

Item 1 of 90

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains a ListBox control named `lbxItems` that is data-bound to a collection of objects. Each object has a `DisplayValue` property. You add a Button control to the application. You need to ensure that the `Content` property of the Button control is data-bound to the `DisplayValue` property of the selected item of `lbxItems`. Which binding expression should you use?

- ☐ A. `{ Binding ElementName=lbxItems, Source=SelectedItem, Path=DisplayValue }`
- ☐ B. `{ Binding Source=lbxItems, ElementName=SelectedItem, Path=DisplayValue }`
- ☒ C. `{ Binding ElementName=lbxItems, Path=SelectedItem.DisplayValue }`
- ☐ D. `{ Binding Source=lbxItems, Path=SelectedItem.DisplayValue }`

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You use Microsoft .NET Framework 4 to create a custom Windows Presentation Foundation (WPF) application. Your environment includes several WPF applications. The applications use the same logo and style configuration as part of a corporate standard. You need to ensure that the existing applications can be updated to use the same logo and style settings without recompiling. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- ☐ A. Mark the resource as an embedded resource in each application.
- ☒ B. Create a resource in an XAML file that contains the logo and style configurations.
- ☐ C. Create a resource in a custom control that contains the logo and style configurations.
- ☒ D. Add the resource as a `ResourceDictionary` in the `MergedDictionaries` collection of each application.
- ☐ E. Use `ResourceManager` to read the content of the resource. Manually assign the style configurations included in the resource file to the appropriate control in each application.

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You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create an application. The application uses the LINQ ParallelEnumerable.AsParallel method to perform multiple queries on a database. You need to ensure that queries can execute on separate threads concurrently. What should you do?

- ☐ A. Use the AsOrdered method.
- ☐ B. Use the SelectMany method.
- ☐ C. Use the AutoBuffered option in the WithMergeOptions method.
- ☒ D. Use the WithExecutionMode method with the ParallelExecutionMode.ForceParallelism parameter.

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You plan to create a window that has a layout as shown in the following exhibit. You need to define the code fragment to create the window layout. You also need to ensure that the window contains a splitter line. Which code fragment should you use?

- ☐ A.

```
<Grid>
<Grid.RowDefinitions>
<RowDefinition Height="50*" />
<RowDefinition Height="50*" />
</Grid.RowDefinitions>
<StackPanel Grid.Row="0">
<Button>Item1</Button>
<Button>Item2</Button>
</StackPanel>
<GridSplitter HorizontalAlignment="Stretch" VerticalAlignment="Center" ShowsPreview="True" Height="2" />
<TextBlock Grid.Row="1">Please, select an item</TextBlock>
</Grid>
```
- ☐ B.

```
<Grid>
<Grid.RowDefinitions>
<RowDefinition Height="50*" />
<RowDefinition Height="50*" />
</Grid.RowDefinitions>
<StackPanel Grid.Row="0">
<Button>Item1</Button>
<Button>Item2</Button>
</StackPanel>
<GridSplitter HorizontalAlignment="Center" VerticalAlignment="Stretch" ShowsPreview="True" Height="2" />
<TextBlock Grid.Row="1">Please, select an item</TextBlock>
</Grid>
```
- ☒ C.

```
<Grid>
<Grid.RowDefinitions>
<RowDefinition Height="50*" />
<RowDefinition Height="Auto*" />
</Grid.RowDefinitions>
```

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You add a property named `ServiceContext` to a control.

You need the value of `ServiceContext` to flow to the child controls exactly like the value of the `DataContext` property of the `FrameworkElement` class. What should you do?

- ☐ A. Inherit the control class from the `DependencyObject` class.
- ☒ B. Register a dependency property.
In the options settings of the property metadata, specify the `Inherits` option.
- ☐ C. Declare a new property.
In the get and set methods of the new property, create an instance of the `TraversalRequest` class.
- ☐ D. Declare a new property.
In the get method of the new property call `VisualTreeHelper.GetParent`.
In the set method of the new property, call `VisualTreeHelper.GetChild`.

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You write the following code fragment.

```
<Window x:Class="MyProject.MainWindow" xmlns:local="clr-namespace:MyProject">
<Window.Resources>
<local:AverageConverter x:Key="avgConverter" />
</Window.Resources>
<StackPanel Orientation="Vertical">
<Slider x:Name="slid01" Minimum="0" Maximum="100" />
<Slider x:Name="slid02" Minimum="0" Maximum="50" />
<Slider x:Name="slid03" Minimum="0" Maximum="50" />
<TextBlock> <TextBlock.Text>
<MultiBinding Converter="{StaticResource avgConverter}">
<Binding ElementName="slid01" Path="Value" />
<Binding ElementName="slid02" Path="Value" />
<Binding ElementName="slid03" Path="Value" />
</MultiBinding> </TextBlock.Text>
</TextBlock>
</StackPanel>
</Window>
```

You need to implement the `MyProject.AverageConverter` class. What should you do?

- ☐ A. Implement the `IValueConverter` interface.
- ☒ B. Implement the `IMultiValueConverter` interface.
- ☐ C. Inherit from the `TypeConverter` class.
- ☐ D. Apply the `TypeConverterAttribute` attribute.

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You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Framework (WPF) application.

You have a page named `myPage` that contains the following code fragment.

```
<Page.Resources>  
<SolidColorBrush x:Key="CustomerNameBrush" Color="SkyBlue"/>  
</Page.Resources>
```

You need to ensure that other pages in your application can use `CustomerNameBrush`. What should you do?

- ☒ A. Move `CustomerNameBrush` to the `App.xaml` file.
- ☐ B. Inherit from `myPage` in all additional pages that use `CustomerNameBrush`.
- ☐ C. Add a reference to `myPage` to all additional pages that use `CustomerNameBrush`.
- ☐ D. Bind controls that need `CustomerNameBrush` to `myPage.Resources.CustomerNameBrush`.

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You create a Windows client application by using Windows Presentation Foundation (WPF).

The application contains the following code fragment.

```
<Window.Resources>  
<DataTemplate x:Key="detail">  
<!--...-->  
</DataTemplate>  
</Window.Resources>  
<StackPanel>  
<ListBox Name="lbDetails">  
</ListBox>  
<Button Name="btnDetails">Details</Button>  
</StackPanel>
```

You need to assign `lbDetails` to use the detail data template when `btnDetails` is clicked. Which code segment should you write for the click event handler for `btnDetails`?

- ☐ A. `lbDetails.ItemsPanel.FindName("detail",lbDetails);`
- ☐ B. `var tmpl = (ControlTemplate)FindResource("detail"); lbDetails.Template = tmpl;`
- ☐ C. `var tmpl = (DataTemplate)FindName("detail"); lbDetails.ItemTemplate = tmpl;`
- ☒ D. `var tmpl = (DataTemplate)FindResource("detail"); lbDetails.ItemTemplate=tmpl;`

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You create a Button control for the application.

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

- When the mouse pointer is over the Button control, the background color of the button is set to red and the Button control appears bigger.
- When the mouse pointer is not over the Button control, the button returns to its original state.

What should you do?

- ☒ A. Create a template. Declare a VisualState element in the template.
- ☐ B. Create a StoryBoard animation. Add an EventTrigger class to the Button control that begins the StoryBoard animation.
- ☐ C. Create a ScaleTransform class. Bind the ScaleX and ScaleY properties of the Button control to the Background property by using a custom value converter.
- ☐ D. Add a method named ChangeAppearance in the code-behind file. Subscribe the ChangeAppearance method to the MouseEnter event of the Button control.

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You use Microsoft .NET Framework 4 to create a Windows application.

You plan to deploy the application by using Trusted Application Deployment.

The application can only be installed by users who have elevated permissions.

You need to ensure that users are not prompted for additional permissions when they install the application. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- ☐ A. Obfuscate the assemblies.
- ☐ B. Configure the application as online only.
- ☐ C. Enable User Account Control (UAC) on all client computers.
- ☒ D. Sign the deployment manifest with the publisher's digital certificate.
- ☒ E. Add the publisher of application to the trusted publisher's store on all client computers.

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains a form named frmMain that contains a button named btnSave.

You create a ProgressBar control named saveProgress. Initially, saveProgress is not displayed on frmMain. When a user clicks btnSave, you have the following requirements:

- saveProgress is slightly visible after 0.2 seconds
- saveProgress is fully visible after 1 second

You need to declare the corresponding storyboard.

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

```
01<Storyboard x:Key="animateProgress" TargetName="saveProgress">
```

```
02
```

```
03</Storyboard>
```

Which code fragment should you insert at line 02 to complete the declaration?

- ☐ A. `<ObjectAnimationUsingKeyFrames Storyboard.TargetProperty="Visibility">`
`<DiscreteObjectKeyFrame KeyTime="00:00:00" Value="{x:Static Visibility.Collapsed}" />`
`<DiscreteObjectKeyFrame KeyTime="00:00:01" Value="{x:Static Visibility.Visible}" />`
`</ObjectAnimationUsingKeyFrames>`
- ☐ B. `<ObjectAnimationUsingKeyFrames Storyboard.TargetProperty="Visibility">`
`<DiscreteObjectKeyFrame KeyTime="0" Value="{x:Static Visibility.Collapsed}" />`
`<DiscreteObjectKeyFrame KeyTime="1" Value="{x:Static Visibility.Visible}" />`
`</ObjectAnimationUsingKeyFrames>`
- ☒ C. `<DoubleAnimation Storyboard.TargetProperty="Opacity" Duration="00:00:01" From="0" To="1" />`
- ☐ D. `<DoubleAnimation Storyboard.TargetProperty="Opacity" Duration="1" From="0" To="1" />`

Answer: C

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You declare a class named PictureBox that has a property named Photo.

The Photo property is of the byte[] type and contains an image in the JPEG format.

You assign a collection of the PictureBox control that displays the images to the current DataContext.

You need to create a ListBox control that displays the images.

Which code fragment should you use?

- ☐ A. `<ListBox DisplayMemberPath="Photo" />`
- ☐ B. `<ListBox DisplayMemberPath="{Binding Photo}" />`
- ☐ C. `<ListBox.ItemTemplate> <DataTemplate>`
`<Image Source="{Binding Photo}" />`
`</DataTemplate>`
`</ListBox.ItemTemplate>`
- ☐ D. `<ListBox.Resources>`
`<Style TargetType="{x:Type ListBoxItem}">`
`<Setter Property="Content">`
`<Setter.Value> <Image Source="{Binding Photo}" />`
`</Setter.Value>`
`</Setter>`
`</Style>`
`</ListBox.Resources>`

Answer: C

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You use Microsoft .NET Framework 4 to create a Windows Forms application. You add a new class named Customer to the application.

You select the Customer class to create a new object data source.

You add the following components to a Windows Form:

- A BindingSource component named customerBindingSource that is data-bound to the Customer object data source.
- A set of TextBox controls to display and edit the Customer object properties. Each TextBox control is data-bound to a property of the customerBindingSource component.
- An ErrorProvider component named errorProvider that validates the input values for each TextBox control.

You need to ensure that the input data for each TextBox control is automatically validated by using the ErrorProvider component.

