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## **問題集**

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**Exam** : **070-502**

**Title** : TS: Microsoft .NET  
Framework 3.5 – Windows  
Presentation Foundation

**Version** : Demo

1. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

You add a CommandBinding element to the Window element. The command has a keyboard gesture CTRL+H. The Window contains the following MenuItem control.

```
<MenuItem Header="Highlight Content"  
Command="local:CustomCommands.Highlight" />
```

You need to ensure that the MenuItem control is disabled and the command is not executable when the focus shifts to a TextBox control that does not contain any text.

What should you do?

A. Set the IsEnabled property for the MenuItem control in the GotFocus event handler for the TextBox controls.

B. Set the CanExecute property of the command to Highlight\_CanExecute.

Add the following method to the code-behind file for the window.

```
private void Highlight_CanExecute(object sender, CanExecuteEventArgs e) {  
    TextBox txtBox = sender as TextBox;  
    e.CanExecute = (txtBox.Text.Length > 0);  
}
```

C. Set the CanExecute property of the command to Highlight\_CanExecute.

Add the following method to the code behind file for the window.

```
private void Highlight_CanExecute(object sender, CanExecuteEventArgs e) {  
    TextBox txtBox = e.Source as TextBox;  
    e.CanExecute = (txtBox.Text.Length > 0);  
}
```

D. Set the CanExecute property of the command to Highlight\_CanExecute.

Add the following method to the code behind file for the window.

```
private void Highlight_CanExecute(object sender, CanExecuteEventArgs e) {  
    MenuItem menu = e.Source as MenuItem;  
    TextBox txtBox = menu.CommandTarget as TextBox;  
    Menu.IsEnabled = (txtBox.Text.Length > 0);  
}
```

**Answer: C**

2. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

You add a CommandBinding element to the Window element. The command has a keyboard gesture

CTRL+H. The Window contains the following MenuItem control.

```
<MenuItem Header="Highlight Content"  
Command="local:CustomCommands.Highlight" />
```

You need to ensure that the MenuItem control is disabled and the command is not executable when the focus shifts to a TextBox control that does not contain any text.

What should you do?

A. Set the `IsEnabled` property for the MenuItem control in the `GotFocus` event handler for the TextBox controls.

B. Set the `CanExecute` property of the command to `Highlight_CanExecute`.

Add the following method to the code-behind file for the window.

```
Private Sub Highlight_CanExecute(ByVal sender As Object, _  
ByVal e As CanExecuteRoutedEventArgs)  
Dim txtBox As TextBox = CType(sender, TextBox)  
e.CanExecute = (txtBox.Text.Length > 0)  
End Sub
```

C. Set the `CanExecute` property of the command to `Highlight_CanExecute`.

Add the following method to the code-behind file for the window.

```
Private Sub Highlight_CanExecute(ByVal sender As Object, _  
ByVal e As CanExecuteRoutedEventArgs)  
Dim txtBox As TextBox  
txtBox = CType(e.Source, TextBox)  
e.CanExecute = (txtBox.Text.Length > 0)  
End Sub
```

D. Set the `CanExecute` property of the command to `Highlight_CanExecute`.

Add the following method to the code-behind file for the window.

```
Private Sub Highlight_CanExecute(ByVal sender As Object, _  
?ByVal e As CanExecuteRoutedEventArgs)  
Dim Menu As MenuItem = CType(e.Source, MenuItem)  
Dim txtBox As TextBox = CType(Menu.CommandTarget, TextBox)  
Menu.IsEnabled = (txtBox.Text.Length > 0)  
End Sub
```

**Answer: C**

3. You create a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application is named `EnterpriseApplication.exe`.

You add the WindowSize parameter and the WindowPosition parameter to the Settings.settings file by using the designer at the User Scope Level. The dimensions and position of the window are read from the user configuration file.

The application must retain the original window size and position for each user who executes the application.

You need to ensure that the following requirements are met:

?The window dimensions for each user are saved in the user configuration file.

?The user settings persist when a user exits the application.

Which configuration setting should you use?

A. private void OnClosing(object sender, System.ComponentModel.CancelEventArgs e){  
Settings.Default.WindowPosition = new Point (this.Left, this.Top);  
Settings.Default.WindowSize = new Size (this.Width, this.Height);  
Settings.Default.Save();

B. private void OnClosing(object sender, System.ComponentModel.CancelEventArgs e){  
RegistryKey appKey =  
Registry.CurrentUser.CreateSubKey("Software\\EnterpriseApplication");  
RegistryKey settingsKey = appKey.CreateSubKey("WindowSettings");  
RegistryKey windowPositionKey =  
settingsKey.CreateSubKey("WindowPosition");  
RegistryKey windowSizeKey = settingsKey.CreateSubKey("WindowSize");  
windowPositionKey.SetValue("X", this.Left);  
windowPositionKey.SetValue("Y", this.Top);  
windowSizeKey.SetValue("Width", this.Width);  
windowSizeKey.SetValue("Height", this.Height);

C. private void OnClosing(object sender, System.ComponentModel.CancelEventArgs e){  
XmlDocument doc = new XmlDocument();  
doc.Load("EnterpriseApplication.exe.config");  
XmlNode nodePosition =  
doc.SelectSingleNode("//setting[@name='\\WindowPosition\\']");

```
nodePosition.ChildNodes[0].InnerText = String.Format("{0},{1}",
this.Left, this.Top);
XmlNode nodeSize =
doc.SelectSingleNode("//setting[@name='\\WindowSize\\']");
nodeSize.ChildNodes[0].InnerText = String.Format("{0},{1}",
this.Width, this.Height);
doc.Save("UserConfigDistractor2.exe.config");
D. private void Window_Closing(object sender,
System.ComponentModel.CancelEventArgs e){
StreamWriter sw =
new StreamWriter("EnterpriseApplication.exe.config", true);
sw.WriteLine("<EnterpriseApplication.Properties.Settings>");
sw.WriteLine("<setting name=
\\\"WindowSize\\\" serializeAs=\\\"String\\\">");
sw.WriteLine(String.Format("<value>{0},{1}</value>",
this.Width, this.Height));
sw.WriteLine("</setting>");
sw.WriteLine("<setting name=
\\\"WindowPosition\\\" serializeAs=\\\"String\\\">");
sw.WriteLine(String.Format("<value>{0},{1}</value>", this.Left,
this.Top));
sw.WriteLine("</setting>");
sw.WriteLine("</UserConfigProblem.Properties.Settings>");
sw.Close();
```

**Answer: A**

4. You have created a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5. The application, named EnterpriseApplication.exe, runs over the network.

You add the WindowSize parameter and the WindowPosition parameter to the Settings.settings file by using the designer at the User Scope Level. The dimensions and position of the window are read from the user configuration file.

The application must retain the original window size and position for users executing the application.

You need to ensure that the following requirements are met:

?The window dimensions for each user are saved in the user configuration file.

?User settings persist when a user exits the application.

Which configuration setting should you use?

