

Index

Symbols

@ XPath attribute symbol **26_17**
* asterisk occurrence indicator **26_21**
/ forward slash in end tags **24_4**
/ XPath root selector **26_16**
\yyyy notation **F_5**
<!--...--> XML comment tags **24_8**
<? and ?> XML processing instruction delimiters **26_15**
<>, angle brackets for XML elements **24_4**

A

absolute addressing (XPath) **26_16**
absolute **Source** **29_42**
abstract base class **31_12**
abstract class **31_12**
abstract operation in the UML **31_9**
access modifier **31_2**
access rule in ASP.NET **27_10**
Account class
 ATM case study **30_9, 30_12, 30_16, 30_18, 30_26, 30_34, 30_35, 30_36, 30_37, 30_39, 31_7, 31_39**
 with a **Debit** method that withdraws money from account **G_3**
action expression in the UML **30_23**
action of an object **30_22**
action state in the UML **30_22**
activation in a UML sequence diagram **30_37**
active window **G_6**
activity (UML) **30_9, 30_21, 30_25**
activity diagram (UML) **30_9, 30_22, 30_24, 30_42**
actor in use case (UML) **30_8**
ActualWidth property of **MultiScaleImage** control **29_38**
Add method of class **PointCollection** **25_9**
Add method of class **XContainer** **26_38**
Add method of **UIElementCollection** class **24_28**
Adding a file to a Visual Studio project **25_12**
adding a service reference to a project in Visual C# 2010 Express **28_11**
adding a service reference to a project in Visual Web Developer **28_10**
address of a WCF service **28_3**
Adobe Flash **29_2**
Adobe Flex **29_2**
aggregation **30_15**

Airline Reservation Web Service
 Modification exercise **28_59**
Ajax (Asynchronous Javascript and XML) **27_20**
Ajax web application **27_20**
all XML Schema element **26_12**
AllowsTransparency property of **Window** control **24_44**
analysis stage of the software life cycle **30_7**
ancestor node of a DOM tree **26_22**
angle bracket (<>) for XML elements **24_4**
Angle property of **AxisAngleRotation3D** control **25_34**
Any extension method of interface **IEnumerable<T>** **26_34**
App.xaml **24_18**
App.xaml (Silverlight) **29_3**
App.xaml.cs (Silverlight) **29_3**
App.xaml.vb **24_18**
Apple Computer, Inc. **F_2**
Application.Current.Shutdown method **24_36**
Application.xaml
 StartupUri property **24_18**
Applying an XSLT style sheet to an XML document **26_38**
Applying transforms to a **Polygon** **25_16**
arrowhead in a UML sequence diagram **30_37, 30_38**
article.xml displayed by Internet Explorer **24_9**
artifact in the UML **E_1**
as operator **26_34**
ascending order **26_21**
ASCII (American Standard Code for Information Interchange) **F_3**
ASP.NET
 ASP.NET Web Site template **27_2, 27_27**
 membership capabilities **27_4**
 ASP.NET Ajax **27_20**
 ASP.NET Ajax Control Toolkit **27_23**
 ASP.NET Development Server **28_6**
 ASP.NET Web Site template **27_2, 27_27**
 aspect ratio **25_29**
 ASPX file that takes reservation information **28_37**
 association (in the UML) **30_13, 30_14, 30_15, 31_4, 31_5**
 name **30_13**
 asterisk (*) occurrence indicator **26_3**
 asynchronous call **30_36**
 asynchronous request **27_21**

asynchronous web service invocation **29_12**
AsyncPostBackTrigger class **27_25**
ATM (automated teller machine) case study **30_2, 30_7, 30_34**
ATM class (ATM case study) **30_12, 30_13, 30_14, 30_17, 30_18, 30_19, 30_21, 30_26, 30_33, 30_34, 30_35, 30_36, 31_3**
ATM system **30_7, 30_8, 30_10, 30_12, 30_17, 30_21, 30_26, 31_2**
attached property (WPF) **24_24**
ATTLIST attribute-list declaration (DTD) **26_4**
attribute **31_4, 31_5**
 compartment in a class diagram **30_19**
 declaration in the UML **30_19, 30_21**
 in the UML **30_12, 30_16, 30_17, 30_18, 30_19, 30_21, 30_25**
 name in the UML **30_19**
attribute (XAML) **24_17**
attribute (XML) **24_12**
attribute element **26_12**
attribute-list declaration **26_4**
Attribute method of class **XElement** **26_33**
attribute node **26_17**
attribute value in XML **24_12**
authenticating a user **27_6**
automated teller machine (ATM) **30_2, 30_7**
 user interface **30_3**
AutoPostBack property of a **DropDownList** ASP.NET control **27_17**
Axis property of **AxisAngleRotation3D** control **25_34**
AxisAngleRotation3D control **25_34**
 Angle property **25_34**
 Axis property **25_34**

B

Background property of **TextBlock** control **25_12**
Background property of WPF controls **24_37**
BalanceInquiry class (ATM case study) **30_12, 30_15, 30_18, 30_19, 30_22, 30_23, 30_26, 30_33, 30_34, 30_35, 30_36, 30_37, 31_3, 31_7, 31_8, 31_9, 31_10**