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

- ☐ A. Implement the validation rules inside the Validating event handler of each TextBox control by throwing an exception when the value is invalid.
- ☐ B. Implement the validation rules inside the TextChanged event handler of each TextBox control by throwing an exception when the value is invalid.
- ☐ C. Implement the validation rules inside the setter of each property of the Customer class by throwing an exception when the value is invalid.
- ☐ D. Add the following code segment to the InitializeComponent method of the Windows Form:
this.errorProvider.DataSource = this.customerBindingSource;
- ☐ E. Add the following code segment to the InitializeComponent method of the Windows Form:
this.errorProvider.DataSource = this.customerBindingSource.DataSource;
this.errorProvider.DataMember = this.customerBindingSource.DataMember;

Answer: CD

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application that displays a high-resolution graphic image named Image1.jpg.

You need to limit the width of the image to 200 pixels. You also need to preserve the aspect ratio of the image.

Which code fragment should you use?

- ☐ A. `<Image Width="200" Source="Image1.jpg"/> <Image Width="200" Height="200" Source="Image1.jpg"/>`
- ☐ B. `<Image Width="200"> <Image Source>`
`<BitmapImage DecodePixelWidth="200" DecodePixelHeight="200" UriSource="Image1.jpg" />`
- ☐ C. `<Image> <Image Width="200">`
`<Image Source>`
- ☐ D. `<BitmapImage DecodePixelWidth="200" UriSource="Image1.jpg" />`
`<Image Source> <Image>`

Answer: D

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You use the ClickOnce deployment methodology to distribute the application.

You need to store application-specific data along with read/write permissions without requiring elevated permissions for the application. Where should you store the application data?

- ☒ A. In isolated storage.
- ☐ B. On the database server.
- ☐ C. In the ClickOnce data directory.
- ☐ D. In the App.config file of the application.

Answer: A

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You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You write the following code fragment.

```
<TextBox Text="{Binding Path=StringMember}" />
```

You need to ensure that the StringMember property of the data-bound object is updated immediately when the user types the TextBox control. Which binding expression should you use?

- ☒ A. { Binding Path=StringMember, Mode=TwoWay }
- ☐ B. { Binding Path=StringMember, NotifyOnSourceUpdated=True }
- ☐ C. { Binding Path=StringMember, NotifyOnTargetUpdated=True }
- ☐ D. { Binding Path=StringMember, UpdateSourceTrigger=PropertyChanged }

Answer: D

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You create a game where a ball drops from the top to the bottom of a window. You plan to create a single animation for the game. You need to ensure that the animation shows the ball bounce. What should you do?

- ☐ A. Use the KeySpline property of a SplineDoubleKeyFrame object.
- ☐ B. Use the EasingFunction property of an EasingDoubleKeyFrame object.
- ☐ C. Use the DecelerationRatio and AutoReverse properties of a StoryBoard object.
- ☐ D. Use the DecelerationRatio and AccelerationRatio properties of a StoryBoard object.

Item 17 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You create a game where a ball drops from the top to the bottom of a window. You plan to create a single animation for the game. You need to ensure that the animation shows the ball bounce. What should you do?

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- ☐ B. Use the EasingFunction property of an EasingDoubleKeyFrame object.
- ☐ C. Use the DecelerationRatio and AutoReverse properties of a StoryBoard object.
- ☐ D. Use the DecelerationRatio and AccelerationRatio properties of a StoryBoard object.

Answer: B

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You write the following code fragment.

```
<StackPanel>
<StackPanel.Resources>
<Style TargetType="{x:Type Button}">
<EventSetter Event="Click" Handler="ButtonHandler"/>
</Style>
</StackPanel.Resources>
<Button Name="OkButton">Ok</Button>
<Button Name="CancelButton" Click="CancelClicked">Cancel</Button>
</StackPanel>
```

You need to ensure that the ButtonHandler method is not executed when the user clicks the CancelButton button. Which code segment should you add to the code-behind file?

- ☐ A. `private void CancelClicked(object sender, RoutedEventArgs e) { Button btn = (Button)sender; btn.Command = null; }`
- ☐ B. `private void CancelClicked(object sender, RoutedEventArgs e) { Button btn = (Button)sender; btn.IsCancel = true; }`
- ☐ C. `private void CancelClicked(object sender, RoutedEventArgs e) { e.Handled = true; }`
- ☐ D. `private void CancelClicked(object sender, RoutedEventArgs e) { e.Handled = false; }`

Answer: C

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You upgrade a Windows Forms application to Microsoft .NET Framework 4. The application was developed by using a previous version of the .NET Framework. The application uses the Code Access Security (CAS) policy for file access.

When the application is executed, you receive the following exception:
"NotSupportedException: This method uses CAS policy, which has been obsoleted by the .NET Framework." You need to resolve the error. What should you do?

- ☐ A. Add the following code fragment to the application's configuration file.

```
<runtime>
<NetFx40_LegacySecurityPolicy enabled="true"/> </runtime>
<legacyV1CASPolicy enabled="true"/>
</runtime>
```
- ☐ B. Add the following code fragment to the application's configuration file. `<runtime>`
- ☐ C. Add the following code segment to the application's main method.

```
AppDomain domain = System.AppDomain.CreateDomain("MyDomain");
PolicyLevel pollLevel = PolicyLevel.CreateAppDomainLevel();
PermissionSet permSet = new PermissionSet(PermissionState.None);
permSet.AddPermission(new SecurityPermission(SecurityPermissionFlag.Execution));
domain.ExecuteAssembly("Assemblies\MyWindowsExe.exe");
pollLevel.RootCodeGroup.PolicyStatement = new PolicyStatement(permSet);
domain.SetAppDomainPolicy(pollLevel);
```
- ☐ D. Add the following code segment to the application's main method.

```
PermissionSet requiredSet = new PermissionSet(PermissionState.None);
requiredSet.AddPermission(new SecurityPermission(SecurityPermissionFlag.Execution));
PermissionSet optionalSet = new PermissionSet(PermissionState.None);
optionalSet.AddPermission(new FileIOPermission(FileIOPermissionAccess.Read, new string[] { @"c:\temp" }));
PermissionSet deniedSet = new PermissionSet(PermissionState.None);
deniedSet.AddPermission(new SecurityPermission(SecurityPermissionFlag.ControlPolicy));
Console.WriteLine("nCurrent permissions granted.");
PermissionSet permsDenied = null;
foreach(Permission perm in SecurityManager.ResolvePolicy(evidence, requiredSet, optionalSet, deniedSet, out permsDenied))
```

Answer: A

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

The application has a window with a canvas element.

You need to draw a black line that has rounded edges at each end.

Which code fragment should you use?

- ☐ A. `<Line X1="10" Y1="10" X2="250" Y2="250" Fill="Black" StrokeThickness="15" UseLayoutRounding="True" />`
- ☐ B. `<Line X1="10" Y1="10" X2="250" Y2="250" Stroke="Black" StrokeThickness="15" StrokeEndLineCap="Round" StrokeStartLineCap="Round" />`
- ☐ C. `<Line X1="10" Y1="10" X2="250" Y2="250" Fill="Black" StrokeThickness="15" StrokeLineJoin="Round" />`
- ☐ D. `<Line X1="10" Y1="10" X2="250" Y2="250" Stroke="Black" StrokeThickness="15" StrokeDashCap="Round" />`

Answer: B

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You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

The application uses data-bound controls.

You discover that when the application is executed by users, one of the controls is not displayed properly.

You need to view the property values assigned to the controls.

What should you do?

- ☐ A. Use `IntelliTrace`.
- ☐ B. Use `PresentationTraceSource`.
- ☐ C. Run the application in debug mode with Visual Studio 2010. Use the Auto window while you step through the application code.
- ☐ D. Run the application in debug mode with Visual Studio 2010. Use the WPF Visualizer while you step through the application code.

Answer: D

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application named MyApp.exe. You use Microsoft Windows Installer to package the application. You create an icon file named Application.ico. You need to associate Application.ico with MyApp.exe when it is deployed. What should you do?

- ☒ A. Use the File Types Editor tool.
- ☐ B. Rename the icon file to MyApp.exe.ico.
- ☐ C. Set the `AddRemoveProgramsIcon` property to `Application.ico`.
- ☐ D. Use the File System Editor tool to set the Icon property to `Application.ico`.

Answer: D

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You plan to create a window that has a layout as shown in the following exhibit. You need to define the code fragment to create the window layout. Which code fragment should you use?

- ☐ A.

```
<StackPanel Orientation="Vertical" Background="Gainsboro">
  <TextBlock Text="Name." /> <TextBox VerticalAlignment="Top" />
  <TextBlock Text="Password." />
  <TextBox VerticalAlignment="Top" />
  <Button HorizontalAlignment="Center" VerticalAlignment="Center" Width="100" Content="Submit" />
</StackPanel>
```
- ☐ B.

```
<Grid Background="Gainsboro">
  <Grid.RowDefinitions>
  <RowDefinition/>
  <RowDefinition/>
  <RowDefinition/>
  </Grid.RowDefinitions>
  <TextBlock Text="Name." Grid.Row="0"/>
  <TextBox VerticalAlignment="Top" Grid.Row="0" />
  <TextBlock Text="Password." Grid.Row="1"/>
  <TextBox VerticalAlignment="Top" Grid.Row="1" />
  <Button HorizontalAlignment="Center" VerticalAlignment="Center" Width="100" Content="Submit" Grid.Row="2" />
</Grid>
```
- ☐ C.

```
<UniformGrid Rows="3" Columns="1" Background="Gainsboro"> <TextBlock Text="Name." />
  <TextBox VerticalAlignment="Top" />
  <TextBlock Text="Password." />
  <TextBox VerticalAlignment="Top" />
  <Button HorizontalAlignment="Center" VerticalAlignment="Center" Width="100" Content="Submit" />
</UniformGrid>
```
- ☐ D.

```
<UniformGrid Rows="5" Background="Gainsboro">
  <TextBlock Text="Name." />
  <TextBox VerticalAlignment="Top" />
  <TextBlock Text="Password." />
  <TextBox VerticalAlignment="Top" />
  <Button HorizontalAlignment="Center" VerticalAlignment="Center" Width="100" Content="Submit" />
```

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You write the following code fragment. (Line numbers are included for reference only.)

```
01<Canvas>
02<Rectangle Stroke="Red" StrokeThickness="5" Height="60"
03Width="60" Canvas.Left="100" Canvas.Top="100">
04
05</Rectangle>
06</Canvas>
```

You need to rotate the rectangle by 45 degrees by using its upper-left corner as the axis. Which code fragment should you insert at line 04?

- ☐ A. `<Rectangle.RenderTransform> <RotateTransform Angle="45" CenterX="0" CenterY="0" />`
`</Rectangle.RenderTransform>`
- ☐ B. `<Rectangle.RenderTransform> <RotateTransform Angle="45" CenterX="100" CenterY="100" />`
`</Rectangle.RenderTransform>`
- ☐ C. `<Rectangle.LayoutTransform> <RotateTransform Angle="45" CenterX="0" CenterY="0"/>`
`</Rectangle.LayoutTransform>`
- ☐ D. `<Rectangle.LayoutTransform> <RotateTransform Angle="45" CenterX="100" CenterY="100"/>`
`</Rectangle.LayoutTransform>`

Answer: A

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You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You discover that when the application runs, a user control is not rendered correctly.

