to implement the photo viewer control to meet the requirements.

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

- A. Add the themes\generic.xaml file to the project and reference it from the control.
- B. Create a composite control.
- C. Create a user control.
- D. Create a custom control.
- E. In the constructor of the class, set the value of the DefaultStyleKey to the type of the control.

Answer: C, D, E

Question: 2

You need to implement the requirements for the playback of media.

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

- A. Add the following line of code at line MC02.
- ```

private void ShowPlayTo()
{
 Windows.Media.PlayTo.PlayToManager.ShowPlayToUI();
}

```
- B. Add the following line of code at line MC06.
- ```

ptMgr.DefaultSourceSelection = false;

```
- C. Add the following line of code at line MC10.
- ```

ptMgr.PlayRequested += SourceRequestHandler;

```
- D. Add the following line of code at line MC05.
- ```

ptMgr.SourceRequested += SourceRequestHandler;

```

Answer: B, D

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.media.playto.playtomanager.aspx>

Question: 3

You need to implement a custom control to display thumbnail images of video clips.
Which code segment should you use?

- A.

```
public sealed class DownloadedVideoList: FlipView
{
    public DownloadedVideoList()
    {
        this.DefaultStyleKey = typeof(ListView);
    }
}
```
 - B.

```
public sealed class DownloadedVideoList: FlipView
{
    public DownloadedVideoList()
    {
        this.DefaultStyleKey = typeof(DownloadedVideoList);
    }
}
```
 - C.

```
public sealed class DownloadedVideoList: ListView
{
    public DownloadedVideoList()
    {
        this.DefaultStyleKey = typeof(DownloadedVideoList);
    }
}
```
 - D.

```
public sealed class DownloadedVideoList: ListView
{
    public DownloadedVideoList()
    {
        this.DefaultStyleKey = typeof(ListView);
    }
}
```
- A. Option A
 - B. Option B
 - C. Option C
 - D. Option D

Answer: C

Explanation:

<http://msdn.microsoft.com/en-us/library/windows/apps/windows.ui.xaml.controls.control.defaultstylekey.aspx>

Case Study: 8

Scenario 8

Background

You are developing a Windows Store app by using C# and XAML. The app will allow users to share and rate photos. The app will also provide information to users about photo competitions.

Application Structure

The app stores data by using a class that is derived from the DataStoreBase class.

The app coordinates content between users by making calls to a centralized RESTful web service.

The app has a reminder system that displays toast notifications when a photo competition is almost over. The app gets the competition schedule data from the web service.

The app displays a list of images that are available for viewing in a data-bound list box. The image file list stores paths to the image files. The app downloads new images from the web service on a regular basis.

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

Business Requirements

The app must allow users to do the following:

- Run the app on a variety of devices, including devices that have limited bandwidth connections.
- Share and synchronize high resolution photographs that are greater than 1 MB in size.
- Rate each photo on a scale from 1 through 5.

Technical Requirements

The app must meet the following technical requirements:

- Retain state for each user and each device.
- Restore previously saved state each time the app is launched.
- Preserve user state and photo edits when switching between this app and other apps.
- When the app resumes after a period of suspension, refresh the user interface, tile images, and data with current information from the web service.
- Update the image list box as new images are added to the image file list.
- Convert the image paths into images when binding the image file list to the list box.

The app must store cached images on the device only, and must display images or notifications on the app tile to meet the following requirements:

- Regularly update the app tile with random images from the user's collection displayed one at a time.
- When a photo is displayed on the tile, one of the following badges must be displayed:
 - If the photo has a user rating, the tile must display the average user rating as a badge.
 - If the photo does not have a rating, the tile must display the Unavailable glyph as a badge.
- Update the app tile in real time when the app receives a notification.
- Display only the most recent notification on the app tile.

The app must display toast notifications to signal the end of a photo competition. The toast notifications must meet the following requirements:

- Display toast notifications based on the schedule that is received from the web service.
- Display toast notifications for as long as possible.
- Display toast notifications regardless of whether the app is running.
- When a user clicks a toast notification that indicates the end of the photo competition, the app must

display the details of the photo competition that triggered the toast notification.