2 Index

- BankDatabase class (ATM case study)
 - 30_12, 30_16, 30_18, 30_26, 30_27,
 - 30_33, 30_34, 30_35, 30_36, 30_37,
 - 30_39, 31_3, 31_5
 - base attribute of element extension 26_12
 - base class 31_8
 - base type (XML Schema) 26_12
 - BasicShapes example 25_4
 - Begin method of class Storyboard (Silverlight) 29_17
 - behavior 30_25
 - behavior of a system 30_21, 30_22, 30_25
 - behavior of the system 30_35
 - bidirectional navigability in the UML 31_3
 - binary (base 2) number system D_2
 - Binding class (WPF) 24_52
 - ElementName property 24_52
 - IsAsync property 24_58
 - Path property 24_52
 - Source property 24_52
 - Binding markup extension 24_43
 - binding of a WCF service 28_3
 - bit (size of unit) F_3
 - BizTalk 24_16
 - blackjack 28_21
 - Blackjack game WCF web service 28_23
 - Blackjack Web Service Modification exercise 28_59
 - BlurEffect 25_23
 - bool attribute 30_17
 - Border control 24_20, 25_23, 29_8
 - Margin property 29_8
 - break mode G_5
 - breakpoint G_2
 - disabling G_7
 - inserting G_5, G_9
 - brush 25_9
 - Brush class (WPF) 24_37
 - ImageBrush class 24_44
 - Brush property of DiffuseMaterial control 25_33
 - bubbling events (WPF) 24_32
 - Buffering state of MediaElement (Silverlight) 29_39
 - bug G_2
 - built-in data types 26_10
 - Business letter marked up as XML 24_10
 - Button control
 - Click event 24_29, 24_30
 - Windows Forms 24_20
 - WPF 24_20, 24_29, 24_37, 29_8
 - C**
 - callback function 27_22
 - Camera property of Viewport3D control 25_34
 - CanExecute event of CommandBinding class 24_36
 - CanExecute method of ICommand interface 24_33
 - Canvas control (WPF) 24_24, 25_6
 - Left attached property 24_24, 24_28
 - SetLeft method 24_28
 - SetTop method 24_28
 - Top attached property 24_24, 24_28
 - ZIndex attached property 24_24
 - carry bit D_9
 - CashDispenser class (ATM case study)
 - 30_12, 30_14, 30_18, 30_19, 30_26, 30_39
 - CDATA keyword (DTD) 26_4
 - CenterX property of ScaleTransform control 25_24
 - CenterY property of ScaleTransform control 25_24
 - character data in XML 26_4
 - character entity reference 26_4
 - character set F_3
 - CheckBox control 25_23
 - WPF 24_37
 - Checked event handler 25_9
 - Checked event of RadioButton control 24_29, 24_30
 - child element (XML) 24_9, 24_11
 - child node (XML)
 - of a DOM tree 26_22
 - children (in DOM tree) 26_22
 - Children property of Panel control 24_28
 - Choices 25_41
 - CityState class (WeatherViewer) 29_48
 - class 30_20, 30_26, 30_30, 31_2
 - name 31_4
 - class diagram
 - for the ATM system model 30_15, 30_41
 - in the UML 30_9, 30_12, 30_15, 30_17, 30_19, 31_2, 31_5
 - class diagram (in the UML) 30_26, 31_10, 31_11, 31_12
 - Classes
 - Binding 24_52
 - Brush 24_37
 - Button 29_8
 - Canvas 24_24, 25_6
 - CheckBox 25_23
 - CityState (WeatherViewer) 29_48
 - CollectionView 24_57
 - ColorAnimation 25_29
 - CommandBinding 24_36
 - ContentPresenter 24_17, 24_20, 24_48, 24_50
 - ControlTemplate 24_49
 - DataContractJsonSerializer 28_19, 28_19
 - DataTemplate 24_55
 - DiffuseMaterial 25_33, 25_33
 - DirectionalLight 25_34
 - DispatcherTimer 24_46
 - DockPanel 24_20
 - DoubleAnimation 25_29
 - DownloadStringCompletedEventArgs 28_17, 29_12
 - DropDownList 27_17
 - Ellipse 25_5
 - EmissiveMaterial 25_33
 - EventArgs 24_29
 - GradientStop 25_14
 - Grid 24_23, 24_24
 - GridView 27_19
 - GridViewColumn 24_55
 - GroupBox 24_22
 - Image 29_8
 - ImageBrush 24_44, 25_12
 - Label 24_17
 - LinearGradientBrush 25_12
 - List(Of T) 28_26
 - MediaElement 25_12, 29_39
 - Model3DGroup 25_31
 - ModelVisual3D 25_31
 - MouseButtonEventArgs 24_29
 - MouseWheelEventArgs 24_29
 - MultiScaleImage 29_26
 - Panel 24_28
 - PerspectiveCamera 25_34
 - Point 25_9
 - Point3D 25_34
 - PointAnimation 25_29
 - PointCollection 25_9
 - Polygon 25_5
 - Polyline 25_5
 - RadioButton 24_29
 - Random 25_17
 - Rect 29_38
 - ScaleTransform 25_24
 - Storyboard 29_17
 - TextBlock 25_12
 - TreeView 26_26
 - UIElementCollection 24_28, 24_29
 - Uri 28_17, 29_12
 - Vector3D 25_34
 - WeatherData (WeatherViewer) 29_12
 - WebClient 28_16, 29_12
 - XAttribute 26_33
 - XComment 26_34
 - XContainer 26_32
 - XDocument 26_23, 29_13
 - XDocumentType 26_33
 - XElement 26_23
 - XmlReader 24_6
 - XName 26_25
 - XNamespace 26_33, 26_35
 - XNode 26_34
 - XObject 26_34
 - XProcessingInstruction 26_34
 - Xs1CompiledTransform 26_40
 - XText 26_34
- Clear method of class
 - PointCollection 25_9
 - Clear method of
 - UIElementCollection class 24_29
 - Click event handler 25_9
 - Click event of Button control 24_29, 24_30
 - client of a class 30_25, 30_35
 - Client that consumes the
 - WelcomeRESTXMLService 28_16
 - Client that consumes the
 - WelcomeSOAPXMLService 28_12
 - Closed state of MediaElement (Silverlight) 29_39
 - CML (Chemical Markup Language) 24_4
 - code value (Unicode) F_4
 - code-behind class (WPF) 24_17, 24_18
 - collaboration diagram in the UML 30_9, 30_35

- collaboration in the UML **30_32, 30_33, 30_36**
- CollectionView class (WPF) **24_57**
- CollectionViewSource.
 - GetDefaultView method **24_58**
- Color property of DirectionalLight control **25_34**
- Color property of GradientStop control **25_14**
- ColorAnimation control (WPF) **25_29, 29_17**
- Column attached property of Grid control **24_24**
- ColumnDefinition class associated with Grid control **24_23**
- ColumnDefinition control (WPF) **29_8**
- ColumnDefinitions property of Grid control **24_23**
- ColumnSpan attached property of Grid control **24_24**
- ComboBox control (WPF) **24_37**
- command binding (WPF) **24_36**
- command library (WPF) **24_33**
- CommandBinding class (WPF) **24_36**
 - CanExecute event **24_36**
 - Executed event **24_36**
 - PreviewCanExecute event **24_36**
 - PreviewExecuted event **24_36**
- CommandBindings property of Window control **24_36**
- commands (WPF) **24_33**
- communication diagram in the UML **30_9, 30_35, 30_36**
- compilation error **G_2**
- complex content in XML Schema **26_11**
- complexType XML Schema element **26_9**
- component diagram in the UML **E_1**
- component in the UML **E_1**
- composite structure diagram in the UML **E_1**
- composition **30_14, 30_40**
- consuming a web service **28_5**
- container element (XML) **24_9**
- Contains method of class Rect **29_38**
- content control (WPF) **24_17**
- content page in ASP.NET **27_4**
- Content property of
 - ContentPresenter class **24_50**
- Content property of ModelVisual3D control **25_31**
- ContentControl class (WPF) **24_17, 24_20**
- ContentPresenter class (WPF) **24_48**
 - Content property **24_50**
- context node (XPath) **26_20**
- Continue command (debugger) **G_6**
- contract of a WCF service **28_3**
- control (WPF) **24_17, 24_47**
- control template (WPF) **24_47, 24_48**
- Controls
 - 25_15**
 - AxisAngleRotation3D **25_34**
 - Border **24_20, 25_23, 29_8**
 - Button **24_20, 24_29, 24_37, 29_8**
 - Canvas **24_24, 25_6**
 - CheckBox **24_37, 25_23**
 - ColorAnimation **25_29, 29_17**
 - ColumnDefinition **29_8**
 - ComboBox **24_37**
 - ContentControl **24_17, 24_20**
 - ControlTemplate **25_23, 29_14**
 - DiffuseMaterial **25_33, 25_33**
 - DirectionalLight **25_34**
 - DockPanel **24_20**
 - DoubleAnimation **25_29, 29_17**
 - Ellipse **25_5**
 - EmissiveMaterial **25_33**
 - Expander **24_20**
 - Form **24_17**
 - GeometryModel3D **25_32**
 - GradientStop **25_14**
 - Grid **24_17, 24_23, 24_24, 29_8**
 - GridView **24_54**
 - GroupBox **24_22**
 - Image **29_8**
 - ImageBrush **24_44, 25_12**
 - ItemsPanel **29_8**
 - ItemsSource **29_24**
 - Label **24_17**
 - Line **25_5**
 - LinearGradientBrush **25_12**
 - ListBox **29_8**
 - Listview **24_52**
 - MaterialGroup **25_33**
 - MediaElement **25_12, 29_39**
 - Menu **24_37**
 - MenuItem **24_37**
 - MeshGeometry3D **25_32**
 - Model3DGroup **25_31**
 - ModelVisual3D **25_31**
 - MultiScaleImage **29_26, 29_38**
 - MultiScaleSubImage **29_26**
 - Panel **24_17**
 - PerspectiveCamera **25_34**
 - PointAnimation **25_29, 29_17**
 - Polygon **25_5**
 - Polyline **25_5**
 - RadialGradientBrush **25_12, 25_23**
 - RadioButton **24_20, 24_29, 24_37, 25_9, 25_23**
 - Rectangle **25_5**
 - RichTextBox **24_34**
 - RotateTransform **25_15**
 - RotateTransform3D **25_34**
 - RowDefinition **29_8**
 - ScaleTransform **25_15, 25_24**
 - ScriptManager **27_24**
 - Separator **24_37**
 - SkewTransform **25_15, 25_24**
 - Slider **24_41**
 - SolidColorBrush **25_9**
 - SpecularMaterial **25_33**
 - StackPanel **24_22, 29_8**
 - Storyboard **25_27, 29_17**
 - Style **29_14**
 - TabContainer **27_24**
 - TextBlock **24_57, 25_2, 29_8**
 - TextBox **24_30, 25_14, 29_8**
 - TextDecoration **25_4**
 - ToolBar **24_37**
 - ToolBarTray **24_37**
 - ToolkitScriptManager **27_24**
 - TranslateTransform **25_15**
 - UserControl **29_4**
 - ValidatorCalloutExtender **27_26**
 - VideoBrush **29_41**
 - Viewport3D **25_29**
 - VisualBrush **25_12**
 - Window **24_17, 24_25, 24_45**
 - WrapPanel **24_20**
 - ControlTemplate class (WPF) **24_49**
 - TargetType property **24_49**
 - Triggers property **24_50**
 - ControlTemplate control (WPF) **25_23, 29_14**
 - convert
 - a binary number to decimal **D_7**
 - a hexadecimal number to decimal **D_7**
 - an octal number to decimal **D_7**
 - CoverCollage Deep Zoom Composer project **29_29**
 - Creating a WCF Service in Visual Web Developer **28_7**
 - cropping **25_29**
 - CurrentState property of MediaElement (Silverlight) **29_39**
 - Custom control **29_14**
 - Customizing gradients **25_14**