A. Private Sub OnClosing(ByVal sender As Object, ByVal e As System.ComponentModel.CancelEventArgs)

My.Settings.Default.WindowPosition = New Point(Me.Left, Me.Top)

My.Settings.Default.WindowSize = New Size(Me.Width, Me.Height)

My.Settings.Default.Save()

End Sub

B. Private Sub OnClosing(ByVal sender As Object, ByVal e As System.ComponentModel.CancelEventArgs)

Dim appKey As RegistryKey = \_

Registry.CurrentUser.CreateSubKey("Software\EnterpriseApplication")

Dim settingsKey As RegistryKey = \_

appKey.CreateSubKey("WindowSettings")

Dim windowPositionKey As RegistryKey = \_

settingsKey.CreateSubKey("WindowPosition")

Dim windowSizeKey As RegistryKey = \_

settingsKey.CreateSubKey("WindowSize")

windowPositionKey.SetValue("X", Me.Left)

windowPositionKey.SetValue("Y", Me.Top)

windowSizeKey.SetValue("Width", Me.Width)

windowSizeKey.SetValue("Height", Me.Height)

End Sub

C. Private Sub OnClosing(ByVal sender As Object, ByVal e As System.ComponentModel.CancelEventArgs)

Dim doc As New System.Xml.XmlDocument()

doc.Load("EnterpriseApplication.exe.config")

Dim nodePosition As System.Xml.XmlNode = \_

doc.SelectSingleNode("//setting[@name='WindowPosition']")

nodePosition.ChildNodes(0).InnerText = String.Format("{0},{1}", Me.Left, Me.Top)

Dim nodeSize As System.Xml.XmlNode = \_

doc.SelectSingleNode("//setting[@name='WindowSize']")

nodeSize.ChildNodes(0).InnerText = String.Format("{0},{1}", Me.Width, Me.Height)

```
doc.Save("UserConfigDistractor2.exe.config")
End Sub
D. Private Sub Window_Closing(ByVal sender As Object, ByVal e As _
System.ComponentModel.CancelEventArgs)
Dim sw As New StreamWriter("EnterpriseApplication.exe.config", True)
sw.WriteLine("<EnterpriseApplication.Properties.Settings>")
sw.WriteLine("<setting name=""WindowSize"" serializeAs=""String"">")
sw.WriteLine(String.Format("<value>{0},{1}</value>", Me.Width, _
Me.Height))
sw.WriteLine("</setting>")
sw.WriteLine("<setting name=""WindowPosition"" _
serializeAs=""String"">")
sw.WriteLine(String.Format("<value>{0},{1}</value>", Me.Left, _
Me.Top))
sw.WriteLine("</setting>")
sw.WriteLine("</UserConfigProblem.Properties.Settings>")
sw.Close()
End Sub
```

**Answer: A**

5. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application defines a BrowserWindow class. Each instance of the BrowserWindow class allows the user to browse a Web site in a separate window. When a new browser window is opened, the user is redirected to a predefined URL.

You write the following code segment.

```
01 private void OpenNewWindow(object sender, RoutedEventArgs e)
02 {
03 Thread newWindowThread = new Thread(new
ThreadStart(NewThreadProc));
04
05 newWindowThread.Start();
06 }
07 private void NewThreadProc()
08 {
```



09 10 ?}

You need to ensure that the following requirements are met:

?The main window of the application is not blocked when an additional browser window is created.

?The application completes execution when the main window of the application is closed.

What should you do?

A. Insert the following code segment at line 04.

```
newWindowThread.SetApartmentState(ApartmentState.STA);
```

```
newWindowThread.IsBackground = true;
```

Insert the following code segment at line 09.

```
BrowserWindow newWindow = new BrowserWindow();
```

```
newWindow.Show();
```

```
Application app = new Application();
```

```
app.Run(newWindow);
```

B. Insert the following code segment at line 04.

```
newWindowThread.IsBackground = true;
```

Insert the following code segment at line 09.

```
newWindowThread.SetApartmentState(ApartmentState.STA);
```

```
BrowserWindow newWindow = new BrowserWindow();
```

```
newWindow.Show();
```

```
Application app = new Application();
```

```
app.Run(newWindow);
```

C. Insert the following code segment at line 04.

```
newWindowThread.SetApartmentState(ApartmentState.STA);
```

```
newWindowThread.IsBackground = false;
```

Insert the following code segment at line 09.

```
BrowserWindow newWindow = new BrowserWindow();
```

```
System.Windows.Threading.Dispatcher.Run();
```

```
newWindow.Show();
```

D. Insert the following code segment at line 04.

```
newWindowThread.SetApartmentState(ApartmentState.STA);
```

```
newWindowThread.IsBackground = true;
```

Insert the following code segment at line 09.

```
BrowserWindow newWindow = new BrowserWindow();
```

```
newWindow.Show();
```

```
System.Windows.Threading.Dispatcher.Run();
```

**Answer: D**

6. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application defines a `BrowserWindow` class. Each instance of the `BrowserWindow` class allows the user to browse a Web site in a separate window. When a new browser window is opened, the user is redirected to a predefined URL.

You write the following code segment.

```
01 Private Sub OpenNewWindow(ByVal sender As Object, _  
02 ?ByVal e As RoutedEventArgs)  
03 Dim newWindowThread As New Thread(New _  
04 ThreadStart(AddressOf NewThreadProc))  
05  
06 newWindowThread.Start()  
07 End Sub  
08 Private Sub NewThreadProc()  
09 10 End Sub
```

You need to ensure that the following requirements are met:

?The main window of the application is not blocked when an additional browser window is created.

?The application completes execution when the main window of the application is closed.

What should you do?

A. Insert the following code segment at line 05.

```
newWindowThread.SetApartmentState(ApartmentState.STA)  
newWindowThread.IsBackground = True
```

Insert the following code segment at line 09.

```
Dim newWindow As New BrowserWindow()  
newWindow.Show()  
Dim app As New Application()  
app.Run(newWindow)
```

B. Insert the following code segment at line 05.

```
newWindowThread.IsBackground = True
```

Insert the following code segment at line 09.

```
newWindowThread.SetApartmentState(ApartmentState.STA)  
Dim newWindow As New BrowserWindow()
```

```
newWindow.Show()
```

```
Dim app As New Application()
```

```
app.Run(newWindow)
```

C. Insert the following code segment at line 05.

```
newWindowThread.SetApartmentState(ApartmentState.STA)
```

```
newWindowThread.IsBackground = False
```

Insert the following code segment at line 09.

```
Dim newWindow As New BrowserWindow()
```

```
System.Windows.Threading.Dispatcher.Run()
```

```
newWindow.Show()
```

D. Insert the following code segment at line 05.

```
newWindowThread.SetApartmentState(ApartmentState.STA)
```

```
newWindowThread.IsBackground = True
```

Insert the following code segment at line 09.

```
Dim newWindow As New BrowserWindow()
```

```
newWindow.Show()
```

```
System.Windows.Threading.Dispatcher.Run()
```

**Answer:** D 7. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application uses several asynchronous operations to calculate data that is displayed to the user. An operation named `tomorrowWeather` performs calculations that will be used by other operations.