You need to find out the user interface (UI) element of the window that is causing the rendering problem. What should you do?

- ☐ A. Use the Local Window.
- ☐ B. Use the WPF Visualizer.
- ☐ C. Generate a trace log by using IntelliTrace.
- ☐ D. Set a breakpoint at the control. Run the application.

Answer: B

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You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You want to localize the application to use the German locale settings.

You need to allow the ResourceManager class to retrieve a neutral German locale version of the text to be displayed in the user interface (UI). Which file should you add to the project?

- ☐ A. Resources.de.xml
- ☒ B. Resources.de-DE.xml
- ☐ C. Resources.de.resx
- ☐ D. Resources.de-DE.resx

Answer: C



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You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

The application contains a custom control that is used to display customer information.

You discover that the custom control is not rendering correctly.

You need to identify the WPF element that is causing the issue. You want to achieve this goal by using the minimum amount of administrative effort. What should you do?

- ☒ A. Start the application in debug mode.
Place a breakpoint at the main entry point of the application.
Use the debugger to step through the application code.
- ☐ B. Start the application in debug mode.
Place a breakpoint at the main entry point of the application.
Use the WPF Tree Visualizer tool.
- ☐ C. Enable IntelliTrace and configure Visual Studio to generate a trace log.
Start the application in debug mode.
- ☐ D. "Enable IntelliTrace and configure Visual Studio to generate a trace log.
Start the application by double-clicking the executable file (.exe).

Answer: B

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You use Microsoft .NET Framework 4 to create a Windows Forms application. You have a DataGridView that is bound to a DataTable containing a column named ProductName. The ProductName column can contain any valid string, except "ProductX," "ProductY," "ProductZ." You need to ensure that only valid entries for ProductName are saved when users edit the DataGridView. Which DataGridView event should you use?

- ☐ A. CellBeginEdit
- ☐ B. Invalidated
- ☐ C. Validated
- ☒ D. Validating

Answer: D

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You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application includes a function that is triggered by filling out a form and by clicking a button. Currently, the application is tested manually.

You need to create an automated and iterative process to test the application. What should you do?

- ☐ A. Use IntelliTrace.
- ☐ B. Use UISpy.exe to extract the user interface (UI) information. Then, use MSTest.exe.
- ☐ C. Use classes in the System.Windows.Automation and System.Windows.Automation.Text namespaces.
- ☐ D. Use the Action Recording methodology to record the user interface (UI) actions. Then, use MSTest.exe.

Answer: C

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You write the following code fragment. (Line numbers are included for reference only.)

```
01<Page xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
02xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
03x:Class="MyCompany.MediaControls" >
04<StackPanel Background="Black">
05<StackPanel HorizontalAlignment="Center" Width="450" Orientation="Horizontal">
06
07<!-- Play button. -->
08<Image Source="images\UI_play.gif" MouseDown="OnMouseDownPlayMedia" Margin="5" />
09<!-- Pause button. -->
10<Image Source="images\UI_pause.gif" MouseDown="OnMouseDownPauseMedia" Margin="5" />
11<!-- Stop button. -->
12<Image Source="images\UI_stop.gif" MouseDown="OnMouseDownStopMedia" Margin="5" />
13</StackPanel>
14</StackPanel>
15</Page>
```

You need to ensure that a video file begins to play only when a user clicks **Play**.

Which code fragment should you insert at line 06?

- ☐ A. `<MediaElement Source="media\numbers.wmv" Name="myMediaElement" Width="450" Height="250" LoadedBehavior="Play" UnloadedBehavior="Stop" Stretch="Fill"/>`
- ☐ B. `<MediaElement Source="media\numbers.wmv" Name="myMediaElement" Width="450" Height="250" LoadedBehavior="Manual" UnloadedBehavior="Stop" Stretch="Fill"/>`
- ☐ C. `<MediaPlayer Source="media\numbers.wmv" Name="myMediaElement" Width="450" Height="250" LoadedBehavior="Play" UnloadedBehavior="Stop" Stretch="Fill"/>`
- ☐ D. `<MediaPlayer Source="media\numbers.wmv" Name="myMediaElement" Width="450" Height="250" LoadedBehavior="Manual" UnloadedBehavior="Stop" Stretch="Fill"/>`

Answer: B

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You add a custom command as a resource. The key of the command is `saveCommand`.

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

```
01<Canvas>
02
03<Button>
04
05</Button>
06</Canvas>
```

You need to ensure that `saveCommand` is executed when the user clicks the `Button` control. What should you do?

- ☐ A. Insert the following code fragment at line 04.
`<Button.Command>`
`<StaticResource ResourceKey="saveCommand" />`
`</Button.Command>`
- ☐ B. Insert the following code fragment at line 04.
`<Button.CommandBindings>`
`<CommandBinding Command="{StaticResource saveCommand}" />`
`</Button.CommandBindings>`
- ☐ C. Insert the following code fragment at line 02.
`<Canvas.CommandBindings>` `<CommandBinding Command="{StaticResource saveCommand}" />`
`</Canvas.CommandBindings>`
 Replace line 03 with the following code fragment.
`<Button.CommandTarget="{Binding RelativeSource={RelativeSource Self, Path=Parent}}">`
- ☐ D. Insert the following code fragment at line 02.
`<Canvas.CommandBindings>` `<CommandBinding Command="{StaticResource saveCommand}" />`
`</Canvas.CommandBindings>`
 Replace line 03 with the following code fragment.
`<Button.CommandParameter="{Binding RelativeSource={RelativeSource Self, Path=Parent}}">`

Answer: A

Item 32 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You write the following code fragment.

```
<Style TargetType="{x:Type Label}">  
<Setter Property="Foreground" Value="Blue"/>  
</Style>
```

You need to ensure that the style is applied to all labels within the application. What should you do?

- ☐ A. Add the style to the <Grid.Resources> section of the main window.
- ☐ B. Add the style to the <Window.Resources> section of the main window.
- ☐ C. Add the style to the <Application.Resources> section of the App.xaml file.
- ☐ D. Add the style to the <Application.Properties> section of the App.xaml file.
- ☐ E. Add the style to the <ResourceDictionary> section of the ResourceDictionary.xaml file.

Answer: C

Item 33 of 90

You use Microsoft .NET Framework 4 to create a Windows Forms application.

You have a dataset as shown in the following exhibit.

You plan to add a DataGridView to display the dataset.

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

- Shows Order Details for the selected order.
- Shows only Order Details for items that have UnitPrice greater than 20.
- Sorts Products by ProductName

Which code segment should you use?

- ☐ A.

```
ordersBindingSource.DataSource = productsBindingSource;  
ordersBindingSource.DataMember = "FK_Order_Details_Products";  
productsBindingSource.Filter = "UnitPrice > 20";  
productsBindingSource.Sort = "ProductName";
```
- ☐ B.

```
productsDataGridView.DataSource = ordersBindingSource;  
productsBindingSource.Filter = "UnitPrice > 20";  
productsBindingSource.Sort = "ProductName";
```
- ☐ C.

```
order_DetailsBindingSource.DataSource = ordersBindingSource;  
order_DetailsBindingSource.DataMember = "FK_Order_Details_Orders";  
order_DetailsBindingSource.Filter = "UnitPrice > 20";  
productsBindingSource.Sort = "ProductName";
```
- ☐ D.

```
order_DetailsDataGridView.DataSource = ordersBindingSource;  
order_DetailsBindingSource.Filter = "UnitPrice > 20";  
productsBindingSource.Sort = "ProductName";
```

Answer: C

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You declare a class named `PictureContainer` that has a property named `Photo`. The `Photo` property is of the `byte[]` type and contains an image in the JPEG format. You assign a collection of the `PictureContainer` elements to the current `DataContext`. You need to create a `ListBox` control that displays the images. Which code fragment should you use?

- ☐ A. `<ListBox DisplayMemberPath="Photo" />`
- ☐ B. `<ListBox DisplayMemberPath="{Binding Photo}" />`
- ☐ C. `<ListBox.ItemTemplate> <DataTemplate>
 <Image Source="{Binding Photo}" />
 </DataTemplate>
</ListBox.ItemTemplate>`
- ☐ D. `<ListBox.Resources>
 <Style TargetType="{x:Type ListBoxItem}">
 <Setter Property="Content">
 <Setter.Value> <Image Source="{Binding Photo}" />
 </Setter.Value>
 </Setter>
 </Style>
</ListBox.Resources>`

Answer: C

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains a window as shown in the following exhibit. You need to define a `DockPanel` control that fits the window. Which code fragment should you use?

- ☐ A. `<DockPanel>
 <Button Content="Left" />
 <Button Content="Top" DockPanel.Dock="Top" />
 <Button Content="Bottom" DockPanel.Dock="Bottom" />
 <Button Content="Center" />
 </DockPanel>`
- ☐ B. `<DockPanel>
 <Button Content="Top" DockPanel.Dock="Top" />
 <Button Content="Bottom" DockPanel.Dock="Bottom" />
 <Button Content="Left" />
 <Button Content="Center" />
 </DockPanel>`
- ☐ C. `<DockPanel>
 <Button Content="Left" />
 <Button Content="Top" DockPanel.Dock="Top" />
 <Button Content="Center" />
 <Button Content="Bottom" DockPanel.Dock="Bottom" />
 </DockPanel>`
- ☐ D. `<DockPanel>
 <Button Content="Top" DockPanel.Dock="Top" />
 <Button Content="Left" />
 <Button Content="Center" />
 <Button Content="Bottom" DockPanel.Dock="Bottom" />
 </DockPanel>`

Answer: B

Item 36 of 90

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You plan to use a PresentationTraceSources object when the application is executed by users. When the application is executed in a test environment, all debug information is successfully captured. You need to be able to capture debug information when the application is deployed. What should you do?

- ☐ A. Enable WPF tracing in the registry. Restart the application.
- ☐ B. "Enable tracing by modifying local Group Policy. Restart the application.
- ☐ C. Open the XML configuration file for your application on the user's computer. Set tracing to a verbose level. Restart the application.
- ☐ D. Open the XML configuration file for your application on the user's computer. Add a trace listener. Restart the application.

Answer: A

Item 37 of 90

You use Microsoft .NET Framework 4 to create a Windows application that can execute on client computers that run Windows Vista. You are creating a User Account Control (UAC) application manifest for the application. You need to ensure that users who are members of the local Administrators group do not receive a UAC prompt when the application executes. Which code fragment should you use?

