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# Microsoft

## 70-481 PRACTICE EXAM

Essentials of Developing Windows Store Apps using HTML5 and JavaScript

## Tootle Questions: 116/4Case Study

### Question: 1

You are developing a Windows Store app.

Users must be able to initiate searches by using the Search charm. The app must display the search text in a DIV element named statusMessage.

You need to add code to meet this requirement.

Which code segment should you add?

- A. WinJS.Application.onactivated = `function (e) {  
 if (e.detail.kind === Windows.ApplicationModel.Activation.ActivationKind.launch) {  
 var statusDiv = document.getElementById("statusMessage");  
 statusDiv.innerText = "Searching with query: " + e.detail.queryText;  
 }  
};`
- B. WinJS.Application.onactivated = `function (e) {  
 if (e.detail.kind === Windows.ApplicationModel.Activation.ActivationKind.search) {  
 var statusDiv = document.getElementById("statusMessage");  
 statusDiv.innerText = "Searching with query: " + e.detail.queryText;  
 }  
};`
- C. WinJS.Application.addEventListener("search", `function (e) {  
 if (e.detail.kind === Windows.ApplicationModel.Activation.ActivationKind.launch) {  
 var statusDiv = document.getElementById("statusMessage");  
 statusDiv.innerText = "Searching with query: " + e.detail.queryText;  
 }  
});`
- D. WinJS.Application.onsearch = `function (e) {  
 var statusDiv = document.getElementById("statusMessage");  
 statusDiv.innerText = "Searching with query: " + e.detail.queryText;  
};`

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

---

**Answer: B**

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### Question: 2

You are developing a Windows Store app. The app includes a handler for the datarequested event.

A portion of the code for the event handler is shown in the following code segment:

```
01 function onDataRequested(e) {  
02   e.request.data.properties.title = "Order #12345";  
03   e.request.data.properties.description = "Track your order";  
04   var url = "http://www.fabrikam.com?Order=12345";  
05  
06 }
```

The app must meet the following requirements:

- The app must share an order tracking link with target apps.
- The app must share URI-type data only.

You need to ensure that the app meets the requirements.

Which code segment should you insert at line 05?

- A. e.request.data.setData(url);
- B. e.request.data.setText(url);
- C. var link = new Windows.Foundation.Uri(url);  
e.request.data.setUri(link);
- D. var link = new Windows.Foundation.Uri(url)  
e.request.setLink(link);

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

---

**Answer: C**

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### Question: 3

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#### HOTSPOT

You are developing a Windows Store app. The app allows users to browse contacts from a social networking site.

The app has the following requirements:

The user must be able to select more than one contact at a time.

The app must display all of the details for the selected contacts.

You need to ensure that the requirements are met.

Which code segments should you use? (To answer, select the correct option from each drop-down list in the answer area.)

```
function selectContacts() {
    var picker = Windows.ApplicationModel.Contacts.ContactPicker();
    picker.commitButtonText = "Select";
    picker.selectionMode =
        
    .then(function (contacts) {
        ...
    });
}
function selectContacts() {
    var picker = Windows.ApplicationModel.Contacts.ContactPicker();
    picker.commitButtonText = "Select";
    picker.selectionMode =
        
    picker.pickSingleContactAsync()
    picker.pickMultipleContactsAsync()
    Windows.ApplicationModel.Contacts.ContactSelectionMode.fields;
    Windows.ApplicationModel.Contacts.ContactSelectionMode.contacts;
}



```
.then(function (contacts) {
    ...
});
}

```


```

---

**Answer:**

---

```

function selectContacts() {
    var picker = Windows.ApplicationModel.Contacts.ContactPicker();
    picker.commitButtonText = "Select";
    picker.selectionMode =
        Windows.ApplicationModel.Contacts.ContactSelectionMode.fields;
    Windows.ApplicationModel.Contacts.ContactSelectionMode.contacts;
}

picker.pickSingleContactAsync()
picker.pickMultipleContactsAsync()
Windows.ApplicationModel.Contacts.ContactSelectionMode.fields;
Windows.ApplicationModel.Contacts.ContactSelectionMode.contacts;

.then(function (contacts) {
    ...
});
}

```

**Question: 4****DRAG DROP**

You are developing a Windows Store app.

You need to allow the app to share content with other applications.

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.)

Add a listener for the **datarequested** event of the **DataTransferManager** object.

Add a listener for the **packagerequested** event of the **DataTransferManager** object.

Call the **NotifyPropertyChanged()** method on the **DataTransferManager** object.

Call the **getForCurrentView()** method on the **DataTransferManager** object.

Set the properties on the **DataTransferManager** object.

Set the properties on the **DataRequest** object.

**Answer:**

Box 1:

Add a listener for the **datarequested** event of the **DataTransferManager** object.

Box 2: Set the properties on the **DataRequest** object

Box 3:

Call the `getForCurrentView()` method on the `DataTransferManager` object.

Explanation:

Note:

The `DataTransferManager` object is the main starting point for any share operation. You'll add a `datarequested` event handler on the `DataTransferManager` object in the `activated` event handler of your app. The `datarequested` event occurs when the will.

When a `datarequested` event occurs, your app receives a `DataRequest` object. This object contains a `DataPackage` that you can use to provide the content that the user wants to share.

Example code (for step 3):

```
// This app is newly launched; register it as a share source.
```

```
var dataTransferManager = Windows.ApplicationModel.DataTransfer.DataTransferManager.getForCurrentView();
```

Reference: How to share files (Windows Store apps using JavaScript and HTML) (Windows)

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### Question: 5

You are developing two Windows Store apps named PhotoApp and PictureAlbum.

The apps must meet the following requirements:

PhotoApp must have access to images on the local computer on which PhotoApp is running.

PictureAlbum must be able to access the images from PhotoApp.

You need to configure the deployment package settings for both apps to ensure that the requirements are met.

What should you do?

- A. Add the Pictures Library setting to the list of declarations for PhotoApp, and add the Share Target setting to the list of capabilities for PictureAlbum.
- B. Add the Share Target setting to the list of declarations for PictureAlbum, and add the Pictures Library setting to the list of capabilities for PhotoApp.
- C. Add the Pictures Library setting to the list of capabilities for PictureAlbum, and add the Share Target setting to the list of declarations for PictureAlbum.
- D. Add the URI of PhotoApp to the Content URIs list for PictureAlbum, and add the URI of PictureAlbum to the Content URIs list for PhotoApp.

---

**Answer: A**

---

### Question: 6

You are planning to deploy a Windows Store app to a large number of users. The size of the app is approximately 5 GB.

You need to package the app to prepare it for deployment to the Windows Store.

How many packages should you use?

- A. 3
- B. 1
- C. 2
- D. 4

---

**Answer: A**

---

### Question: 7

You are developing a Windows Store app by using HTML5. The app will be optimized for accessibility.

The app must meet the following accessibility requirements:

Provide support for navigating all user interface elements.

Provide support for invoking default functionality on the user interface.

Provide support for use of a computer keyboard.

You need to ensure that the app meets the accessibility requirements.

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

- A. Set the tabIndex attribute for interactive elements. Dynamically manage the tabIndex attribute for composite elements.
- B. Set the aria-live attribute of user interface elements to polite for important content that changes dynamically.
- C. Ensure that visible text has a minimum luminosity contrast ratio of 1:1 against the background.
- D. Implement event handlers for invoking default functionality.

---

**Answer: A, B**

---

### Question: 8

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HOTSPOT

You are developing a Windows Store app.

You need to ensure that a file that is launched by the app is handled when the app is activated.

Which code segment should you use? (To answer, select the correct option from the drop-down list in the answer area.)

```
function activatedHandler(eventArg) {
    var activationKind =
        Windows.ApplicationModel.Activation.ActivationKind;
    if (eventArg.detail.kind ==  ) {
        ...
    }

    function activatedHandler(eventArg) {
        var activationKind =
            Windows.ApplicationModel.Activation.ActivationKind;
        if (eventArg.detail.kind ==  ) {
            ...
        }
    }
}
```

---

**Answer:**

---

```

function activatedHandler(eventArg) {
    var activationKind =
        Windows.ApplicationModel.Activation.ActivationKind;
    if (eventArg.detail.kind == )
        ...
}

```

---

**Question: 9**

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You are developing a Windows Store app by using HTML5 and JavaScript. The app will support both the English and French languages.

The app must meet the following requirements:

Automatically load language-specific string resources from a resource file, and access the resources from within the HTML by using data-win-res attributes.

Use the base.js file from the Windows Library for JavaScript.

You need to ensure that the correct language-specific resources are used.

What should you do?

- A. Specify both the element properties and the resource names of data-win-res attributes, and process the data-win-res attributes in the onactivated event.
- B. Specify only the properties of data-win-res attributes, and process the data-win-res attributes prior to the DOMContentLoaded event.
- C. Specify both the element properties and the resource names of data-win-res attributes, and process the data-win-res attributes immediately after the DOMContentLoaded event.
- D. Specify only the resource names of data-win-res attributes, and process the data-win-res attributes in the onactivated event.

---

**Answer: C**

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**Question: 10**

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**DRAG DROP**

You are developing a Windows Store weather app.

You need to restore the state of the app while the app is being reactivated.

Which code segments should you use? (To answer, drag the appropriate code segments to the correct locations in the answer area.)

- a. 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.)

```
WinJS.Application.start  
WinJS.Application.onactivated  
WinJS.Application.onready  
WinJS.Application.sessionState  
Windows.ApplicationModel.Activation.ActivationKind.device  
Windows.ApplicationModel.Activation.ActivationKind.launch  
=====  
  
};  
});  
  
if (e.detail.kind ===  
    Windows.ApplicationModel.Activation.ActivationKind.launch) {  
    if (e.detail.previousExecutionState ===  
        Windows.ApplicationModel.Activation.Pri  
    ) {  
        // Application was previously suspended.  
        // Initialize state.  
    }  
}  
};  
  
 = function (e) {  
    if (e.detail.kind ===  
        Windows.ApplicationModel.Activation.ActivationKind.launch) {  
        if (e.detail.previousExecutionState ===  
            Windows.ApplicationModel.Activation.Pri  
        ) {  
            // Application was previously suspended.  
            // Initialize state.  
        }  
    }  
};
```

---

**Answer:**

---

Box 1:

```
WinJS.Application.onactivated
```

Box 2:

```
Windows.ApplicationModel.Activation.ActivationKind.launch
```

Box 3:

```
WinJS.Application.sessionState
```

Note:

\* When a user selects your app to share content, Windows activates your app. Because there are many ways that Windows could activate your app, you need to add code to your activated event handler that detects why the activation occurred. You do this by checking the value of the kind property.

JavaScript

```
app.onactivated = function (args) {  
    if (args.detail.kind === activation.ActivationKind.launch) {  
        // The application has been launched. Initialize as appropriate.  
    }  
    if (app.sessionState) {  
        // restore previous state from sessionState  
    }  
}
```

Reference:

---

**Question: 11**

---

You are developing a Windows Store app that will be used to display daily high temperatures and other weather conditions for five cities.

The app must meet the following requirements:

A splash screen is displayed on the device until the data is retrieved from the Internet.

The user must be able to view weather information as soon as the data is fully available.

You need to ensure that the splash screen is displayed at startup until the app has completed loading updated data.

Which actions can you perform to achieve this goal? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Configure settings in the app manifest to display the splash screen until the data is fully available.
- B. Create an image that duplicates the splash screen, load the image from the dismissed event of the splash screen, and display the image until the data is fully available.
- C. Create an image that duplicates the splash screen, and display the image by using fragment loading until the data is fully available.
- D. Configure settings in the app manifest to display the splash screen for 10 seconds.

---

**Answer: D, C**

---

### **Question: 12**

---

You are developing a Windows Store app. The app includes the following HTML markup:

```
<div class="Container">
  <div class="Child1">
    Child 1
  </div>
  <div class="Child2">
    Child 2
  </div>
  Container
</div>
```

You are creating a Flexible Box layout for the application. The layout must be configured as shown in the following display.



The Flexible Box layout must conform to the following requirements:

The Child2 DIV element must appear on the right side of the layout.

The Child1 DIV element must appear immediately to the left of Child2.

You need to add CSS to ensure that the requirements are met. Which CSS segment should you add to the style sheet?

C A. .Container {  
`ms-box-orient: horizontal;  
background: grey;  
border: blue;  
}  
.Child1 {  
border: thick solid red;  
}  
.Child2 {  
border: thick solid blue;  
}

C B. .Container {  
background: grey;  
border: blue;  
}  
.Child1 {  
float: left;  
border: thick solid red;  
}  
.Child2 {  
float: right;  
border: thick solid blue;  
}

C C. .Container {  
display: -ms-box;  
background: grey;  
border: blue;  
}  
.Child1 {  
width: 100px;  
height: 100px;  
border: thick solid red;  
}  
.Child2 {  
width: 100px;  
height: 100px;  
border: thick solid blue;  
}

C D. .Container {  
display: -ms-box;  
-ms-box-pack: end;  
background: grey;  
border: blue;  
}  
.Child1 {  
width: 100px;  
height: 100px;  
border: thick solid red;  
}  
.Child2 {  
width: 100px;  
height: 100px;  
border: thick solid blue;  
}

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

---

**Answer: D**

---

### Question: 13

---

You are developing a Windows Store text editor app by using HTML5 and JavaScript.

Users must be able to select text within the app and then copy the text.

You need to enable the copy feature.

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

- A. `var menu = new Windows.Graphics.UI.Popups();  
menu.commands.append(new Windows.UI.Popups.UICommand("Copy", null, 1));`
- B. `var menu = new Windows.UI.Popups.PopupMenu();  
menu.commands.append(new Windows.UI.Popups.UICommand("Copy", null, 1));`
- C. `function handleKeyPressUp(e) {  
 var KeyID = e.keyCode;  
 ...  
}  
document.oninput = handleKeyPressUp;`
- D. `varmenu = newWindows.UI.Popups();  
menu.commands.append(newWindows.UI.Popups.UICommand("Copy", null, 1));`
- E. `function handleKeyPressUp(e) {  
 var KeyID = e.keyCode;  
 ...  
}  
document.onkeyup = handleKeyPressUp;`
- F. `function handleKeyPressUp(e) {  
 var KeyID = e.keyCode;  
 ...  
}  
document.onkeyclick = handleKeyPressUp;`

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

---

**Answer: A, B**

---

### Question: 14

---

You are developing a Windows Store app. The app will format a paragraph of text to resemble the following image.

This is sample text. This is sample text. This is sample text. This is sample text.  
 This is sample text. This is sample text. This is sample text. This is sample text.  
 This is sample text. This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text. This is sample text.  
 This is sample text. This is sample text. This is sample text. This is sample text.  
 This is sample text. This is sample text. This is sample text. This is sample text.

The app must format the paragraph to meet the following requirements:

The paragraph must be divided between two columns.

Columns must be separated by vertical lines that are two pixels wide.

You need to ensure that the format of the paragraph meets the requirements.

Which code segment should you add?

- C A. p {
   
    column-width: auto 2;
   
    column-gap: 2em;
   
    column-rule: 2em solid #808080;
   
    padding: 1px;
   
}
  
- C B. p {
   
    columns: auto 2;
   
    column-gap: 2em;
   
    column-rule: 2em solid #808080;
   
    padding: 2em;
   
}
  
- C C. p {
   
    column-width: auto 2;
   
    column-gap: 2em;
   
    column-rule: 2px solid #808080;
   
    padding: 2em;
   
}
  
- C D. p {
   
    columns: auto 2;
   
    column-gap: 2em;
   
    column-rule: 2px solid #808080;
   
    padding: 2em;
   
}

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

---

**Answer: D**

---

### Question: 15

---

#### DRAG DROP

You are designing a Windows Store app. The app displays prices and other information for various stocks.

The app must allow the user to perform the following actions:

Add and remove stocks.

Search by stocks name.

Display information about stocks.

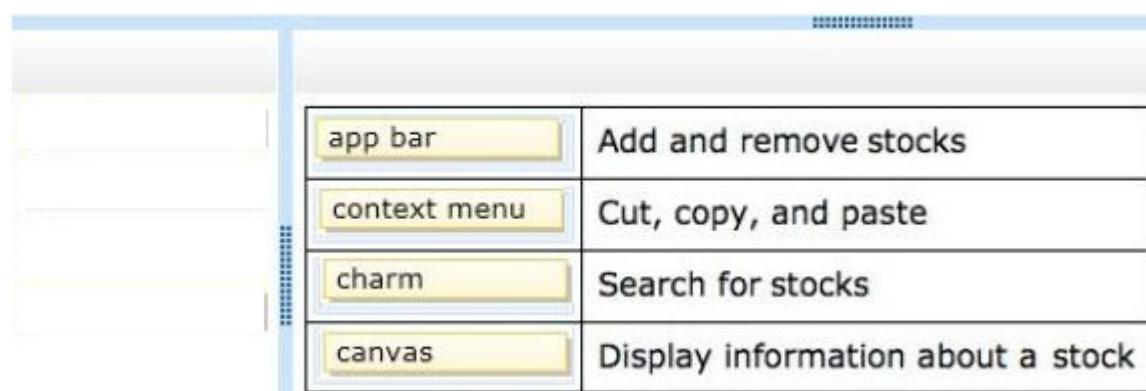
You need to add the appropriate features to the app bar.

Which features should you add to the app bar? (To answer, drag the appropriate features to the correct locations in the answer area.)

a. Each feature 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:**



Note:

\* Use the app bar

Use the app bar to display commands to users on-demand. The app bar shows commands relevant to the user's context, usually the current page, or the current selection.

\* Use context menus

You can use context menus for clipboard actions (like cut, copy, and paste), or for commands that apply to content that cannot be selected (like an image on a web page).

\* Use the charms

Leverage the charm and app contracts to enable common app commands. Avoid duplicating app contract functionality on your app's canvas or in the app bar.

/ Search: Let your users quickly search through your app's content from anywhere in the system, including other apps. And vice versa.

/ Share: Let your users share content from your app with other people or apps, and receive shared content.

/ Devices: Let your users enjoy audio, video, or images streamed from your app to other devices in their home network.

/ Settings: Consolidate all of your settings under one roof and let users configure your app with common mechanism they're already familiar with.

\* Use the canvas

Users should be able to complete the core scenarios just by using the canvas. Whenever possible, let users directly manipulate the content on the app's canvas, rather than adding commands that act on the content.

For example, in a Restaurant browsing app, finding and viewing restaurant details should be done on the canvas by

tapping, panning, or selecting content.

Reference: Commanding design for Windows Store apps (Windows)

---

### **Question: 16**

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#### **DRAG DROP**

You are developing a Windows Store app. The app will be used to manage a task list.