D

 - data binding **25_29**
 - data binding (WPF) **24_52**
 - to LINQ **24_52**
 - data provider (WPF) **24_58**
 - data template (WPF) **24_55**
 - data view (WPF) **24_57**
 - DataContext of WPF controls **24_57**
 - DataContract attribute **28_18**
 - DataContractJsonSerializer class **28_19**
 - DataMember attribute **28_18, 28_41**
 - DataTemplate class (WPF) **24_55**
 - DataTip **G_8**
 - data-type attribute (XPath) **26_21**
 - DBCS (double byte character set) **F_5**
 - debugger **G_2**
 - break mode **G_5**
 - breakpoint **G_2**
 - Continue command **G_6**
 - defined **G_2**
 - Instruction Pointer **G_6**
 - Locals window **G_8**
 - logic error **G_2**
 - margin indicator bar **G_5**
 - Step Into command **G_12**
 - Step Out command **G_12**
 - Step Over command **G_12**
 - suspending program execution **G_9**
 - Watch window **G_8, G_9**
 - decimal (base 10) number system **D_2**
 - decision in the UML **30_23**
 - declarative programming **24_3, 24_16**
 - Deep zoom **29_2, 29_26**
 - Deep Zoom Composer **29_26**
 - Compose tab **29_29**
 - Export tab **29_30**
 - Import tab **29_28**
 - Layer View **29_29**
 - DeepZoomCoverCollage **29_26**
 - default namespace **24_15**

4 Index

demonstration 24_15
default namespace (XAML) 24_17
dependency property (WPF) 24_43, 24_50
 attached property 24_24
deployment diagram in the UML E_1
Deposit class (ATM case study) 30_12, 30_15, 30_18, 30_26, 30_34, 30_35, 30_43, 31_3, 31_7, 31_8, 31_9
DepositSlot class (ATM case study) 30_12, 30_14, 30_18, 30_26, 30_35, 31_4
derived class 31_8, 31_9
descendant node of a DOM tree 26_22
Descendants method of class XContainer 26_32
descriptive words and phrases (OOD/UML case study) 30_17, 30_19
design process 30_2, 30_8, 30_27, 30_32
design specification 30_8
Design view 24_17
 Silverlight 29_5
diacritic F_4
Dictionary 25_40
DiffuseMaterial control 25_33, 25_33
 Brush property 25_33
digit D_2
direct events, (WPF) 24_32
Direction property of DirectionalLight control 25_34
DirectionalLight control 25_34
 Color property 25_34
 Direction property 25_34
disabling a breakpoint G_7
Dispatcher 25_41
DispatcherTimer class 24_46
 Interval property 24_46
 IsEnabled property 24_46
 Tick event 24_46
DisplayMemberBinding property of GridViewColumn class 24_55
DisplayWeatherForecast method (WeatherViewer) 29_13
distributed computing 28_3
DockPanel control (WPF) 24_20
 LastChildFill property 24_20
Document navigation using XNode 26_26
Document Object Model (DOM) tree 26_22
Document property of class XObject 26_34
document root 26_16
Document Type Definition (DTD) 24_6, 24_11, 26_3
 for a business letter 26_3
DOM (Document Object Model) tree 26_22
 ancestor node 26_22
 child node 26_22
 descendant node 26_22
 parent node 26_22
 root node 26_23
 sibling node 26_22
DOM parser 26_22
double-byte character set (DBCS) F_5
double quotes ("") to delineate a string 24_12

Double.NAN constant 29_24
DoubleAnimation control 25_29, 29_17
 Duration property 25_29
 From property 25_29
 To property 25_29
DownloadStringCompletedEventArgs class 29_12
DownloadStringCompletedEventArgs class 28_17
DragMove method of Window control 24_45
Drawing PolyLines and Polygons 25_7
DrawPolygons example 25_6
DropShadowEffect 25_23
DTD (Document Type Definition) 24_6, 24_11
 .dtd filename extension 24_11
DTD repository 26_2
Duration property of DoubleAnimation control 25_29
dynamic resource (WPF) 24_42

E
efficient (Unicode design basis) F_2
Electric Rain's ZAM3D 25_32
element (XAML) 24_17
element (XML) 24_4
ELEMENT element type declaration (DTD) 26_3
Element method of class XContainer 26_33
element type declaration 26_3
element XML Schema element 26_9
ElementName property of Binding class 24_52
Elements method of class XContainer 26_26
Elements method of class XElement 26_26
element-to-element binding 24_42
elided UML diagram 30_13
Ellipse control 25_5
EmissiveMaterial control 25_33
empty element 24_12
EMPTY keyword (DTD) 26_5
Enable Paging setting for an ASP.NET GridView 27_19
Enable Sorting setting for an ASP.NET GridView 27_19
encoding F_2
encoding attribute in xml declaration 24_7
end tag 24_4
end tag (XAML) 24_17
endpoint (of a WCF service) 28_3, 28_52
EndPoint property of LinearGradientBrush control 25_12
endpointBehaviors element in web.config 28_14
entity
 " ; 26_4
 ' ; 26_4
 > ; 26_4
 < ; 26_4