- ☐ A.

```
<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<trustInfo xmlns:v3="urn:schemas-microsoft-com:asm.v3">
<v3:security>
<v3:requestedPrivileges>
<v3:requestedExecutionLevel level="asInvoker" uiAccess="true" />
</v3:requestedPrivileges>
</v3:security>
</v3:trustInfo> </assembly>
```
- ☐ B.

```
<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<trustInfo xmlns:v3="urn:schemas-microsoft-com:asm.v3">
<v3:security>
<v3:requestedPrivileges>
<v3:requestedExecutionLevel level="requireAdministrator" uiAccess="true" />
</v3:requestedPrivileges>
</v3:security>
</v3:trustInfo> </assembly>
```
- ☐ C.

```
<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<trustInfo xmlns:v3="urn:schemas-microsoft-com:asm.v3">
<v3:security>
<v3:requestedPrivileges>
<v3:requestedExecutionLevel level="asInvoker" uiAccess="false" />
</v3:requestedPrivileges>
</v3:security>
</v3:trustInfo> </assembly>
```
- ☐ D.

```
<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<trustInfo xmlns:v3="urn:schemas-microsoft-com:asm.v3">
<v3:security>
<v3:requestedExecutionLevel level="highestAvailable" uiAccess="true" />
</v3:requestedPrivileges>
</v3:security>
```


Item 38 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You add a DataGrid named gridContacts that is data-bound to a collection of Contacts. Each item has the ContactName and Phone properties. The DataGrid contains a column named ContactNameColumn that is bound to ContactName.

You write the following code fragment:

```
<DataTemplate x:Key="PhoneTemplate">
<TextBlock Text="{Binding Phone}" />
</DataTemplate>
```

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

- Phone number is shown as a row detail when the row is selected.
- Only ContactName can be edited.

What should you do?

- ☐ A. "Set RowDetailsVisibilityMode for gridContacts to VisibleWhenSelected."
"Set the IsReadOnly property for gridContacts to False."
"Set the IsReadOnly property for ContactNameColumn to False."
- ☐ B. "Set RowDetailsVisibilityMode for gridContacts to VisibleWhenSelected."
"Set the IsReadOnly property for gridContacts to True."
"Set the IsReadOnly property for ContactNameColumn to False."
- ☐ C. "Set RowDetailsVisibilityMode for gridContacts to Visible." "Set the IsReadOnly property for gridContacts to False."
"Set the IsReadOnly property for ContactNameColumn to False."
"Set the IsReadOnly property for gridContacts to Collapsed." "Set the IsReadOnly property for gridContacts to True."
- ☐ D. "Set RowDetailsVisibilityMode for gridContacts to Collapsed." "Set the IsReadOnly property for gridContacts to True."
"Set the IsReadOnly property for ContactNameColumn to False."

Answer: A

Item 39 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains three text boxes named txtAddress, txtCity, and txtState.

You need to ensure that the postal code is automatically set based on the information typed by users in the text boxes.

You also need to ensure that the complete address is displayed in a TextBlock control.

Which code fragment should you use?

- ☐ A.

```
<TextBlock DataContext="{txtAddress}">
<TextBlock.Text>
<Binding Path="Text" Converter="{StaticResource adrsConverter}" />
</TextBlock.Text>
</TextBlock>
<TextBlock DataContext="{txtCity}">
<TextBlock.Text> <Binding Path="Text" Converter="{StaticResource cityConverter}" />
</TextBlock.Text>
</TextBlock>
<TextBlock DataContext="{txtState}">
<TextBlock.Text> <Binding Path="Text"
Converter="{StaticResource stateConverter}" />
</TextBlock.Text>
</TextBlock>
```
- ☐ B.

```
<TextBlock Margin="10" Name="textBlock">
<TextBlock.Text> <MultiBinding Converter="{StaticResource myConverter}">
<Binding ElementName="txtAddress" Path="Value" />
<Binding ElementName="txtCity" Path="Value" />
<Binding ElementName="txtState" Path="Value" />
</MultiBinding> </TextBlock.Text>
</TextBlock>
```
- ☐ C.

```
<TextBlock Margin="10" Name="textBlock">
<TextBlock.Text> <MultiBinding Converter="{StaticResource myConverter}">
<Binding ElementName="txtAddress" Path="Text" />
<Binding ElementName="txtCity" Path="Text" />
<Binding ElementName="txtState" Path="Text" />
</MultiBinding> </TextBlock.Text> </TextBlock>
```
- ☐ D.

```
<TextBlock DataContext="{txtAddress}">
<TextBlock.Text> <Binding Path="Value" Converter="{StaticResource adrsConverter}" />
```


Item 40 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application uses the background worker process (BWP).

When the user clicks a button, the background worker executes a method named DoCalculations asynchronously. You need to implement a progress bar on the user interface (UI) that informs the user of the progress of DoCalculations. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- ☐ A. Modify the Value property of the progress bar in DoCalculations.
- ☐ B. Modify the Value property of the progress bar in the ProgressChanged event handler of the background worker.
- ☐ C. Modify the Value property of the progress bar in the RunWorkerCompleted event handler of the background worker.
- ☐ D. Call the ReportProgress method of the background worker in DoCalculations.
- ☐ E. Call the ReportProgress method of the background worker in the DoWork event handler of the background worker.

Answer: BD

Item 41 of 90

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application includes a function that is triggered by filling out a form and by clicking a button.

Currently, the application is tested manually.

You need to create an automated and iterative process to test the application. What should you do?

- ☒ A. Use IntelliTrace.
- ☒ B. Use UISpy.exe to extract the user interface (UI) information. Then, use MSTest.exe.
- ☒ C. Use classes in the System.Windows.Automation and System.Windows.Automation.Text namespaces.
- ☒ D. Use the Action Recording methodology to record the user interface (UI) actions. Then, use MSTest.exe.

Answer: C

Item 42 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application that allows users to arrange images. You need to ensure that users can arrange child elements in a panel without affecting the size of the elements. You also need to ensure that child elements are oriented horizontally. Which control should you use?

- ☐ A. **ListBox**
- ☐ B. DockPanel
- ☐ C. WrapPanel
- ☐ D. StackPanel

Answer: D

Item 43 of 90

You create a Microsoft Windows Installer file for a Windows Presentation Foundation (WPF) application that requires Microsoft .NET Framework 4. You need to ensure that the installation starts only if .NET Framework 4 is already installed on the computer. What should you do?

- ☐ A. Use a custom action.
- ☐ B. Set the MinVersion property to .NET Framework 4.
- ☐ C. Set the Version property of Windows Installer to .NET Framework 4.
- ☐ D. Set the Version property of the Launch Condition to .NET Framework 4.

Answer: D

Item 44 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You write the following code segment.

```
public class Contact { private string _contactName;
get { return _contactName; }
set {
    if (string.IsNullOrEmpty(value))
        throw new ApplicationException("Contact name is required");
    _contactName = value;
}
}
```

You add the following code fragment in a WPF window control.

```
<TextBox Text="{Binding Path=ContactName, ValidatesOnExceptions=True, UpdateSourceTrigger=PropertyChanged}" />
The TextBox control is data-bound to an instance of the Contact class. You plan to implement an ErrorTemplate in the TextBox control.
You need to ensure that the validation error message is displayed next to the TextBox control. Which code fragment should you use?
```

- ☐ A.

```
<ControlTemplate>
<DockPanel>
<AdornedElementPlaceholder Name="box" />
<TextBlock Text="{Binding ElementName=box, Path=AdornedElement.Validation.Errors[0].ErrorContent}" Foreground="Red" />
</DockPanel>
</ControlTemplate>
```
- ☐ B.

```
<ControlTemplate>
<DockPanel>
<AdornedElementPlaceholder Name="box" />
<TextBlock Text="{Binding ElementName=box, Path={Validation.Errors[0].Exception.Message}" Foreground="Red" />
</DockPanel>
</ControlTemplate>
```
- ☐ C.

```
<ControlTemplate>
<DockPanel>
<ContentControl Name="box" />
<TextBlock Text="{Binding ElementName=box, Path=ContentControl.Validation.Errors[0].ErrorContent}" Foreground="Red" />
</DockPanel>
</ControlTemplate>
```

Item 45 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains a composite user control that includes a TextBox control named txtInput.

The user control will be hosted in a window and will have handlers for the text-changed event of txtInput.

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

- Creates a text-changed event handler named Audit_TextChanged for the txtInput control.
- Executes Audit_TextChanged even when specific handlers mark the event as handled.

Which code segment should you add to the constructor of the user control

- ☐ A.

```
txtInput.TextChanged+=Audit_TextChanged;
```
- ☐ B.

```
AddHandler(TextBox.TextChangedEvent, new RoutedEventHandler(Audit_TextChanged), true);
```
- ☐ C.

```
EventManager.RegisterClassHandler(typeof(TextBox), TextBox.TextChangedEvent, new
RoutedEventHandler(Audit_TextChanged), true);
```
- ☐ D.

```
EventManager.RegisterClassHandler(typeof(TextBox), TextBox.TextChangedEvent, new
RoutedEventHandler (Audit_TextChanged), false);
```

Answer: B

Item 46 of 90

You use Microsoft .NET Framework 4 to create an application.

The application performs resource-intensive calculations that consist of multiple layers of nested looping. The application will be deployed to servers that contain varying hardware configurations.

You need to ensure that the application utilizes CPU resources on the server in the most efficient manner. You want to achieve this goal by using the minimum amount of code. What should you do?

- ☐ A. Use multiple System.Threading.Thread objects.
- ☐ B. Use the background worker process (BWP).
- ☐ C. Use the Thread.BeginInvoke method.
- ☐ D. Use the Parallel.For method.

Answer: D

Item 47 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You write the following code fragment.

```
<StackPanel TextBox PreviewTextInput="StackPanel_PreviewTextInput">
<TextBox Name="TxtBoxA"/>
<TextBox Name="TxtBoxB"/>
<TextBox Name="TxtBoxC"/>
</StackPanel>
```

You create an event handler named StackPanel_PreviewTextInput. You also have a collection of strings named Keywords. You need to ensure that TxtBoxA and TxtBoxB do not contain any of the strings in the Keywords collections. Which code segment should you use?

- ☐ A.

```
private void StackPanel_PreviewTextInput(
object sender, TextCompositionEventArgs e)
{ FrameworkElement feSource = sender as FrameworkElement;
if (feSource.Name == "TxtBoxA" || feSource.Name == "TxtBoxB")
{ foreach(string keyword in Keywords)
{
if(fe.Text.Contains(keyword)) { e.Handled = false;
return;
}
} e.Handled = true;
}
}
```
- ☐ B.

```
private void StackPanel_PreviewTextInput(
object sender, TextCompositionEventArgs e) {
FrameworkElement feSource = e.Source as FrameworkElement;
if (feSource.Name == "TxtBoxA" || feSource.Name == "TxtBoxB")
{ feSource.Name == "TxtBoxA" || feSource.Name == "TxtBoxB" } {
foreach(string keyword in Keywords)
{
if(fe.Text.Contains(keyword)) { e.Handled = false;
return;
}
} e.Handled = true;
}
```

- ☐ C.

```
private void StackPanel_PreviewTextInput(
object sender, TextCompositionEventArgs e)
{
    FrameworkElement feSource = sender as FrameworkElement;
    if (feSource.Name == "TextBoxA" || feSource.Name == "TextBoxB")
    {
        foreach(string keyword in Keywords)
        {
            if(e.Text.Contains(keyword)) {
                e.Handled = true;
            }
            return;
        }
        e.Handled = false;
    }
}
```
- ☐ D.

```
private void StackPanel_PreviewTextInput(
object sender, TextCompositionEventArgs e)
{
    FrameworkElement feSource = e.Source as FrameworkElement;
    if (feSource.Name == "TextBoxA" || feSource.Name == "TextBoxB")
    {
        foreach(string keyword in Keywords)
        {
            if(e.Text.Contains(keyword)) {
                e.Handled = true;
            }
            return;
        }
        e.Handled = false;
    }
}
```

Answer: D

Item 48 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains a set of Button controls.