You need to ensure that `tomorrowWeather` runs at the highest possible priority.

Which code segment should you use?

A. `tomorrowWeather.Dispatcher.BeginInvoke(System.Windows.Threading.DispatcherPriority.Normal, new OneArgDelegate(UpdateUserInterface), weather);`

B. `tomorrowWeather.Dispatcher.BeginInvoke(System.Windows.Threading.DispatcherPriority.DataBind, new OneArgDelegate(UpdateUserInterface), weather);`

C. `tomorrowWeather.Dispatcher.BeginInvoke(System.Windows.Threading.DispatcherPriority.Send, new OneArgDelegate(UpdateUserInterface),`

weather);

D. tomorrowsWeather.Dispatcher.BeginInvoke(  
System.Windows.Threading.DispatcherPriority.Render,  
new OneArgDelegate(UpdateUserInterface),  
weather);

**Answer:** C 8. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application uses several asynchronous operations to calculate data that is displayed to the user. An operation named tomorrowsWeather performs calculations that will be used by other operations.

You need to ensure that tomorrowsWeather runs at the highest possible priority.

Which code segment should you use?

- A. tomorrowsWeather.Dispatcher.BeginInvoke( \_  
System.Windows.Threading.DispatcherPriority.Normal, \_  
New OneArgDelegate(AddressOf UpdateUserInterface), weather)
- B. tomorrowsWeather.Dispatcher.BeginInvoke( \_  
?System.Windows.Threading.DispatcherPriority.DataBind, \_  
?New OneArgDelegate(AddressOf UpdateUserInterface), weather)
- C. tomorrowsWeather.Dispatcher.BeginInvoke( \_  
System.Windows.Threading.DispatcherPriority.Send, \_  
New OneArgDelegate(AddressOf UpdateUserInterface), weather)
- D. tomorrowsWeather.Dispatcher.BeginInvoke( \_  
System.Windows.Threading.DispatcherPriority.Render, \_  
New OneArgDelegate(AddressOf UpdateUserInterface), weather)

**Answer:** C 9. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

You create a window for the application.

You need to ensure that the following requirements are met:

?An array of strings is displayed by using a ListBox control in a two-column format.

?The data in the ListBox control flows from left to right and from top to bottom.

What should you do?

A. Use a ListBox control defined in the following manner.

```
<ListBox Name="myList">
```

```
<ListBox.ItemsPanel>
```

```
<ItemsPanelTemplate>
```

```
<UniformGrid Columns="2"/>
</ItemsPanelTemplate>
</ListBox.ItemsPanel>
</ListBox>
```

Use the following C# code to associate the array of strings to the ListBox control.

```
myList.ItemsSource = arrayOfString;
```

B. Use a ListBox control defined in the following manner.

```
<ListBox Name="myList">
<ListBox.ItemsPanel>
<ItemsPanelTemplate>
<StackPanel />
</ItemsPanelTemplate>
</ListBox.ItemsPanel>
</ListBox>
```

Use the following C# code to associate the array of strings to the ListBox control.

```
myList.ItemsSource = arrayOfString;
```

C. Use a ListBox control defined in the following manner.

```
<ListBox Name="myList">
<ListBox.ItemsPanel>
<ItemsPanelTemplate>
<WrapPanel />
</ItemsPanelTemplate>
</ListBox.ItemsPanel>
</ListBox>
```

Use the following C# code to associate the array of strings to the ListBox control.

```
myListView.ItemsSource = arrayOfString;
```

D. Use a ListBox control defined in the following manner.

```
<ListBox Name="myList">
<ListBox.ItemsPanel>
<ItemsPanelTemplate>
<Grid>
<Grid.ColumnDefinitions>
<ColumnDefinition />
<ColumnDefinition />
```

```
</Grid.ColumnDefinitions>
</Grid>
</ItemsPanelTemplate>
</ListBox.ItemsPanel>
</ListBox>
```

Use the following C# code to associate the array of strings to the ListBox control.

```
myList.ItemsSource = arrayOfString;
```

**Answer: A**

10. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

You create a window for the application.

You need to ensure that the following requirements are met:

?An array of strings is displayed by using a ListBox control in a two-column format.

?The data in the ListBox control flows from left to right and from top to bottom.

What should you do?

A. Use a ListBox control defined in the following manner.

```
<ListBox Name="myList">
<ListBox.ItemsPanel>
<ItemsPanelTemplate>
<UniformGrid Columns="2"/>
</ItemsPanelTemplate>
</ListBox.ItemsPanel>
</ListBox>
```

Use the following VB.net code to associate the array of strings to the ListBox control.

```
myList.ItemsSource = arrayOfString
```

B. Use a ListBox control defined in the following manner.

```
<ListBox Name="myList">
<ListBox.ItemsPanel>
<ItemsPanelTemplate>
<StackPanel />
</ItemsPanelTemplate>
</ListBox.ItemsPanel>
</ListBox>
```

Use the following vb.net code to associate the array of strings to the ListBox control.

```
myList.ItemsSource = arrayOfString
```

C. Use a ListBox control defined in the following manner.

```
<ListBox Name="myList">  
<ListBox.ItemsPanel>  
<ItemsPanelTemplate>  
<WrapPanel />  
</ItemsPanelTemplate>  
</ListBox.ItemsPanel>  
</ListBox>
```

Use the following vb.net code to associate the array of strings to the ListBox control.

```
myListView.ItemsSource = arrayOfString
```

D. Use a ListBox control defined in the following manner.

```
<ListBox Name="myList">  
<ListBox.ItemsPanel>  
<ItemsPanelTemplate>  
<Grid>  
<Grid.ColumnDefinitions>  
<ColumnDefinition />  
<ColumnDefinition />  
</Grid.ColumnDefinitions>  
</Grid>  
</ItemsPanelTemplate>  
</ListBox.ItemsPanel>  
</ListBox>
```

Use the following vb.net code to associate the array of strings to the ListBox control.

```
myList.ItemsSource = arrayOfString
```

**Answer: A**

11. You create a form by using Windows Presentation Foundation and Microsoft .NET Framework 3.5. The form contains a status bar.

You plan to add a ProgressBar control to the status bar.

You need to ensure that the ProgressBar control displays the progress of a task for which you cannot predict the completion time.

Which code segment should you use?

A. progbar.IsIndeterminate = true;

- B. progbar.IsIndeterminate = false;
- C. progbar.HasAnimatedProperties = true;
- D. progbar.HasAnimatedProperties = false;

**Answer: A**

12. You create a form by using Windows Presentation Foundation and Microsoft .NET Framework 3.5. The form contains a status bar.

You plan to add a ProgressBar control to the status bar.

You need to ensure that the ProgressBar control displays the progress of a task for which you cannot predict the completion time.

Which code segment should you use?