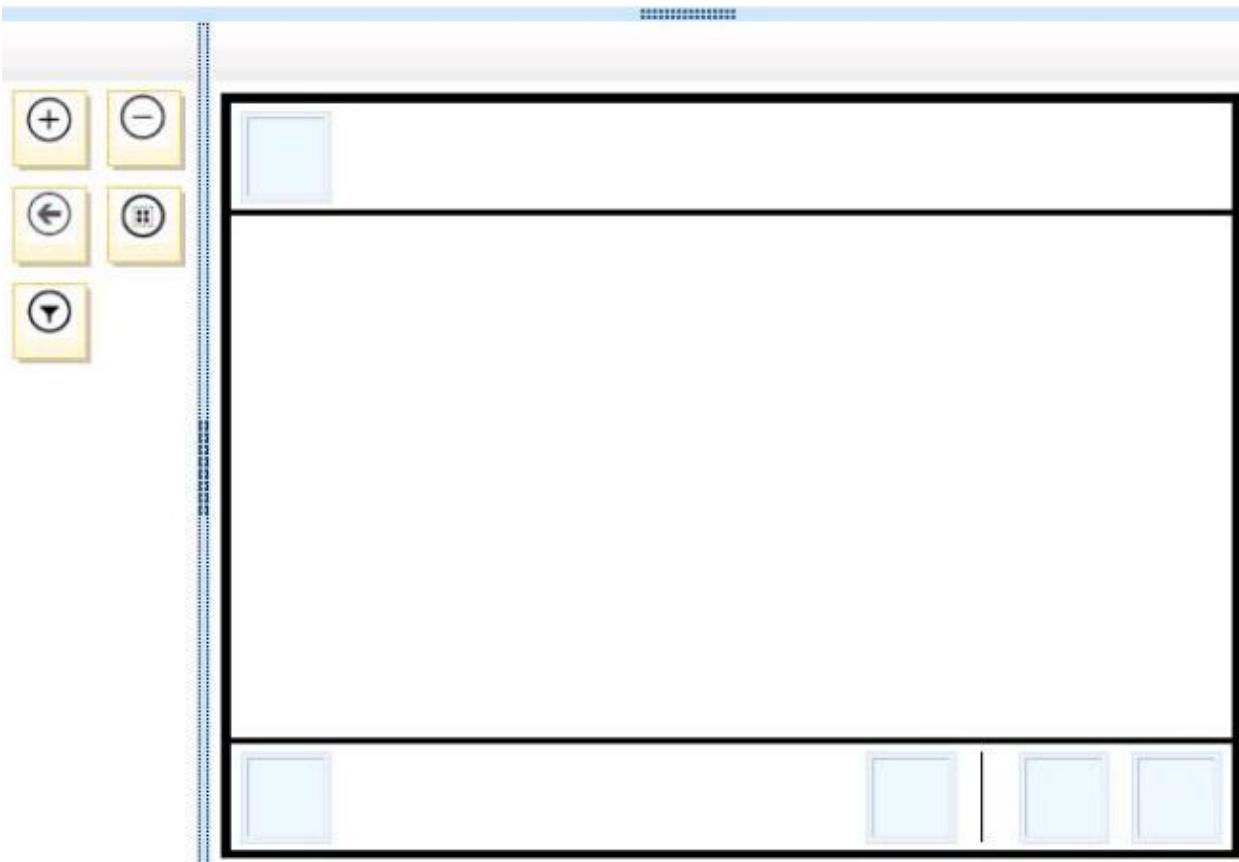
The app has the following requirements:

Support commands to add, remove, filter, and select all items in the task list.

Support navigation to the previous screen.

You need to ensure that the commands are placed according to Microsoft design style guidelines.

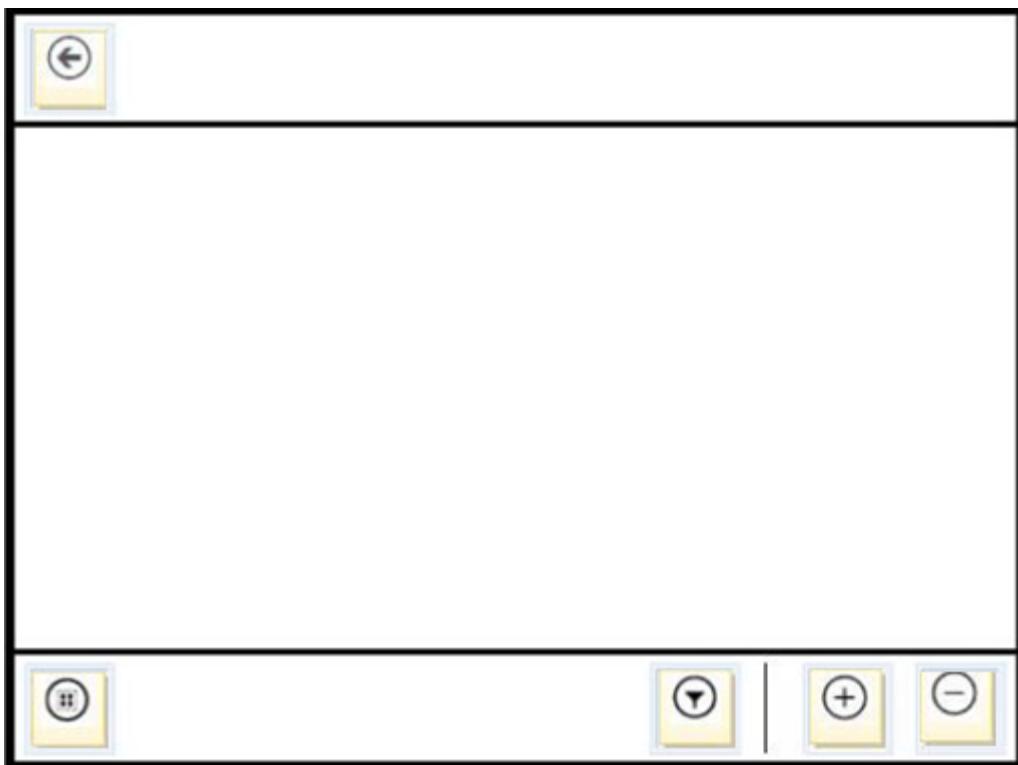
Where should you place each command? (To answer, drag each command to the correct placement location. Each answer must be used only once. You may need to drag the split bar between panes or scroll to view content.)



---

**Answer:**

---



Note:

Previous screen: top left corner (standard placement)

Use Remove and Add commands if your app is about managing a list, such as a to-do list. Remove and Add should always appear in the order shown here.



### Question: 17

You are developing a Windows Store app. The app will be used on devices that are capable of changing view states. The app contains the following CSS code segment. (Line numbers are included for reference only.)

```

01 .fragment header[role=banner] {
02   -ms-grid-columns: 100px 1fr;
03 }
04
05 .fragment header[role=banner] .win-backbutton {
06   margin-left: 29px;
07 }
08
09 }
```

The app has the following requirements when the host device is in a landscape orientation:

The app's client area must be the same height as the device's height.

The app's client area must be the same width as the device's width.

You need to ensure that the layout of the device screen meets the requirements.

Which code segment should you insert at line 01?

- A. @ device screen and (-ms-view-state: fullscreen-landscape) {

- B. @ device screen and (-ms-view-state: fullscreen-snapped) {
- C. @ media screen and (-ms-view-state: fullscreen-landscape)
- D. @ media all and (-ms-view-state: fullscreen-snapped) {

---

**Answer: C**

---

### Question: 18

---

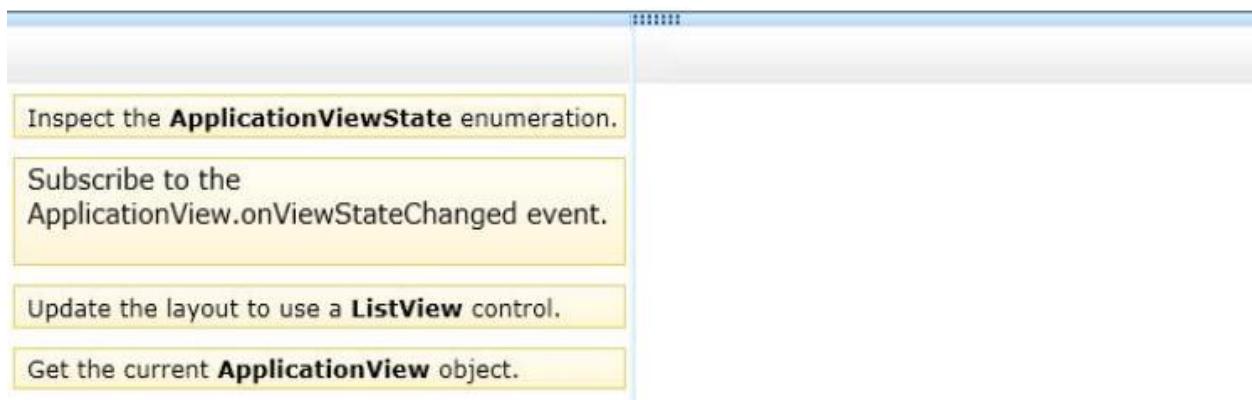
#### DRAG DROP

You are developing a Windows Store app that allows the user to write reviews for a company's products.

The product selection page must switch to a vertical list layout when the app is snapped.

You need to ensure that the product layout is updated.

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




---

**Answer:**

---

Box 1:

Subscribe to the **ApplicationView.onViewStateChanged** event.

Box 2:

Get the current **ApplicationView** object.

Box 3:

Inspect the **ApplicationViewState** enumeration.

Box 4:

Update the layout to use a **ListView** control.

Note:

Step 1: We need to set up the event handler for any Viewstate changes.

This got a lot simpler for the Windows 8 Release Preview. We need only add an event listener to the window resize event like so:

```
window.addEventListener("resize", onViewStateChanged);
```

Step 2-3:

When `onViewStateChange` runs it enumerates through all available viewstates and passes the current view state to a custom function.

Example code:

When `onViewStateChanged` runs it enumerates through all available viewstates and passes the current view state to a custom function I call `showMenu`.

```
function onViewStateChanged(eventArgs) {
    var viewStates = Windows.UI.ViewManagement.ApplicationViewState, msg;
    var newState = Windows.UI.ViewManagement.ApplicationView.value;
```

```
if (newViewState === viewStates.snapped) {  
    showMenu('snapped');  
} elseif (newViewState === viewStates.filled) {  
    showMenu('filled');  
} elseif (newViewState === viewStates.fullScreenLandscape) {  
    showMenu('landscape');  
} elseif (newViewState === viewStates.fullScreenPortrait) {  
//Currently not supported  
}
```

Step 4: Finally handle the layout changes

\* ApplicationViewState enumeration specifies the set of app view state changes that can be handled.

The ApplicationViewState enumeration has these members.

A)FullScreenLandscape | fullScreenLandscape0

The current app's view is in full-screen (has no snapped app adjacent to it), and has changed to landscape orientation.

B) Filled | filled1

The current app's view has been reduced to a partial screen view as the result of another app snapping.

C) Snapped | snapped2

The current app's view has been snapped.

D) FullScreenPortrait | fullScreenPortrait3

The current app's view is in full-screen (has no snapped app adjacent to it), and has changed to portrait orientation.

Reference: Handling Fullscreen, Snapped and Filled states in Windows 8 Metro Style apps using CSS3 and JavaScript

---

### **Question: 19**

You are developing a Windows Store app that uses a fluid layout for all user interface elements.

You need to ensure that app elements are styled appropriately based on the size and orientation of the app on the screen.

Which media feature should you evaluate?

A. -ms-application-state

B. –resolution

C. -ms-view-state

D. -aspect-ratio

---

**Answer: C**

---

---

### **Question: 20**

DRAG DROP

You are developing a Windows Store travel-planning app. An array named dataArray stores information about travel categories.

The array is defined in the following code:

```
(function () {
    "use strict";

    var dataArray = [
        { title: "Cars", picture: "/images/cars.png" },
        { title: "Cruises", picture: "/images/cruises.png" },
        { title: "Flights", picture: "/images/flights.png" },
        { title: "Hotels", picture: "/images/hotel.png" },
        { title: "Packages", picture: "/images/packages.png" }
    ];

    var dataList = new WinJS.Binding.List(dataArray);
    var publicMembers =
    {
        itemList: dataList
    };
    WinJS.Namespace.define("Travel", publicMembers);
})();
```

The app must display the title and image for each travel category in a ListView control.

You need to define the HTML for the ListView control.

How should you complete the HTML? (To answer, drag each appropriate attribute or object to the correct location or locations in the answer are

a. Each attribute or object 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.)

The screenshot shows the Windows Store App XML Editor. On the left, there are three yellow-highlighted boxes containing code snippets:

- "WinJS.Binding.Template"
- "data-win-bind="src: picture"
- "data-win-options="{itemDataSource}"

On the right, there is a larger block of XML code representing a ListView control:

```
<div id="myTemplate"
      data-win-control="Template"
      data-win-options="{itemDataSource}"
      data-win-bind="src: picture">
</div>

<div id="myListView"
      data-win-control="ListView"
      data-win-options="
          {itemDataSource : Travel.itemList.dataSource,
           itemTemplate: select('#myTemplate')}>
</div>
```

---

**Answer:**

---

Box 1:

"WinJS.Binding.Template"

Box 2:

"data-win-bind="src: picture"

Box 3:

data-win-bind="innerText: title"

Box 4:

"WinJS.UI.ListView"

Note:

\* Use the data-win-bind property to bind a property of an element to a property of a data source.

\* The WinJS.UI.ListView object displays data items in a customizable list or grid.

Reference: How to use templates to bind data (Windows Store apps using JavaScript and HTML) (Windows)

Reference: data-win-bind property (Windows)

## Question: 21

DRAG DROP

You are developing a Windows Store app that uses a CredentialPicker control to collect the user's user name and password credentials.

The CredentialPicker control has the following requirements:

The Remember my credentials check box must be selected by default.

The text "Enter user name and password" must be displayed in the message header of the dialog box.

You need to ensure that the requirements are met.

Which properties should you use? (To answer, drag the appropriate properties to the correct locations in the answer area)

caption  
message  
credentialSaveOption  
callerSavesCredentials

```
var credentialPickerOptions =
    new Windows.Security.Credentials.UI.CredentialPickerOptions();
credentialPickerOptions.targetName = "Metro";
credentialPickerOptions.caption = "Enter User Name and Password";
credentialPickerOptions.credentialSaveOption = true;
Windows.Security.Credentials.UI.CredentialPicker.pickAsync(credentialPickerOptions);
```

Answer:

message  
callerSavesCredentials

```
var credentialPickerOptions =
    new Windows.Security.Credentials.UI.CredentialPickerOptions();
credentialPickerOptions.targetName = "Metro";
credentialPickerOptions.caption = "Enter User Name and Password";
credentialPickerOptions.credentialSaveOption = true;
Windows.Security.Credentials.UI.CredentialPicker.pickAsync(credentialPickerOptions);
```

The CredentialPickerOptions controls the appearance and behavior of a credential prompt.

Caption: Gets or sets the caption text that is displayed to the user.

CredentialSaveOption: Gets or sets the option on saving credentials..

The option specifies the initial state of the dialog's "Save Credential" check box. The default value is clear (unchecked).

Incorrect answers:

Message: Gets or sets the body of text that displays to the user.

CallerSavesCredential: Gets or sets whether the caller wants to save the credentials.

Reference: CredentialPickerOptions class (Windows)

---

## **Question: 22**

---

You are developing a Windows Store app by using HTML5 and JavaScript. The app will be used to display image files from a folder.

The app has the following requirements:

The file name, size, and a thumbnail view of the image must be displayed in a ListView control.

The user must be able to group the files into an album.

You need to ensure that the requirements are met.

What should you do?

A. Create a custom DataSource object.

Implement only the IListDataSource interface of the DataSource object.

B. Create a WinJS.UI.FlipView object.

Bind the object to the ListView control.

C. Create a custom DataSource object.

Implement only the IListDataAdapter interface of the DataSource object.

D. Create a WinJS.UI.StorageDataSource object.

Bind the object to the ListView control.

---

**Answer: D**

---

---

## **Question: 23**

---

**DRAG DROP**

You are developing a Windows Store app for purchasing school supplies.

The app has the following storage requirements:

Inventory data must be accessible to the app and over the Internet to external suppliers. Suppliers will access the data over HTTP by using OData.

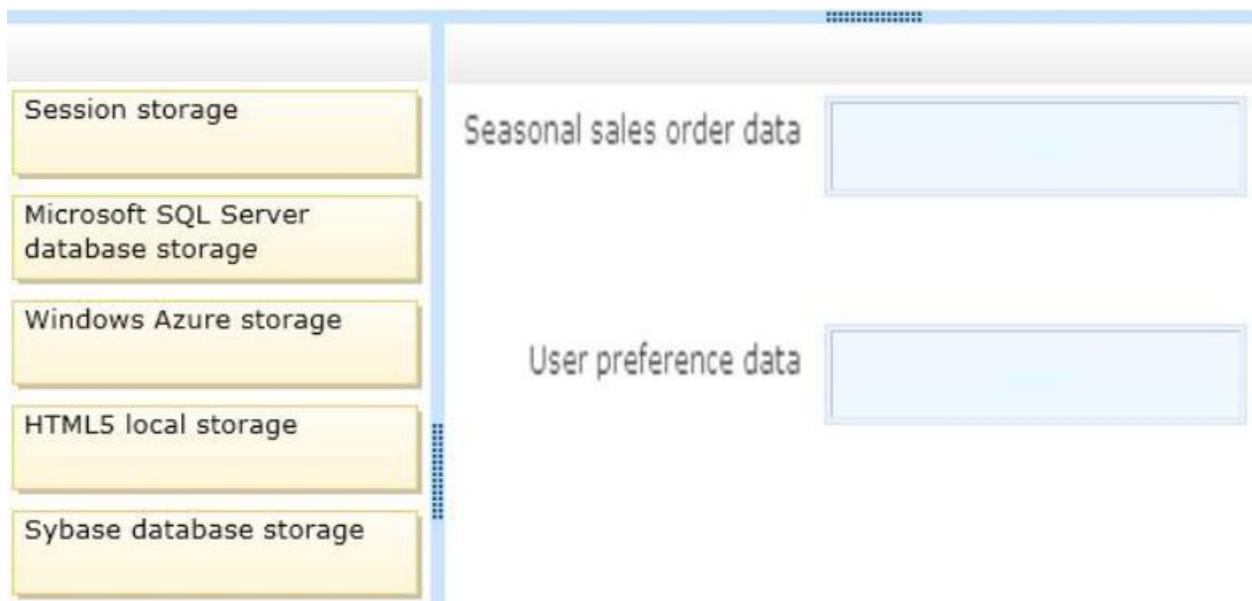
App storage for the high volume sales periods must be able to scale rapidly, but at the lowest possible cost.

Color preferences for the user must be stored on the host device.

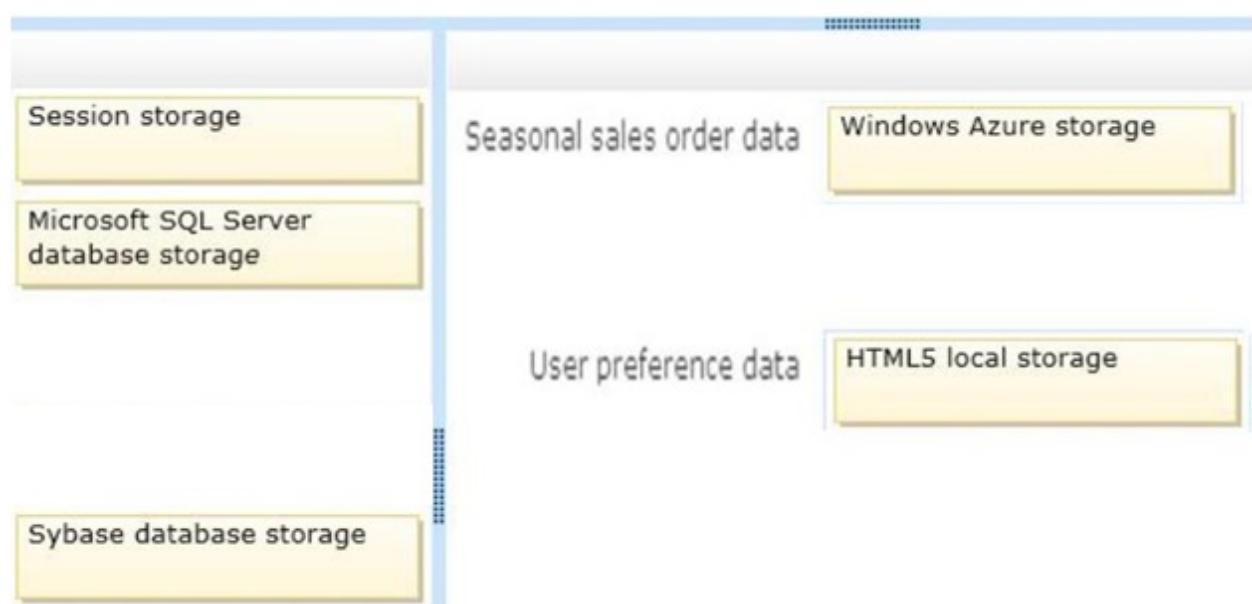
You need to choose the appropriate data access strategy for each requirement.

Which data access strategies should you use? (To answer, drag the appropriate data access strategies to the correct requirements in the answer area.)

a. Each data access strategy 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:**



Box 1:

The Windows Azure storage services provide storage for binary and text data, messages, and structured data in Windows Azure. The storage services include:

The Blob service, for storing binary and text data

The Queue service, for storing messages that may be accessed by a client

The Table service, for structured storage for non-relational data

Windows Azure drives, for mounting an NTFS volume accessible to code running in your Windows Azure service

Box 2: With HTML5, web pages can store data locally within the user's browser.