You need to ensure that a button is highlighted when the mouse pointer is located over a button that contains no content. Which code fragment should you use?

- ☐ A.

```
<Style TargetType="{x:Type Button}"> ... <Setter Property="Background" Value="Yellow" />
<Style.Triggers> <MultiTrigger>
<MultiTrigger.Conditions> <Condition Property="IsMouseOver" Value="True" />
<Condition Property="Content" Value="{x:Null}" />
</MultiTrigger.Conditions>
</MultiTrigger> </Style.Triggers>
</Style>
```
- ☐ B.

```
<Style TargetType="{x:Type Button}"> ... <Style.Triggers>
<Trigger Property="IsMouseOver" Value="True">
<Setter Property="Background" Value="Yellow" />
</Trigger>
<Trigger Property="Content" Value="{x:Null}">
<Setter Property="Background" Value="Yellow" />
</Trigger>
</Style.Triggers> </Style>
```
- ☐ C.

```
<Style TargetType="{x:Type Button}"> ... <Setter Property="Background" Value="Yellow" />
<Style.Triggers>
<MultiTrigger>
<MultiTrigger.Conditions>
<Condition Property="IsMouseOver" Value="True" />
<Condition Property="Content" Value="Empty" />
</MultiTrigger.Conditions>
</MultiTrigger>
</Style.Triggers>
</Style>
```

- ☒ D. `<Style TargetType="{x:Type Button}"> ... <Style.Triggers>
<Trigger Property="IsMouseOver" Value="True">
<Setter Property="Background" Value="Yellow" />
</Trigger>
<Trigger Property="Content" Value="Empty">
<Setter Property="Background" Value="Yellow" />
</Trigger>
</Style.Triggers>
</Style>`

Answer: A

Item 49 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains an ObservableCollection object named Pictures that contains several Picture objects. Each Picture object contains the Name and PictureFilePath properties. You add a ListBox control to the application. You need to ensure that the pictures are displayed in the ListBox control. Which code fragment should you use?

- ☒ A. `<ListBox ItemsSource="{Binding Source={StaticResource pictures}}">
<ListBox.ItemTemplate>
<DataTemplate>
<TextBlock><TextBlock.Text>
<Binding Path="PictureFilePath" />
</TextBlock.Text></TextBlock>
</DataTemplate>
</ListBox.ItemTemplate>
</ListBox>`
- ☐ B. `<ListBox ItemsSource="{Binding Source={StaticResource pictures}}">
<ListBox.ItemTemplate>
<DataTemplate>
<Image Source="{Binding Source={StaticResource pictures}, Path=PictureFilePath}" />
</DataTemplate>
</ListBox.ItemTemplate>
</ListBox>`
- ☐ C. `<ListBox ItemsSource="{Binding Source={StaticResource pictures}}">
<ListBox.ItemTemplate>
<DataTemplate>
<TextBlock>
<TextBlock.Text> <Binding Path="Name" />
</TextBlock.Text>
</TextBlock>
</DataTemplate>
</ListBox.ItemTemplate>
</ListBox>`

- ☐ C. `<ListBox ItemsSource="{Binding Source={StaticResource pictures}}">`
`<ListBox.ItemTemplate>`
`<DataTemplate>`
`<TextBlock>`
`<TextBlock.Text> <Binding Path="Name" />`
`</TextBlock.Text>`
`</TextBlock>`
`</DataTemplate>`
`</ListBox.ItemTemplate>`
`</ListBox>`
- ☐ D. `<ListBox ItemsSource="{Binding Source={StaticResource pictures}}">`
`<ListBox.ItemTemplate>`
`<DataTemplate>`
`<Image Source="{Binding Path=PictureFilePath}" />`
`</DataTemplate>`
`</ListBox.ItemTemplate>`
`</ListBox>`

Answer: D

Item 50 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

The application has multiple data entry windows. Each window contains controls that allow the user to type different addresses for shipping and mailing. All addresses have the same format.

You need to ensure that you can reuse the controls.

What should you create?

- ☐ A. a user control
- ☐ B. a data template
- ☐ C. a control template
- ☐ D. a control that inherits the `Canvas` class

Answer: A

Item 51 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Framework (WPF) application.

You plan to create a custom control that contains four text input fields. Each of the text input fields within the control will contain a label. You need to ensure that the text input fields within the control can be validated by using a regular expression validator. Which class should you inherit from?

- ☐ A. TextBox
- ☐ B. TextElement
- ☐ C. UIElement
- ☐ D. UserControl

Answer: D

Item 52 of 90

You use Microsoft .NET Framework 4 to create a Windows Forms application.

You plan to use a Windows Presentation Foundation (WPF) control of the UserControl1 type hosted in an ElementHost control named elementHost1.

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

```
01public class WPFInWinForms {  
02public WPFInWinForms {  
03{  
04InitializeComponent();  
05  
06}  
07private void OnBackColorChange(object sender, String propertyName, object value)  
08{  
09ElementHost host = sender as ElementHost;  
10System.Drawing.Color col = (System.Drawing.Color)value;  
11SolidColorBrush brush =  
12new SolidColorBrush(System.Windows.Media  
13Color.FromRgb(col.R, col.G, col.B));  
14UserControl1 uc1 = host.Child as UserControl1;  
15uc1.Background = brush;  
16}  
17}
```

You need to ensure that the application changes the background color of the hosted control when the background color of the form changes. Which code segment should you insert at line 05?

- ☐ A. elementHost1.PropertyMap.Remove("BackColor");
elementHost1.PropertyMap.Add("BackColor", new PropertyTranslator(OnBackColorChange));
- ☐ B. elementHost1.PropertyMap.Remove("Background");
elementHost1.PropertyMap.Add("Background", new PropertyTranslator(OnBackColorChange));
- ☐ C. elementHost1.PropertyMap.Add("BackColor", new PropertyTranslator(OnBackColorChange));
elementHost1.PropertyMap.Apply("BackColor");
- ☐ D. elementHost1.PropertyMap.Add("Background", new PropertyTranslator(OnBackColorChange));
elementHost1.PropertyMap.Apply("Background");

Answer: A

Item 53 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

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

- Displays a menu that is specific to the control selected by the user.
- Displays the menu next to the control.

Which control should you use?

- ☐ A. Menu
- ☐ B. PopUp
- ☐ C. ListBox
- ☐ D. ContextMenu

Answer: D

Item 54 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application has a window named MainWindow that has a StackPanel control named **sp** as the root element.

You want to create a Button control that contains a TextBlock control with the "Save" Text property.

You need to create the control dynamically and add the control to **sp**.

Which code segment should you write in the constructor of the MainWindow class?

- ☒ A.

```
Button btn = new Button();
TextBlock text = new TextBlock();
text.Text = "Save";
btn.Content = text;
sp.DataContext = btn;
```
- ☐ B.

```
Button btn = new Button();
TextBlock text = new TextBlock();
text.Text = "Save";
btn.Content = text;
sp.Children.Add(btn);
```
- ☐ C.

```
Button btn = new Button();
TextBlock text = new TextBlock();
text.Text = "Save";
sp.Children.Add(btn);
```
- ☐ D.

```
Button btn = new Button();
TextBlock text = new TextBlock();
text.Text = "Save";
btn.ContentTemplateSelector.SelectTemplate(text, null);
sp.Children.Add(btn);
```

Answer: D

Item 55 of 90

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You plan to implement a test strategy for the application.

You need to ensure that the test strategy meets the following requirements:

- Test data can be added to the test project without recompiling.
- Multiple variations of a test can be executed at run time.

What should you do?

- ☐ A. Use IntelliTrace.
- ☒ B. Use data-driven tests.
- ☐ C. Create a single test class.
- ☐ D. Create a test method for each data variation.

Answer: B

Item 56 of 90

You use Microsoft .NET Framework 4 to create a Windows Forms application.

You have a DataGridView that is bound to a DataTable containing a column named ProductName.

The ProductName column can contain any valid string, except "ProductX," "ProductY," "ProductZ."

You need to ensure that only valid entries for ProductName are saved when users edit the DataGridView.

Which DataGridView event should you use?

- ☐ A. CellBeginEdit
- ☐ B. Invalidated
- ☐ C. Validated
- ☒ D. Validating

Answer: D

You use Microsoft .NET Framework 4 to create a Windows Forms client application. You write the following code segment.

```
sealed class FormSettings : ApplicationSettingsBase {
    [UserScopedSetting()]
    [DefaultSettingValue("225, 200")]
    public Size FormSize
    {
        get { return (Size)this["FormSize"]; }
        set { this["FormSize"] = value; }
    }
}
```

The application contains a form of type Form1 that contains a FormSettings object named frmSettings1. You need to maintain the user's form size preference each time the user executes the application. Which code segment should you use?

- ☐ A. `private void Form1_Load(object sender, EventArgs e)`
`{`
 `frmSettings1.Reset();`
`}`
`private void Form1_FormClosing(object sender, FormClosingEventArgs e) { frmSettings1.FormSize =`
`this.Size;`
 `frmSettings1.Save(); }`
- ☐ B. `private void Form1_Load(object sender, EventArgs e)`
`{`
 `frmSettings1.Reset();`
`}`
`private void Form1_FormClosing(object sender, FormClosingEventArgs e)`
`{ frmSettings1.FormSize = this.Size;`
 `frmSettings1.Upgrade(); }`
- ☐ C. `private void Form1_Load(object sender, EventArgs e) { this.Size = frmSettings1.FormSize;`
 `private void Form1_FormClosing(object sender, FormClosingEventArgs e)`
`{ frmSettings1.FormSize = this.Size;`
 `frmSettings1.Upgrade(); }`
- ☐ D. `private void Form1_Load(object sender, EventArgs e)`
`{`
 `this.Size = frmSettings1.FormSize;`
`}`
`private void Form1_FormClosing(object sender, FormClosingEventArgs e)`
`{ frmSettings1.FormSize = this.Size;`
 `frmSettings1.Save(); }`

Answer: D

Item 58 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You add a ListBox control to the application. The ListBox control is data-bound to an instance of a custom collection class of the Product objects named ProductList. You need to ensure that changes to ProductList are automatically reflected in the ListBox control. What should you do?

- ☐ A. Implement the INotifyPropertyChanged interface in the Product class.
- ☐ B. Implement the IQueryable<Product> interface in the ProductList class.
- ☐ C. Extend the DependencyObject class in the Product class.
- ☐ D. Extend the ObservableCollection<Product> class in the ProductList class.

Answer: D

Item 59 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You write the following code segment. (Line numbers are included for reference only.)

```
01 public class Contact
02 {
03     private string _contactName;
04
05     public string ContactName {
06         get { return _contactName; }
07         set { _contactName = value; }
08     }
09
10 }
```

You add the following code fragment within a WPF window control.

```
<TextBox>
<TextBox.Text>
<Binding Path="ContactName" UpdateSourceTrigger="PropertyChanged">
<Binding.ValidationRules>
<DataErrorValidationRule />
</Binding.ValidationRules>
</Binding>
</TextBox.Text>
</TextBox>
```

The TextBox control is data-bound to an instance of the Contact class.