 " ; 26_4
Enumerations
 XmlNodeType 26_34
Error property of DownloadStringCompletedEventArgs 28_17, 29_13
event 30_21
event handling
 WPF 24_25
event routing (WPF) 24_30
EventArgs class 24_29
EventArgs class (WPF) 24_42
Exception Assistant G_13
Execute method of ICommand interface 24_33
Executed event of CommandBinding class 24_36
Expander control (WPF) 24_20
Expat XML Parser 24_6
Expression Blend 24_3
extend an XML Schema data type 26_12
extender 27_26
Extensible Application Markup Language (XAML) 24_2
Extensible HyperText Markup Language (XHTML) 24_4, 26_13
Extensible Markup Language (XML) 24_2, 28_9
Extensible Stylesheet Language (XSL) 24_6, 24_16, 26_13
extension element
 base attribute 26_12
extension XML Schema element 26_12
external DTD 24_11

F
Fill property of a shape control 25_5
Fill value of Stretch property 25_29
final state in the UML 30_23
firewall 28_3
#FIXED keyword (DTD) 26_4
Flickr 29_17
 API Key 29_17
 FlickrViewer 29_17
flow-based layout 24_19
FontFamily property of TextBlock control 25_3
Fonts
 Arial 25_3
 Courier New 25_4
 Segoe UI 25_4
 Times New Roman 25_3
FontSize property of TextBlock control 25_4
FontStyle property of TextBlock control 25_4
FontWeight property of TextBlock control 25_4
Foreground property of TextBlock control 25_12
Form control (Windows Forms) 24_17
forms authentication 27_5
forward slash character (/) in end tags 24_4, 26_17
frame (in the UML) 30_39
From property of DoubleAnimation control 25_29

FromArgb method of class Color 24_41

G

generalization in the UML 31_8
 Geometry property of
 GeometryModel3D control 25_32
 GeometryModel3D control 25_32
 Geometry property 25_32
 Material property 25_33
 get request (HTTP) 28_13
 GetDefaultView method of
 CollectionViewSource class 24_58
 GetPosition method of
 MouseEventArgs class 24_29
 glyph F_4
 gradient 25_12
 GradientStop control 25_14
 Color property 25_14
 Offset property 25_14
 Grammar 25_40
 graphics 29_2
 Grid control (WPF) 24_17, 24_23, 29_8
 Column attached property 24_24
 ColumnDefinition class 24_23
 ColumnDefinitions property 24_23
 ColumnSpan attached property 24_24
 Row attached property 24_24
 RowDefinition class 24_23
 RowDefinitions property 24_23
 RowSpan attached property 24_24
 GridView control (WPF) 24_54
 GridViewColumn class (WPF) 24_55
 DisplayMemberBinding property 24_55
 GroupBox control (Windows Forms) 24_22
 GroupBox control (WPF) 24_22
 Header property 24_22
 guard condition in the UML 30_23

H

Handled property of
 RoutedEventArgs class 24_30
has-a relationship (composition) 30_14
 HasElements property of class
 XElement 26_26
 Header property of GroupBox control 24_22
 Height property of a shape control 25_5
 hexadecimal (base 16) number system D_2
 hierarchy 24_8
 HorizontalAlignment property of
 WPF controls 24_19
 HTML Visualizer G_8
 HTTP (HyperText Transfer Protocol)
 being used with firewalls 28_3
 HTTP (Hypertext Transfer Protocol)
 request type 28_13
 http://www.w3.org/2001/
 XMLSchema (XML Schema URI) 26_8

HyperText Transfer Protocol (HTTP) 28_13

I

IBM Corporation F_2
 ICommand interface (WPF) 24_33
 CanExecute method 24_33
 Execute method 24_33
 IEnumerable interface 24_28
 IEnumerable<T> interface
 Any extension method 26_34
 image 29_2
 Image control (WPF) 29_8
 ImageBrush control (WPF) 24_44, 25_12
 ImageSource property 25_12
 ImageSource property of ImageBrush control 25_12
 implementation phase 31_12
 implementation process 30_27, 31_2
 #IMPLIED keyword (DTD) 26_4
 inheritance 31_7, 31_8, 31_11, 31_12
 initial state in the UML 30_22, 30_23
 initial value of an attribute 30_19
 InputGestures property 24_33
 inserting a breakpoint G_5
 InstanceContextMode property of
 ServiceBehavior attribute 28_22
Instruction Pointer G_6
IntelliSense 24_5
 interaction between a web service client
 and a web service 28_10
 interaction diagram in the UML 30_35
 interaction overview diagram in the UML E_2
 interactions among objects 30_32, 30_36
 Interfaces
 ICommand 24_33
 IEnumerable 24_28
 Internet Explorer 24_9
 Interval property of
 DispatcherTimer class 24_46
 IsAsync property of Binding class 24_58
 IsAsynchronous property of
 ObjectDataProvider class 24_58
 IsAsynchronous property of
 XmlDataProvider class 24_58
 IsEnabled property of
 DispatcherTimer class 24_46
 IsMouseOver property of WPF controls 24_50
 IsMuted property of MediaElement 29_42
 Italic FontStyle 25_4
 ItemsPanel control (WPF) 29_8
 ItemsSource control (WPF) 29_24
 ItemsSource property of ListView 24_53
 ItemTemplate property of ListView control 24_55
 iterative model 30_7

J

JavaScript Object Notation (JSON) 28_4
 JSON (JavaScript Object Notation) 28_4
 JSON serialization 28_19

Just My Code G_13

K

KeyboardEventArgs class (WPF) 24_30
 KeyDown event (WPF) 24_30
 Keypad class (ATM case study) 30_9, 30_12, 30_14, 30_26, 30_33, 30_34, 30_35, 30_38, 31_4
 KeyUp event (WPF) 24_30
 Keywords
 private 31_2
 public 31_2

L

Label control
 Windows Forms 24_17
 WPF 24_17
 LastChildFill property of
 DockPanel control 24_20
 layout container (WPF) 24_17, 24_19, 24_28
 Left attached property of Canvas control 24_24, 24_28
 lifeline of an object in a UML sequence diagram 30_37
 Line control 25_5
 LinearGradientBrush control 25_12
 EndPoint property 25_12
 StartPoint property 25_12
 LINQ (Language-Integrated Query)
 LINQ to XML 26_2, 26_23
 LINQ to Objects 26_34
 LINQ to XML 26_2, 26_23, 29_5
 LINQ, data binding to 24_52
 List(Of T) class 28_26
 ListBox control (WPF) 29_8
 ListView control (WPF) 24_52
 ItemsSource property 24_53
 ItemTemplate property 24_55
 SelectedItem property 24_52
 Load method of class XDocument 26_25
 Load method of class
 XslCompiledTransform 26_40
 localization F_2
 localize an application F_2
 LocalName property of class XName 26_25
 Locals window G_8
 Location property of
 TextDecoration control 25_4
 logic error G_2
 logical point 25_12
 logical tree (WPF) 24_47
 LookDirection property of
 PerspectiveCamera control 25_34
 lookless control (WPF) 24_47