Earlier, this was done with cookies. However, Web Storage is more secure and faster. The data is not included with every server request, but used ONLY when asked for. It is also possible to store large amounts of data, without affecting the website's performance.

The data is stored in key/value pairs, and a web page can only access data stored by itself.

**Question: 24**

You are developing a Windows Store app by using JavaScript. The app will be used to retrieve data from a web service. The app must retrieve the current date and time in UTC format from the web service by using the URL <http://www.treyresearch.net/GetDateTimeinUTC.asmx>. Errors must be handled.

You must ensure that data is retrieved successfully.

Which code segment should you use?

- A. WinJS.xhr({ url: "http://www.treyresearch.net/GetDateTimeinUTC.asmx" })  
.then(function complete(result){  
...  
});
- B. WinJS.xhr({ type: "POST", url: "http://www.treyresearch.net/GetDateTimeinUTC.asmx"})  
.done(function complete(result){  
...  
},  
function error(result){  
...  
});
- C. WinJS.xhr({ type: "PUT", url: "http://www.treyresearch.net/GetDateTimeinUTC.asmx"})  
.done(function complete(result){  
...  
});
- D. WinJS.xhr({ url: "http://www.treyresearch.net/GetDateTimeinUTC.asmx" })  
.done(function complete(result){  
...  
},  
function error(result){  
...  
});

A. Option A

B. Option B

C. Option C

D. Option D

---

**Answer: D**

---

### **Question: 25**

---

#### **DRAG DROP**

You are developing a Windows Store alarm clock app.

When an alarm is triggered, the app must present a toast notification that plays a repeating audio alert until dismissed.

You need to ensure that the repeating audio alert is played.

How should you define the toast notification? (To answer, drag the appropriate code segments to the correct locations in the answer area.)

a. 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.)

```
audio.setAttribute("loop", "true");
audio.setAttribute("repeat", "true");
toast.setAttribute("duration", "long");
toast.setAttribute("duration", "extended");
:::::::
```

```
function buildToast() {
    var tmpl = Windows.UI.Notifications.ToastTemplateType.toastText01
    var xml =
        Windows.UI.Notifications.ToastNotificationManager.getTemplateContent(tmpl);
    var toast = xml.selectSingleNode("/toast");

    var audio = xml.createElement("audio");
    audio.setAttribute("src", "ms-winsoundevent:Notification.Looping.Alarm");

    toast.appendChild(audio);

    return toast;
}
```

---

Answer:

---

```

audio.setAttribute("repeat", "true");

toast.setAttribute("duration", "extended");
::::::::::

function buildToast() {
    var tmpl = Windows.UI.Notifications.ToastTemplateType.toastText01
    var xml =
        Windows.UI.Notifications.ToastNotificationManager.getTemplateContent(tmpl);
    var toast = xml.selectSingleNode("/toast");

    toast.setAttribute("duration", "long");

    var audio = xml.createElement("audio");
    audio.setAttribute("src", "ms-winsoundevent:Notification.Looping.Alarm");

    audio.setAttribute("loop", "true");
    toast.appendChild(audio);

    return toast;
}

```

Note: In the case of a long-duration toast notification, the sound can be looped rather than playing only once. Note that looping audio is only valid for long-duration toasts. Specific sounds for use with looping are included in the system-specified sound set. This example specifies a looping sound.

JavaScript

```

toastNode.setAttribute("duration", "long");
var audio = toastXml.createElement("audio");
audio.setAttribute("src", "ms-winsoundevent:Notification.Looping.Alarm");
audio.setAttribute("loop", "true");

```

Reference: Quickstart: Sending a toast notification (Windows Store apps using JavaScript and HTML) (Windows)

## Question: 26

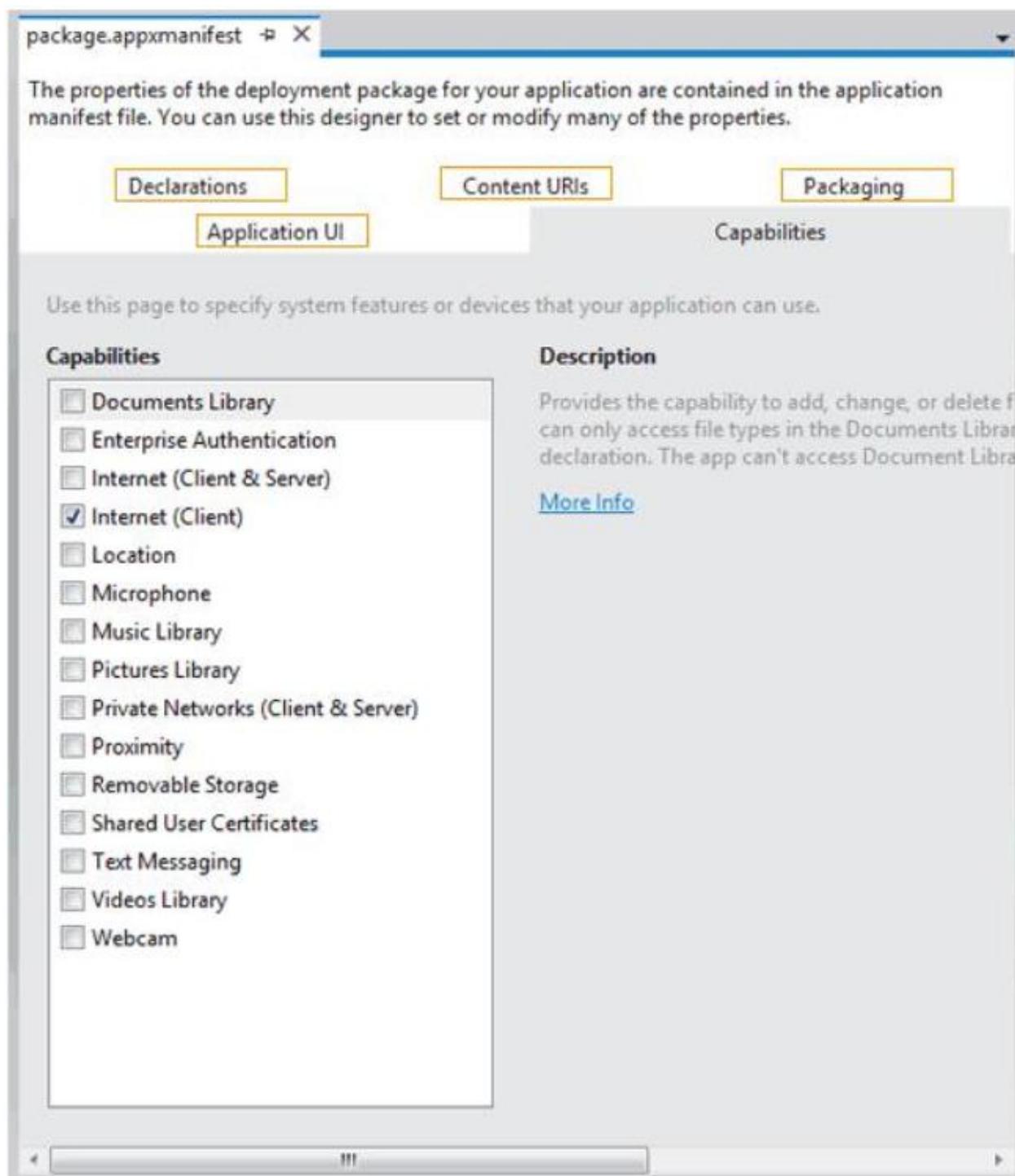
### HOTSPOT

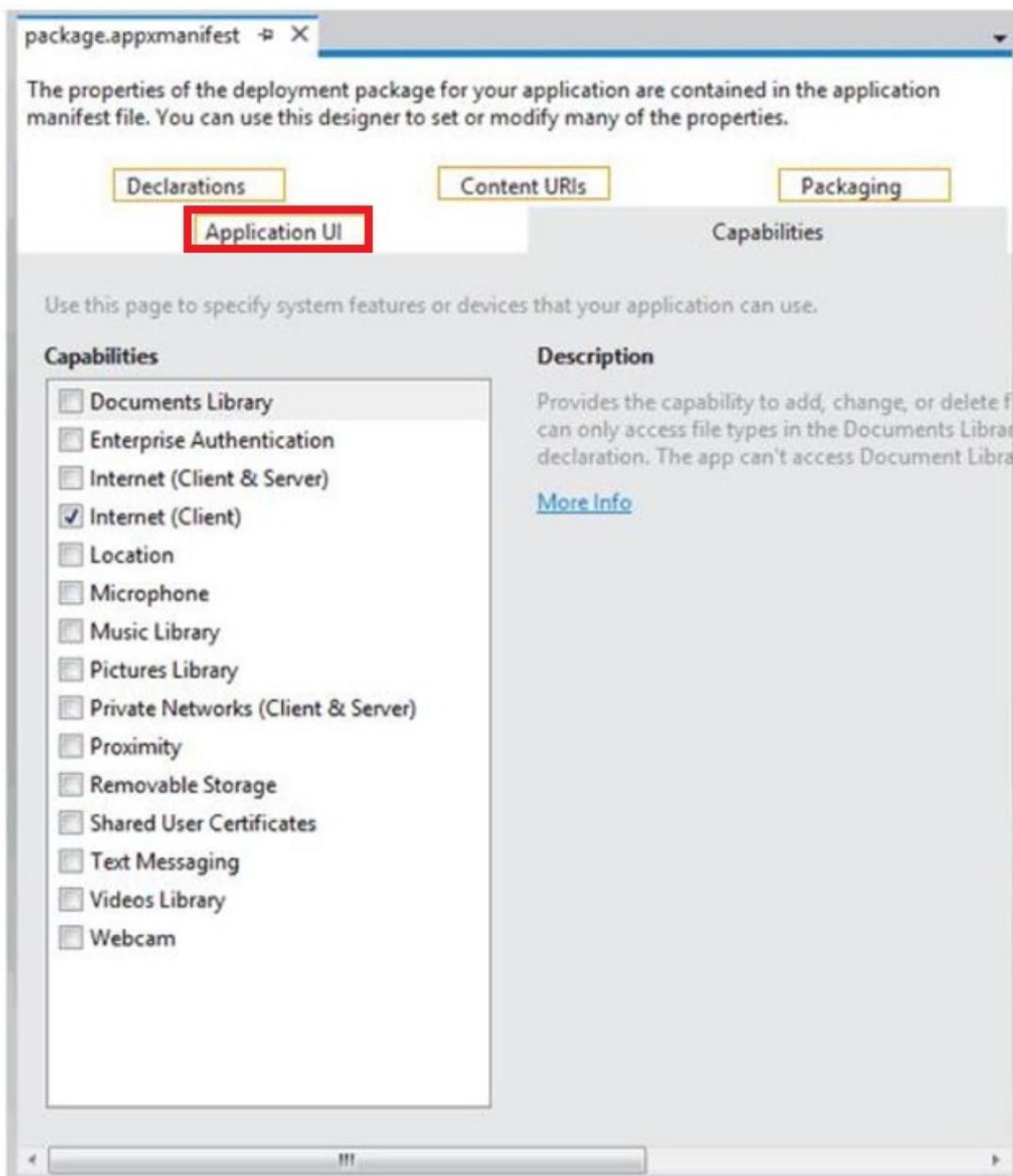
You are developing a Windows Store app.

The app must use toast notifications to alert users when the app is operating in the background.

You need configure the app to support toast notifications.

Which tab in Visual Studio should you use? (To answer, select the appropriate tab in the answer area.)

**Answer:**

**Question: 27**

You are developing a Windows Store app by using HTML5 and JavaScript.

You need to list all the keyboard, stylus, mouse, and touch input devices that are connected to the local computer system.

Which Windows library should you use?

- A. Windows.UI.Input
- B. Windows.Media.Devices
- C. Windows.Devices.Enumeration
- D. Windows.Devices.Input

---

**Answer: D**

---

**Question: 28**

---

You are developing a Windows Store app by using HTML5 and JavaScript. The app will be used to monitor road traffic conditions.

The app must support live tile notifications, in accordance with the following requirements:

Update the tile every five minutes when the app is in the running state.

Update the tile once in the morning and once in the evening when the app is in the suspended state.

Implement updates to tiles to optimize the power and resource consumption when the app is suspended or not otherwise running.

You need to implement delivery notifications to ensure that the requirements are met.

How should you use delivery notifications?

A. Use the Periodic delivery notification when the app is running, and use the Scheduled delivery notification when the app is suspended.

B. Use the Push delivery notification when the app is running, and use the Local delivery notification when the app is suspended.

C. Use the Local delivery notification when the app is running, and use the Push delivery notification when the app is suspended.

D. Use the Scheduled delivery notification when the app is running, and use the Push delivery notification when the app is suspended.

---

**Answer: C**

---

**Question: 29**

---

**HOTSPOT**

You are developing a Windows Store app by using HTML5 and JavaScript.

The app defines the following objects:

InkManager is an object to process and manipulate the ink-related data from the stylus.

InkContext is an object to hold the surface context.

CurrentPenId is an object to restrict input processing to one stroke at a time.

The app must support the following requirements:

Support the use of a stylus input device.

Begin capturing input when the stylus first touches the screen.

Render stylus movements in real time.

You need to ensure that the requirements are met.

Which code segments should you use? (To answer, select the correct option from each drop-down list in the answer area.)

Work Area

```
function onStylusDown(evt) {  
    var current=evt.currentPoint;  
  
    inkManager.processPointerDown(current);  
    currentPenId=evt.pointerId;  
}  
function onStylusMove(evt) {  
    if(evt.pointerId==currentPenId) {  
        var current=evt.currentPoint;  
  
        inkManager.processPointerUpdate(current);  
    }  
}
```

## Work Area

```
function onStylusDown(evt) {  
    var current=evt.currentPoint;  
  
    inkContext.beginPath();  
    inkContext.stroke();  
    inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);  
    inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);  
    inkManager.moveTo(current.x,current.y);  
    inkContext.moveTo(current.x,current.y);
```

```
inkContext.beginPath();  
inkContext.stroke();  
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);  
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);  
inkManager.moveTo(current.x,current.y);  
inkContext.moveTo(current.x,current.y);
```

```
)  
}  
function onStylusMove(evt) {  
    if(evt.pointerId==currentPenId) {  
        var current=evt.currentPoint;
```

```
inkContext.beginPath();  
inkContext.stroke();  
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);  
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);  
inkManager.moveTo(current.x,current.y);  
inkContext.moveTo(current.x,current.y);
```

```
inkContext.beginPath();  
inkContext.stroke();  
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);  
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);  
inkManager.moveTo(current.x,current.y);  
inkContext.moveTo(current.x,current.y);
```

```
    inkManager.processPointerUpdate(current);  
}  
}
```

---

**Answer:**

---

**Work Area**

```
function onStylusDown(evt) {
    var current=evt.currentPoint;

    inkContext.beginPath();
    inkContext.stroke();
    inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
    inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
    inkManager.moveTo(current.x,current.y);
    inkContext.moveTo(current.x,current.y);
```

```
inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);

inkManager.processPointerDown(current);
currentPenId=evt.pointerId;
}

function onStylusMove(evt) {
    if(evt.pointerId==currentPenId) {
        var current=evt.currentPoint;
```

```
    inkContext.beginPath();
    inkContext.stroke();
    inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
    inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
    inkManager.moveTo(current.x,current.y);
    inkContext.moveTo(current.x,current.y);
```

```
    inkContext.beginPath();
    inkContext.stroke();
    inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
    inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
    inkManager.moveTo(current.x,current.y);
    inkContext.moveTo(current.x,current.y);

    inkManager.processPointerUpdate(current);
}
```

**Question: 30**

You are developing a Windows Store app.

You need to ensure that unauthenticated users are redirected to the login screen when they attempt to navigate to secure pages

Which navigation member should you use?

- A. canGoBack
- B. onbeforenavigate
- C. canGoForward
- D. onnavigated

---

**Answer: B**

---

### Question: 31

---

You are developing a Windows Store app.

Users must be able to initiate searches by using the Search charm. The app must display the search text in a DIV element named `searchBox`.

You need to add code to meet this requirement.

Which code segment should you add?

- A. 

```
WinJS.Application.onsearch = function (event) {
    var searchDiv= document.getElementById("searchBox");
    searchDiv.innerText = "User Searching For: " + event.detail.queryText;
};
```
- B. 

```
WinJS.Application.onactivated = function (event) {
    if (event.detail.kind === Windows.ApplicationModel.Activation.ActivationKind.search) {
        var searchDiv= document.getElementById("searchBox");
        searchDiv.innerText = "User Searching For: " + event.detail.queryText;
    }
};
```
- C. 

```
WinJS.Application.addEventListener("search", function (event) {
    if (event.detail.kind === Windows.ApplicationModel.Activation.ActivationKind.launch) {
        var searchDiv= document.getElementById("searchBox");
        searchDiv.innerText = "User Searching For: " + event.detail.queryText;
    }
});
```
- D. 

```
WinJS.Application.onactivated = function (event) {
    if (event.detail.kind === Windows.ApplicationModel.Activation.ActivationKind.launch) {
        var searchDiv = document.getElementById("searchBox");
        searchDiv.innerText = "User Searching For: " + event.detail.queryText;
    }
};
```

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

---

**Answer: B**

---

### Question: 32

---

You are developing two Windows Store apps named CameraApp and PhotoAlbum.

The apps must meet the following requirements:

CameraApp must have access to images on the local computer on which CameraApp is running.

PhotoAlbum must be able to access the images from CameraApp.

You need to configure the deployment package settings for both apps to ensure that the requirements are met. What should you do?

- A. Add the URI of CameraApp to the Content URIs list for PhotoAlbum, and add the URI of PhotoAlbum to the Content URIs list for CameraApp.
- B. Add the Pictures Library setting to the list of capabilities for PhotoAlbum, and add the Share Target setting to the list of declarations for PhotoAlbum.
- C. Add the ShareTarget setting to the list of declarations for PhotoAlbum, and add the Pictures Library setting to the list of capabilities for CameraApp.
- D. Add the Pictures Library setting to the list of declarations for CameraApp, and add the Share Target setting to the list of capabilities for PhotoAlbum.

---

**Answer: C**

---

### Question: 33

---

You are developing a Windows Store app. The app includes a handler for the datarequested event.

A portion of the code for the event handler is shown in the following code segment:

```
01 function onDataRequested(e) {
02   e.request.data.properties.title = "Order #12345";
03   e.request.data.properties.description = "Track your order";
04   var url = "http://www.fabrikam.com?Order=12345";
05
06 }
```

The app must meet the following requirements:

The app must share an order tracking link with target apps.

The app must share URI-type data only.

You need to ensure that the app meets the requirements.

Which code segment should you insert at line 05?

- A. `e.request.data.uri(url);`
  - B. `e.request.data.properties.setText(url);`
  - C. `var link = new Windows.Foundation.Uri(url);
e.request.data.setUri(link);`
  - D. `var link = new Windows.Foundation.Uri(url)
e.request.data.properties.setText(url);
e.request.setLink(link);`
- 
- A. Option A
  - B. Option B
  - C. Option C
  - D. Option D

---

**Answer: C**

---

**Question: 34**

---

**DRAG DROP**

You are developing a Windows Store app. The app allows users to browse contacts from a social networking site.

The app has the following requirements:

The user must be able to select more than one contact at a time.

The app must display all of the details for the selected contacts.

You need to ensure that the requirements are met.

Which code segments should you use? (To answer, drag the appropriate code segments to the correct locations in the answer are

- a. 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.)

picker.pickSingleContactAsync()  
picker.pickMultipleContactsAsync()  
Windows.ApplicationModel.Contacts.ContactSelectionMode.fields;  
Windows.ApplicationModel.Contacts.ContactSelectionMode.contacts;

---

```
function selectContacts() {  
    var picker = Windows.ApplicationModel.Contacts.ContactPicker();  
    picker.commitButtonText = "Select";  
    picker.selectionMode = [  ]  
        .then(function (contacts) {  
            ...  
        });  
    });  
}
```

---

---

**Answer:**

---

```
picker.pickSingleContactAsync()
```

```
Windows.ApplicationModel.Contacts.ContactSelectionMode.fields;
```

```
function selectContacts() {
    var picker = Windows.ApplicationModel.Contacts.ContactPicker();
    picker.commitButtonText = "Select";
    picker.selectionMode = Windows.ApplicationModel.Contacts.ContactSelectionMode.contacts;

    picker.pickMultipleContactsAsync()
        .then(function (contacts) {
            ...
        });
    });
}
```

Note:

Windows.ApplicationModel.Contacts.ContactSelectionMode.contacts: Specifies that you want to select the entire contact.