You need to ensure that the Contact class contains a business rule to ensure that the ContactName property is not empty or NULL. You also need to ensure that the TextBox control validates the input data.

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

- ☐ A. Replace line 01 with the following code segment: `public class Contact : IDataErrorInfo`
- ☐ B. Replace line 01 with the following code segment: `public class Contact : ValidationRule`

- ☐ C. Replace line 01 with the following code segment. public class Contact : INotifyPropertyChanged
- ☐ D. Add the following code segment at line 04. public event PropertyChangedEventHandler PropertyChanged;
- ☐ E. Modify line 07 with the following code segment:

```
set {
    if (this.PropertyChanging != null)
        PropertyChanged(this, new
            PropertyChangedEventArgs("ContactName"));
    if (string.IsNullOrEmpty(value))
        throw new ApplicationException("Contact name is required");
    _contactName = value;
}
```

- ☐ F. Add the following code segment at line 09.

```
public string Error {
    public string this[string columnName] {
        get {
            if (columnName == "ContactName" &&
                string.IsNullOrEmpty(this.ContactName))
                return "Contact name is required";
            return null;
        }
    }
}
```

Answer: AE

Item 60 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You create a window that contains a Button control and a MenuItem control. Both controls are labeled "Add sugar." The Command properties of the Button and MenuItem controls are set to the same RoutedCommand named AddSugarCommand.

You write the following code segment.

```
private void CanAddSugar (object sender, CanExecuteRoutedEventArgs e) { ... }
```

You need to ensure that when the CanAddSugar method sets e.CanExecute to false, the MenuItem and Button controls are disabled. What should you do?

- ☒ A. Create an event handler for the CanExecuteChanged event of the AddSugarCommand command. Call the CanAddSugar method from within the event handler.
- ☒ B. Inherit the AddSugarCommand from the RoutedUICommand class instead of the RoutedCommand class. Call the CanAddSugar method from within the constructor of the AddSugarCommand command.
- ☒ C. Add a CommandBinding object to the CommandBinding property of the MenuItem control. Set the CanExecute property of the CommandBinding object to the CanAddSugar method.
- ☒ D. Add a CommandBinding object to the CommandBindings property of the window. Set the Command property of CommandBinding to the AddSugarCommand command. Set the CanExecute property of the CommandBinding object to the CanAddSugar method.

Answer: D

Item 61 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application that displays an image. You need to ensure that users can stretch and scale the image. Which control should you use?

- ☒ A. Frame
- ☐ B. Slider
- ☐ C. Viewbox
- ☐ D. ScrollViewer

Answer: C

Item 62 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains the following code fragment.

```
<StackPanel> <TextBlock Style="{StaticResource MyStyle}">Hello World</TextBlock>  
<Button Style="{StaticResource MyStyle}">Ok</Button>  
</StackPanel>
```

You need to define a style that applies the following properties to the text in the StackPanel object:

- FontSize = 32
- FontWeight = Bold

Which code fragment should you use?

- ☒ A.

```
<Style x:Key="MyStyle" TargetType="{x:Type Control}">  
  <Setter Property="TextElement.FontSize" Value="32" />  
  <Setter Property="TextElement.FontWeight" Value="Bold" />  
</Style>
```
- ☐ B.

```
<Style x:Key="MyStyle" TargetType="{x:Type FrameworkElement}">  
  <Setter Property="TextElement.FontSize" Value="32" />  
  <Setter Property="TextElement.FontWeight" Value="Bold" />  
</Style>
```
- ☐ C.

```
<Style x:Key="MyStyle" TargetType="{x:Type TextElement}">  
  <Setter Property="Control.FontSize" Value="32" />  
  <Setter Property="Control.FontWeight" Value="Bold" />  
</Style>
```
- ☐ D.

```
<Style x:Key="MyStyle" TargetType="{x:Type UserControl}">  
  <Setter Property="Control.FontSize" Value="32" />  
  <Setter Property="Control.FontWeight" Value="Bold" />  
</Style>
```

Answer: B

Item 63 of 90

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Framework (WPF) application. You have a company logo that must appear on multiple forms in the application. The logo design changes frequently. You need to ensure that when the logo image is changed, you only need to update a single location. What should you do?

- ☒ A. Define the image as a page resource.
- ☐ B. Define the image as an application resource.
- ☐ C. Save the image on a network drive.
- ☐ D. Include the image as an embedded resource.

Answer: B

Item 64 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You write the following code fragment.

```
<Window x:Class="MyProject.MainWindow" xmlns:local="clr-namespace:MyProject">
<Window.Resources>
<local:MyConverter x:Key="myConverter" />
<Window.Resources>
<ListBox Name="box">
<ListBox.ItemTemplate>
<DataTemplate>
<TextBlock Text="{Binding Converter={StaticResource myConverter}, ConverterParameter=formatText}"
Background="{Binding Converter={StaticResource myConverter},
ConverterParameter=formatColor}" IsEnabled="{Binding Converter={StaticResource myConverter}}" />
</DataTemplate>
</ListBox.ItemTemplate>
</ListBox> </Window>
```

You need to implement the MyProject.MyConverter class. What should you do?

- ☐ A. Implement the IValueConverter interface.
- ☒ B. Implement the IMultiValueConverter interface.
- ☐ C. Inherit from the TypeConverter class.
- ☐ D. Apply the TypeConverterAttribute attribute.

Answer: A

Item 65 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You write the following code fragment. (Line numbers are included for reference only.)

```
01<StackPanel>
02<StackPanel.Resources>
03<ControlTemplate
04TargetType="{x:Type Button}"
05x:Key="btn">
06 07</ControlTemplate>
08</StackPanel.Resources>
09<Button Content="Save" 10Template="{StaticResource btn}" />
11<Button Template="{StaticResource btn}">
12<TextBox Text="Save" />
13</Button>
14</StackPanel>
```

You need to ensure that both Button controls display the "Save" text. Which code fragment should you insert at line 06?

- ☐ A. `<TextBlock Text="{Binding}" />`
- ☐ B. `<TextBlock Text="{TemplateBinding Content}" />`
- ☐ C. `<ContentPresenter Content="{Binding}" />`
- ☐ D. `<ContentPresenter />`

Answer: D

Item 66 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application contains a window that has two labels named First and Second. You need to display the label named First in blue. Which code fragment should you use?

- ☐ A. `<Grid>
 <Grid.Resources>
 <Style x:Key="Blue" TargetType="{x:Type Label}">
 <Setter Property="Label.Foreground" Value="Blue" />
 </Style>
 </Grid.Resources>
 <StackPanel Orientation="Vertical">
 <Label Name="First">Text #1</Label>
 <Label Name="Second">Text #2</Label>
 </StackPanel> </Grid>`
- ☐ B. `<Grid>
 <Grid.Resources> <Style x:Uid="Blue">
 <Setter Property="Label.Foreground" Value="Blue" />
 </Style>
 </Grid.Resources>
 <StackPanel Orientation="Vertical">
 <Label Name="First" Style="{StaticResource Blue}">Text #1</Label>
 <Label Name="Second">Text #2</Label>
 </StackPanel> </Grid>`
- ☐ C. `<Grid>
 <Grid.Resources>
 <Style x:Uid="First" TargetType="{x:Type Label}">
 <Setter Property="Foreground" Value="Blue" />
 </Style>
 </Grid.Resources>
 <StackPanel Orientation="Vertical">
 <Label Name="First" Style="{StaticResource Blue}">Text #1</Label>
 <Label Name="Second">Text #2</Label>
 </StackPanel> </Grid>`
- ☐ D. `<Grid>`

- ☒ D. `<Grid>`
`<Grid.Resources> <Style x:Key="First" TargetType="{x:Type Label}">`
`<Setter Property="Foreground" Value="Blue"/>`
`</Style>`
`</Grid.Resources>`
`<StackPanel Orientation="Vertical">`
`<Label Name="First">Text #1</Label>`
`<Label Name="Second">Text #2</Label>`
`</StackPanel> </Grid>`

Answer: C

Item 67 of 90

You use Microsoft .NET Framework 4 to create a Windows Forms application. You write the following code segment. (Line numbers are included for reference only.)

```
01sealed class FormSettings :
02ApplicationSettingsBase
03{
04public String Description
05{
06get { return (String)this["Description"]; }
07set { this["Description"] = value;}
08}
09}
```

You need to ensure that the first time each user opens the application, a text field displays the following message: "Please enter your setting." Which code segment should you insert at line 03?

- ☐ A. `[UserScopedSetting()] [DefaultSettingValue("Please enter your setting.")]`
☐ B. `[UserScopedSetting()] [SettingsDescription("Description: Please enter your setting.")]`
☐ C. `[ApplicationScopedSetting()] [DefaultSettingValue("Please enter your setting.")]`
☐ D. `[ApplicationScopedSetting()] [SettingsDescription("Description: Please enter your setting.")]`

Answer: A

Item 68 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You add a `TreeView` control to show the hierarchical structure of orders and order details. Each order contains an `ObservableCollection` named `OrderDetails`. You write the following code fragment. (Line numbers are included for reference only.)

```
01<Grid>
02<Grid.Resources>
03<src:Orders x:Key="orders"/> 04<DataTemplate
05x:Key="OrderDetailTemplate">
06<TextBlock Text="{Binding Path=.}" />
07</DataTemplate>
08</Grid.Resources>
09<TreeView DataContext="{StaticResource orders}"
10ItemsSource="{Binding Path=.}"
11ItemTemplate="{StaticResource OrderTemplate}"/>
12</Grid>
```

You need to ensure that the `TreeView` control meets the following requirements:

- Each order is shown as a `TreeView` node.
- The order nodes have order detail nodes as children.
- The order detail nodes have no children.

Which code fragment should you insert at line 07?

- ☐ A. `<HierarchicalDataTemplate x:Key="OrderTemplate" DataType="Order" ItemTemplate="{StaticResource OrderDetailTemplate}">`
`<TextBlock Text="{Binding Path=.}" />`
`</HierarchicalDataTemplate>`
- ☐ B. `<HierarchicalDataTemplate x:Key="OrderTemplate" ItemsSource="{Binding Path=OrderDetails}" ItemTemplate="{StaticResource OrderDetailTemplate}">`
`<TextBlock Text="{Binding Path=.}" />`
`</HierarchicalDataTemplate>`

- ☐ C. `<HierarchicalDataTemplate x:Key="OrderTemplate" ItemsSource="{Binding Path=orders}" ItemTemplate="{StaticResource OrderDetailTemplate}">`
`<TextBlock Text="{Binding Path=.}" />`
`</HierarchicalDataTemplate>`
- ☐ D. `<HierarchicalDataTemplate x:Key="OrderTemplate" ItemsSource="{Binding Path=orders}" DataType="Order">`
`<TextBlock Text="{Binding Path=.}" />`

Answer: B

Item 69 of 90

You use Microsoft .NET Framework 4 to create a Windows application.

You want to use the ClickOnce technology to deploy the application on computers that run Windows Vista with User Access Control (UAC) enabled.

