

Exam : 070-481

**Title**: Essentials of Developing

Windows Store Apps using

HTML5 and JavaScript

Version: DEMO

## **Topic 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 newsltem.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>
      <buttonid="BtnTo">To</button>
EH04
EH05
        <inputtype="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 {
        var options = new Windows.Security.Credentials.UI.CredentialPickerOptions();
GC03
GC04
getCredential.js
GC01 function launchCredPicker() {
GC02 try {
        var options = new Windows.Security.Credentials.UI.CredentialPickerOptions();
GC03
GC04
GC05
        Windows.Security.Credentials.UI.CredentialPicker.pickAsync(options)
         .then(function (results) {
GC06
GC07
        });
GC08
GC09 catch (err) {
GC10
        WinJS.log && WinJS.log("Error message: " + err.message, "sample", "error");
GC11 }
GC12 }
newsItem.html
NIO1 <body>
NI02 ...
NI03 <div>
NI04 <canvasid="inkCanvas"></canvas>
NI05 <div>
       <buttonid="draw">Draw</button>
NI06
       <buttonid="select">Select</button>
NI07
NI08
       <buttonid="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">
        <imgclass="news-item-image" src="#" data-win-bind="src: backgroundImage; alt:
title"/>
NH05
        <divclass="news-item-info">
NH06
NH07
         <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
       function provideSuggestions(queryText, suggestionRequest) {
NP08
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
        WinJS.Navigation.navigate("/html/NewsItem.html",id);
NP20
NP21 }
NP22 }
```

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

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) {
          \verb|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

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) {
           1);
      1
CB.
      function fetchDailyNews(){
        WinJS.xhr({ url: "http://www.southridgevideo.com/feed" })
           .then(function progress(result) {
             progressDiv.innerText = result.readyState;
           .then(function complete(result) {
           1);
      }
C.C. function fetchDailyNews(){
        WinJS.xhr({ url: "http://www.southridgevideo.com/feed" })
         .done(function progress(result) {
         progressDiv.innerText = result.readyState;
         });
      }
      function fetchDailyNews() {
        WinJS.xhr({ url: "http://www.southridgevideo.com/feed" })
           .done(function complete(result) {
           . . .
        }, null,
        function progress (result) {
          progressDiv.innerText = result.readyState;
          3);
A. Option A
B. Option B
C. Option C
D. Option D
Answer: D
```

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

```
C A picker.selectionMode = Windows.ApplicationModel.Contacts.ContactSelectionMode.fields;

C B. picker.selectionMode = Windows.ApplicationModel.Contacts.ContactSelectionMode.contacts;

C C. picker.desiredFields.append(Windows.ApplicationModel.Contacts.ContactField("Email", string);

C D. picker.desiredFields.append(Windows.ApplicationModel.Contacts.KnownContactField.email);

A. Option A

B. Option B

C. Option C

D. Option D

Answer: D
```

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?

```
return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.button === 1));

return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.button === 0));

C. return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.type === 0));

C. return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.type === 1));

C. D. return (pointerDeviceType === "Pen" || (pointerDeviceType === "Mouse" && evt.type === 1));

A. Option A

B. Option B

C. Option C

D. Option D

Answer: B
```

6. You need to implement the code to meet the requirements for handling changes in the annotation area of the newsltem.html page.

Which event handler should you add to newsltem.js?

```
C A WinJS.Navigation.addEventListener("beforenavigate", onbeforeNavigate);
      function onbeforeNavigate(eventObject) {
        if (hasChanges) {
          eventObject.detail.setPromise(WinJS.Promise.wrap(true));
         3
        else {
          eventObject.detail.setPromise(WinJS.Promise.wrap(false));
         }
      }
      WinJS.Navigation.addEventListener("navigating", onNavigating);
      function onNavigating(eventObject) {
        if (hasChanges) {
          eventObject.detail.setPromise(WinJS.Promise.wrap(true));
         3
        else {
          eventObject.detail.setPromise(WinJS.Promise.wrap(false));
        }
      1
 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;
       1
A. Option A
B. Option B
C. Option C
D. Option D
```

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

Answer: A

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?

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

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

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

C 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

9. You need to ensure that the requirements for capturing user input on the newsltem.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

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

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;

C B. option.authenticationProtocol =
    Windows.Security.Credentials.UI.AuthenticationProtocol.basic;

C C. option.authenticationProtocol =
    Windows.Security.Credentials.UI.AuthenticationProtocol.digest;

C D. option.authenticationProtocol =
    Windows.Security.Credentials.UI.AuthenticationProtocol.custom;

A. Option A
B. Option B
C. Option C
D. Option D
Answer: C
```

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?

```
C A. var toEmail = "";
      picker.pickSingleContactsAsync().then(function (contact) {
        contact.emails.forEach(function (email) {
          toEmail = toEmail.concat(email.value, ";");
        1);
      1);
      document.querySelector("#To").innerText = toEmail;
CB. var toEmail = "";
      picker.pickMultipleContactsAsync().then(function (contact) {
        contact.emails.forEach(function (email) {
          toEmail = toEmail.concat(email.value, ";");
        1);
      1):
      document.querySelector("#To").innerText = toEmail;
CC. var toEmail = "";
       picker.pickSingleContactsAsync().then(function (contacts) {
         contacts.forEach(function (contact) {
           toEmail = toEmail.concat(contact.emails[0].value, ";");
         1);
       1);
       document.querySelector("#To").innerText = toEmail;
CD.
     var toEmail = "";
       picker.pickMultipleContactsAsync().then(function (contacts) {
         contacts.forEach(function (contact) {
           toEmail = toEmail.concat(contact.emails[0].value, ";");
         1);
       1);
       document.querySelector("#To").innerText = toEmail;
A. Option A
B. Option B
C. Option C
D. Option D
Answer: D
```

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

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-title win-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

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?

```
CA
       #MyFlexbox {
         display: -ms-flexbox;
         background: gray;
         border: blue;
         -ms-flex-wrap: wrap;
       }
CB.
       #MyFlexbox {
         display: -ms-inline-grid;
         background: gray;
         border: blue;
         -ms-grid-columns: auto;
       }
C C. #MyFlexbox {
        display: -ms-grid;
        background: gray;
        border: blue;
        -ms-grid-columns: auto;
CD.
      #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