ContactPicker.PickMultipleContactsAsync launches the Contact Picker for selecting multiple contacts.

Incorrect answers:

- \* ContactPicker.PickSingleContactAsync launches the Contact Picker for selecting a single contact.

- \* Windows.ApplicationModel.Contacts.ContactSelectionMode.fields: Specifies that you want to select only certain fields.

Reference: ContactSelectionMode enumeration (Windows)

### Question: 35

#### HOTSPOT

You are developing a Windows Store app.

You need to ensure that a remote file is updated when the app is activated.

Which code segment should you use? (To answer, select the correct option from the drop-down list in the answer area.)

#### Work Area

```
function activatedHandler(eventArg) {
    var activationKind =
        Windows.ApplicationModel.Activation.ActivationKind;
    if (eventArg.detail.kind ==  ) {
        ...
    }
}
```

**Work Area**

```
function activatedHandler(eventArg) {
    var activationKind =
        Windows.ApplicationModel.Activation.ActivationKind;
    if (eventArg.detail.kind == activationKind.cachedFileUpdater) {
        ...
    }
}
```

**Answer:****Work Area**

```
function activatedHandler(eventArg) {
    var activationKind =
        Windows.ApplicationModel.Activation.ActivationKind;
    if (eventArg.detail.kind == activationKind.cachedFileUpdater) {
        ...
    }
}
```

**Question: 36**

You are developing a Windows Store app.

You need to ensure that the app logs pages that are viewed by the user.

Which navigation member should you use?

- A. onnavigated
- B. canGoForward
- C. canGoBack
- D. onbeforenavigate

**Answer: A****Question: 37****HOTSPOT**

You are developing a Windows Store app for purchasing school supplies.

The app has the following storage requirements:

Inventory data must be accessible to the app and over the Internet to external suppliers. Suppliers will access the data over HTTP by using OData.

App storage for the high volume sales periods must be able to scale rapidly, but at the lowest possible cost.

Color preferences for the user must be stored on the host device.

You need to choose the appropriate data access strategy for each requirement.

Which data access strategies should you use? (To answer, select the correct option from each drop-down list in the answer area.)

**Work Area**

Seasonal sales order data

User preference data

**Work Area**

Seasonal sales order data

- Session storage
- Microsoft SQL Server database storage
- Windows Azure storage
- HTML5 local storage
- Sybase database storage

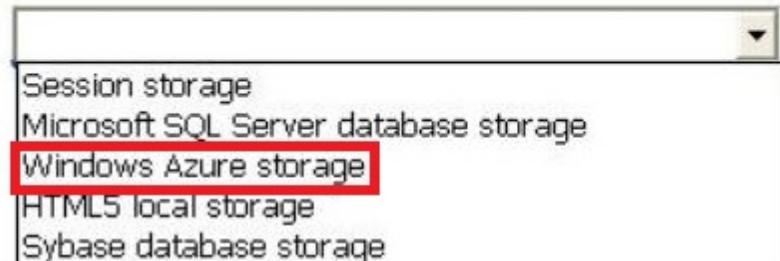
User preference data

- Session storage
- Microsoft SQL Server database storage
- Windows Azure storage
- HTML5 local storage
- Sybase database storage

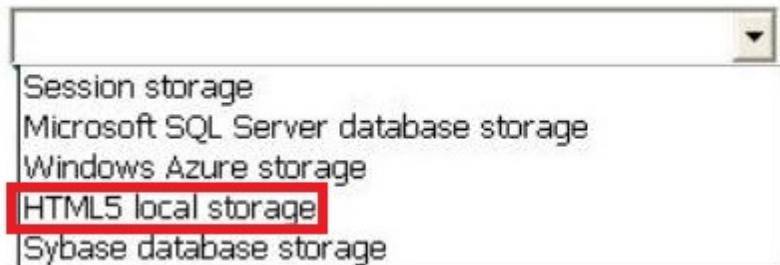
**Answer:**

## Work Area

### Seasonal sales order data



### User preference data



#### Box 1:

The Windows Azure storage services provide storage for binary and text data, messages, and structured data in Windows Azure. The storage services include:

The Blob service, for storing binary and text data

The Queue service, for storing messages that may be accessed by a client

The Table service, for structured storage for non-relational data

Windows Azure drives, for mounting an NTFS volume accessible to code running in your Windows Azure service

Box 2: With HTML5, web pages can store data locally within the user's browser.

Earlier, this was done with cookies. However, Web Storage is more secure and faster. The data is not included with every server request, but used ONLY when asked for. It is also possible to store large amounts of data, without affecting the website's performance.

The data is stored in key/value pairs, and a web page can only access data stored by it.

### Question: 38

You are developing a Windows Store app. The app will format a paragraph of text to resemble the following image.

This is sample text. This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text.

This is sample text. This is sample text. This is sample text.

The app must format the paragraph to meet the following requirements:

The paragraph must be divided among three columns.

Columns must be separated by vertical lines that are one pixel wide.

You need to ensure that the format of the paragraph meets the requirements.

Which code segment should you add?

- C A. p {  
    column-width: auto 3;  
    column-gap: 2em;  
    column-rule: 1px solid #808080;  
    padding: 2em;  
}
- C B. p {  
    column-width: auto 3;  
    column-gap: 2em;  
    column-rule: 1em solid #808080;  
    padding: 1px;  
}
- C C. p {  
    columns: auto 3;  
    column-gap: 2em;  
    column-rule: 1px solid #808080;  
    padding: 2em;  
}
- C D. p {  
    columns: auto 3;  
    column-gap: 2em;  
    column-rule: 1em solid #808080;  
    padding: 2em;  
}

A. Option A

B. Option B

C. Option C

D. Option D

---

**Answer: C**

---

### Question: 39

---

You are developing a Windows Store text editor app by using HTML5 and JavaScript.

Users must be able to select text within the app and then cut the text.

You need to enable the Cut feature.

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

- A. `var menu = new Windows.UI.Popups.PopupMenu();  
menu.commands.append(new Windows.UI.Popups.UICommand("Cut", null, 1));`
- B. `function handleKeyPressUp(e) {  
 var KeyID = e.keyCode;  
 ...  
}  
document.oninput = handleKeyPressUp;`
- C. `var menu = new Windows.Graphics.UI.Popups();  
menu.commands.append(new Windows.UI.Popups.UICommand("Cut", null, 1));`
- D. `var menu = new Windows.UI.Popups();  
menu.commands.append(new Windows.UI.Popups.UICommand("Cut", null, 1));`
- E. `function handleKeyPressUp(e) {  
 var KeyID = e.keyCode;  
 ...  
}  
document.onkeyup = handleKeyPressUp;`
- F. `function handleKeyPressUp(e) {  
 var KeyID = e.keyCode;  
 ...  
}  
document.onkeyclick = handleKeyPressUp;`

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

---

**Answer: A, B**

---

### Question: 40

---

You are developing a Windows Store app. The app has an app bar that is defined as shown in the following code segment.

```
<div data-win-control="WinJS.UI.AppBar"  
     data-win-options="{layout:'custom'}">  
    ...  
</div>
```

You need to style the app bar to match the style of the app.

Which CSS class should you use?

- A. win-commandlayout  
 B. win-surface  
 C. win-appbar  
 D. win-listview  
 E. win-viewport

---

Answer: C

---

**Question: 41**

---

**HOTSPOT**

You develop a Windows Store app that uses a grid layout. The grid is defined by the following CSS code. Line numbers are included for reference only.

```

01 @media (max-width: 800px) and (orientation: landscape)
02 {
03     .squareGrid
04     {
05         width: 250px;
06         height: 190px;
07         overflow: hidden;
08         padding: 10px;
09         display: -ms-grid;
10         -ms-grid-columns: 1fr;
11         -ms-grid-rows: (auto)[4];
12     }
13 }

14 @media (min-width: 800px) and (orientation: portrait)
15 {
16     .squareGrid
17     {
18         width: 150px;
19         height: 200px;
20         overflow: hidden;
21         padding: 10px;
22         display: -ms-grid;
23         -ms-grid-columns: auto 1fr;
24         -ms-grid-rows: (auto)[5];
25     }
26 }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

---

**Answer Area**

Yes	No	Statement
-----	----	-----------

- The @media attribute adjusts the display during screen rotation.
- The CSS code distributes rows equally in every screen orientation.
- The CSS code will accommodate every screen size.

---

**Answer:**

---

---

**Answer Area**

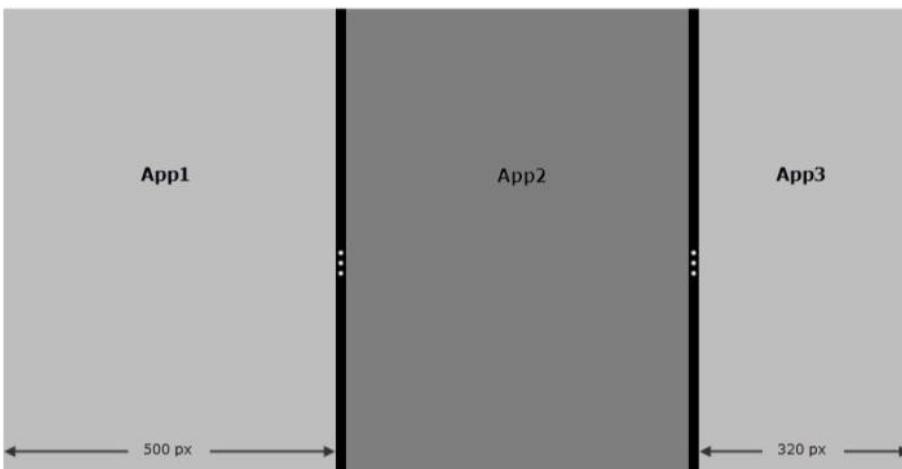
Yes      No      Statement

- The @media attribute adjusts the display during screen rotation.
- The CSS code distributes rows equally in every screen orientation.
- The CSS code will accommodate every screen size.

---

**Question: 42****HOTSPOT**

The following image depicts three apps. App1 and App3 have been launched by App2.



Select the correct answer from each list based on the information presented in the image. Each correct selection is worth one point.

---

**Answer Area**

What is the value of the ViewSizePreference enumeration for App1?

What is the value of the ViewSizePreference enumeration for App3?

Answer Area

What is the value of the ViewSizePreference enumeration for App1?

A dropdown menu with the following options:  
default  
useHalf  
useLess  
useMinimum  
useMore

What is the value of the ViewSizePreference enumeration for App3?

A dropdown menu with the following options:  
default  
useHalf  
useLess  
useMinimum  
useMore

**Answer:**

Answer Area

What is the value of the ViewSizePreference enumeration for App1?

A dropdown menu with the following options:  
default  
useHalf  
useLess  
useMinimum  
useMore

What is the value of the ViewSizePreference enumeration for App3?

A dropdown menu with the following options:  
default  
useHalf  
useLess  
useMinimum  
useMore

**Question: 43**

You develop a Windows Store app. The app is a memory game that displays a 6x6 grid of squares. When the user taps or swipes a square, the square must flip over to display an image. When testing the app, you find that swiping the tile does not cause it to flip over. You need to ensure that the game responds correctly to user input. Which event should you listen for?

- A. pointerover
- B. pointerenter
- C. pointercancel
- D. pointerleave

**Answer: B**

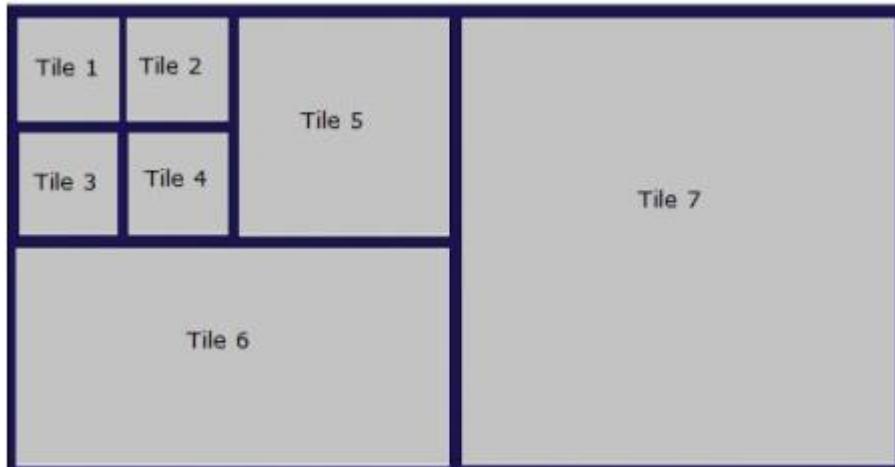
### Question: 44

#### HOTSPOT

You are developing a Windows Store game.

The app tile must display the user's name and current high score.

The following image displays various app tiles.



Select the correct answer from each list based on the information presented in the image. Each correct selection is worth one point.

#### Answer Area

Why does Tile 1 not meet the app tile requirements?

What tile size value does Tile 5 use?

#### Answer Area

Why does Tile 1 not meet the app tile requirements?

The small tile size does not support badges.  
The square tile size does not support badges.  
The small tile size does not support live notifications.  
The square tile size does not support live notifications.

What tile size value does Tile 5 use?

small  
medium  
large  
square  
wide

Answer:

## Answer Area

Why does Tile 1 not meet the app tile requirements?

The small tile size does not support badges.
The square tile size does not support badges.
<b>The small tile size does not support live notifications.</b>
The square tile size does not support live notifications.

What tile size value does Tile 5 use?

small
<b>medium</b>
large
square
wide

**Question: 45**

## HOTSPOT

You are developing a Windows Store game. The Menu page displays when the game launches. The Game page displays when you launch a game. The Game page reloads each time the player chooses an incorrect answer.

The following code segment runs each time the user navigates to the Game page. Line numbers are included for reference only.

```
01 var backMax = 3;
02 var stackLength = WinJS.Navigation.history.backStack.length;
03 if (stackLength > backMax) {
04   var navState = { backStack: null };
05   WinJS.Navigation.history = navState;
06 }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

## Answer Area

Yes	No	Statement
-----	----	-----------

- The Back button appears on the Game page the first time the player chooses an incorrect answer.
- The Back button disappears from the Game page after the player chooses four incorrect answers.
- The player can play indefinitely by clicking the Back button after choosing a wrong answer.

---

**Answer:**

---

## Answer Area

Yes      No      Statement

- The Back button appears on the Game page the first time the player chooses an incorrect answer.
- The Back button disappears from the Game page after the player chooses four incorrect answers.
- The player can play indefinitely by clicking the Back button after choosing a wrong answer.

**Question: 46**

## HOTSPOT

You are developing a Windows Store app by using HTML5 and JavaScript.

The app defines the following objects:

InkManager is an object to process and manipulate the ink-related data from the stylus.

InkContext is an object to hold the surface context.

CurrentPenId is an object to restrict input processing to one stroke at a time.

The app must support the following requirements:

Support the use of a stylus input device.

Begin capturing input when the stylus first touches the screen.

Render stylus movements in real time.

You need to ensure that the requirements are met.

Which code segments should you use? (To answer, select the correct option from each drop-down list in the answer area.)

## Work Area

```
function onStylusDown(evt) {
    var current=evt.currentPoint;
```





```
inkManager.processPointerDown(current);
currentPenId=evt.pointerId;
}
```



```
function onStylusMove(evt) {
    if(evt.pointerId==currentPenId) {
        var current=evt.currentPoint;
```



```
inkManager.processPointerUpdate(current);
}
```



## Work Area

```
function onStylusDown(evt) {
    var current=evt.currentPoint;
```

```
inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);
```

```
inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);
```

```
inkManager.processPointerDown(current);
currentPenId=evt.pointerId;
}
function onStylusMove(evt) {
    if(evt.pointerId==currentPenId) {
        var current=evt.currentPoint;
```

```
inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);
```

```
inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);
```

```
inkManager.processPointerUpdate(current);
}
```

---

**Answer:**

---

## Work Area

```
function onStylusDown(evt) {
    var current=evt.currentPoint;
    inkContext.beginPath();
    inkContext.stroke();
    inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
    inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
    inkManager.moveTo(current.x,current.y);
    inkContext.moveTo(current.x,current.y);
```

```
inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);
```

```
inkManager.processPointerDown(current);
currentPenId=evt.pointerId;
}
function onStylusMove(evt) {
    if(evt.pointerId==currentPenId) {
        var current=evt.currentPoint;
```

```
inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);
```

```
inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);

inkManager.processPointerUpdate(current);
}
```

**Question: 47**

You have an enterprise app that has been distributed outside of the Windows Store. The app deployment includes devices that are joined to an enterprise domain and devices that are not.

Installation of the app and all updates are required for all domain-joined devices.

You need to push a critical update to the app.

What should you do?

- Require a mandatory update in the versioning model.
- Distribute the update by using group policy.
- Distribute the update by deploying a resource pack.

D. Deploy an .appupload file.

---

**Answer: B**

---

### **Question: 48**

---

You develop a Windows Store app that uses a peer-to-peer scenario. You submit the app to the Windows Store. The app fails Windows Store certification.

You need to ensure that the app meets Windows Store certification guidelines.

What should you do?

- A. Enable the Proximity capability in the app manifest.
- B. In the Settings charm for the app, include a link to the privacy policy.
- C. Enable the Shared User Certificates capability in the app manifest.
- D. Enable the Location capability in the app manifest.

---

**Answer: B**

---

### **Question: 49**

---

You are developing a Windows Store app by using Microsoft Visual Studio.

The app must use a flat navigation pattern.

You need to start the app development from a built-in Visual Studio project template.

Which project template should you use?

- A. Blank App
- B. Grid App
- C. Hub App
- D. Split App

---

**Answer: A**

---

### **Question: 50**

---

You are developing a Windows Store app. The app includes a handler for the suggestionsrequested event.

The empty event handler is shown in the following code. (Line numbers are included for reference only.)

```
01 function handlingSuggestionRequest(e) {  
02  
03 }
```

The app must meet the following requirements:

Provide an app-defined list of choices in the Search pane that responds to user query text changes.

Provide suggested search topics only when the user enters a query that contains the text "products".

You need to add code to meet the requirements.

Which code segment should you insert at line 02?

- A. 

```
if (e.queryText.toLowerCase().indexOf("products") != -1) {
    e.request.searchSuggestionCollection.appendQuerySuggestion("product 1");
    e.request.searchSuggestionCollection.appendQuerySuggestion("product 2");
    e.request.searchSuggestionCollection.appendQuerySuggestion("product 3");
}
```
- B. 

```
if (e.queryText.toLowerCase().indexOf("products") != -1) {
    e.request.searchSuggestionCollection.appendResultSuggestion("product 1");
    e.request.searchSuggestionCollection.appendResultSuggestion("product 2");
    e.request.searchSuggestionCollection.appendResultSuggestion("product 3");
}
```
- C. 

```
if (e.queryText.toLowerCase().indexOf("products") != -1) {
    e.request.appendResultSuggestion("product 1");
    e.request.appendResultSuggestion("product 2");
    e.request.appendResultSuggestion("product 3");
}
```
- D. 

```
if (e.queryText.toLowerCase().indexOf("products") != -1) {
    e.request.appendQuerySuggestion("product 1");
    e.request.appendQuerySuggestion("product 2");
    e.request.appendQuerySuggestion("product 3");
}
```

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

---

**Answer: B**

---

### **Question: 51**

You are developing a newsreader app that provides users with daily aggregated articles from popular news sites. You must allow users to share the URI of the articles.

The app must allow at least one of the following ways to share the URI:

With another Windows Store app

With the user's default web browser

You need to implement the sharing functionality.

Which property of the StandardDataFormats class should you use?

- A. StorageItems
- B. Rtf
- C. ApplicationLink
- D. Text

---

**Answer: D**

---

### **Question: 52**

You are developing a Windows Store app that includes a handler for the `onactivated` event.