You need to ensure that the application can be installed in a secure manner.

Which setting should you use in the application manifest?

- ☐ A. `<requestedExecutionLevel level="requireAdministrator" uiAccess="true" />`
- ☐ B. `<requestedExecutionLevel level="requireAdministrator" uiAccess="false" />`
- ☐ C. `<requestedExecutionLevel level="asInvoker" uiAccess="true" />`
- ☐ D. `<requestedExecutionLevel level="highestAvailable" uiAccess="true" />`

Answer: C

Item 70 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

The application requires frequent updates.

You want to use the ClickOnce technology to distribute the application to Internet users.

You need to ensure that the application is automatically updated without requiring user intervention.

You also need to ensure that the users execute the most recent version of the application.

What should you do when you publish the application?

- ☐ A. Use Install the application from a file share. Select the Application is available online and offline option.
- ☐ B. Use Install the application from CD-ROM or a DVD-ROM. Select the Application will not check for updates option.
- ☐ C. Use Install the application from a Web site. Select the Application is available online only option.
- ☐ D. Use Install the application from a Web site. Select the Application is available online and offline option.

Answer: C

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You plan to use an existing Windows Forms control named `MyWinFormControl` in the `MyControls` assembly. You need to ensure that the control can be used in your application. What should you do?

- ☐ A. Add the following code fragment to the application.
- ```
<Window x:Class="HostingWpf.Wpf.Window1"
 xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
 xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
 xmlns:wf="clr-namespace:MyCompany.Controls;assembly=MyControls;" Title="HostingWpf" >
 <Grid>
 <ElementHost>
 <wf:MyWinFormControl x:Name="control" />
 </ElementHost>
 </Grid> </Window>
```
- ☐ B. Add the following code fragment to the application.
- ```
<Window x:Class="HostingWpf.Wpf.Window1"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:wf="clr-namespace:MyCompany.Controls;assembly=MyControls;" Title="HostingWpf" >
    <Grid>
        <WindowsFormsHost>
            <wf:MyWinFormControl x:Name="control" />
        </WindowsFormsHost>
    </Grid> </Window>
```

- ☐ C. Add the following code segment to the `WindowsLoaded` function.
- ```
ElementHost host = new ElementHost();
host.Dock = DockStyle.Fill;
MyWinFormControl control = new MyWinFormControl();
host.Child = control;
this.Controls.Add(host);
```
- ☐ D. Add the following code segment to the `WindowsLoaded` function.
- ```
Grid grid = new Grid();
System.Windows.Forms.Integration.WindowsFormsHost host = new
System.Windows.Forms.Integration.WindowsFormsHost();
MyWinFormControl control = new MyWinFormControl();
grid.Children.Add(host);
```

Answer: B

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You add a ListBox to show grouped data.

The ListBox is data-bound to a collection of items. Each item has the Name and State properties.

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

- Names grouped by State
- Names sorted in ascending order
- States sorted in descending order

Which code fragment should you use?

- ☐ A.

```
<CollectionViewSource.GroupDescriptions> <swd:PropertyGroupDescription PropertyName="State"/>
</CollectionViewSource.GroupDescriptions>
<CollectionViewSource.SortDescriptions>
<scm:SortDescription PropertyName="State" Direction="Descending"/>
<scm:SortDescription PropertyName="Name" Direction="Ascending" />
</CollectionViewSource.SortDescriptions>
```
- ☐ B.

```
<CollectionViewSource.GroupDescriptions>
<swd:PropertyGroupDescription PropertyName="Name"/>
</CollectionViewSource.GroupDescriptions>
<CollectionViewSource.SortDescriptions>
<scm:SortDescription PropertyName="Name" Direction="Ascending" />
<scm:SortDescription PropertyName="State" Direction="Descending"/>
</CollectionViewSource.SortDescriptions>
```
- ☐ C.

```
<CollectionViewSource.GroupDescriptions>
<swd:PropertyGroupDescription PropertyName="State"/>
<swd:PropertyGroupDescription PropertyName="Name"/>
</CollectionViewSource.GroupDescriptions>
<CollectionViewSource.SortDescriptions>
<scm:SortDescription PropertyName="State" Direction="Descending"/>
<scm:SortDescription PropertyName="Name" Direction="Ascending" />
</CollectionViewSource.SortDescriptions>
```
- ☐ D.

```
<CollectionViewSource.GroupDescriptions>
<swd:PropertyGroupDescription PropertyName="State"/>
</CollectionViewSource.GroupDescriptions>
<CollectionViewSource.SortDescriptions>
<scm:SortDescription PropertyName="State" Direction="Descending"/>
<scm:SortDescription PropertyName="Name" Direction="Ascending" />
</CollectionViewSource.SortDescriptions>
```

Answer: A

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application displays a list of books.

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

```
01<Window.Resources>
02<XmlDataProvider x:Key="InventoryData" XPath="Books">
03<x:CDATA>
04<Books xmlns="">
05<Book Title="XML in Action" Stock="in" />
06<Book Title="Inside C#" Stock="out" />
07<Book Title="Introducing Microsoft .NET" Stock="in" />
08</Books>
09</x:CDATA>
10</XmlDataProvider>
11<Style x:Key="MyItemStyle" TargetType="{x:Type ListBoxItem}">
12
13</Style>
14<Window.Resources>
15<ListBox.ItemContainerStyle="{StaticResource MyItemStyle}">
16<ListBox.ItemsSource>
17<Binding Source="{StaticResource InventoryData}" XPath="Book"/>
18</ListBox.ItemsSource>
19<ListBox.ItemTemplate>
20<DataTemplate>
21<TextBlock>
22<TextBlock.Text>
23<Binding XPath="@Title"/>
24</TextBlock.Text>
25</TextBlock>
26</DataTemplate>
27</ListBox.ItemTemplate>
28</ListBox>
```

You need to ensure that book titles that are out of stock appear in red. Which code fragment should you insert at line 12?

- ☐ A. `<Style.Triggers> <Trigger Binding.XmlNamespaceManager="{Binding XPath=@Stock}" Value="out">
<Setter Property="Foreground" Value="Red" /> </Trigger>
</Style.Triggers>`
- ☐ B. `<Style.Triggers>
<Trigger Binding="{Binding XPath=@Stock}" Value="out"> <Setter Property="Foreground" Value="Red"/><DataTrigger>
</Style.Triggers>`
- ☐ C. `<Style.Triggers>
<Trigger Binding.XmlNamespaceManager="{Binding XPath=book@Stock}" Value="out">
<Setter Property="Foreground" Value="Red" /><DataTrigger></Trigger>
</Style.Triggers>`
- ☐ D. `<Style.Triggers>
<Data Trigger Binding="{Binding XPath=book@Stock}" Value="out">
<Setter Property="Foreground" Value="Red" />
<DataTrigger>
</Style.Triggers>`

Answer: B

Item 74 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. The application uses the background worker process (BWP).

When the user clicks a button, the background worker executes a method named DoCalculations asynchronously. You need to implement a progress bar on the user interface (UI) that informs the user of the progress of DoCalculations. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

- ☐ A. Modify the Value property of the progress bar in DoCalculations.
- ☐ B. Modify the Value property of the progress bar in the ProgressChanged event handler of the background worker.
- ☐ C. Modify the Value property of the progress bar in the RunWorkerCompleted event handler of the background worker.
- ☐ D. Call the ReportProgress method of the background worker in DoCalculations.
- ☐ E. Call the ReportProgress method of the background worker in the DoWork event handler of the background worker.

Answer: BD

Item 75 of 90

You use Microsoft .NET Framework 4 to create a Windows Forms application.

The application includes a RichTextBox control and a ListBox control. The ListBox control is populated with a list of valid file names. The application allows users to drag a ListBox item to the RichTextBox control.

You need to provide a visual indication that a file that is dragged can be dropped on the RichTextBox control. What should you do?

- ☐ A. Use a DoubleAnimation class.
- ☐ B. Use a Storyboard animation class.
- ☐ C. Use the DragDropEffects enumeration.
- ☐ D. Use the DragAction enumeration.

Answer: C

Item 76 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You need to ensure that users can view content in a book-reading format that displays two pages at a time. Which control should you use?

- ☐ A. `FlowDocument`
- ☒ B. `FlowDocumentReader`
- ☐ C. `FlowDocumentPageViewer`
- ☐ D. `FlowDocumentScrollViewer`

Answer: B

Item 77 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You create a custom control named `Wheel`. You need to ensure that the `Speed` property of `Wheel` can be animated. What should you do?

- ☐ A. Inherit the `DependencyObject` class.
- ☒ B. Declare the `Speed` property as a dependency property.
- ☐ C. Declare an animation of the `Speed` property from within the code-behind file.
- ☐ D. Implement the `System.Windows.Media.Animation.IAnimatable` interface with the `Wheel` class.

Answer: B

Item 78 of 90

You use Microsoft .NET Framework 4 to create an application. The application contains a partially trusted client assembly and a server assembly. You create a custom sandboxed application domain. You need to ensure that the application can be executed in a partial-trust environment. What should you do?

- ☐ A. Apply the following attribute to the server assembly. [assembly: AllowPartiallyTrustedCallers(PartialTrustVisibilityLevel=VisibleToAllHosts)]
- ☐ B. Apply the following attribute to the server assembly. [assembly: AllowPartiallyTrustedCallers(PartialTrustVisibilityLevel=NotVisibleByDefault)]
- ☐ C. Apply the following attribute to the client assembly. [assembly: AllowPartiallyTrustedCallers(PartialTrustVisibilityLevel=VisibleToAllHosts)]
- ☐ D. Apply the following attribute to the client assembly. [assembly: AllowPartiallyTrustedCallers(PartialTrustVisibilityLevel=NotVisibleByDefault)]

Answer: B

Item 79 of 90

You use Microsoft .NET Framework 4 to create a Windows Forms application. You need to allow the user interface to use the currently configured culture settings in the Control Panel. Which code segment should you use?

- ☐ A. `Thread.CurrentThread.CurrentCulture = Thread.CurrentThread.CurrentCulture;`
- ☐ B. `Thread.CurrentThread.CurrentCulture = Thread.CurrentThread.CurrentCulture;`
- ☐ C. `Thread.CurrentThread.CurrentCulture = CultureInfo.InstalledUICulture;`
- ☐ D. `Thread.CurrentThread.CurrentCulture = CultureInfo.InstalledUICulture;`

Answer: A

Item 80 of 90

You use Microsoft .NET Framework 4 to create a Windows application.

You use ClickOnce technology to install the application on computers that run Windows 7 with User Access Control (UAC) enabled.

The application requires access to environment variables on each computer.

You need to ensure that users who do not have administrative permissions can install the application.

Which deployment method should you use?

- ☐ A. Start from Web.
- ☐ B. Install from Web.
- ☐ C. Start from network share
- ☐ D. Install from network share.

Answer: D

Item 81 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You create a class named Person that has a FirstName property and a LastName property.

You create a resource that contains a collection of Person objects and assign the family key to it.