- A. progbar.IsIndeterminate = True
- B. progbar.IsIndeterminate = False
- C. progbar.HasAnimatedProperties = True
- D. progbar.HasAnimatedProperties = False

**Answer: A**

13. You are converting a Windows Forms application to a Windows Presentation Foundation (WPF) application. You use Microsoft .NET Framework 3.5 to create the WPF application.

The WPF application will reuse 30 forms of the Windows Forms application.

The WPF application contains the following class definition.

```
public class OwnerWindow :  
System.Windows.Forms.IWin32Window  
private IntPtr handle;  
public IntPtr Handle  
get { return handle; }  
set { handle=value; }  
}  
}
```

You write the following code segment in the WPF application. (Line numbers are included for reference only.)

```
01 public DialogResult LaunchWindowsFormsDialog(  
02 ?Form dialog, Window wpfParent)  
03 {  
04 WindowInteropHelper helper=new  
05 ?WindowInteropHelper(wpfParent);
```



```
06 OwnerWindow owner=new OwnerWindow();
```

```
07
```

```
08 }
```

You need to ensure that the application can launch the reusable forms as modal dialogs.

Which code segment should you insert at line 07?

A. owner.Handle = helper.Owner;

```
return dialog.ShowDialog(owner);
```

B. owner.Handle = helper.Handle;

```
return dialog.ShowDialog(owner);
```

C. owner.Handle = helper.Owner;

```
bool? result = wpfParent.ShowDialog();
```

```
if (result.HasValue)
```

```
return result.Value ? System.Windows.Forms.DialogResult.OK :
```

```
System.Windows.Forms.DialogResult.Cancel;
```

```
else
```

```
return System.Windows.Forms.DialogResult.Cancel;
```

D. owner.Handle = helper.Handle;

```
bool? result = wpfParent.ShowDialog();
```

```
if (result.HasValue)
```

```
return result.Value ? System.Windows.Forms.DialogResult.OK :
```

```
System.Windows.Forms.DialogResult.Cancel;
```

```
else
```

```
return System.Windows.Forms.DialogResult.Cancel;
```

**Answer: B**

14. You are converting a Windows Forms application to a Windows Presentation Foundation (WPF) application. You use Microsoft .NET Framework 3.5 to create the WPF application.

The WPF application will reuse 30 forms of the Windows Forms application.

The WPF application contains the following class definition.

```
Public Class OwnerWindow
```

```
Implements System.Windows.Forms.IWin32Window
```

```
Private handle_Renamed As IntPtr
```

```
Public Property Handle() As IntPtr _
```

```
Implements System.Windows.Forms.IWin32Window.Handle
```

```
Get
```

```
Return handle_Renamed
End Get
Set(ByVal value As IntPtr)
handle_Renamed = value
End Set
End Property
End Class
```

You write the following code segment in the WPF application. (Line numbers are included for reference only.)

```
01 Public Function LaunchWindowsFormsDialog(ByVal dialog As _
02 ?System.Windows.Forms.Form, ByVal wpfParent As Window) As _
03 ?System.Windows.Forms.DialogResult
04 Dim helper As New
05 System.Windows.Interop.WindowInteropHelper(wpfParent)
07 Dim owner As New OwnerWindow()
08
09 End Function
```

You need to ensure that the application can launch the reusable forms as modal dialogs.

Which code segment should you insert at line 08?

A. owner.Handle = helper.Owner

Dim db As New System.Windows.Forms.DialogResult()

Return db

B. owner.Handle = helper.Owner

Return dialog.ShowDialog(owner)

C. owner.Handle = helper.Owner

Dim result As Nullable(Of Boolean) = wpfParent.ShowDialog()

If result.HasValue Then

return If(result.Value, System.Windows.Forms.DialogResult.OK, \_

?System.Windows.Forms.DialogResult.Cancel)

Else

Return System.Windows.Forms.DialogResult.Cancel

End If

D. owner.Handle = helper.Handle

Dim result As Nullable(Of Boolean) = wpfParent.ShowDialog()

```
If result.HasValue Then
Return If(result.Value, System.Windows.Forms.DialogResult.OK, _
?System.Windows.Forms.DialogResult.Cancel)
Else
Return System.Windows.Forms.DialogResult.Cancel
End If
```

**Answer:** B 15. You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 3.5.

The WPF application has a Grid control named rootGrid.

You write the following XAML code fragment.

```
<Window x:Class="MCP.HostingWinFormsControls"
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/
presentation"
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
Title="HostingWinFormsControls"
Loaded="Window_Loaded">
<Grid x:Name="rootGrid">
</Grid>
</Window>
```

You need to ensure that each time the WPF window opens, a Windows Forms control named MyCustomFormsControl is added to rootGrid.

Which code segment should you use?

- A. private void Window\_Loaded(object sender, RoutedEventArgs e)  
WindowsFormsHost host = new WindowsFormsHost();  
MyCustomFormsControl formsControl = new MyCustomFormsControl();  
host.Child = formsControl;  
rootGrid.Children.Add(host);
- B. private void Window\_Loaded(object sender, RoutedEventArgs e)  
ElementHost host = new ElementHost();  
MyCustomFormsControl formsControl=new MyCustomFormsControl();  
host.Child=formsControl;  
rootGrid.Children.Add(host);
- C. private void Window\_Loaded(object sender, RoutedEventArgs e)  
MyCustomFormsControl formsControl=new MyCustomFormsControl();

```
formsControl.CreateControl();
HwndSource source = HwndSource.FromHwnd(formsControl.Handle);
UIElement formsElement = source.RootVisual as UIElement;
rootGrid.Children.Add(formsElement);
D. private void Window_Loaded(object sender, RoutedEventArgs e)
MyCustomFormsControl formsControl=new MyCustomFormsControl();
formsControl.CreateControl();
HwndTarget target = new HwndTarget(formsControl.Handle);
UIElement formsElement = target.RootVisual as UIElement;
rootGrid.Children.Add(formsElement);
```

**Answer:** A

16.You are creating a Windows Presentation Foundation (WPF) application by using Microsoft .NET Framework 3.5.

The WPF application has a Grid control named rootGrid.

You write the following XAML code fragment.

```
<Window x:Class="MCP.HostingWinFormsControls"
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/
presentation"
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
Title="HostingWinFormsControls"
Loaded="Window_Loaded">
<Grid x:Name="rootGrid">
</Grid>
</Window>
```

You need to ensure that each time the WPF window opens, a Windows Forms control named MyCustomFormsControl is added to rootGrid.