M

machine-independent pixel 25_2
 MainPage.xaml (Silverlight) 29_3
 MainPage.xaml.cs (Silverlight) 29_3
 many-to-one relationship 30_16
 margin indicator bar G_5
 Margin property of Border control 29_8

- Margin property of `MediaElement` 29_42
 - Margin property of WPF controls 24_19
 - markup extension (XAML) 24_42, 24_49, 24_52
 - markup in XML 24_3
 - master page in ASP.NET 27_4
 - match attribute 26_16
 - Material property of
 - `GeometryModel3D` control 25_33
 - `MaterialGroup` control 25_33
 - Math tutor using
 - `EquationGeneratorServiceXML` to create equations 28_43
 - MathML 24_4
 - `maxOccurs` XML Schema attribute 26_9
 - `MaxWidth` property of WPF controls 24_19
 - MBCS (multi-byte character set) F_5
 - `MediaElement` control 25_12
 - Source property 25_12
 - Stretch property 25_29
 - `MediaElement` control (WPF) 29_39
 - membership capabilities (ASP.NET) 27_4
 - Menu control (WPF) 24_37
 - `MenuItem` control (WPF) 24_37
 - merge in the UML 30_23
 - `MeshGeometry3D` control 25_32
 - Positions property 25_32
 - TextureCoordinates property 25_33
 - TriangleIndices property 25_32
 - message in the UML 30_32, 30_35, 30_36, 30_37
 - message passing in the UML 30_37
 - Methods
 - `Contains (Rect)` 29_38
 - `DisplayWeatherForecast (WeatherViewer)` 29_13
 - `DownloadStringAsync (WebClient)` 28_17, 29_12
 - `ElementToLogicalPoint (MultiScaleImage)` 29_37
 - `Parse (XDocument)` 29_13
 - `subImageIndex (DeepZoom-CoverCollage)` 29_38
 - `ZoomAboutLogicalPoint (MultiScaleImage)` 29_36
 - Microsoft F_2
 - ASP.NET 29_2
 - ASP.NET AJAX 29_2
 - Expression Blend 29_5
 - Expression Encoder 29_39
 - Microsoft XML Core Services (MSXML) 24_6, 24_9
 - `MinHeight` property of WPF controls 24_19
 - `Minimized` constant of `WindowState` enum 24_50
 - `minInclusive` XML Schema element 26_12
 - `minOccurs` XML Schema attribute 26_9
 - minus sign (-) for container elements in Internet Explorer 24_9
 - minus sign (-) indicating private visibility in the UML 31_2
 - `MinWidth` property of WPF controls 24_19
 - model of a software system 30_13, 30_21, 31_10
 - `Model3DGroup` control 25_31
 - `ModelVisual3D` control 25_31
 - Content property 25_31
 - Transform property 25_34
 - Mono Project's Moonlight 29_2
 - `MouseButtonEventArgs` class (WPF) 24_29
 - `MouseDown` event 24_29
 - `MouseDown` event handler 25_9
 - `MouseEventArgs` class
 - `GetPosition` method 24_29
 - `MouseEventArgs` class (WPF) 24_29
 - `MouseLeftButtonDown` event (WPF) 24_29, 24_32
 - `MouseLeftButtonUp` event (WPF) 24_29, 24_33
 - `MouseMove` event (WPF) 24_29
 - `MouseRightButtonDown` event (WPF) 24_29
 - `MouseRightButtonUp` event (WPF) 24_29
 - `MouseUp` event 24_29
 - `MouseWheel` event (WPF) 24_29
 - `MouseWheelEventArgs` class (WPF) 24_29
 - MSXML (Microsoft XML Core Services) 24_6, 24_9
 - multi-byte character set (MBCS) F_5
 - multimedia 29_2
 - multiplicity 30_13
 - `MultiScaleImage` control (Silverlight) 29_26
 - `ActualWidth` property 29_38
 - `ElementToLogicalPoint` method 29_37
 - `ViewportOrigin` property 29_37
 - `ViewportWidth` property 29_38
 - `ZoomAboutLogicalPoint` method 29_36
 - `MultiScaleSubImage` control (Silverlight) 29_26
- ## N
- name attribute (XPath) 26_21
 - name node-set function 26_21
 - Name property 24_33
 - Name property of class `XElement` 26_25
 - name XML Schema attribute 26_9
 - namespace
 - prefix 26_11
 - prefix XML 24_13
 - XAML 24_17
 - XML 24_13
 - Namespace property of class `XName` 26_37
 - Namespaces
 - `System.Xml` 26_23
 - `System.Xml.Linq` 26_23
 - `System.Xml.XPath` 26_32
 - `System.Xml.Xsl` 26_40
 - naming collision 24_12
 - navigability arrow in the UML 31_2
 - navigation bar on a website 27_13
 - nested element 24_8
 - nested element (XAML) 24_17
 - nested message in the UML 30_36
 - .NET WCF web service client after web service reference has been added 28_10
 - New Project dialog 24_17
 - `NextBytes` method of class `Random` 25_17
 - `NextNode` property of class `XNode` 26_35
 - node (in DOM tree) 26_22
 - node-set function 26_21
 - node set of an xsl
 - for-each element 26_17
 - Nodes method of class `XContainer` 26_34
 - `NodeType` property of class `XObject` 26_34
 - None value for `Stretch` property 25_29
 - nonvalidating XML parser 24_6
 - noun phrase in requirements document 30_10, 30_11, 30_17
 - Nutrition Information
 - XHTML Conversion 26_47
 - XML Schema 26_47
 - Nutrition XHTML Modification 26_47
- ## O
- object (or instance) 30_35
 - object diagram in the UML E_1
 - object-oriented design (OOD) 30_2, 30_10, 30_17, 30_21, 30_25, 31_2
 - `ObjectDataProvider` class (WPF) 24_58
 - `IsAsynchronous` property 24_58
 - `Oblique FontStyle` 25_4
 - occurrence indicator 26_3
 - octal number system (base 8) D_2
 - ODF (Open Document Format) 24_4
 - `Offset` property of `GradientStop` control 25_14
 - `omit-xml-declaration` attribute 26_16
 - one-to-many relationship 30_16
 - one-to-one relationship 30_16
 - one's complement D_9
 - ones position D_2
 - OOD (object-oriented design) 30_2, 30_8, 30_10, 30_17, 30_21, 30_25
 - OOXML (Office Open XML) 24_4
 - opacity mask 25_18
 - `Opacity` property of `UIElement` (Silverlight) 29_14
 - `OpacityMask` property of `Rectangle` control 25_24
 - Opening state of `MediaElement` (Silverlight) 29_39
 - operation compartment in a UML class diagram 30_26
 - operation in the UML 30_12, 30_25, 30_26, 30_30, 31_4, 31_5
 - operation parameter in the UML 30_26, 30_30
 - `OperationContract` attribute 28_5, 28_7
 - Operators
 - as 26_34
 - Oracle Corporation F_2
 - order attribute 26_21

Orientation of `WrapPanel` control 24_20
 Orientation property of `StackPanel` control 24_22
 orthographic projection 25_24
 out-of-browser experience (Silverlight) 29_25
 out-of-browser experiences 29_25