You add a ListBox control by using the following code fragment. (Line numbers are included for reference only.)

```
01<ListBox.ItemsSource="{StaticResource family}">
02<ListBox.ItemTemplate>
03<DataTemplate>
04
05<DataTemplate>
06</ListBox.ItemTemplate>
07</ListBox>
```

You need to ensure that each item in the ListBox control meets the following requirements:

- Contains a TextBox that is data-bound to the FirstName property.
- Contains a TextBox that is data-bound to the LastName property.

Which code fragment should you insert at line 04?

- ☐ A. `<TextBox Text="{Binding FirstName}" />`
`<TextBox Text="{Binding LastName}" />`
- ☐ B. `<TextBox Text="{Binding Path=FirstName, Source=DataItem}" />`
`<TextBox Text="{Binding Path=LastName, Source=DataItem}" />`
- ☐ C. `<TextBox Text="{Binding DataItem.FirstName}" />`
`<TextBox Text="{Binding DataItem.LastName}" />`
- ☐ D. `<TextBox Text="{Binding StringFormat=FirstName}" />`
`<TextBox Text="{Binding StringFormat=LastName}" />`

Answer: A

Item 82 of 90

You use Microsoft .NET Framework 4 to create a Windows application.
You use ClickOnce technology to install the application on computers that run Windows 7 with User Access Control (UAC) enabled.
The application requires access to environment variables on each computer.
You need to ensure that users who do not have administrative permissions can install the application.
Which deployment method should you use?

- ☐ A. Start from Web.
- ☐ B. Install from Web.
- ☐ C. Start from network share
- ☐ D. Install from network share.

Answer: D

Item 83 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.
The application uses the drag-and-drop functionality.
You need to ensure that the drag-and-drop operation is stopped when a user moves the cursor outside the boundaries of the application form.
Which enumeration member should you use?

- ☐ A. DragAction.Cancel
- ☐ B. DragAction.Drop
- ☐ C. DragDropEffects.None
- ☐ D. DragDropEffects.All

Answer: A

Item 84 of 90

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You create a WPF window in the application.

You add the following code segment to the application.

```
public class ViewModel
{
    public CollectionViewData { get; set; }
}

public class BusinessObject
{
    public string Name { get; set; }
}
```

The DataContext property of the window is set to an instance of the ViewModel class.

The Data property of the ViewModel instance is initialized with a collection of BusinessObject objects.

You add a TextBox control to the Window.

You need to bind the Text property of the TextBox control to the Name property of the current item of the CollectionView of the DataContext object.

You also need to ensure that when a binding error occurs, the Text property of the TextBox control is set to N/A.

Which binding expression should you use?

- ☐ A. { Binding Path=Data/Name, fallbackValue=N/A }
- ☐ B. { Binding Path=Data.Name, fallbackValue=N/A }
- ☐ C. { Binding Path=Data/Name, TargetNullValue=N/A }
- ☐ D. { Binding Path=Data.Name, TargetNullValue=N/A }

Answer: A

Item 85 of 90

You use Microsoft Visual Studio 2010 and Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application.

You write the following code fragment to bind a customer object to several controls in a window.

```
<TextBox Text="{Binding Path=CustomerName}" Name="textBox1" />
```

When the application executes, you receive the following error message:

"System.Windows.Data Error: 35 : BindingExpression path error: 'CustomerName' property not found in object 'Customer' (HashCode=22613453) BindingExpression.Path=CustomerName"

What should you do?

target element is 'TextBox (Name=textBox1)'.

target property is 'Text' (type 'String').

You need to identify the source of the error.

- ☐ A. Use a Trace object.
- ☐ B. Use a Debug object.
- ☐ C. Use the WPF Visualizer.
- ☐ D. Use a PresentationTraceSources object.

Answer: D

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You want the application to contain a window as shown in the following exhibit.

The application contains the following code fragment. (Line numbers are included for reference only.)

```
01<Grid ShowGridLines="True">
02<Grid.ColumnDefinitions>
03<ColumnDefinition />
04<ColumnDefinition />
05<ColumnDefinition />
06</Grid.ColumnDefinitions>
07<Grid.RowDefinitions>
08<RowDefinition />
09<RowDefinition />
10<RowDefinition />
11</Grid.RowDefinitions>
12
13<TextBlock FontWeight="Bold" Grid.Row="1" Grid.Column="0">Quarter</TextBlock>
14<TextBlock FontWeight="Bold" Grid.Row="1" Grid.Column="1">Quarter 1</TextBlock>
15<TextBlock FontWeight="Bold" Grid.Row="1" Grid.Column="2">Quarter 2</TextBlock>
16<TextBlock FontWeight="Bold" Grid.Row="2" Grid.Column="0">Products</TextBlock>
17<TextBlock Grid.Row="2" Grid.Column="1">100000</TextBlock>
18<TextBlock Grid.Row="2" Grid.Column="2">150000</TextBlock>
19</Grid>
```

You need to create the application window.

Which code fragment should you insert at line 12?

- ☐ A. `<Rectangle Grid.ColumnSpan="3" Fill="#73B2F5"/>`
`<Rectangle Grid.Row="1" Grid.RowSpan="2" Fill="#73B2F5"/>`
`<TextBlock FontSize="20" FontWeight="Bold" Grid.Row="0">2010 Products Shipped</TextBlock>`
- ☐ B. `<Rectangle Grid.ColumnSpan="3" Fill="#73B2F5"/>`
`<Rectangle Grid.Row="1" Grid.RowSpan="1" Fill="#73B2F5"/>`
`<TextBlock FontSize="20" FontWeight="Bold" Grid.ColumnSpan="3" Grid.Row="0">2010 Products Shipped</TextBlock>`

- ☐ B. `<Rectangle Grid.ColumnSpan="3" Fill="#73B2F5"/>`
`<Rectangle Grid.Row="1" Grid.RowSpan="1" Fill="#73B2F5"/>`
`<TextBlock FontSize="20" FontWeight="Bold" Grid.ColumnSpan="3" Grid.Row="0">2010 Products Shipped</TextBlock>`
- ☐ C. `<Rectangle Grid.ColumnSpan="3" Fill="#73B2F5"/>`
`<Rectangle Grid.RowSpan="3" Fill="#73B2F5"/>`
`<TextBlock FontSize="20" FontWeight="Bold" Grid.ColumnSpan="3" Grid.Row="0">20 Products Shipped</TextBlock>`
- ☐ D. `<Rectangle Grid.Column="1" Grid.ColumnSpan="2" Fill="#73B2F5"/>`
`<Rectangle Grid.RowSpan="3" Fill="#73B2F5"/>`
`<TextBlock Grid.Column="1" FontSize="20" FontWeight="Bold" Grid.ColumnSpan="3" Grid.Row="0">2010 Products Shipped</TextBlock>`

Answer: C

Item 87 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You want to add an audio player that plays .wav or .mp3 files when the user clicks a button. You plan to store the name of the file to a variable named `SoundFilePath`. You need to ensure that when a user clicks the button, the file provided by `SoundFilePath` plays. What should you do?

- ☐ A. Write the following code segment in the button onclick event:
`System.Media.SoundPlayer player = new System.Media.SoundPlayer(SoundFilePath); player.Play();`
- ☐ B. Write the following code segment in the button onclick event: `MediaPlayer player = new MediaPlayer(); player.Open(new Uri(SoundFilePath)); UriKind.Relative)); player.Play();`
- ☐ C. Use the following code segment from the `PlaySound()` Win32 API function and call the `PlaySound` function in the button onclick event. `[DllImport("winmm.dll")] public static extern long PlaySound(String SoundFilePath, long hModule, long dwFlags);`
- ☐ D. Reference the Microsoft DirectX Dynamic Link Libraries. Use the following code segment in the button onclick event:
`Audio song = new Song(SoundFilePath); song.CurrentPosition = song.Duration; song.Play();`

Answer: B

Item 88 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You add a `ListBox` control to the application. The `ListBox` control is data-bound to an instance of a custom collection class of the `Product` objects named `ProductList`. The number of items of the data-bound collection is fixed. However, users can modify the properties of each of the `Product` objects in the collection. You need to ensure that changes made on the `Product` objects are automatically reflected in the `ListBox` control. What should you do?

- ☐ A. Implement the `INotifyPropertyChanged` interface in the `Product` class.
- ☐ B. Implement the `INotifyCollectionChanged` interface in the `ProductList` class.
- ☐ C. Set the `Mode` property of the Binding object of the `ListBox` control to `TwoWay`.
- ☐ D. Set the `UpdateSourceTrigger` property of the Binding object of the `ListBox` control to `PropertyChanged`.

Answer: A

You use Microsoft .NET Framework 4 to create a Windows application that can execute on client computers that run Windows Vista. You are creating a User Account Control (UAC) application manifest for the application. You need to ensure that users who are members of the local Administrators group do not receive a UAC prompt when the application executes. Which code fragment should you use?

- ☐ A. `<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<v3:trustInfo xmlns:v3="urn:schemas-microsoft-com:asm.v3">
<v3:security>
<v3:requestedPrivileges>
<v3:requestedExecutionLevel level="asInvoker" uiAccess="true" />
</v3:requestedPrivileges>
</v3:security>
</v3:trustInfo> </assembly>`
- ☐ B. `<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<v3:trustInfo xmlns:v3="urn:schemas-microsoft-com:asm.v3">
<v3:security>
<v3:requestedPrivileges>
<v3:requestedExecutionLevel level="requireAdministrator" uiAccess="true" />
</v3:requestedPrivileges>
</v3:security>
</v3:trustInfo> </assembly>`
- ☐ C. `<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<v3:trustInfo xmlns:v3="urn:schemas-microsoft-com:asm.v3">
<v3:security>
<v3:requestedPrivileges>
<v3:requestedExecutionLevel level="asInvoker" uiAccess="false" />
</v3:requestedPrivileges>
</v3:security>
</v3:trustInfo>
</assembly>`

- ☐ D. `<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">
<v3:trustInfo xmlns:v3="urn:schemas-microsoft-com:asm.v3">
<v3:security>
<v3:requestedPrivileges>
<v3:requestedExecutionLevel level="highestAvailable" uiAccess="true" />
</v3:requestedPrivileges>
</v3:security>
</v3:trustInfo>
</assembly>`

Answer: D

Item 90 of 90

You use Microsoft .NET Framework 4 to create a Windows Presentation Foundation (WPF) application. You create a window named `ManageOrders` that contains a `Button` control named `showOtherSide`. You add an animation named `FlipSides` as a resource of `ManageOrders`.

You need to ensure that the following requirements are met:

- `FlipSides` runs each time a user clicks `showOtherSide`.
- `FlipSides` runs only when a user clicks `showOtherSide`.

What should you do?

- ☐ A. Add a property trigger to the `Triggers` collection of `ManageOrders`.
Configure the property trigger to be based on the `IsPressed` property of `showOtherSide`.
- ☐ B. Add an event trigger to the `Triggers` collection of `ManageOrders`.
Configure the event trigger to be based on the `Click` event of `showOtherSide`.
- ☐ C. Call the `BeginAnimation` method of `showOtherSide`.
Pass `FlipSides` as a parameter of the `BeginAnimation` method.
- ☐ D. Call the `BeginAnimation` method of `ManageOrders`.
Pass `FlipSides` as a parameter of the `BeginAnimation` method.

Answer: B