A portion of the event handler is shown in the following code. (Line numbers are included for reference only.)

```
01 WinJS.Application.onactivated = function (eventObject) {  
02     if (eventObject.detail.kind === Windows.ApplicationModel.Activation.ActivationKind.launch)  
03         var printManager = Windows.Graphics.Printing.PrintManager.getForCurrentView();  
04  
05     eventArgs.setPromise(WinJS.UI.processAll());  
06 }  
07 };
```

You need to ensure that the app responds to printing requests from the Devices charm.

Which code segment should you insert at line 04?

- A. `printManager.printer.onprinttaskrequested = onPrint; printManager.printer.showPrintUIAsync();`
- B. `printManager.onPrint = onPrint;`
- C. `printManager.onprinttaskrequested = onPrint;`
- D. `printManager.printer.showPrintUIAsync();`

---

**Answer: C**

---

### **Question: 53**

---

You are developing a Windows Store app that will play video files stored locally on the user's computer. The app will support the Play To feature.

The app includes a button that must programmatically invoke the Play To flyout when pressed.

You need to ensure that clicking the button displays the Play To flyout.

Which code segment should you use?

- A. `Windows.Media.PlayTo.PiayToManager.showPlayToUI();`
- B. `Windows.Media.Devices.MediaDevicesControl.bind("flyout");`
- C. `Windows.Media.PlayTo.PlayToManager-playTo();`
- D. `Windows.Media.Devices.VideoDeviceController.bind("flyout");`

---

**Answer: A**

---

### **Question: 54**

---

#### **HOTSPOT**

You develop a Windows Store app by using JavaScript. The current environment is shown in the following diagram.



A central cloud server must be able to push notifications to all mobile platforms including, but not limited to, Windows 8.x devices and Windows 8 Phones.

You need to configure the environment.

Select the correct answer from each list based on the information presented in the diagram. Each correct selection is worth one point.

#### Answer Area

Deploy this service or storage mechanism at location 1.

Deploy this service or storage mechanism at location 2.

#### Answer Area

Deploy this service or storage mechanism at location 1.

Microsoft Azure Blob Storage
Microsoft Azure Service Bus
Microsoft SkyDrive
Microsoft SQL Azure
Windows Azure Mobile Services

Deploy this service or storage mechanism at location 2.

Microsoft Azure Service Bus
Microsoft SkyDrive
Microsoft SQL Azure
Windows Azure Mobile Services

**Answer:**

Answer Area

Deploy this service or storage mechanism at location 1.



Deploy this service or storage mechanism at location 2.



---

### Question: 55

---

You are developing a Windows Store enterprise app.

The app must retrieve data from other apps asynchronously across domains by using the XMLHttpRequest object.

You need to retrieve the data.

What should you use?

- A. winJS.xhr
- B. getResponseStream()
- C. HttpWebRequest
- D. HttpClient

---

**Answer: C**

---

---

### Question: 56

---

**HOTSPOT**

You develop a Windows Store app that displays information for a conference. You use a ListView control to display the list of sessions that are available. Users can group sessions by track, speaker, or the day of the session. The app includes the following HTML markup. Line numbers are included for reference only.

```

01 <div class="itemtemplate" data-win-control="WinJS.Binding.Template">
02   <div class="zoomedOutItemTemplate" data-win-control="WinJS.Binding.Template">
03     <div class="zoomedOutItemContainer">
04       
05       <h4 class="zoomedOutGroupTitle" data-win-bind="textContent: title; alt: title"> </h4>
06       <div class="zoomedOutItemCount" data-win-bind="textContent: sessionCount;"></div>
07     </div>
08   </div>
09   <div class="item">
10     
11     <div class="item-overlay">
12       <h4 class="item-title" data-win-bind="textContent: shortTitle"></h4>
13     </div>
14   </div>
15 </div>

16 <section aria-label="Main content" role="main">
17   <div id="zoom" data-win-control="WinJS.UI.SemanticZoom"
18     data-win-options="{ initiallyZoomedOut: false }" style="height: 100%">
19     <div id="zoomedInListView" class="groupeditemslist" aria-label="List of groups"
20       data-win-control="WinJS.UI.ListView" data-win-options="{ selectionMode: 'none' }">
21     </div>
22     <div id="zoomedOutListView" class="groupeditemslist" aria-label="List of groups"
23       data-win-control="WinJS.UI.ListView" data-win-options="{ selectionMode: 'none' }">
24     </div>
25   </div>
26 </section>

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. Each correct selection is worth one point.

#### Answer Area

Yes	No	Statement
-----	----	-----------

- You must specify a WinJS.UI.GridLayout option for the WinJS.UI.ListView controls.
- The app will initially display data by using the zoomed out, grouped view.
- When you zoom in, each row will display an image, the group title, and a count of the number of items in the group.

**Answer:**

#### Answer Area

Yes	No	Statement
-----	----	-----------

- You must specify a WinJS.UI.GridLayout option for the WinJS.UI.ListView controls.
- The app will initially display data by using the zoomed out, grouped view.
- When you zoom in, each row will display an image, the group title, and a count of the number of items in the group.

---

#### Question: 57

You are developing a Windows Store app.

The app must provide single sign-on (SSO) to a Microsoft account and to social networks. The SSO feature must be accessible from any device.  
You need to implement SSO.  
Which authentication strategy should you use?

- A. Account settings
- B. Certificate authentication
- C. Credential Picker
- D. Credential Locker

---

**Answer: A**

---

## Question: 58

---

### DRAG DROP

You are developing a Windows Store app that will display and track tasks that a user must complete. The app uses two ListView controls. One ListView control displays incomplete task items. The other ListView control displays completed task items.

The user must be able to:

Add new tasks to the list of incomplete tasks.

Remove tasks from either list.

Mark tasks as complete.

You need to ensure that users can drag items from the incomplete tasks list to the completed tasks list.

How should you complete the relevant HTML markup? To answer, drag the appropriate markup segment to the correct targets. Each markup 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.

---

draggable="true"  
draggable="false"  
itemsDraggable: true  
itemsDraggable: false

```
<div id="taskItemTemplate" data-win-control="WinJS.Binding.Template" style="display: none">
<div class="item">
    
    <div class="taskItemDetail">
        <h4 data-win-bind="innerText: title"></h4>
        <h6 data-win-bind="innerText: dueDate"></h6>
    </div>
</div>
</div>

<div id="listView"
    class="win-selectionstylefilled" data-win-control="WinJS.UI.ListView"
    data-win-options="{
        itemDataSource: myTaskData.dataSource,
        selectionMode: 'none',
        itemTemplate: taskItemTemplate,
        ,
        layout: { type: WinJS.UI.GridLayout }
    }">
</div>
```

---

**Answer:**

---

```
<div id="taskItemTemplate" data-win-control="WinJS.Binding.Template" style="display: none">
<div class="item">
    
    <div class="taskItemDetail">
        <h4 data-win-bind="innerText: title"></h4>
        <h6 data-win-bind="innerText: dueDate"></h6>
    </div>
</div>
</div>

<div id="listView"
    class="win-selectionstylefilled" data-win-control="WinJS.UI.ListView"
    data-win-options="{
        itemDataSource: myTaskData.dataSource,
        selectionMode: 'none',
        itemTemplate: taskItemTemplate,
        itemsDraggable: true
    }"
    layout: { type: WinJS.UI.GridLayout }
></div>
```

## Question: 59

You are developing a Windows Store app.

The app has the following requirements:

Access resources from the URI ws://contoso.com/MyWebApplication.ashx.

Send and receive binary data.

Use real-time notifications and updates in the browser.

Use a bidirectional, full-duplex communication channel with services.

You need to ensure that the app meets the requirements.

Which type of object should you create?

- A. Worker
- B. WebSocket
- C. MessageChannel
- D. XMLHttpRequest
- E. WebService

Answer: D

## Question: 60

DRAG DROP

You are developing a Windows Store app by using HTML5 and JavaScript. The app defines the following objects:

inkManager is an object to process and manipulate the ink-related data from the stylus.

inkContext is an object to hold the surface context.

currentPenId is an object to restrict input processing to one stroke at a time.

The app must support the following requirements:

Support the use of a stylus input device.

Begin capturing input when the stylus first touches the screen.

Render stylus movements in real time.

You need to ensure that the requirements are met.

Which code segments should you use? (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.)

```

inkContext.beginPath();
inkContext.stroke();
inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.lineTo(current.rawPosition.x,current.rawPosition.y);
inkManager.moveTo(current.x,current.y);
inkContext.moveTo(current.x,current.y);

function onStylusDown(evt) {
    var current=evt.currentPoint;
    inkManager.processPointerDown(current);
    currentPenId=evt.pointerId;
}
function onStylusMove(evt) {
    if(evt.pointerId==currentPenId) {
        var current=evt.currentPoint;
        inkManager.processPointerUpdate(current);
    }
}

```

**Answer:**

```

function onStylusDown(evt) {
    var current=evt.currentPoint;
    inkContext.beginPath();
    inkContext.moveTo(current.x,current.y);
    inkManager.processPointerDown(current);
    currentPenId=evt.pointerId;
}
function onStylusMove(evt) {
    if(evt.pointerId==currentPenId) {
        var current=evt.currentPoint;
        inkContext.lineTo(current.rawPosition.x,current.rawPosition.y);
        inkContext.stroke();
        inkManager.processPointerUpdate(current);
    }
}

```

**Question: 61**

You are developing a Windows Store app that includes an app bar. You are creating custom styles for the command buttons on the app bar.

You need to ensure that the custom styles include all elements of the command buttons.

Which CSS class should you use?

- A. win-command
- B. win-commandicon
- C. win-commanddring
- D. win-button

---

**Answer: A**

---

**Question: 62**

---

**DRAG DROP**

You have an existing enterprise application that is written in C++. You plan to port the application to a Windows Store app.

You have the following requirements:

Use client-side code for the presentation layer of the app.

Reuse existing code from the original application.

The existing application and the Windows Store app must be able to coexist within the enterprise network.

You need to select the appropriate technology to use for each logical layer of the app.

What should you use? To answer, drag the appropriate technologies to the correct targets. Each technology 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.

- dynamic-link library (DLL) file
- existing C++ code
- HTML
- JavaScript
- Microsoft Foundation Class Library (MFC)
- Windows Runtime Metadata (WinMD) file

#### Answer Area

Element	Technology
business layer code	
packaging of business layer	
user interface code	

**Answer:**

Element	Technology
business layer code	JavaScript
packaging of business layer	Windows Runtime Metadata (WinMD) file
user interface code	HTML

#### Question: 63

You are developing a Windows Store app that will exchange data with other Windows Store apps. A JavaScript object named sourceEventObject is created when the share request is received. The sourceEventObject object contains the details of the share contract.

The following requirements must be met:

Declare a share target contract.

Receive file sharing requests from other windows Store apps.

You need to ensure that the requirements are met.

Which code segment should you use?

- A. 

```
if (sourceEventObject.detail.kind ===  
    Windows.ApplicationModel.Activation.ActivationKind.launch) {  
    var shareOperation = sourceEventObject.detail.shareOperation;  
    if (shareOperation.data.contains(  
        Windows.ApplicationModel.DataTransfer.StandardDataFormats.storageitems)) {  
        ...  
    }  
}
```
- B. 

```
var shareOperation = sourceEventObject.detail.shareOperation;  
if (shareOperation.data.contains(  
    Windows.ApplicationModel.DataTransfer.StandardDataFormats.storageitems)){  
    ...  
}
```
- C. 

```
if (sourceEventObject.detail.kind ===  
    Windows.ApplicationModel.Activation.ActivationKind.file) {  
    var shareOperation = sourceEventObject.detail.shareOperation;  
    if (shareOperation.data.contains(  
        Windows.ApplicationModel.DataTransfer.StandardDataFormats.storageitems)) {  
        ...  
    }  
}
```
- D. 

```
if (sourceEventObject.detail.kind ===  
    Windows.ApplicationModel.Activation.ActivationKind.shareTarget) {  
    var shareOperation = sourceEventObject.detail.shareOperation;  
    if (shareOperation.data.contains(  
        Windows.ApplicationModel.DataTransfer.StandardDataFormats.storageitems)) {  
        ...  
    }  
}
```

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

---

**Answer: D**

---

#### **Question: 64**

You are developing a Windows Store app.

The app must implement only the minimum requirements of the Search contract.

You need to define the Search contract.

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

- A. Add filters to the Search Results page.
- B. Add search suggestions.
- C. Declare the Search contract in the app manifest.

- D. Respond to a search query while the app is the main app on the screen.
- E. Create a basic Search Results page for the app.

---

**Answer: A, B, D**

---

### **Question: 65**

---

You develop a Windows Store app that displays information for a multi-day conference. You use a ListView control to display the list of available sessions.

Users must be able to group sessions by track, by speaker, or by day.

You need to ensure that users can select sessions and add sessions to their calendars.

Which contract or extension should you use?

- A. Contact Picker
- B. Calendar Picker
- C. Appointment Manager
- D. Contact Manager

---

**Answer: C**

---

---

### **Question: 66**

---

#### **DRAG DROP**

You are developing a Windows Store enterprise app that will send status messages to a user's device.

The app must display a toast notification whenever it receives a new message.

You need to implement the toast notification.

Develop the solution by selecting and arranging the required code segments in the correct order. You may not need all of the code segments.

Answer Area

```
var toastTextElements =  
toastXml.getElementsByTagName("text");  
  
var template =  
notifications.ToastTemplateType.toastText01;  
var toastXml =  
notificationManager.createToastNotifier  
(notifications.ToastTemplateType[template]);  
  
notificationManager.getTemplateContent  
().show(toast);  
  
toastTextElements[0].appendChild  
(toastXml.createTextNode("New message"));  
  
notificationManager.createToastNotifier  
().show(toast);  
  
var toast =  
new notifications.ToastNotification  
(toastXml);  
  
var notifications =  
Windows.UI.Notifications;  
var notificationManager =  
notifications.ToastNotifier;
```

**Answer: E, J, I, A, G, C**

### **Question: 67**

You develop a Windows Store app that displays a map.  
Users must be able to use pinch and stretch gestures to zoom in on and out from the map.  
You need to implement touch input for the app by using the least amount of code.  
What should you implement?

- A. Pointers
- B. Static gestures
- C. Custom gestures
- D. Manipulation gestures

**Answer: D**

### **Question: 68**

You develop a Windows Store app. The app is a memory game that displays a 6x6 grid of squares.  
When the user taps or swipes a square, the square must flip over to display an image.  
When testing the app, you find that swiping the tile does not cause it to flip over.  
You need to ensure that the game responds correctly to user input.  
Which event should you listen for?

- A. MSGestureChange

- B. pointerup
- C. pointermove
- D. pointerout

---

**Answer: A**

---

**Question: 69**

---

You are developing a Windows Store app. A page in the app contains the following HTML code:

```
<div id="Grid">
    <div id="Top">Top</div>
    <div id="Bottom">Bottom</div>
</div>
```

The app must style a container element and two child elements to resemble the following image.



The grid layout must meet the following requirements:

The Top section must be half the width of the Bottom section.

The solution must retain the proportions of the child sections in the event that the dimensions of any of the grid sections change.

You need to ensure that the proportions of the sections of the image are retained.

Which CSS segment should you add to your style sheet?

C A. #Grid {  
 width: 300px;  
 height: 200px;  
}  
#Top {  
height: 100px;  
width: 200px;  
float: top;  
background-color: #777;  
}  
#Bottom {  
height: 200px;  
width: 200px;  
float: bottom;  
background-color: #444;  
}

C C. #Grid {  
display: -ms-grid;  
-ms-grid-columns: 1fr;  
-ms-grid-rows: 1fr 2fr;  
width: 300px;  
height: 200px;  
}  
#Top {  
-ms-grid-column: 1;  
-ms-grid-row: 1;  
background-color: #777;  
}  
#Bottom {  
-ms-grid-column: inherit;  
-ms-grid-row: inherit;  
background-color: #444;  
}

C B. #Grid {  
width: 300px;  
height: 200px;  
}  
#Top {  
background-color: #777;  
}  
#Bottom {  
background-color: #444;  
}

C D. #Grid {  
display: -ms-grid;  
-ms-grid-columns: 1fr;  
-ms-grid-rows: 1fr 2fr;  
width: 300px;  
height: 200px;  
}  
#Top {  
-ms-grid-column: 1;  
-ms-grid-row: 1;  
background-color: #777;  
}  
#Bottom {  
-ms-grid-column: 1;  
-ms-grid-row: 2;  
background-color: #444;  
}

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

---

**Answer: D**

---

### Question: 70

---

#### DRAG DROP

You are developing a Windows Store app that will display images uploaded by users.

Images can be shared by using the Share charm. The share pane must close immediately after a user shares an image, without waiting for the file transfer to complete.

You need to implement sharing.

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

```
data.setDataProvider
setData(imageFile)
setData(imageStreamRef)
StandardDataFormats.bitmap
StandardDataFormats.StorageItems
```

Answer Area

```
var standardDataFormat =
Windows.ApplicationModel.DataTransfer. [ ] ;
var imageFile;
function onShareDataRequestedHandler(eventArgs)
{
    var request = eventArgs.request;
    ...
    request. [ ] (standardDataFormat, onDeferredImageRequested);
}
function onDeferredImageRequested(request)
{
    ...
    var imageStreamRef = Windows.Storage.Streams.RandomAccessStreamReference.createFromFile(imageFile);
    request. [ ] ;
    ...
}
```

---

**Answer:**

---

```
var standardDataFormat =
Windows.ApplicationModel.DataTransfer. StandardDataFormats.bitmap [ ] ;
var imageFile;
function onShareDataRequestedHandler(eventArgs)
{
    var request = eventArgs.request;
    ...
    request. data.setDataProvider [ ] (standardDataFormat, onDeferredImageRequested);
}
function onDeferredImageRequested(request)
{
    ...
    var imageStreamRef = Windows.Storage.Streams.RandomAccessStreamReference.createFromFile(imageFile);
    request. setData(imageStreamRef) [ ] ;
    ...
}
```

### Question: 71

You are developing a newsreader app that provides users with daily aggregated articles from popular news sites.

You must allow users to share the URI of the articles.

The app must allow at least one of the following ways to share the URI:

With another Windows Store app

With the user's default web browser

You need to implement the sharing functionality.

Which property of the StandardDataFormats class should you use?

- A. ContentSourceApplicationLink
- B. Rtf
- C. WebLink
- D. ContentSourceWebLink

---

**Answer: D**

### **Question: 72**

---

You develop a Windows Store app that plays music files stored locally on your computer. The app contains the following HTML markup. Line numbers are included for reference only.