P

package **E_1**
 package diagram in the UML **E_1**
`PageSize` property of a `GridView` ASP.NET control 27_19
`Panel` control
 `Children` property 24_28
 WPF 24_17
 parameter in the UML 30_26, 30_30
 parent element 24_9
 parent node of a DOM tree 26_22
 Parent property of class `XObject` 26_34
 parent/child relationships between data 24_8
 Parse of `XDocument` 29_13
 parsed character data 26_4
 parser 24_5
 partial page update 27_22
 Path property of `Binding` class 24_52
 Paused state of `MediaElement` (Silverlight) 29_39
 #PCDATA keyword (DTD) 26_4
`PerCall` setting of
 `InstanceContextMode` property 28_23
`PerSession` setting of
 `InstanceContextMode` property 28_23
 perspective projection 25_24
`PerspectiveCamera` control 25_34
 `LookDirection` property 25_34
 `Position` property 25_34
 `UpDirection` property 25_34
 Phone Book Web Service exercise 28_58
 Phone Book Web Service Modification exercise 28_58
 PI (processing instruction) 26_15
 Playing state of `MediaElement` (Silverlight) 29_39
 plus sign (+) for container elements in Internet Explorer 24_9
 plus sign (+) indicating public visibility in the UML 31_2
 plus sign (+) occurrence indicator 26_3
`Point` class 25_9
`Point3D` class 25_34
`PointAnimation` control (WPF) 25_29, 29_17
`PointCollection` class 25_9
 Add method 25_9
 Clear method 25_9
 Points property of `Polyline` control 25_9
`Polygon` control 25_5
`Polyline` control 25_5
 Points property 25_9
 polymorphism 31_7
 portability **F_5**
 Position property of
 `PerspectiveCamera` control 25_34
 positional notation **D_2**
 positional value **D_3**
 positional values in the decimal number system **D_3**
 Positions property of
 `MeshGeometry3D` control 25_32
 post request (HTTP) 28_13
 presentation XAML namespace (XAML) 24_17
`PreviewCanExecute` event of
 `CommandBinding` class 24_36
`PreviewExecuted` event of
 `CommandBinding` class 24_36
`PreviewMouseLeftButtonDown` event (WPF) 24_32
`PreviewMouseLeftButtonUp` event (WPF) 24_32
`PreviousNode` property of class `XNode` 26_35
 private
 access modifier 31_2
 keyword 31_2
 private visibility in the UML 31_2
 processing instruction (PI) 26_15
 target 26_15
 value 26_15
 processor 24_5
 program, suspend **G_2**
 prolog (XML) 24_8
 Properties window 24_17
 Property property of `Trigger` class 24_50
`protocolMapping` element in
 web.config 28_15
 proxy class for a web service 28_10
 public
 access modifier 31_2
 keyword 31_2, 31_5
 public visibility in the UML 31_2
 publishing a web service 28_5

Q

query string 28_13
 question mark (?) occurrence indicator 26_3
Quick Info box **G_6**

R

`RadialGradientBrush` control 25_12, 25_23
`RadioButton` control 25_9, 25_23
 Checked event 24_29, 24_30
`RadioButton` control (WPF) 24_20, 24_29, 24_37
 Random class 25_17
 NextBytes method 25_17
 raster-based graphics 25_2, 24_3
 Rational Software Corporation 30_8
 Rational Unified Process™ 30_8
 Reading an XML document and displaying it in a `TextBox` 26_23
 read-only property 30_28
 Rect structure (Silverlight) 29_38
`Rectangle` control 25_5
 recursive descent 26_21
 relative addressing (XPath) 26_17
 relative Source 29_42
 RemoveAt method of
 UIElementCollection class 24_29
`RenderTransform` property of a WPF UI element 25_17
 RepeatBehavior property of
 Storyboard control 25_34
 Forever value 25_35
 Representational State Transfer (REST) 28_2, 28_4
 request method 28_13
 #REQUIRED keyword (DTD) 26_4
 requirements 30_6
 requirements document 30_2, 30_6, 30_8
 requirements gathering 30_6
 resolution independence 24_3, 24_19
 resource (WPF) 24_38
 dynamic resource 24_42
 static resource 24_42
 resource binding (WPF) 24_42, 24_48
 Resource property of `Grid` (Silverlight) 29_17
 Resources property of WPF controls 24_41
 ResponseFormat property of the
 WebGet attribute 28_17, 28_47
 RESTful web services 28_4
 restriction on built-in XML Schema data type 26_10, 26_12
 Result property of
 DownloadStringCompletedEventArgs 28_17, 29_13
 Result property of
 LinqDataSourceSelectEventArgs class 27_16
 result tree (XSLT) 26_13
 return message in the UML 30_38
 return type (in the UML) 30_26, 30_32
 RGBA values 25_12
 Rich Internet Application (RIA) 29_2
`RichTextBox` control (WPF) 24_34
 role name in the UML 30_13
 root element (XAML) 24_17
 root element (XML) 24_4, 24_8, 24_11
 root node of a DOM tree 26_23
 Root property of class `XDocument` 26_25
`RotateTransform` control 25_15
`RotateTransform3D` control 25_34
 rounded rectangle (for representing a state in a UML state diagram) 30_21
 routed events (WPF) 24_30
 bubbling events 24_32
 direct events 24_32
 tunneling events 24_32
 RoutedEventArgs class 24_29, 24_30
 RoutedEvent class (WPF)
 Handled property 24_30
 Source property 24_30
 Row attached property of `Grid` control 24_24
 RowDefinition class associated with
 Grid control 24_23
 RowDefinition control (WPF) 29_8
 RowDefinitions property of `Grid` control 24_23

8 Index

RowSpan attached property of Grid control **24_24**

S

Sample new-format input for the XMLCombine application **26_37**
Sample old-format input for the XMLCombine application **26_36**
ScaleTransform control **25_15, 25_24**
 CenterX property **25_24**
 CenterY property **25_24**
 ScaleX property **25_24**
 ScaleY property **25_24**
ScaleX property of ScaleTransform control **25_24**
ScaleY property of ScaleTransform control **25_24**
schema **26_6**
Schema (XML) **24_6**
schema invalid document **26_7**
schema repository **26_2**
schema valid XML document **26_7**
schema-valid XML document describing a list of books **26_7**
schema XML Schema element **26_8**
Screen class (ATM case study) **30_12, 30_14, 30_26, 30_33, 30_34, 30_35, 30_36, 30_38, 30_39, 31_4**
script (Unicode) **F_7**
ScriptManager control **27_24**
select attribute (XPath) **26_21**
select attribute of xsl:for-each element **26_17**
SelectedItem property of ListView control **24_52**
Selecting event of LinqDataSource ASP.NET data control **27_16**
Separator control (WPF) **24_37**
sequence diagram in the UML **30_9, 30_35**
sequence of messages in the UML **30_36**
Serializable attribute **28_19**
serialization **28_19**
server response **28_13**
server-side form handler **28_13**
service description for a web service **28_9**
Service references
 adding a service reference to a project in Visual C# 2010 Express **28_11**
Service.svc **28_5**
ServiceBehavior attribute **28_22**
ServiceContract attribute **28_5, 28_7**
session tracking
 in web services **28_21**
SessionMode property of ServiceContract attribute **28_22**
SetLeft method of Canvas control **24_28**
Setter class (WPF) **24_42, 24_50**
 TargetName property **24_50**
SetTop method of Canvas control **24_28**
Shutdown method of Application.Current **24_36**
sibling node of a DOM tree **26_22**
Silverlight **29_2**
 Begin method of Storyboard **29_17**