App.xaml.cs

```

AX01 using System;
AX02 using Windows.ApplicationModel.Activation;
AX03 using Windows.UI.Xaml;
AX04 using Windows.UI.Xaml.Controls;
AX05 namespace Application1
AX06 {
AX07     sealed partial class App : Application
AX08     {
AX09         private DispatcherTimer tileUpdateTimer = new DispatcherTimer();
AX10         private DispatcherTimer badgeUpdateTimer = new DispatcherTimer();
AX11         public App()
AX12         {
AX13             this.InitializeComponent();
AX14             tileUpdateTimer.Tick += TileUpdateTimer_Tick;
AX15             tileUpdateTimer.Interval = new TimeSpan(0, 0, 10);
AX16             tileUpdateTimer.Start();
AX17             badgeUpdateTimer.Tick += BadgeUpdateTimer_Tick;
AX18             badgeUpdateTimer.Interval = new TimeSpan(0, 1, 0);
AX19             badgeUpdateTimer.Start();
AX20         }
AX21         private void SendNotification(XmlDocument currentTemplate)
AX22         {
AX23             var tileUpdater = TileUpdateManager.CreateTileUpdaterForApplication();
AX24
AX25         }
AX26         void TileUpdateTimer_Tick(object sender, object e)
AX27         {
AX28
AX29         }
AX30         void BadgeUpdateTimer_Tick(object sender, object e)
AX31         {
AX32             ...
AX33         }
AX34         protected override void OnLaunched(LaunchActivatedEventArgs args)
AX35         {
AX36             var rootFrame = new Frame();
AX37             rootFrame.Navigate(typeof(MainPage));
AX38             Window.Current.Content = rootFrame;
AX39             Window.Current.Activate();
AX40         }
AX41     }
AX42 }
```

DataStoreBasc.es

```

DB01 using System;
DB02 namespace Application1
DB03 {
DB04     public abstract class DataStoreBase
DB05     {
DB06         public abstract bool SaveLocalSetting(string key, string value);
DB07         public abstract bool SaveRoamingSetting(string key, string value);
DB08         public abstract bool SaveDataToWebService(string key, string jsonString);
DB09         public abstract bool SaveDataToLocalStorage(string key, string jsonString);
DB10         public abstract bool SaveDataToRoamingStorage(string key, string jsonString);
DB11         public abstract bool SaveDataToAzureStorage(string key, string jsonString);
DB12         public abstract string GetLocalSetting(string key);
DB13         public abstract string GetRoamingSetting(string key);
DB14         public abstract string GetDataFromWebService(string key);
DB15         public abstract string GetDataFromLocalStorage(string key);
DB16         public abstract string GetDataFromRoamingStorage(string key);
DB17         public abstract string GetDataFromAzureStorage(string key);
DB18     }
DB19 }

```

Question: 1

You need to access the remote image data according to the requirements.
Which data storage methods should you use?

- A. SaveDataToSqlAzureStorage() and GetDataFromSqlAzureStorage()
- B. SaveDataToRemoteStorage() and GetDataFromRemoteStorage()
- C. SaveDataToAzureStorage() and GetDataFromAzureStorage()
- D. SaveDataToWebService() and GetDataFromWebService()

Answer: D

Question: 2

A photo competition is ending.
You need to meet the requirements when a user clicks the toast notification.
Which code segment should you use?

- A. ((XmlElement)currentTemplate.GetElementsByTagName("binding")[0]).SetAttribute("trigger", competitionID);
- B. currentTemplate.GetElementsByTagName("binding").First().AppendChild(currentTemplate.CreateTextNode(competitionID));
- C. currentTemplate.GetElementsByTagName("toast").First().AppendChild(currentTemplate.CreateTextNode(competitionID));
- D. ((XmlElement)currentTemplate.GetElementsByTagName("toast")[0]).SetAttribute("launch", competitionID);

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

Answer: D

Explanation:

From scenario:

When a user clicks a toast notification that indicates the end of the photo competition, the app must display the details of the photo competition that triggered the toast notification.

Question: 3

You need to configure toast notifications for the photo competition.

Which code segment should you use?

- A. `((XmlElement)currentTemplate.CreateElement("notify")).SetAttribute("duration", "5000");`
- B. `((XmlElement)currentTemplate.GetElementsByTagName("toast") [0]).SetAttribute("duration", "long");`
- C. `((XmlElement)currentTemplate.GetElementsByTagName("toast") [0]).SetAttribute("duration", "short");`
- D. `((XmlElement)currentTemplate.CreateElement("duration")).SetAttribute("value", "long");`

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

Answer: B