```
01 <audio controls="controls">
02   <source src="myMusic.mp3" />
03 </audio>
```

You need to ensure that users can play music when the app is NOT displayed on the screen.  
What should you do?

- A. Replace line 02 with the following markup segment:  
`<source src="myMusic.mp3" autoplay="true"/>`
  - B. Replace line 02 with the following markup segment:  
`<source src="myMusic.mp3" msaudiocategory="BackgroundCapableMedia"/>`
  - C. Replace line 01 with the following markup segment:  
`<audio controls="controls" msaudiocategory="BackgroundCapableMedia">`
  - D. Replace line 01 with the following markup segment:  
`<audio controls="controls" autoplay="true">`
- A. Option A
  - B. Option B
  - C. Option C
  - D. Option D

---

**Answer: D**

### **Question: 73**

---

You develop a Windows Store app that uses a peer-to-peer scenario. You submit the app to the Windows Store.  
The app fails Windows Store certification.

You need to ensure that the app meets Windows Store certification guidelines.  
What should you do?

- A. Enable the Enterprise Authentication capability in the app manifest.
- B. Enable the Internet (Client & Server) capability in the app manifest.
- C. Enable the Shared User Certificates capability in the app manifest.

D. Enable the Location capability in the app manifest.

---

**Answer: B**

---

### **Question: 74**

---

You are developing a Windows Store app.

The app must provide single sign-on (SSO) to a Microsoft account and to social networks. The SSO feature must be accessible from any device.

You need to implement SSO.

Which authentication strategy should you use?

- A. Account settings
- B. Smart card authentication
- C. Fingerprint authentication
- D. Web authentication broker

---

**Answer: D**

---

### **Case Study: 1**

#### **Southbridge Videos**

##### **Background**

Southbridge Video rents and sells video games, movies, and other multimedia content. The company is currently expanding its operations. Southbridge video is developing a Windows Store news reader and social media app. Users will be able to view and interact with news stories that are related to the video game, entertainment, and related industries. Southbridge Video employees will also use the app to manage sales leads, order fulfillment, and customer-service related activities.

##### **Business Requirements**

The app has the following requirements.

##### **Email**

Users must be able to email news items to their contacts.

##### **Navigation**

- Easy navigation access must be available to move to the next and previous pages.
- Users searching for specific news items must be able to navigate directly to an item from the search results pane.

##### **News items**

- When a user selects a news item on newsPage.html, the news item should be displayed in the newsItem.html page.
- The app must periodically retrieve new news items on the newsPage.html page.
- The app must allow the user to save annotated news.
- The app must display a short title for each news item.

##### **Search capabilities**

- The app must allow users to search within available news items to locate articles of interest.
- The app must provide search suggestions for users.

##### **Authentication**

- Employees must be able to view the sales leads, order fulfillment, and customer-service related pages.
- Authenticated users must be able to save news items to read at a later time.
- Authenticated users must be able to add and save handwritten notes to the news items.
- The app must allow users to choose whether their credentials will be saved after they first log in. User credentials must be saved by default.

## **Technical Requirements**

### **Email**

- When a user clicks the To button to email news items, only contacts that have email addresses should be displayed.
- When multiple contacts are selected, the email addresses must be displayed in the To text box as a semi-colon-delimited string.

### **News items**

The app must periodically retrieve new items from a web service. The app must display a progress indicator while retrieving new items.

The news feed service must respond to all requests within 15 seconds. The app must not throw an error if the service does not respond within the allotted time.

Titles for news items must not overflow into other elements on the page.

Authenticated users must be able to add handwritten notes to the news items by using a stylus or the mouse.

The app must support saving annotations along with the news item. The app must cancel the navigation from newsItem.html to newsPage.html if there are unsaved changes in the annotations area.

### **Search capabilities**

The app must retrieve a list of phrases from the news service and provide them as search suggestions to users.

### **Authentication**

- Users connected to the corporate network must authenticate against an Active Directory server.
- Users outside of the corporate network must authenticate by using forms-based authentication.
- User credentials must not be transmitted in plain text.

### **Application Structure**

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

emailPage.html

```
EH01 <body>
EH02 ...
EH03 <div>
EH04   <button id="BtnTo">To</button>
EH05   <input type="text" id="To"/>
EH06 ...
EH07 </div>
EH08 </body>
```

emailPage.js

```
EJ01 function chooseContact(eventObject) {
EJ02   var picker = Windows.ApplicationModel.Contacts.ContactPicker();
EJ03
EJ04   picker.pickSingleContactAsync().then(function (contact) {
EJ05 });
EJ06 }
```

getCredential.js

```
GC01 function launchCredPicker() {
GC02   try {
GC03     var options = new Windows.Security.Credentials.UI.CredentialPickerOptions();
GC04 }
```

getCredential.js

```
GC01 function launchCredPicker() {
GC02   try {
GC03     var options = new Windows.Security.Credentials.UI.CredentialPickerOptions();
GC04
GC05     Windows.Security.Credentials.UI.CredentialPicker.pickAsync(options)
GC06       .then(function (results) {
GC07         ...
GC08       });
GC09     catch (err) {
GC10       WinJS.log && WinJS.log("Error message: " + err.message, "sample", "error");
GC11     }
GC12 }
```

newsItem.html

```
NI01 <body>
NI02 ...
NI03 <div>
NI04   <canvas id="inkCanvas"></canvas>
NI05   <div>
NI06     <button id="draw">Draw</button>
NI07     <button id="select">Select</button>
NI08     <button id="erase">Erase</button>
NI09   </div>
NI10 </div>
```

newsItem.js

```
NJ01 function isInkInput(evt)
NJ02 {
NJ03
NJ04 }
NJ05
NJ06 function drawStrokes() {
NJ07
NJ08   strokeColor = "black";
NJ09   strokeWidth = 2;
NJ10 }
NJ11
NJ12 function selectStrokes() {
NJ13
NJ14   strokeColor = "red";
NJ15   strokeWidth = 1;
NJ15 }
```

newsPage.html

```
NH01 <body>
NH02 ...
NH03  <divclass="newsitemtemplate"data-win-control="WinJS.Binding.Template">
NH04    <imgclass="news-item-image" src="#" data-win-bind="src: backgroundImage; alt:
title" />
NH05    <divclass="news-item-info">
NH06      <h4class="news-item-description" data-win-bind="textContent: description"></h4>
NH09    </div>
NH10  </div>
NH11 </body>
```

## newsPage.js

```
NP01 var nav = WinJS.Navigation;
NP02 ItemInvoked: function (eventObject) {
NP03   var item = data.items.getAt(eventObject.detail.itemIndex);
NP04
NP05   }
NP06 },
NP07
NP08   function provideSuggestions(queryText, suggestionRequest) {
NP09     var suggestionList = getSuggestions();
NP10     var query = queryText.toLowerCase();
NP11
NP12     }
NP13   }
NP14 }
NP15 }
NP16
NP17 function OnActivated(e) {
NP18   var detail = e.detail;
NP19
NP20   WinJS.Navigation.navigate("/html/NewsItem.html",id);
NP21 }
NP22 }
```

---

### Question: 1

---

You need to configure the CredentialPicker object to meet the requirements.  
Which code segment should you insert at line GC04?

- A. options.callerSavesCredential = false;
- B. options.CredentialSaveOption.unselected;
- C. options.CredentialSaveOption.selected;
- D. options.callerSavesCredential = true;
- E. options.CredentialSaveOption.hidden;

---

**Answer: C**

---

---

### Question: 2

---

You need to implement the code to meet the search requirements.  
Which code segment should you insert at line NP11?

- C A. `for (var i = 0, len = suggestionList.length; i < len; i++) {  
 if (suggestionList[i] === query) {  
 suggestionRequest.searchSuggestionCollection.appendQuerySuggestion  
(suggestionList[i]);`
- C B. `for (var i = 0, len = suggestionList.length; i < len; i++) {  
 if (suggestionList[i] === query) {  
 suggestionRequest.searchSuggestionCollection.appendResultSuggestion  
(suggestionList[i]);`
- C C. `for (var i = 0, len = suggestionList.length; i < len; i++) {  
 if (suggestionList[i].substr(0, query.length).toLowerCase() === query) {  
 suggestionRequest.searchSuggestionCollection.appendResultSuggestion  
(suggestionList[i]);`
- C D. `for (var i = 0, len = suggestionList.length; i < len; i++) {  
 if (suggestionList[i].substr(0, query.length).toLowerCase() === query) {  
 suggestionRequest.searchSuggestionCollection.appendQuerySuggestion  
(suggestionList[i]);`

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

---

**Answer: D**

---

### **Question: 3**

---

You need to implement the code to retrieve news items according to the requirements.  
Which code segment should you add to newsPage.js?

C A. `function fetchDailyNews() {  
 WinJS.xhr({ url: "http://www.southridgevideo.com/feed" })  
 .then(function progress(result) {  
 progressDiv.innerText = result.readyState;  
 },  
 function complete(result) {  
 ...  
 });  
}`

C B. `function fetchDailyNews() {  
 WinJS.xhr({ url: "http://www.southridgevideo.com/feed" })  
 .then(function progress(result) {  
 progressDiv.innerText = result.readyState;  
 })  
 .then(function complete(result) {  
 ...  
 });  
}`

C C. `function fetchDailyNews(){  
 WinJS.xhr({ url: "http://www.southridgevideo.com/feed" })  
 .done(function progress(result) {  
 progressDiv.innerText = result.readyState;  
 });  
}`

C D. `function fetchDailyNews(){  
 WinJS.xhr({ url: "http://www.southridgevideo.com/feed" })  
 .done(function complete(result) {  
 ...  
 }, null,  
 function progress(result) {  
 progressDiv.innerText = result.readyState;  
 });  
}`

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

---

**Answer: D**

---

#### Question: 4

---

You need to ensure that the app displays only contacts that meet the requirements.  
Which code segment should you insert at line EJ03?

- A. `picker.selectionMode = Windows.ApplicationModel.Contacts.ContactSelectionMode.fields;`
- B. `picker.selectionMode = Windows.ApplicationModel.Contacts.ContactSelectionMode.contacts;`
- C. `picker.desiredFields.append(Windows.ApplicationModel.Contacts.ContactField ("Email",string));`
- D. `picker.desiredFields.append (Windows.ApplicationModel.Contacts.KnownContactField.email);`

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

---

**Answer: D**

---

### **Question: 5**

---

You need to ensure that the user can annotate news items according to the requirements.  
Which code segment should you insert at line NJ03?

- A. `return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.button === 1));`
- B. `return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.button === 0));`
- C. `return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.type === 0));`
- D. `return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.type === 1));`

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

---

**Answer: B**

---

### **Question: 6**

---

You need to implement the code to meet the requirements for handling changes in the annotation area of the newsItem.html page.  
Which event handler should you add to newsItem.js?

- C A. WinJS.Navigation.addEventListener("beforenavigate", onbeforeNavigate);  
function onbeforeNavigate(eventObject) {  
 if (hasChanges) {  
 eventObject.detail.setPromise(WinJS.Promise.wrap(true));  
 }  
 else {  
 eventObject.detail.setPromise(WinJS.Promise.wrap(false));  
 }  
}
- C B. WinJS.Navigation.addEventListener("navigating", onNavigating);  
function onNavigating(eventObject) {  
 if (hasChanges) {  
 eventObject.detail.setPromise(WinJS.Promise.wrap(true));  
 }  
 else {  
 eventObject.detail.setPromise(WinJS.Promise.wrap(false));  
 }  
}
- C C. WinJS.Navigation.addEventListener("beforenavigate", onbeforeNavigate);  
function onbeforeNavigate(eventObject) {  
 eventObject.detail = null;  
}
- C D. WinJS.Navigation.addEventListener("navigating", onNavigating);  
function onNavigating(eventObject) {  
 eventObject.detail = null;  
}

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

---

**Answer: A**

---

### Question: 7

---

You need to ensure that the navigation requirements for displaying news items are met.  
Which code segment should you insert at line NP04?

- A. nav.navigate("/html/newsPage.html");  
B. nav.navigate ("/html/newsItem.html", {item: item});  
C. nav.forward (" /html/newsItem.html");  
D. nav.forward("/html/newsPage.html", {item: item});

---

**Answer: B**

---

### Question: 8

---

You need to implement the code to meet the requirements for displaying content from search results.

Which code segment should you insert at line NP19?

- A. 

```
if (detail.kind === Windows.ApplicationModel.Activation.ActivationKind.search) {  
    var id = FindNewsId(detail.arguments);
```
- B. 

```
if (detail.kind === Windows.ApplicationModel.Activation.ActivationKind.search) {  
    var id = FindNewsId(detail.queryText);
```
- C. 

```
if (detail.kind === Windows.ApplicationModel.Activation.ActivationKind.launch) {  
    var id = FindNewsId(detail.queryText);
```
- D. 

```
if (detail.kind === Windows.ApplicationModel.Activation.ActivationKind.launch) {  
    var id = FindNewsId(detail.arguments);
```

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

---

**Answer: B**

---

### **Question: 9**

---

You need to ensure that the requirements for capturing user input on the newsItem.html page are met.  
Which code segments should you use? (Each correct answer presents part of the solution. Choose all that apply.)

- A.InkManager.mode = Windows.UI.Input.Inking.InkManipulationMode.selecting;
- B.InkManager.mode = Windows.UI.Input.Inking.InkRecognitionTarget.selected;
- C.InkManager.mode = Windows.UI.Input.Inking.InkManipulationMode.inking;
- D.InkManager.mode = Windows.UI.Input.Inking.InkRecognitionTarget.all;

---

**Answer: A, B**

---

### **Question: 10**

---

You need to ensure that the layout for newsPage.html meets the requirements.  
Which layout should you choose?

- C A. `#MyFlexbox {  
 display: -ms-grid;  
 background: gray;  
 border: blue;  
 -ms-grid-columns: auto;  
}`
- C B. `#MyFlexbox {  
 display: -ms-flexbox;  
 background: gray;  
 border: blue;  
 -ms-flex-wrap: wrap;  
}`
- C C. `#MyFlexbox{  
 display: -ms-flexbox;  
 background: gray;  
 border: blue;  
 -ms-flex-align:stretch;  
}`
- C D. `#MyFlexbox {  
 display: -ms-inline-grid;  
 background: gray;  
 border: blue;  
 -ms-grid-columns: auto;  
}`

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

---

**Answer: B**

---

**Question: 11**

---

You need to ensure that employees are authenticated across public networks according to the requirements. Which code segment should you insert at line GC04?

- A. `option.authenticationProtocol = Windows.Security.Credentials.UI.AuthenticationProtocol.negotiate;`
  - B. `option.authenticationProtocol = Windows.Security.Credentials.UI.AuthenticationProtocol.basic;`
  - C. `option.authenticationProtocol = Windows.Security.Credentials.UI.AuthenticationProtocol.digest;`
  - D. `option.authenticationProtocol = Windows.Security.Credentials.UI.AuthenticationProtocol.custom;`
- A. Option A  
B. Option B  
C. Option C  
D. Option D

---

**Answer: C**

---

### **Question: 12**

---

You need to implement the requirements for sending news items to multiple contacts.  
Which code segment should you use to replace the code in line EJ04?

- A. 

```
var toEmail = "";
picker.pickSingleContactsAsync().then(function (contact) {
    contact.emails.forEach(function (email) {
        toEmail = toEmail.concat(email.value, ";");
    });
});
document.querySelector("#To").innerText = toEmail;
```
- B. 

```
var toEmail = "";
picker.pickMultipleContactsAsync().then(function (contact) {
    contact.emails.forEach(function (email) {
        toEmail = toEmail.concat(email.value, ";");
    });
});
document.querySelector("#To").innerText = toEmail;
```
- C. 

```
var toEmail = "";
picker.pickSingleContactsAsync().then(function (contacts) {
    contacts.forEach(function (contact) {
        toEmail = toEmail.concat(contact.emails[0].value, ";");
    });
});
document.querySelector("#To").innerText = toEmail;
```
- D. 

```
var toEmail = "";
picker.pickMultipleContactsAsync().then(function (contacts) {
    contacts.forEach(function (contact) {
        toEmail = toEmail.concat(contact.emails[0].value, ";");
    });
});
document.querySelector("#To").innerText = toEmail;
```

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

---

**Answer: D**

---

### **Question: 13**

---

You need to ensure that the navigation requirements for displaying news items are met.  
 Which code segment should you insert at line NP04?

- A. Windows.Devices.Enumeration  
 B. Windows.Devices.Input  
 C. Windows.Media.Devices  
 D. Windows.UI.Input

---

**Answer: D**

---

**Question: 14**

You need to implement the code to meet the requirements regarding the display of the newsPage.html page.  
Which HTML element should you insert at line NH06?

- A.<h2 class ="news-item-title win-type-ellipses" data-win-bind="textContent: title"></ h2>
- B.<h2 class="news-item-title win-type-large" data-win-bind="textContent: title"></h2>
- C.<h2 class="news-item-titlewin-type-xx-large" data-win-bind="textContent: title"></ h2>
- D.<h2 class="news-item-title win-type-x-large" data-win-bind="textContent: title"></ h2>

---

**Answer: A**

---

**Question: 15**

You add an element with an ID of MyFlexbox to newsPage.html.

You need to ensure that the layout for MyFlexbox meets the requirements.

Which layout should you choose?

- A. 

```
#MyFlexbox {  
    display: -ms-flexbox;  
    background: gray;  
    border: blue;  
    -ms-flex-wrap: wrap;  
}
```
- B. 

```
#MyFlexbox {  
    display: -ms-inline-grid;  
    background: gray;  
    border: blue;  
    -ms-grid-columns: auto;  
}
```
- C. 

```
#MyFlexbox {  
    display: -ms-grid;  
    background: gray;  
    border: blue;  
    -ms-grid-columns: auto;  
}
```
- D. 

```
#MyFlexbox {  
    display: -ms-flexbox;  
    background: gray;  
    border: blue;  
    -ms-flex-align: stretch;  
}
```

A. Option A

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

---

**Answer: A**

---

## **Case Study: 2**

### **Windows Store app**

#### **Background**

You are developing a Windows Store app by using HTML5, JavaScript, and CSS3. The app will be used to access details about products that your company sells.

#### **Business Requirements**

The app must do all of the following:

- Be available to customers in many different countries.
- Display a list of product categories.
- Display the products for a selected category.
- Display details of a selected product.
- Display images of each product one at a time in a vertical presentation.
- Provide a link to an about section in the Settings pane.
- Update product data on a daily basis.
- Allow the user to view the last selected product while the app is offline.
- Be deployed in the Windows Store.

#### **Technical Requirements**

##### **General**

- When the user restarts the app, the app must start in the state it was in when it was last used.
- App settings controls must be 346 pixels wide.
- The app must optimize bandwidth use and performance.

##### **Security**

- The app must use an enterprise certificate.
- The user must provide valid credentials to access the app.
- After user authentication, the app must use stored credentials.
- User accounts will be validated against a pre-existing enterprise service.

##### **App Architecture**

- Service calls must be separated from the user interface.
- The app must follow the MVC design pattern.
- Service classes can be written in C++, C#, VB, or JavaScript.
- The app must communicate with pre-existing enterprise services.

##### **Application Structure**

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

default.js

```

DF01 (function () {
DF02   "use strict";
DF03   WinJS.Application.onactivated = function (eventObject) {
DF04     if (eventObject.detail.kind ===
Windows.ApplicationModel.Activation.ActivationKind.launch) {
DF05       ...
DF06       WinJS.UI.processAll();
DF07
DF08       WinJS.Application.onsettings = loadSettings;
DF09     }
DF10   };
DF11
DF12   function loadSettings(e){
DF13
DF14     WinJS.UI.SettingsFlyout.populateSettings(e);
DF15   }
DF16
DF17   WinJS.Application.start();
DF18})();

```

credentialManager.js

```

CM01 (function () {
CM02   "use strict";
CM03
CM04   WinJS.Namespace.define("credentialManager", {
CM05     saveCredentials: function (applicationID, userName, password) {
CM06
CM07     },
CM08     ...
CM09     getStoredCredentialsFull: function (applicationID, userName) {
CM10       var credential = undefined;
CM11
CM12       try {
CM13
CM14         }
CM15       catch (e) {
CM16         }
CM17
CM18       return credential;
CM19     },
CM20     ...
CM21   });
CM22 })();

```

## about.html