Which code segment should you use?

```
APrivate Sub Window_Loaded(ByVal sender As Object, ByVal e As _
RoutedEventArgs)
Dim host As New WindowsFormsHost()
Dim formsControl As New MyCustomFormsControl()
host.Child = formsControl;
rootGrid.Children.Add(host);
End Sub
```

```
B. Private Sub Window_Loaded(ByVal sender As Object, ByVal e As _  
RoutedEventArgs)  
Dim host As New ElementHost()  
Dim formsControl As New MyCustomFormsControl()  
host.Child = formsControl;  
rootGrid.Children.Add(host);  
End Sub
```

```
C. Private Sub Window_Loaded(ByVal sender As Object, ByVal e As _  
RoutedEventArgs)  
Dim formsControl As New MyCustomFormsControl()  
formsControl.CreateControl()  
Dim target As New HwndTarget(formsControl.Handle)  
Dim formsElement As UIElement = TryCast(target.RootVisual, _  
UIElement)  
rootGrid.Children.Add(formsElement)  
End Sub
```

```
D. Private Sub Window_Loaded(ByVal sender As Object, ByVal e As _  
RoutedEventArgs)  
Dim formsControl As New MyCustomFormsControl()  
formsControl.CreateControl()  
Dim source As HwndSource = HwndSource.FromHwnd(formsControl.Handle)  
Dim formsElement As UIElement = TryCast(source.RootVisual, _  
UIElement)  
rootGrid.Children.Add(formsElement)  
End Sub
```

**Answer: A**

17. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

You include functionality in the application to troubleshoot the window behavior.

You need to display a list of UI elements at a position in the window that is decided by the mouse click.

You also need to ensure that the list of elements is displayed in a message box.

Which code segment should you include in the code-behind file?

```
Astring controlsToDisplay = string.Empty;  
private void Window_MouseDown(object sender, MouseButtonEventArgs e) {
```

```
controlsToDisplay = ((UIElement)sender).ToString();
MessageBox.Show(controlsToDisplay);
B. string controlsToDisplay = string.Empty;
private void Window_MouseDown(object sender, MouseButtonEventArgs e) {
for (int i = 0; i < this.VisualChildrenCount; i++) {
controlsToDisplay += this.GetVisualChild(i).ToString() + "\r\n";
MessageBox.Show(controlsToDisplay);
C. string controlsToDisplay = string.Empty;
private void Window_MouseDown (object sender, MouseButtonEventArgs e)
Visual myVisual;
for (int i = 0; i < VisualTreeHelper.GetChildrenCount(sender as
Visual); i++) {
myVisual = (Visual)VisualTreeHelper.GetChild(sender as Visual, i);
controlsToDisplay += myVisual.GetType().ToString() + "\r\n";
MessageBox.Show(controlsToDisplay);
D. string controlsToDisplay = string.Empty;
private void Window_MouseDown(object sender, MouseButtonEventArgs e) {
Point pt = e.GetPosition(this);
VisualTreeHelper.HitTest(this, null, new
HitTestResultCallback(HitTestCallback), new
PointHitTestParameters(pt));
MessageBox.Show(controlsToDisplay);
private HitTestResultBehavior HitTestCallback(HitTestResult result) {
controlsToDisplay += result.VisualHit.GetType().ToString() + "\r\n";
return HitTestResultBehavior.Continue;
```

**Answer: D**

18. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

You include functionality in the application to troubleshoot the window behavior.

You need to display a list of UI elements at a position in the window that is decided by the mouse click.

You also need to ensure that the list of elements is displayed in a message box.

Which code segment should you include in the code-behind file?

A. Dim controlsToDisplay As String = String.Empty

Private Sub Window\_MouseDown(ByVal sender As Object, \_

```
ByVal e As MouseButtonEventArgs)
controlsToDisplay = CType(sender, UIElement).ToString()
MessageBox.Show(controlsToDisplay)
End Sub

B. Dim controlsToDisplay As String = String.Empty
Private Sub Window_MouseDown(ByVal sender As Object, _
ByVal e As MouseButtonEventArgs)
For i = 0 To VisualChildrenCount - 1
controlsToDisplay += GetVisualChild(i).ToString() + "\r\n"
Next
MessageBox.Show(controlsToDisplay)
End Sub

C. Dim controlsToDisplay As String = String.Empty
Private Sub Window_MouseDown(ByVal sender As Object, _
ByVal e As MouseButtonEventArgs)
Dim myVisual As Visual()
For i = 0 To VisualTreeHelper.GetChildrenCount(CType(sender, _
Visual)) - 1
myVisual(i) = CType(VisualTreeHelper.GetChild(CType(sender, _
Visual), i), Visual)
controlsToDisplay += myVisual.GetType().ToString() + "\r\n"
Next
MessageBox.Show(controlsToDisplay)
End Sub

D. Dim controlsToDisplay As String = String.Empty
Private Sub Window_MouseDown(ByVal sender As Object, _
ByVal e As MouseButtonEventArgs)
Dim pt As Point = e.GetPosition(Me)
VisualTreeHelper.HitTest(Me, Nothing, _
New HitTestResultCallback(AddressOf HitTestCallback), _
New PointHitTestParameters(pt))
MessageBox.Show(controlsToDisplay)
End Sub
Private Function HitTestCallback(ByVal result As HitTestResult) As _
```

HitTestResultBehavior

```
controlsToDisplay += result.VisualHit.GetType().ToString() + "\r\n"
```

```
Return HitTestResultBehavior.Continue
```

```
End Function
```

**Answer: D**

19. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

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

```
01 Dim content As Object
```

```
02 Dim fileName As String = "theFile"
```

```
03 Using xamlFile As New FileStream(fileName & ".xaml", _
```

```
04 FileMode.Open, FileAccess.Read)
```

```
06 content = TryCast(XamlReader.Load(xamlFile), Object)
```

```
07 End Using
```

```
08 Using container As Package = Package.Open(fileName & ".xps", _
```

```
09 FileMode.Create)1011 End Using
```

You need to ensure that the following requirements are met:

The application converts an existing flow document into an XPS document.

The XPS document is generated by using the flow document format.

The XPS document has the minimum possible size.

Which code segment should you insert at line 10?

A

```
Using xpsDoc As New XpsDocument(container, _
```

```
CompressionOption.SuperFast)
```

```
Dim rsm As XpsSerializationManager = New _
```

```
System.Windows.Xps.XpsSerializationManager(New _
```

```
XpsPackagingPolicy(xpsDoc), False)
```

```
rsm.SaveAsXaml(paginator)
```

```
End Using
```

B. Using xpsDoc As New XpsDocument(container, \_

```
CompressionOption.SuperFast)
```

```
Dim rsm As New XpsSerializationManager(New _
```

```
XpsPackagingPolicy(xpsDoc), False)
```

```
rsm.Commit()
```



End Using

```
C. Using xpsDoc As New XpsDocument(container, _  
CompressionOption.Maximum)
```

```
Dim rsm As New XpsSerializationManager(New _  
XpsPackagingPolicy(xpsDoc), False)
```

```
Dim paginator As DocumentPaginator = (CType(content, _  
IDocumentPaginatorSource)).DocumentPaginator  
rsm.SaveAsXaml(paginator)
```

End Using

```
D. Using xpsDoc As New XpsDocument(container, _  
CompressionOption.SuperFast)
```

```
Dim rsm As New XpsSerializationManager(New _  
XpsPackagingPolicy(xpsDoc), False)
```

```
Dim paginator As DocumentPaginator = (CType(content, _  
IDocumentPaginatorSource)).DocumentPaginator  
rsm.SaveAsXaml(paginator)
```

End Using

**Answer: C**

20. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

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

```
01 Dim content As Object  
02 Dim fileName As String = "theFile"  
03 Using xamlFile As New FileStream(fileName & ".xaml", _  
04 ?FileMode.Open, FileAccess.Read)  
06 content = TryCast(XamlReader.Load(xamlFile), Object)  
07 End Using  
08 Using container As Package = Package.Open(fileName & ".xps", _  
09 ?FileMode.Create)10 11 End Using
```

You need to ensure that the following requirements are met:

The application converts an existing flow document into an XPS document.