Border control **29_8**
Button control **29_8**
ColorAnimation control **29_17**
ColumnDefinition control **29_8**
ControlTemplate control **29_14**
CurrentState property of MediaElement **29_39**
DoubleAnimation control **29_17**
Grid control **29_8**
Image control **29_8**
ItemsPanel control **29_8**
ItemsSource control **29_24**
ListBox control **29_8**
MediaElement control **29_39**
MultiScaleImage control **29_26**
MultiScaleSubImage control **29_26**
Opacity property of UIElement **29_14**
out-of-browser experience **29_25**
PointAnimation control **29_17**
Rect structure **29_38**
RowDefinition control **29_8**
StackPanel control **29_8**
Storyboard control **29_17**
Style control **29_14**
TextBlock control **29_8**
TextBox control **29_8**
UserControl **29_4**
VideoBrush control **29_41**
ViewportOrigin property of MultiScaleImage **29_37**
WeatherDetailsView custom control **29_8, 29_14**
Silverlight Application project template **29_3**
Silverlight Navigation Application project template **29_3**
Silverlight Runtime **29_3**
simple content in XML Schema **26_11**
Simple Object Access Protocol (SOAP) **28_2, 28_4**
simple type **26_10**
simpleContent XML Schema element **26_12**
simpleType XML Schema element **26_12**
single-quote character (') **24_12**
Single setting of InstanceContextMode property **28_23**
Site.css **27_13**
SkewTransform control **25_15, 25_24**
Slider control (WPF) **24_41**
SOAP (Simple Object Access Protocol) **28_2, 28_3, 28_4**
 envelope **28_4**
 message **28_3**
software life cycle **30_6**
solid circle (for representing an initial state in a UML diagram) in the UML **30_21, 30_23**
solid circle enclosed in an open circle (for representing the end of a UML activity diagram) **30_23**
solid diamond (representing composition) in the UML **30_14**
SolidColorBrush control **25_9**
Solution Explorer **24_17, 29_12**

sorting in XSL **26_21**
Sorting XSLT Modification **26_47**
sound **29_2**
Source property of Binding class **24_52**
Source property of MediaElement control **25_12**
Source property of RoutedEventArgs class **24_30**
source tree (XSLT) **26_13**
sources.xml of VideoSelector **29_41**
specialization in the UML **31_8**
SpecularMaterial control **25_33**
Speech recognizers **25_36**
Speech Synthesis Markup Language **25_41**
Speech synthesizers **25_35**
SpeechRecognizer **25_40**
SpeechSynthesizer **25_40**
speech-to-text systems **25_36**
SSML **25_41**
StackPanel control (WPF) **24_22, 29_8**
 Orientation property **24_22**
standard XAML namespace (XAML) **24_17**
start tag **24_4, 24_12**
start tag (XAML) **24_17**
StartPoint property of LinearGradientBrush control **25_12**
StartupUri property of Application.xaml **24_18**
state **30_9**
state in the UML **30_9, 30_23**
state machine diagram for some of the states of the ATM object **30_22**
state machine diagram in the UML **30_9, 30_21**
state of an object **30_17, 30_21**
static resource (WPF) **24_42**
Step Into command (debugger) **G_12**
Step Out command (debugger) **G_12**
Step Over command (debugger) **G_12**
Stopped state of MediaElement (Silverlight) **29_39**
Storyboard control **25_27**
 RepeatBehavior property **25_34**
 TargetName property **25_27**
 TargetProperty property **25_27**
Storyboard control (WPF) **29_17**
Stretch property of MediaElement control **25_29**
 Fill value **25_29**
 None value **25_29**
 Uniform value **25_29**
 UniformToFill value **25_29**
string XML Schema data type **26_10**
Stroke property of a shape control **25_5**
StrokeThickness property of a shape control **25_5**
structure of a system **30_21**
STT systems **25_36**
style (WPF) **24_38**
Style class (WPF) **24_42**
 TargetType property **24_42**
 Triggers property **24_50**
Style control (WPF) **29_14**
style sheet **24_9**

stylesheet start tag **26_16**
 subImageIndex method
 (DeepZoomCoverCollage) **29_38**
 sum function (XSL) **26_21**
 Sun JavaFX **29_2**
 Sun Microsystems, Inc. F_2
 surrogates (Unicode) **F_3**
 suspend a program G_2
 SVC file **28_5**
 svcutil.exe **28_9**
 Sybase, Inc. F_2
 synchronous call **30_36**
 synchronous request **27_20**
 system **30_8**
 system behavior **30_8**
 SYSTEM keyword in XML **24_11**
 system requirements **30_6**
 system structure **30_8**
 System.Runtime.Serialization.
 Json **28_19**
 System.Speech.Recognition **25_38**
 System.Speech.Synthesis **25_38**
 System.Xml namespace **26_23**
 System.Xml.Linq **29_12**
 System.Xml.Linq namespace **26_23**
 System.Xml.XPath namespace **26_32**
 System.Xml.Xsl namespace **26_40**

T

TabContainer Ajax Control Toolkit
 control **27_24**
 TabPanel class **27_25**
 tag **29_17**
 tagging **29_17**
 TargetName property of Setter class
 24_50
 TargetName property of Storyboard
 control **25_27**
 targetNamespace XML Schema
 attribute **26_9**
 TargetProperty property of
 Storyboard control **25_27**
 TargetType property of
 ControlTemplate class **24_49**
 TargetType property of Style class
 24_42
 template binding (WPF) **24_49**
 Template property of WPF controls
 24_48
 text file **26_22**
 text node-set function **26_21**
 Text Visualizer G_8
 TextBlock control **25_2**
 Background property **25_12**
 FontFamily property **25_3**
 FontSize property **25_4**
 FontStyle property **25_4**
 FontWeight property **25_4**
 Foreground property **25_12**
 TextDecorations property **25_4**
 TextBlock control (Silverlight) **29_8**
 TextBlock control (WPF) **24_57**
 TextBox control **24_30, 25_14**
 TextBox control (Silverlight) **29_8**
 TextDecoration control **25_4**
 Baseline **25_4**
 Location property **25_4**
 Overline **25_4**
 Strikethrough **25_4**
 Underline **25_4**
 TextDecorations property of
 TextBlock control **25_4**
 text-to-speech systems **25_35**
 TextureCoordinates property of
 MeshGeometry3D control **25_33**
 thread **25_41**
 Tick event of DispatcherTimer class
 24_46
 Timer class **24_46**
 TimeSpan struct **24_46**
 timing diagram in the UML **E_2**
 To property of DoubleAnimation
 control **25_29**
 Toolbar control (WPF) **24_37**
 ToolbarTray control (WPF) **24_37**
 Toolbox **24_17**
 ToolkitScriptManager control
 27_24
 Top attached property of Canvas control
 24_24, 24_28
 Transaction class (ATM case study)
 31_8, 31_9, 31_10, 31_12, 31_13
 transform **25_15**
 Transform method of class
 XslCompiledTransform **26_40**
 Transform property of
 ModelVisual3D control **25_34**
 Transforming an XML document and
 splicing its contents with another
 26_35
 transition between states in the UML
 30_22
 TranslateTransform control **25_15**
 tree structure **24_10**
 Tree structure for the document
 article.xml **26_23**
 TreeView class **26_26**
 TriangleIndices property of
 MeshGeometry3D control **25_32**
 trigger (WPF) **24_50**
 Trigger class (WPF) **24_50**
 Property property **24_50**
 Value property **24_50**
 trigger of UpdatePanel ASP.NET Ajax
 Extensions control **27_25**
 Triggers property of
 ControlTemplate class **24_50**
 Triggers property of Style class
 24_50
 TTS systems **25_35**
 tunneling events (WPF) **24_32**
 TV GUI showing the versatility of WPF
 customization (code-behind) **25_25**
 two's complement D_9
 twos position D_4
 type attribute in a processing instruction
 26_15
 type XML Schema attribute **26_9**