```

AB01 <!DOCTYPE html>
AB02 <html>
AB03   <head>
AB04     <title>About</title>
AB05   </head>
AB06   <body>
AB07     <div id="about">
AB08       <div class="win-header">
AB09         <div class="win-label">About</div>
AB10       </div>
AB11     <div class="win-content">
AB12       ...
AB13     </div>
AB14   </div>
AB15 </body>
AB16 </html>

```

---

### Question: 1

---

You need to implement the getStoredCredentialsFull method.

Which code segment should you insert at line CM13?

- A. credential = credentialStore.retrieve(applicationID, userName);  
var credentialStore = new Windows.Security.Credentials.PasswordVault();
- B. credential = credentialStore.pickAsync(applicationID, userName);  
var credentialStore = new Windows.Security.Credentials.UI.CredentialPicker();
- C. var credentialStore = new Windows.Security.Credentials.PasswordVault();  
credential = credentialStore.retrieve(applicationID, userName);
- D. var credentialStore = new Windows.Security.Credentials.UI.CredentialPicker();  
credential = credentialStore.pickAsync(applicationID, userName);

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

---

**Answer: C**

---

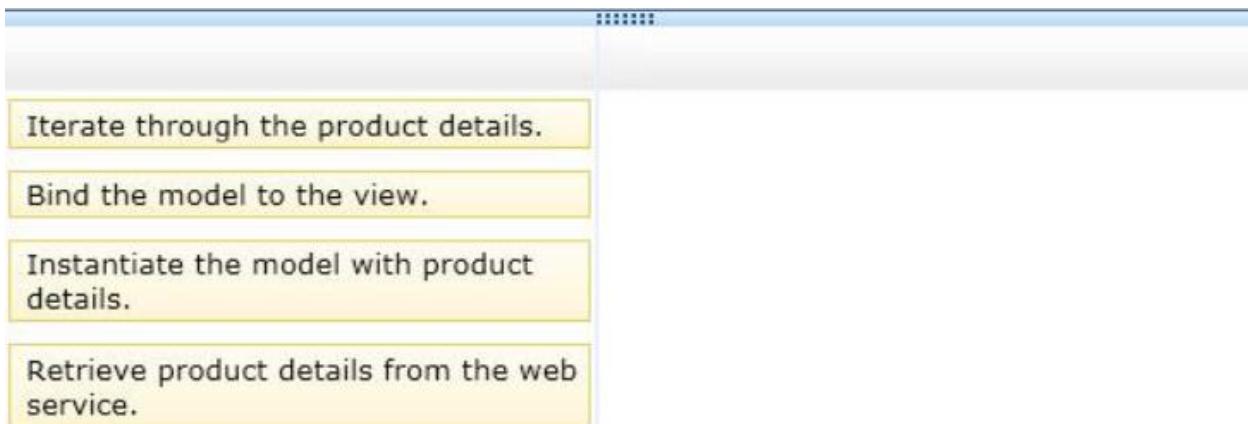
### Question: 2

---

DRAG DROP

You need to ensure that the product details are displayed.

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:**

Box 1: Bind the model to the view.

Box 2: Instantiate the model with product details.

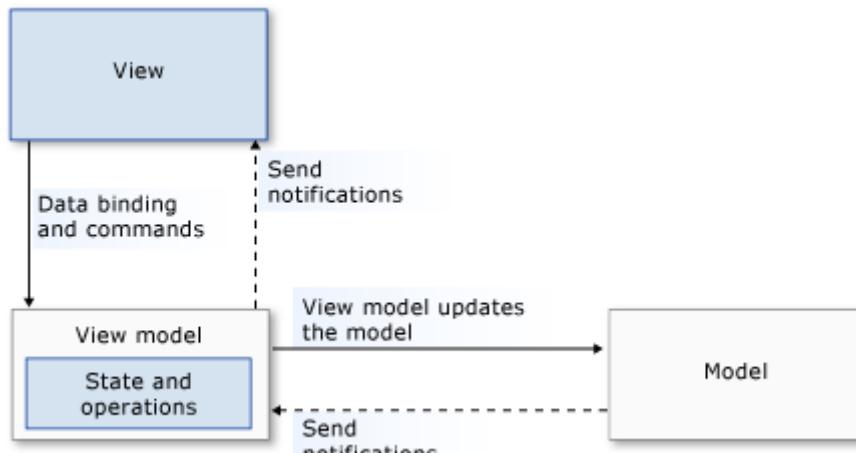
View models connect to the app's underlying model by calling instance methods.

Box 3: Iterate through the product details.

Explanation:

Note:

\* Here are the relationships between a view, a view model and a model.



\* MVVM is an architectural pattern. It is a specialization of the presentation model pattern that was introduced by Martin Fowler. It is also related to the model-view-controller pattern (MVC) and the model view presenter (MVP) pattern that you may already know.

An app that uses MVVM separates business logic, UI, and presentation behavior.

/ Models represent the state and operations of business objects that your app manipulates. For example, Hilo reads and modifies image files, so it makes sense that data types for image files and operations on image files are part of Hilo's model.

/ Views contain UI elements, and they include any code that implements the app's user experience. A view defines the structure, layout, and appearance of what the user sees on the screen. Grids, pages, buttons, and text boxes are examples of the elements that view objects manage.

View models encapsulate the app's state, actions, and operations. A view model serves as the decoupling layer between the model and the view. It provides the data in a format that the view can consume and updates the model so that the view does not need to interact with the model. View models respond to commands and trigger events. They also act as data sources for any data that views display. View models are built specifically to support a view. You can think of a view model as the app, minus the UI. In Windows Store apps, you can declaratively bind views to their corresponding view models.

Reference: Using the Model-View-ViewModel (MVVM) pattern in Hilo (Windows Store apps using C++ and XAML) (Windows)

---

### **Question: 3**

---

You need to ensure that the about.html page is displayed according to the requirements.

Which attribute should you add to the DIV element in line AB07?

- A. data-win-control="WinJS.UI.ApplicationSettings.SettingsLayout"
- B. data-win-control="WinJS.UI.SettingsLayout"
- C. data-win-control="WinJS.UI.ApplicationSettings.SettingsPane"
- D. data-win-control="WinJS.UI.SettingsPane"

---

**Answer: B**

---

---

### **Question: 4**

---

You are preparing to deploy the app.

You need to ensure that the app meets the deployment requirements.

Which tool should you use to validate the app?

- A. Windows App Cert Kit
- B. System Center Configuration Manager
- C. Microsoft Deployment Toolkit
- D. SelfCert

---

**Answer: A**

---

---

### **Question: 5**

---

You need to implement the saveCredentials method.

Which code segment should you insert at line CM06?

- C A. `var passwordVault = new Windows.Security.Credentials.PasswordVault();  
var credential =  
 new Windows.Security.Credentials.PasswordCredential(applicationID, userName,  
password);  
passwordVault.save(credential);`
- C B. `var credentialPicker = new Windows.Security.Credentials.UI.CredentialPicker();  
var credential =  
 new Windows.Security.Credentials.PasswordCredential(applicationID, userName,  
password);  
credentialPicker.store(credential);`
- C C. `var credentialPicker = new Windows.Security.Credentials.UI.CredentialPicker();  
var credential =  
 new Windows.Security.Credentials.PasswordCredential(applicationID, userName,  
password);  
credentialPicker.save(credential)`
- C D. `var passwordVault = new Windows.Security.Credentials.PasswordVault();  
var credential =  
 new Windows.Security.Credentials.PasswordCredential(applicationID, userName,  
password);  
passwordVault.add(credential);`

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

---

**Answer: A**

---

### **Question: 6**

---

You are designing the architecture for the app.  
You need to ensure that the logical design fulfills the design pattern requirements.  
Which type of object should you create?

- A. C# class library  
B. Windows Runtime components  
C. A single JavaScript file  
D. A separate JavaScript file for each page that contains a single enterprise service provider implementation

---

**Answer: B**

---

### **Question: 7**

---

You need to ensure that the about page is displayed.  
Which code segment should you insert at line DF13?

- A. e.detail.commands = { "about": { href: "/Settings/about.html", title: "About" } };
- B. e.detail.applicationcommands = { "about": { target: "/Settings/about.html", title: "About" } };
- C. e.detail.applicationcommands = { "about": { href: "/Settings/about.html", title: "About" } };
- D. e.detail.commands = { "about": { target: "/Settings/about.html", title: "About" } };
- A. Option A  
B. Option B  
C. Option C  
D. Option D

---

**Answer: C**

---

### **Question: 8**

---

You need to ensure that the settings for the About page meet the business requirements.  
Which attribute should you add to the DIV element in line AB07?

- A. data-win-options="{width:'narrow'}"  
B. data-win-options="{width:'346'}"  
C. data-win-options="{size:'narrow'}"  
D. data-win-options={size:'346'}"

---

**Answer: A**

---

### **Question: 9**

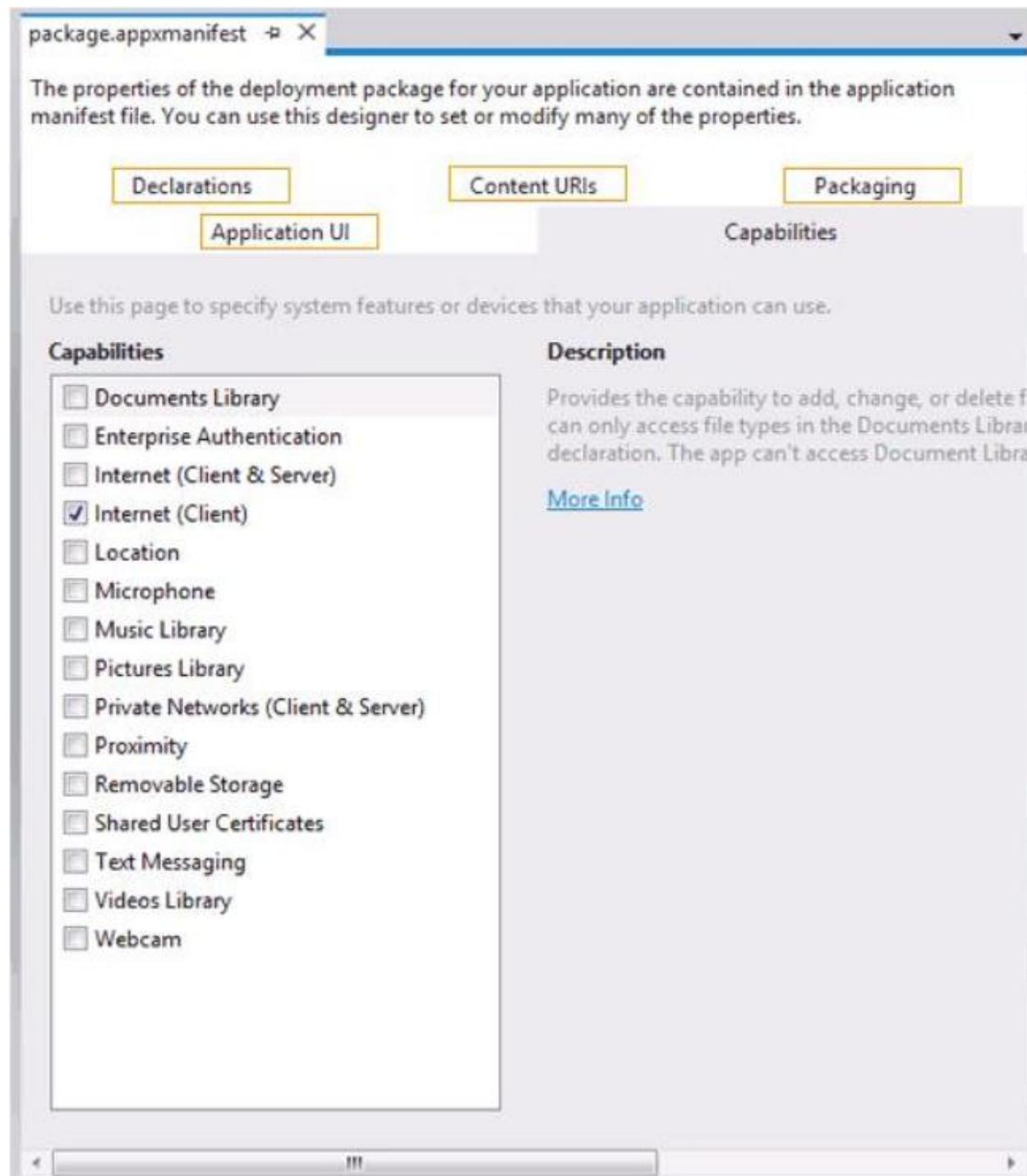
---

#### **HOTSPOT**

You are preparing to deploy the app.

You need to prepare the app according to the technical specifications.

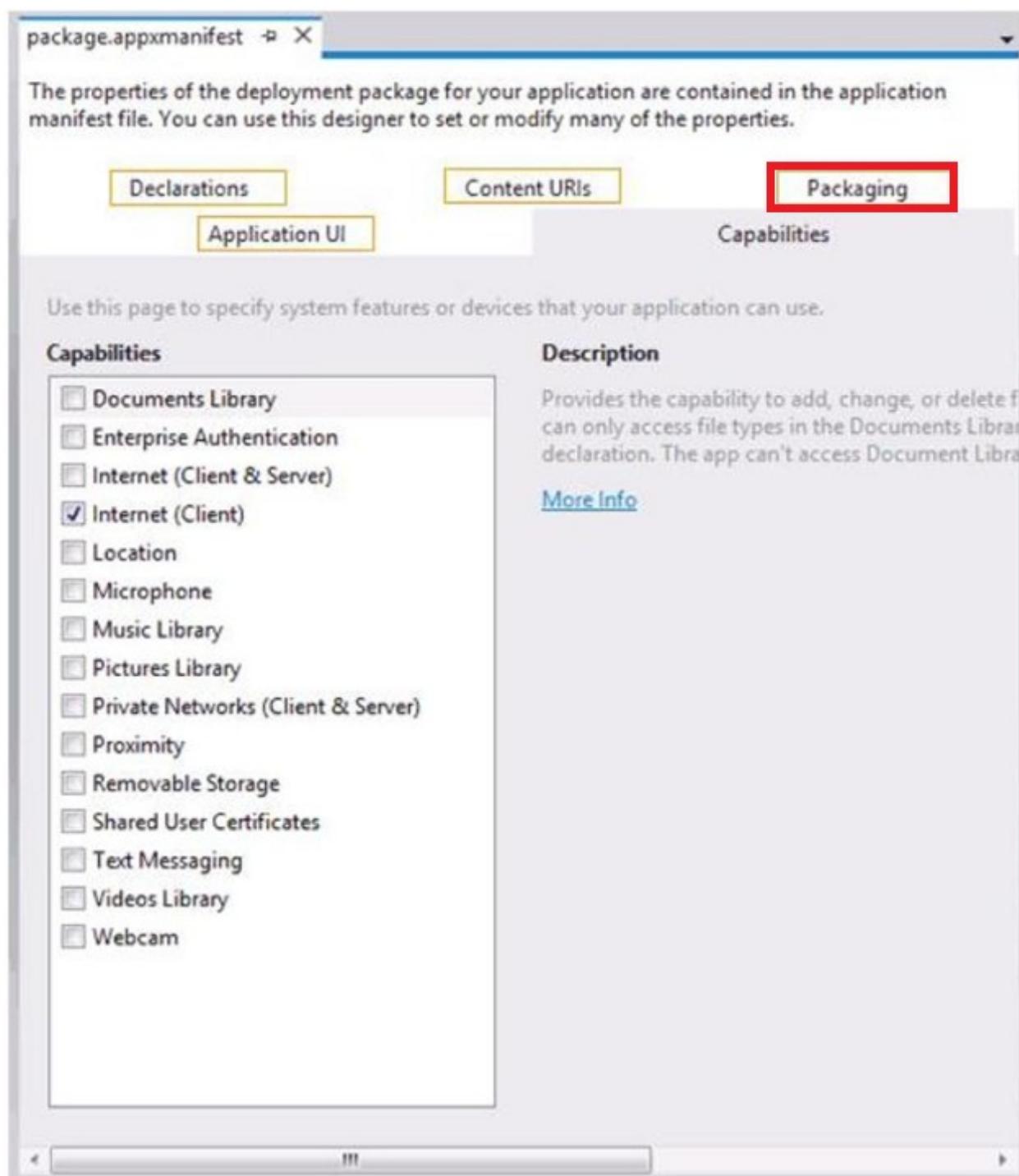
Which tab in Visual Studio should you use? (To answer, select the correct tab in the answer area.)



---

Answer:

---



#### Question: 10

You need to ensure that the about.html page is displayed.  
Which code segment should you insert at line DF13?

- A. e.detail.commandsrequested += { "about": { target: "/Settings/about.html", title: "About" } };
- B. e.detail.applicationcommands = { "about": { href: "/Settings/about.html", title: "About" } };
- C. e.detail.applicationcommands = { "about": { src: "/Settings/about.html", title: "About" } };
- D. e.detail.commandsrequested += { "about": { href: "/Settings/about.html", title: "About" } };

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

---

**Answer: B**

---

### **Question: 11**

---

You need to ensure that the JavaScript object that is defined in the credentialManager.js file can be consumed by other Windows Store apps that are written in different programming languages.

How should you rewrite the code?

- A. As a WinJS.Class object
- B. As an ASP.NET server control
- C. As a Windows Runtime component
- D. As an XAML control

---

**Answer: C**

---

### **Question: 12**

---

#### **DRAG DROP**

You need to ensure that product images are displayed according to the requirements.

Which attributes should you use? (To answer, drag the appropriate attributes to the correct locations in the answer area. Each attribute 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.)

```
data-win-control="WinJS.UI.Flyout"  
data-win-control="WinJS.UI.FlipView"  
data-win-control="WinJS.UI.ScrollView"
```

```
data-win-options="{ scroll: 'vertical'}">  
data-win-options="{ orientation: 'vertical'}">  
data-win-options="{ scroll: 'horizontal'}">  
data-win-options="{ orientation: 'horizontal'}">
```

```
<div id="photoContainer"  
      data-win-control="WinJS.UI.Flyout"  
      data-win-options="{ scroll: 'vertical'}">  
      data-win-options="{ orientation: 'vertical'}">  
      data-win-options="{ scroll: 'horizontal'}">  
      data-win-options="{ orientation: 'horizontal'}">  
    </div>
```

---

**Answer:**

---

```
<div id="photoContainer"  
      data-win-control="WinJS.UI.FlipView"  
      data-win-options="{ orientation: 'vertical'}">  
    </div>
```

---

### Question: 13

---

You need to ensure that the about.html page is displayed according to the requirements.  
Which attribute should you add to the DIV element in line AB07?

- A. data-win-control="WinJS.UI.GridLayout"
- B.data-win-control="WinJS.UI.AppBarn"
- C.data-win-control="WinJS.UI.ListLayout"

D.data-win-control="WinJS.UI.SettingsFlyout"

---

**Answer: B**

---

### **Case Study: 3**

#### **Tailspin Toys**

##### **Background**

You are developing a Windows Store app for Tailspin Toys. The app will allow customers to interact with toys online and to order toys.

##### **Business Requirements**

###### **User Interface**

- The user interface must display toy categories, toys in each category, and product details about the toys. The product details must include the toy name, description, and one or more photos in different views. The toy categories must be distinct, and each toy must belong to only one category at a time.
- The display of toy categories must remain at the top of the screen at all times.
- The display of all product details must be arranged in a grid.
- The user interface must allow the user to zoom images of toys, with a maximum zoom factor of five.
- When inventory changes, the app must raise a toast notification with a brief sound alert. The toast notification must remain on the screen for five seconds.
- The area that displays the details of a single toy has the following requirements:
  - It must be one-third of the size of the area of the toy detail grid.
  - It must be on the left.

###### **Settings**

- All settings must use the Settings charm.
- The app must provide help and information.

###### **Behavior**

- The app must restore user toy selection during an unexpected app termination.
- The app state must be restored when the app is activated after termination.

##### **Technical Requirements**

###### **General**

- App calls must initialize the TailspinArtUpdater object in response to a Process Lifetime Management (PLM) notification.
- The app includes a library named ToyInventory, which will be used to access the toy inventory system. The library includes a method named DisplayInventory().
- Any compiler-generated metadata produced from this library must be consumable by JavaScript, C++, and C# Windows Store apps.

The app must include an HTML5 control that has the following requirements:

- It must use a GetToyInventory event to display app settings.
- It must have a relative path of html/ToyInventory.html.
- It must be invoked by using a link named Show Inventory, which displays in-context access to settings.

###### **Styling**

The styling details of the app must be located in the default CSS file.

### Help and information

- The app will call a function named LoadHelpContent to load help content from tailspintoys.html.
- The app will display the help content by using the SettingsFlyout control.

### Application Structure

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

#### **updateLayout.js**

```
UL01 var ui = WinJS.UI; updateLayout: function (element, viewState) {
UL02     var listView = element.querySelector(".groupeditemlist").winControl;
UL03     if (viewState === appViewState.snapped) {
UL04         ui.setOptions(listView, {
UL05             itemDataSource: data.groups.dataSource,
UL06             groupDataSource: null,
UL07             layout: new ui.ListLayout()
UL08         });
UL09     }
UL10 } else {
UL11     var groupDataSource =
UL12         data.items.createGrouped(this.groupKeySelector, this.groupDataSelector);
UL13     ui.setOptions(listView, {
UL14         itemDataSource: data.items.dataSource,
UL15
UL16     });
UL17 }
UL18 }
```

#### **showToast.js**

```
ST01 function showToast()
ST02 {
ST03     var notifications = Windows.UI.Notifications;
ST04     var notificationManager = notifications.ToastNotificationManager;
ST05     var template = notifications.toastTemplateType.toastImageAndText01;
ST06     var toastXml =
ST07         notificationManager.getTemplateContent(notifications.ToastTemplateType
[template]);
ST08     var images = toastXml.getElementsByTagName("image");
ST09     images[0].setAttribute("src", "images/ToyInventoryChange.png");
ST10     var textNodes = toastXml.getElementsByTagName("text");
ST11     textNodes.appendChild(toastXml.createTextNode("Toy Inventory Changed"));
ST12
ST13 }
```

#### **showHelp.js**

```
SH01 function showHelp() {
SH02
SH03
SH04     LoadHelpContent();
SH05
SH06
SH07 }
```

## **default.js**

```
DF01 var app = WinJS.Application;
DF02
DF03 if (eventObject.detail.kind === Windows.ApplicationModel.Activation.ActivationKind.launch) {
DF04     if (eventObject.detail.previousExecutionState !==
DF05         Windows.ApplicationModel.Activation.ApplicationExecutionState.terminated) {
DF06             TailspinArtUpdater.Initialize();
DF07         }
DF08     else {
DF09         TailspinArtUpdater.Restore();
DF10     }
DF11     WinJS.UI.processAll();
DF12 }
DF13 }
```

---

### **Question: 1**

---

You need to ensure that the app meets the business requirements for user interface design.  
Which code segment should you insert at line UL15?

- A. layout: new ui.ListLayout({ ui.GridLayout{ horizontal: "false" }})
- B. layout: new ui.GridLayout({ groupHeaderPosition: "top" })
- C. layout: new ui.ListLayout({ horizontal: "false" })
- D. layout: new ui.GridLayout( ui. ListLayout{ groupHeaderPosition: "top" })

---

**Answer: B**

---

### **Question: 2**

---

You need to ensure that the app maintains information according to the requirements.  
Which event handlers should you implement? (Each correct answer presents part of the solution. Choose all that apply.)

- A. loaded
- B. activated
- C. onsettings
- D. oncheckpoint

---

**Answer: B, D**

---

### **Question: 3**

---

DRAG DROP

You need to handle the state of the app upon reactivation to meet the requirements.

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

- Check the **detail.kind** object of the event arguments.
- Get the previous state of the app and update.
- Check the **detail.previousExecutionState** object of the event arguments.
- Handle the WinJS.Application.onActivated event.
- Check the **detail.state** object of the event arguments.

---

**Answer: DBCA**

---

#### Question: 4

You need to implement the event that will provide access to app settings.

Which code segment should you use?

- A. 