The XPS document is generated by using the flow document format.

The XPS document has the minimum possible size.

Which code segment should you insert at line 10?

```
A. Using xpsDoc As New XpsDocument(container, _  
CompressionOption.SuperFast)  
Dim rsm As XpsSerializationManager = New _  
System.Windows.Xps.XpsSerializationManager(New _  
XpsPackagingPolicy(xpsDoc), False)  
rsm.SaveAsXaml(paginator)
```

End Using

```
B. Using xpsDoc As New XpsDocument(container, _  
CompressionOption.SuperFast)  
Dim rsm As New XpsSerializationManager(New _  
XpsPackagingPolicy(xpsDoc), False)  
rsm.Commit()
```

End Using

```
C. Using xpsDoc As New XpsDocument(container, _  
CompressionOption.Maximum)  
Dim rsm As New XpsSerializationManager(New _  
XpsPackagingPolicy(xpsDoc), False)  
Dim paginator As DocumentPaginator = (CType(content, _  
IDocumentPaginatorSource)).DocumentPaginator  
rsm.SaveAsXaml(paginator)
```

End Using

```
D. Using xpsDoc As New XpsDocument(container, _  
CompressionOption.SuperFast)  
Dim rsm As New XpsSerializationManager(New _  
XpsPackagingPolicy(xpsDoc), False)  
Dim paginator As DocumentPaginator = (CType(content, _  
IDocumentPaginatorSource)).DocumentPaginator  
rsm.SaveAsXaml(paginator)
```

End Using

**Answer: C**

21. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application displays documents by using an instance of the FlowDocumentPageViewer class. The instance is named fdpv. Users can highlight and annotate the content of the documents.

You need to ensure that annotations made to a document are saved and rendered when the document is displayed again.

Which code segment should you use?

```
A. protected void OnTextInput(object sender, RoutedEventArgs e) {
    AnnotationService service = AnnotationService.GetService(fdpv);
    if (service == null) {
        AnnotationStream = new FileStream("annotations.xml",
        FileMode.Open, FileAccess.ReadWrite);
        service = new AnnotationService(fdpv);
        AnnotationStore store = new XmlStreamStore(AnnotationStream);
        service.Enable(store);
    }
}

private void OnClosing(object sender,
System.ComponentModel.CancelEventArgs e) {
    AnnotationService service = AnnotationService.GetService(fdpv);
    if (service != null && service.IsEnabled) {
        service.Store.Flush();
        service.Disable();
        AnnotationStream.Close();
    }
}

B. protected void OnLoaded(object sender, RoutedEventArgs e) {
    AnnotationService service = AnnotationService.GetService(fdpv);
    if (service == null) {
        AnnotationStream = new FileStream("annotations.xml",
        FileMode.Open, FileAccess.ReadWrite);
        service = new AnnotationService(fdpv);
    }
}

private void OnClosing(object sender,
?System.ComponentModel.CancelEventArgs e) {
    AnnotationService service = AnnotationService.GetService(fdpv);
    if (service != null && service.IsEnabled) {
```

```
service.Store.Flush();
service.Disable();
AnnotationStream.Close();
}
}
C. protected void OnLoaded(object sender, RoutedEventArgs e) {
AnnotationService service = AnnotationService.GetService(fdpv);
if (service == null) {
AnnotationStream = new FileStream("annotations.xml",
FileMode.Open, FileAccess.ReadWrite);
service = new AnnotationService(fdpv);
AnnotationStore store = new XmlStreamStore(AnnotationStream);
service.Enable(store);
}
}
private void OnClosing(object sender,
System.ComponentModel.CancelEventArgs e) {
AnnotationService service = AnnotationService.GetService(fdpv);
if (service != null && service.IsEnabled) {
service.Store.Flush();
service.Disable();
AnnotationStream.Close();
}
}
D. protected void OnLoaded(object sender, RoutedEventArgs e) {
AnnotationService service = AnnotationService.GetService(fdpv);
if (service == null) {
AnnotationStream = new FileStream("annotations.xml",
FileMode.Open, FileAccess.ReadWrite);
service = new AnnotationService(fdpv);
AnnotationStore store = new XmlStreamStore(AnnotationStream);
service.Enable(store);
}
}
```

```
private void OnClosing(object sender,  
System.ComponentModel.CancelEventArgs e) {  
AnnotationService service = AnnotationService.GetService(fdpv);  
if (service != null && service.IsEnabled) {  
service.Disable();  
AnnotationStream.Close();  
}  
}
```

**Answer: C**

22. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application will display documents by using an instance of the FlowDocumentPageViewer class. The instance is named fdpv. Users can highlight and annotate the content of the documents.

You need to ensure that annotations made to a document are saved and rendered when the document is displayed again.

Which code segment should you use?

A. Protected Sub OnTextInput(ByVal sender As Object, \_  
ByVal e As RoutedEventArgs)

Dim service As AnnotationService = \_

AnnotationService.GetService(fdpv)

If service Is Nothing Then

AnnotationStream = New FileStream("annotations.xml", \_

FileMode.Open, FileAccess.ReadWrite)

service = New AnnotationService(fdpv)

Dim store As AnnotationStore = \_

New XmlStreamStore(AnnotationStream)

service.Enable(store)

End If

End Sub

Private Sub OnClosing(ByVal sender As Object, \_

ByVal e As System.ComponentModel.CancelEventArgs)

Dim service As AnnotationService = \_

AnnotationService.GetService(fdpv)

If Not service Is Nothing AndAlso service.IsEnabled Then

```
service.Store.Flush()
svrice.Disable()
AnnotationStream.Close()
End If
End Sub
B. Protected Sub OnLoaded(ByVal sender As Object, _
ByVal e As RoutedEventArgs)
Dim service As AnnotationService = _
AnnotationService.GetService(fdpv)
If service Is Nothing Then
AnnotationStream = New FileStream("annotations.xml", _
FileMode.Open, FileAccess.ReadWrite)
service = New AnnotationService(fdpv)
End If
End Sub
Private Sub OnClosing(ByVal sender As Object, _
ByVal e As System.ComponentModel.CancelEventArgs)
Dim service As AnnotationService = _
AnnotationService.GetService(fdpv)
If Not service Is Nothing AndAlso service.IsEnabled Then
service.Store.Flush()
service.Disable()
AnnotationStream.Close()
End If
End Sub
C. Protected Sub OnLoaded(ByVal sender As Object, _
ByVal e As RoutedEventArgs)
Dim service As AnnotationService = _
AnnotationService.GetService(fdpv)
If service Is Nothing Then
AnnotationStream = New FileStream("annotations.xml", _
FileMode.Open, FileAccess.ReadWrite)
service = New AnnotationService(fdpv)
Dim store As AnnotationStore = New _
```

```
XmlStreamStore(AnnotationStream)
service.Enable(store)
End If
End Sub
Private Sub OnClosing(ByVal sender As Object, _
ByVal e As System.ComponentModel.CancelEventArgs)
Dim service As AnnotationService = _
AnnotationService.GetService(fdpv)
If Not service Is Nothing AndAlso service.IsEnabled Then
service.Store.Flush()
service.Disable()
AnnotationStream.Close()
End If
End Sub
D. Protected Sub OnLoaded(ByVal sender As Object, _
ByVal e As RoutedEventArgs)
Dim service As AnnotationService = _
AnnotationService.GetService(fdpv)
If service Is Nothing Then
AnnotationStream = New FileStream("annotations.xml", _
FileStreamMode.Open, FileAccess.ReadWrite)
service = New AnnotationService(fdpv)
Dim store As AnnotationStore = New _
XmlStreamStore(AnnotationStream)
service.Enable(store)
End If
End Sub
Private Sub OnClosing(ByVal sender As Object, _
ByVal e As System.ComponentModel.CancelEventArgs)
Dim service As AnnotationService = _
AnnotationService.GetService(fdpv)
If Not service Is Nothing AndAlso service.IsEnabled Then
service.Disable()
AnnotationStream.Close()
```

End If

End Sub

**Answer: C**

23. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

You plan to use the application to preview video files.

You write the following XAML code fragment.

```
01 <Window
01 x:Class="myClass" xmlns=
01 "http://schemas.microsoft.com/winfx/2006/xaml/presentation"
01 xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
01 Title="myWindow" Height="300" Width="300">
02 <StackPanel Background="Black">
03
04 <StackPanel HorizontalAlignment="Center"
04 Orientation="Horizontal">
05 ?<Button Name="btnPlay" Margin="10" Content="Play" />
06 </StackPanel>
07
08 </StackPanel>
09 </Window>
```

You need to ensure that the application plays only the first 10 seconds of a video that you want to preview.

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

A. Insert the following XAML fragment at line 03.

```
<MediaElement Name="myMediaElement" Stretch="Fill" />
```

B. Insert the following XAML fragment at line 03.

```
<MediaElement Name="myMediaElement"
Source="MediaFileSelected.wmv" Stretch="Fill" />
```

C. Create the following method in the code-behind file.

```
public void PlayMedia(object sender, RoutedEventArgs args) {
myMediaElement.Play();
}
```

D. Insert the following XAML fragment at line 07.

```
<StackPanel.Triggers>
```



```
<EventTrigger RoutedEvent="Button.Click" SourceName="btnPlay">
<EventTrigger.Actions>
<BeginStoryboard Name= "myBegin">
<Storyboard SlipBehavior="Slip">
<MediaTimeline Source="MediaFileSelected.wmv"
Storyboard.TargetName="myMediaElement"
BeginTime="0:0:0" Duration="0:0:10" />
</Storyboard>
</BeginStoryboard>
</EventTrigger.Actions>
</EventTrigger>
</StackPanel.Triggers>
```

E. Insert the following XAML fragment at line 07.

```
<StackPanel.Triggers>
<EventTrigger RoutedEvent="Button.Click" SourceName="btnPlay">
<EventTrigger.Actions>
<BeginStoryboard Name= "myBegin">
<Storyboard SlipBehavior="Slip">
<MediaTimeline
Storyboard.TargetName="myMediaElement"
BeginTime="0:0:0" Duration="0:0:10" />
</Storyboard>
</BeginStoryboard>
</EventTrigger.Actions>
</EventTrigger>
</StackPanel.Triggers>
```

**Answer:** A AND D

24. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

You plan to use the application to preview video files.

You write the following XAML code fragment.

```
01 <Window
01 x:Class="myClass" xmlns=
01 "http://schemas.microsoft.com/winfx/2006/xaml/presentation"
```

```
01 xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"  
01 Title="myWindow" Height="300" Width="300">  
02 <StackPanel Background="Black">  
03  
04 <StackPanel HorizontalAlignment="Center"  
04 Orientation="Horizontal">  
05 ?<Button Name="btnPlay" Margin="10" Content="Play" />  
06 </StackPanel>  
07  
08 </StackPanel>  
09 </Window>
```

You need to ensure that the application plays only the first 10 seconds of a video that you want to preview. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Insert the following XAML fragment at line 03.

```
<MediaElement Name="myMediaElement" Stretch="Fill" />
```

B. Insert the following XAML fragment at line 03.

```
<MediaElement Name="myMediaElement"  
Source="MediaFileSelected.wmv" Stretch="Fill" />
```

C. Create the following method in the code-behind file.

```
Public Sub PlayMedia(ByVal sender As Object, _  
ByVal args As RoutedEventArgs)  
myMediaElement.Play()  
End Sub
```

D. Insert the following XAML fragment at line 07.

```
<StackPanel.Triggers>  
<EventTrigger RoutedEvent="Button.Click" SourceName="btnPlay">  
<EventTrigger.Actions>  
<BeginStoryboard Name="myBegin">  
<Storyboard SlipBehavior="Slip">  
<MediaTimeline Source="MediaFileSelected.wmv"  
Storyboard.TargetName="myMediaElement"  
BeginTime="0:0:0" Duration="0:0:10" />  
</Storyboard>  
</BeginStoryboard>
```

```
</EventTrigger.Actions>
```

```
</EventTrigger>
```

```
</StackPanel.Triggers>
```

E. Insert the following XAML fragment at line 07.

```
<StackPanel.Triggers>
```

```
<EventTrigger RoutedEvent="Button.Click" SourceName="btnPlay">
```

```
<EventTrigger.Actions>
```

```
<BeginStoryboard Name="myBegin">
```

```
<Storyboard SlipBehavior="Slip">
```

```
<MediaTimeline
```

```
Storyboard.TargetName="myMediaElement"
```

```
BeginTime="0:0:0" Duration="0:0:10" />
```

```
</Storyboard>
```

```
</BeginStoryboard>
```

```
</EventTrigger.Actions>
```

```
</EventTrigger>
```

```
</StackPanel.Triggers>
```

**Answer:** A AND D

25. You are creating a Windows Presentation Foundation application.

You create a window for the application. The application contains an audio file named AudioFileToPlay.wav.

You need to ensure that the audio file is played each time you click the client area of the window.

What should you do?