```
function GetToyInventory() {
    WinJS.Application.onsettings = function (e) {
        e.detail.applicationcommands = [
            "ToyInventoryDiv": { title: "Show Inventory", href: "/html/
    ToyInventory.html" }
        ];
        WinJS.UI.SettingsFlyout.populateSettings(e);
    }
}
```
- B. 

```
function GetToyInventory() {
    WinJS.UI.SettingsFlyout.showSettings("Show Inventory", "/html/T
oyInventory.html");
}
```
- C. 

```
function GetToyInventory() {
    WinJS.Application.onsettings = function (e) {
        WinJS.UI.SettingsFlyout.populateSettings(e.applicationcommands = [
            "ToyInventoryDiv": { title: "Show Inventory", href: "/html/
    ToyInventory.html" }
        ]);
    }
}
```
- D. 

```
function GetToyInventory() {
    WinJS.UI.SettingsFlyout.show("Show Inventory", "/html/T
oyInventory.html");
}
```

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

---

**Answer: D**

---

---

### **Question: 5**

---

You need to ensure that the compiler-generated metadata for the ToyInventory library meets the requirements. Which compiler and associated switch should you use?

- A. Use the MIDL.exe compiler with the /win64 switch.
- B. Use the MIDLRT.exe compiler with the /winmd switch.
- C. Use the MIDLRT.exe compiler with the /winrt switch
- D. Use the MDMERGE.exe compiler with the /v switch.

---

**Answer: C**

---

---

### **Question: 6**

---

You need to ensure that the app presents notifications according to the requirements.

Which code segment should you insert at line ST11?

- A. `var duration = toastXml.getElementsByTagName("duration");  
duration[0].setAttribute("toast", toastContent.ToastDuration.long);`
- B. `var duration = toastXml.getElementsByTagName("toast");  
duration[1].setAttribute("duration", toastContent.ToastDuration.short);`
- C. `var duration = toastXml.getElementsByTagName("toast");  
duration[0].setAttribute("duration", toastContent.ToastDuration.short);`
- D. `var duration = toastXml.getElementsByTagName("duration");  
duration[1].setAttribute("toast", toastContent.ToastDuration.long);`

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

---

**Answer: C**

---

---

### **Question: 7**

---

You need to handle inventory changes according to the requirements.

Which code segment should you insert at line ST12?

- A. `notificationManager.createToastNotifier().getScheduledToastNotifications(toastXml);`
- B. `var toast = new notifications.ToastNotification(toastXml);  
notificationManager.createToastNotifier().show(toast);`
- C. `var toast = new notifications.ToastNotification(toastXml);  
notificationManager.createToastNotifier().getScheduledToastNotifications(toast);`
- D. `notificationManager.createToastNotifier().show(toastXml);`

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

---

**Answer: B**

---

### **Question: 8**

---

You need to implement the business requirement for the layout of the user interface.

Which navigation design patterns should you implement? (Each answer presents part of the solution. Choose all that apply)

- A. Use the Detail pages hierarchical system design pattern to display toys that belong to a category.
- B. Use the Flat system design pattern to navigate the different toy categories.
- C. Use the Hub pages hierarchical system design pattern to navigate the different toy categories.
- D. Use the Section pages hierarchical system design pattern to display toys that belong to a category.

---

**Answer: A, C**

---

### **Question: 9**

---

You need to ensure that the app meets the business requirements for user interface design.

Which code segment should you insert at line UL15?

- A. layout: new ui.GridLayout({ groupHeaderPosition: "left" })
- B. layout: new ui.GridLayout({ groupHeaderPosition: "top" })
- C. layout: new ui.GridLayout( ui. ListLayout{ groupHeaderPosition: "left" })
- D. layout: new ui.GridLayout( ui. listLayout{ groupHeaderPosition: "top" })

---

**Answer: C**

---

### **Case Study: 4**

#### **Automotive Manufacturer**

##### **Background**

You are developing an app for an automotive manufacturer. The app will display information about the vehicle, the vehicle owner's manual, and the maintenance schedule. The app will be available to install from the Windows Store.

##### **Business Requirements**

The app must meet the following business requirements:

- Display the company logo on the Main screen, Owner's Manual screen, and Service Record screen of the app.
- Allow users to store their vehicle information to identify the correct information to display within the app.
- Prominently display a stock image of the user's vehicle on the Main screen at the full height of the app.
- Send notifications by using tile updates when a scheduled maintenance is approaching or past due.

- Insert service data in the appropriate locations, and update the Service Record screen with data received from a cloud service.
- Display related media within the app.

### **Technical Requirements**

The app must meet the following technical requirements.

#### **User Experience**

- The app user interface must follow Microsoft design guidelines.
- The user must be able to insert or update service records.
- The user must be able to filter service records by date or service type.
- The user must be able to navigate between various parts of the app including but not limited to the Main screen, Service Record screen, and Owner's Manual screen.
- The user cannot switch between categories by using the Back button.
- The data from the cloud service must automatically populate the Service Record screen.
- The Main screen must have a dark background. All other screens must have a light background with contrasting colored text.
- All multimedia must provide a full-screen mode that can be activated by the end user.
- All media items must start when the user interacts with them and stop immediately when a video ends.
- The app must accept and display tile messages and notification messages from the cloud service.
- The navigational icons must not be displayed if the content of the screen does not require such display.
- Any page of the owner's manual must be able to be pinned to the Windows Start screen.
- When the app is pinned to the Windows Start screen all live tile sizes must be available to the users.
- When a specific app page is pinned to the Windows Start screen, the page tile cannot be wider or taller than the dimensions of a wide tile.
- Short names and display names must not be displayed on square tiles.

#### **Development**

- The app must use Microsoft Visual Studio preconfigured templates with built-in data structures.
- External notifications must be delivered by using Windows Push Notification Services (WNS).
- The app must be able to receive push notifications from a Windows Azure Mobile Services endpoint.
- Each HTML file must be supported by similarly named JavaScript and CSS files (for example, myFile.html, myFile.js, myFile.css).

#### **File: main.html**

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

```

MH01  <!DOCTYPE html>
MH02  <html>
MH03  <head>
MH04  ...
MH05  <div class="section3" data-win-control="WinJS.UI.HubSection" data-win-options="{ isHeaderStatic: true }"
MH06  data-win-res="{ winControl: { 'header': 'Section3' } }">
MH07  <div class="top-image-row">
MH08    <video id="playMedia" style="position: relative;" poster="/images/
blank1.jpg"></video>
MH09  </div>
MH10  <div class="sub-image-row">
MH11    
MH12    
MH13    
MH14  </div>
MH15  <div class="win-type-medium" data-win-res="{ textContent:
'DescriptionText' }"></div>
MH16  <div class="win-type-small">
MH17    <span data-win-res="{ textContent: 'Section3Description' }"></span>
MH18  </div>
MH19 </div>
MH20 ...
MH21 </html>

```

**File: main.js**

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

```

MJ01  (function () {
MJ02    "use strict";
MJ03    ...
MJ04    });
MJ05 })();
MJ06 function playMedia(e) {
MJ07  return function () {
MJ08    var vid = WinJS.Utilities.query("#playMedia") [0];
MJ09    switch(e)
MJ10    {
MJ11      case 1:
MJ12        src = "media/moviel.mp4";
MJ13        break;
MJ14      case 2:
MJ15        src = "media/movie2.mp4";
MJ16        break;
MJ17      default:
MJ18        src = "media/movie3.mp4";
MJ19    }
MJ20    vid.src = src;
MJ21    vid.play();
MJ22  };
MJ23 }

```

**File: manual.html**

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

```

OH01  <!DOCTYPE html>
OH02  <html>
OH03  <head>
OH04      <meta charset="utf-8" />
OH05  <title>manual</title>
OH06  <link href="//Microsoft.WinJS.2.0/css/ui-dark.css" rel="stylesheet" />
OH07  <script src="//Microsoft.WinJS.2.0/js/base.js"></script>
OH08  <script src="//Microsoft.WinJS.2.0/js/ui.js"></script>
OH09  <link href="manual.css" rel="stylesheet" />
OH10  <script src="manual.js"></script>
OH11 </head>
OH12 <body>
OH13  <div class="manual fragment">
OH14      <header aria-label="Header content" role="banner">
OH15          <button data-win-control="WinJS.UI.BackButton"></button>
OH16          <h1 class="titlearea win-type-ellipsis">
OH17              <span class="pagetitle">Owner's Manual</span>
OH18          </h1>
OH19      </header>
OH20  <section aria-label="Main content" role="main">
OH21      <p>Owner's Manual Content</p>
OH22  </section>
OH23  <div id="appBar" data-win-control="WinJS.UI.AppBar" data-win-options="">
OH24      <button data-win-control="WinJS.UI.AppBarCommand"
OH25          data-win-options="{id:'cmdPin',label:'Pin To Start',icon:'pin',
OH26              section:'global',tooltip:''}"></button>
OH27  </div>
OH28 </body>
OH29 </html>

```

**File: manual.js**

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

```

OJ01  (function () {
OJ02    "use strict";
OJ03    WinJS.UI.Pages.define("/pages/manual/manual.html", {
OJ04      ready: function (element, options) {
OJ05        document.getElementById("cmdPin").addEventListener
("click", pinSecondaryTile, false);
OJ06        var navState = {
OJ07          backStack: WinJS.Navigation.history.backStack.slice(0),
OJ08          forwardStack: WinJS.Navigation.history.forwardStack.slice(0),
OJ09          current: WinJS.Navigation.history.current
OJ10        };
OJ11        WinJS.Navigation.history = navState;
OJ12
OJ13      },
OJ14      unload: function () {
OJ15      },
OJ16      updateLayout: function (element) {
OJ17      }
OJ18    });

OJ19    function pinSecondaryTile() {
OJ20      var SecondaryTileId = "SecondaryTile.Logo";
OJ21      var square70x70Logo =
        new Windows.Foundation.Uri("ms-appx:///Images/square70x70Tile-sdk.png");
OJ22      var square150x150Logo =
        new Windows.Foundation.Uri("ms-appx:///Images/square150x150Tile-sdk.png");
OJ23      var wide310x150Logo =
        new Windows.Foundation.Uri("ms-appx:///Images/wide310x150Tile-sdk.png");
OJ24      var square30x30Logo =
        new Windows.Foundation.Uri("ms-appx:///Images/square30x30Tile-sdk.png");
OJ25      var var1 = new Date();
OJ26      var newTileActivationArguments = SecondaryTileId + " WasPinnedAt=" + var1;
OJ27      var tile = new Windows.UI.StartScreen.SecondaryTile(SecondaryTileId, "Owner's
Manual",
        newTileActivationArguments,
        square150x150Logo,
        Windows.UI.StartScreen.TileSize.Square150x150);
OJ28      tile.visualElements.wide310x150Logo = wide310x150Logo;
OJ29      tile.visualElements.square30x30Logo = square30x30Logo;
OJ30
OJ31      tile.visualElements.foregroundText =
Windows.UI.StartScreen.ForegroundText.dark;
OJ32      tile.requestCreateForSelectionAsync({ x: 0, y: 0, width: 640, height: 400 },
        Windows.UI.Popups.Placement.below);
OJ33    }
OJ34  })();

```

**File: service.html**

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

```

SH01  <!DOCTYPE html>
SH02  <html>
SH03  <head>
SH04  ...
SH05  </head>
SH06  <body>
SH07
SH08  </body>
SH09  </html>

```

**File: service.js**

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

```

SJ01 (function () {
SJ02     "use strict";
SJ03     WinJS.UI.Pages.define("/pages/service/service.html", {
SJ04         ready: function (element, options) {
SJ05             var buttonSave = document.getElementById("btnAddServiceRecord");
SJ06             var client = new WindowsAzure.MobileServiceClient(
SJ07                 "https://cardataservice17.azure-mobile.net/", "myPrivateKey"
SJ08             );
SJ09             ...
SJ10         });
SJ11     function updateTile() {
SJ12         var Notification = Notification;
SJ13         var square310x310Xml = Notification.TileUpdateManager.getTemplateContent
(SJ14             (Notification.TileTemplateType.tileSquare310x310Text05);
SJ15             square310x310Xml.getElementsByTagName("text")[0].setAttribute("id", "1");
SJ16             square310x310Xml.getElementsByTagName("text")[0].appendChild
(square310x310Xml.createTextNode("My Alert"));
SJ17             var wide310x150Xml = Notification.TileUpdateManager.getTemplateContent
(SJ18                 (Notification.TileTemplateType.tileWide310x150Text03);
SJ19                 var tileTextAttributes = wide310x150Xml.getElementsByTagName("text");
SJ20                 tileTextAttributes[0].appendChild(wide310x150Xml.createTextNode("My Alert"));
SJ21                 var square150x150Xml = Notification.TileUpdateManager.getTemplateContent
(SJ22                     (Notification.TileTemplateType.tileSquare150x150Text04);
SJ23                     var squareTileTextAttributes = square150x150Xml.getElementsByTagName("text");
SJ24                     squareTileTextAttributes[0].appendChild(square150x150Xml.createTextNode
("My Alert"));
SJ25                     var node =
SJ26                         square310x310Xml.importNode(square150x150Xml.getElementsByTagName("binding")
SJ27                             .item(0), true);
SJ28                     square310x310Xml.getElementsByTagName("visual").item(0).appendChild(node);
SJ29                     node =
SJ30                         square310x310Xml.importNode(wide310x150Xml.getElementsByTagName("binding")
SJ31                             .item(0), true);
SJ32                     square310x310Xml.getElementsByTagName("visual").item(0).appendChild(node);
SJ33                     var appNotification = new Notification.TileNotification(square310x310Xml);
SJ34                 }
SJ35             });
SJ36     });

```

---

### Question: 1

---

You need to implement the navigation between screen categories.  
What should you do?

- A. Place one link for each category on every screen and use an <href> tag to go to the category screens.
- B. Implement category navigation controls on the nav bar on every screen.
- C. Place one button for each category on every screen and use the WinJS.navigate command to go to the category screens.
- D. Implement category navigation controls on the app bar on every screen.

---

**Answer: B**

---

---

### Question: 2

---

You need to implement the app bar for the Service Record screen.  
Which markup segment should you insert at line SH07?

C A. <div id="appBar" data-win-control="WinJS.UI.AppBar" data-win-options="">  
 <button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdNext',label:'Next Record',icon:'next',  
 section:'selection',tooltip:''}"></button>  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdPrevious',label:'Previous Record',icon:'prev',  
 section:'selection',tooltip:''}"></button>  
</div>

C B. <div id="appBar" data-win-control="WinJS.UI.AppBar" data-win-options="">  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdNext',label:'Next Record',icon:'next',  
 section:'global',tooltip:''}"></button>  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdPrevious',label:'Previous Record',icon:'prev',  
 section:'global',tooltip:''}"></button>  
</div>

---

C C. <div id="appBar" data-win-control="WinJS.UI.AppBar" data-win-options="">  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdSort',label:'Filter',icon:'filter',  
 section:'selection',tooltip:''}"></button>  
<hr data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{type:'separator',section:'global'}" />  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdUpdate',label:'Refresh',icon:'refresh',  
 section:'selection',tooltip:''}"></button>  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdAdd',label:'New Record',icon:'add',  
 section:'selection',tooltip:''}"></button>  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdList',label:'List Records',icon:'bullets',  
 section:'global',tooltip:''}"></button>  
</div>

C D. <div id="appBar" data-win-control="WinJS.UI.AppBar" data-win-options="">  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="  
 '{id:'cmdSort',label:'Filter',icon:'filter', section:'global',tooltip:''}'></button>  
<hr data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{type:'separator',section:'global'}" />  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="{id:'cmdUpdate',label:'Refresh',icon:'refresh',  
 section:'global',tooltip:''}"></button>  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="  
 '{id:'cmdAdd',label:'New Record',icon:'add', section:'global',tooltip:''}'></button>  
<button data-win-control="WinJS.UI.AppBarCommand"  
 data-win-options="  
 '{id:'cmdList',label:'List Records',icon:'bullets',  
 section:'selection',tooltip:''}'></button>  
</div>

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

---

**Answer: C**

---

---

### Question: 3

---

You need to modify the app so that the user can play videos by tapping the screen.  
What should you do?

- A. Replace line MH08 with the following markup segment:  
`<video id="playMedia" style="position: relative;" control poster="/images/blank1.jpg"></video>`
  - B. Replace line MH08 with the following markup segment:  
`<video id="playMedia" style="position: relative;" loop poster="/images/blank1.jpg"></video>`
  - C. Insert the following code segment at line MJ20:  
`vid.scr.attrib = vid.fullScreen();`
  - D. Replace line MJ21 with the following code segment:  
`vid.play.focus.fullScreen();`
- A. Option A  
B. Option B  
C. Option C  
D. Option D

---

**Answer: A**

---

---

### Question: 4

---

DRAG DROP

You need to configure the app to receive push notifications.

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

## Answer Area

On the **Capabilities** tab of the app manifest, select the **Private Networks (Client & Server)** check box.

Authenticate the Windows Azure Mobile Services with the client secret and Package security identifier (SID) provided by Windows Push Notification Service (WNS).

Register the app name in the Windows Dev Center.

On the **Capabilities** tab of the app manifest, select the **Enterprise Authentication** check box.

Associate the app with the Windows Store.

Establish the channel between the **PushNotificationChannelManager** and the WNS Service.

---

**Answer: CDBA**

---

---

**Question: 5**

---

**HOTSPOT**

You need to begin the project development.

Which project template should you choose? To answer, select the appropriate project template type in the answer area.

## Answer Area

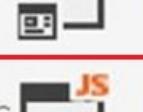
 C	Blank App	JavaScript
 C	Grid App	JavaScript
 C	Split App	JavaScript
 C	Hub App	JavaScript
 C	Navigation App	JavaScript

---

**Answer:**

---

## Answer Area

 C	Blank App	JavaScript
 C	Grid App	JavaScript
 C	Split App	JavaScript
 C	Hub App	JavaScript
 C	Navigation App	JavaScript