A. Add the following XAML line of code to the window.

```
<MediaElement Source="AudioFileToPlay.wav" />
```

B. Add the following code segment to the window constructor method in the code-behind file.

```
SoundPlayer player = new SoundPlayer();
```

```
player.SoundLocation = "AudioFileToPlay.wav";
```

```
player.Play();
```

C. Add the following code segment to the window MouseDown method in the code-behind file.

```
MediaPlayer player = new MediaPlayer();
```

```
player.SetValue(MediaElement.SourceProperty,new Uri("AudioFileToPlay.wav", UriKind.Relative));
```

```
player.Play();
```

D. Add the following XAML code fragment to the window.

```
<Window.Triggers>
<EventTrigger RoutedEvent="Window.MouseDown">
<EventTrigger.Actions>
<SoundPlayerAction Source="AudioFileToPlay.wav"/>
</EventTrigger.Actions>
</EventTrigger>
</Window.Triggers>
```

**Answer: D**

26. You are creating a Windows Presentation Foundation application.

You create a window for the application. The application contains an audio file named AudioFileToPlay.wav.

You need to ensure that the following requirements are met:

The audio file is played each time you click the client area of the window.

The window provides optimal performance when the audio file is being played.

What should you do?

A

Add the following XAML line of code to the window.

```
<MediaElement Source="AudioFileToPlay.wav" />
```

B. Add the following code segment to the window constructor method in the code-behind file.

```
Dim player As New SoundPlayer()
player.SoundLocation = "AudioFileToPlay.wav"
player.Play()
```

C. Add the following code segment to the window MouseDown method in the code-behind file.

```
Dim player As New MediaElement()
player.Source = New Uri("AudioFileToPlay.wav", UriKind.Relative)
player.LoadedBehavior = MediaState.Manual
player.Play()
```

D. Add the following XAML code fragment to the window.

```
<Window.Triggers>
<EventTrigger RoutedEvent="Window.MouseDown">
<EventTrigger.Actions>
<SoundPlayerAction Source="AudioFileToPlay.wav"/>
</EventTrigger.Actions>
</EventTrigger>
```

</Window.Triggers>

**Answer: D**

27. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5. Your project contains a folder named Data.

You add an MP3 file named song.mp3 in the Data folder. You set the Build Action property of the MP3 file to Resource.

You need to access the MP3 file from the application.

Which code segment should you use?

- A. Uri uri = new Uri("/Data/song.mp3", UriKind.Relative);  
StreamResourceInfo sri=Application.GetContentStream(uri);  
Stream stream=sri.Stream;
- B. Uri uri = new Uri("/Data/song.mp3", UriKind.Relative);  
StreamResourceInfo sri=Application.LoadComponent(uri);  
Stream stream=sri.Stream;
- C. Uri uri = new Uri("/Data/song.mp3", UriKind.Relative);  
StreamResourceInfo sri=Application.GetRemoteStream(uri);  
Stream stream=sri.Stream;
- D. Uri uri = new Uri("/Data/song.mp3", UriKind.Relative);  
StreamResourceInfo sri=Application.GetResourceStream(uri);  
Stream stream=sri.Stream;

**Answer: D**

28. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5. Your project contains a folder named Data.

You add a .MP3 file named song.mp3 in the Data folder. You set the Build Action property of the application to Resource.

You need to access the .MP3 file from one of the application classes.

Which code segment should you use?

- A. Dim uri As New Uri("/Data/song.mp3", UriKind.Relative)  
Dim sri As StreamResourceInfo = Application.GetContentStream(uri)  
Dim stream As Stream = sri.Stream
- B. Dim uri As New Uri("/Data/song.mp3", UriKind.Relative)  
Dim sri As StreamResourceInfo = Application.LoadComponent(uri)  
Dim stream As Stream = sri.Stream
- C. Dim uri As New Uri("/Data/song.mp3", UriKind.Relative)

```
Dim sri As StreamResourceInfo = Application.GetRemoteStream(uri)
```

```
Dim stream As Stream = sri.Stream
```

```
D. Dim uri As New Uri("/Data/song.mp3", UriKind.Relative)
```

```
Dim sri As StreamResourceInfo = Application.GetResourceStream(uri)
```

```
Dim stream As Stream = sri.Stream
```

**Answer: D**

29. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application has a window that programatically displays an image. The window contains a grid named theGrid.

The window displays images in their actual size of 1024 pixels wide or larger. You want the images to be 200 pixels wide.

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

```
01 Image theImage=new Image();
```

```
02 theImage.Width=200;
```

```
03 BitmapImage theBitmapImage=new BitmapImage();
```

```
04
```

```
05 theImage.Source=theBitmapImage;
```

```
06 theGrid.Children.Add(theImage);
```

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

The window uses the least amount of memory to display the image.

The image is not skewed.

Which code segment should you insert at line 04?

```
A. theBitmapImage.UriSource=new Uri(@"imageToDisplay.jpg");
```

```
theBitmapImage.DecodePixelWidth=200;
```

```
B. theBitmapImage.BeginInit();
```

```
theBitmapImage.UriSource=new Uri(@"imageToDisplay.jpg");
```

```
theBitmapImage.EndInit();
```

```
C. theBitmapImage.BeginInit();
```

```
theBitmapImage.UriSource=new Uri(@"imageToDisplay.jpg");
```

```
theBitmapImage.DecodePixelWidth=200;
```

```
theBitmapImage.EndInit();
```

```
D. theBitmapImage.BeginInit();
```

```
theBitmapImage.UriSource=new Uri(@"imageToDisplay.jpg");
```

```
theBitmapImage.DecodePixelWidth=200;  
theBitmapImage.DecodePixelHeight=200;  
theBitmapImage.EndInit();
```

**Answer: C**

30. You are creating a Windows Presentation Foundation application by using Microsoft .NET Framework 3.5.

The application has a window that programatically displays an image. The window contains a grid named theGrid.

The window displays images in their actual size. You want the images to be 200 pixels wide. You write the following code segment.

```
01 Dim theImage As New Image()  
02 theImage.Width = 200  
03 Dim theBitmapImage As New BitmapImage()  
04  
05 theImage.Source = theBitmapImage  
06 theGrid.Children.Add(theImage)
```

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

The window uses the least amount of memory to display the image.

The image is not skewed.

Which code segment should you insert at line 04?

A. `theBitmapImage.UriSource = New Uri("imageToDisplay.jpg")`

`theBitmapImage.DecodePixelWidth = 200`

B. `theBitmapImage.BeginInit()`

`theBitmapImage.UriSource = New Uri("imageToDisplay.jpg")`

`theBitmapImage.EndInit()`

C. `theBitmapImage.BeginInit()`

`theBitmapImage.UriSource = New Uri("imageToDisplay.jpg")`

`theBitmapImage.DecodePixelWidth = 200`

`theBitmapImage.EndInit()`

D. `theBitmapImage.BeginInit()`

`theBitmapImage.UriSource = New Uri("imageToDisplay.jpg")`

`theBitmapImage.EndInit()`

`theBitmapImage.DecodePixelWidth = 200`

`theBitmapImage.DecodePixelHeight = 200`

**Answer: C**