U

U+yyyy (Unicode notational convention)
 F_4
 UIElementCollection class **24_28**
 Add method **24_28**
 Clear method **24_29**
 RemoveAt method **24_29**

UML (Unified Modeling Language)
 30_2, 30_8, 30_12, 30_19, 30_21,
 31_8
 abstract operation **31_9**
 class diagram **31_10, 31_11, 31_12**
 diagram **30_8**
 frame **30_39**
 generalization **31_8**
 private visibility **31_2**
 public visibility **31_2**
 Resource Center (www.deit-
 e1.com/UML/) **30_10**
 specialization **31_8**
 UML Activity Diagram
 solid circle (for representing an initial
 state) in the UML **30_23**
 solid circle enclosed in an open circle
 (for representing the end of an ac-
 tivity) in the UML **30_23**
 UML class diagram
 attribute compartment **30_19**
 operation compartment **30_26**
 UML Sequence Diagram
 activation **30_37**
 arrowhead **30_37, 30_38**
 lifeline **30_37**
 UML State Diagram
 rounded rectangle (for representing a
 state) in the UML **30_21**
 solid circle (for representing an initial
 state) in the UML **30_21**
 UML Use Case Diagram
 actor **30_8**
 use case **30_8**
 unambiguous (Unicode design basis) **F_2**
 unbounded value **26_9**
 Unicode Consortium **F_2**
 Unicode Standard **F_2**
 Unicode Standard design basis F_2
 efficient **F_2**
 unambiguous **F_2**
 uniform **F_2**
 universal **F_2**
 Unified Modeling Language (UML)
 30_2, 30_8, 30_12, 30_19, 30_21,
 31_8
 uniform (Unicode design basis) **F_2**
 Uniform Resource Identifier (URI)
 24_14
 Uniform Resource Locator (URL) **24_14**
 Uniform Resource Name (URN) **24_14**
 Uniform value for Stretch property
 25_29
 UniformToFill value for Stretch
 property **25_29**
 universal (Unicode design principle) **F_2**
 UpdatePanel ASP.NET Ajax
 Extensions control **27_25**
 UpdatePanel trigger **27_25**
 UpDirection property of
 PerspectiveCamera control **25_34**
 Uri **28_17, 29_12**
 URI (Uniform Resource Identifier)
 24_14
 UriTemplate property of WebGet
 attribute **28_14**
 URL (Uniform Resource Locator) **24_14**
 URN (Uniform Resource Name) **24_14**
 use case diagram in the UML **30_7, 30_9**

use case in the UML **30_7**, **30_8**
 use case modeling **30_7**
 user-defined types in web services **28_39**
 UserControl **29_4**, **29_14**
 user-defined types **26_10**
 UsingAnimations example **25_26**
 UsingBrushes example **25_9**
 UsingGradients example **25_12**
 UTF-8 **F_3**
 UTF-16 **F_3**
 UTF-32 **F_3**

V

valid XML document **24_6**, **26_3**
 validating XML parser **24_6**
 ValidatorCalloutExtender control **27_26**
 Value **34**
 Value property of class XElement **26_26**
 Value property of class XText **26_34**
 Value property of Trigger class **24_50**
 vector-based graphics **25_2**
 Vector3D class **25_34**
 vector-based graphics **24_3**
 verb phrase in requirements document **30_26**
 version attribute (XSL) **26_16**
 version attribute in xml declaration **24_7**
 VerticalAlignment property of WPF controls **24_19**
 video **29_2**
 VideoBrush control (WPF) **29_41**
 VideoSelector **29_39**
 VideoSelectorWeb **29_42**
 Viewport3D control **25_29**
 Camera property **25_34**
 ViewportWidth property of MultiScaleImage control **29_38**
 visibility in the UML **31_2**
 visibility marker in the UML **31_2**
 Visibility property of a UI element **29_8**
 Collapsed state **29_8**
 Visible state **29_14**
 Visibility property of a WPF UI element **25_7**
 Collapsed state **25_7**
 Hidden state **25_7**
 Visible state **25_7**
 visual inheritance **27_4**
 Visual property of VisualBrush control **25_12**
 Visual Studio 2008
 Quick Info box **G_6**
 visual tree (WPF) **24_47**
 Visual Web Developer
 WCF Web Service project **28_6**
 VisualBrush control **25_12**
 Visual property **25_12**
 visualizer (debugger) **G_8**
 Visualizers
 HTML Visualizer **G_8**
 Text Visualizer **G_8**
 XML Visualizer **G_8**
 vocabulary (XML) **24_5**
 VoiceXML **24_4**

W

W3C (World Wide Web Consortium) **24_4**
 W3C XML Schema **24_6**
 Watch window (debugger) **G_8**, **G_9**
 waterfall model **30_7**
 WCF
 DataContract attribute **28_18**
 DataMember attribute **28_18**
 OperationContract attribute **28_5**
 ResponseFormat property of the WebGet attribute **28_17**
 Serializable attribute **28_19**
 ServiceContract attribute **28_5**
 UriTemplate property of WebGet attribute **28_14**
 WebGet attribute **28_13**
 WCF REST service to create random equations based on a specified operation and difficulty level **28_42**
 WCF service class **28_5**
 WCF service endpoint **28_3**, **28_52**
 WCF web service interface that returns a welcome message through SOAP protocol and XML format **28_6**
 WCF Web Service project in Visual Web Developer **28_6**
 WCF Web Service project type **28_5**
 WCF web service that returns a welcome message through the SOAP protocol and XML format **28_6**
 Weather namespace **29_8**
 WeatherBug
 API Key **29_5**
 WeatherData class (WeatherViewer) **29_12**
 WeatherDetailsView custom control (Silverlight) **29_8**, **29_14**
 WeatherViewer **29_5**
 web application **29_2**
 Web Application Project **29_5**
 Web service **28_2**
 Web Service Description Language (WSDL) **28_9**
 web service host **28_3**
 Web Services
 processing user-defined types **28_39**
 Web Site Administration Tool **27_8**
 Web.config file **28_5**
 WebClient **28_16**, **29_12**
 DownloadStringAsync method **28_17**, **29_12**
 DownloadStringCompleted event **28_17**, **29_12**
 WebGet attribute **28_13**
 webHttp Web.config property **28_15**
 webHttpBinding Web.config binding setting **28_15**
 WebMessageFormat.Json setting of ResponseFormat property **28_17**, **28_47**
 WebMessageFormat.Xml setting of ResponseFormat property **28_17**
 Websites
 Flickr API Key (www.flickr.com/services/api/keys/) **29_17**
 well-formed XML document **24_5**
 whole/part relationship **30_14**
 Width property of a shape control **25_5**
 Width property of MediaElement **29_42**
 Wikimedia Commons **29_40**
 Window control (WPF) **24_17**, **24_25**, **24_45**
 AllowsTransparency property **24_44**
 CommandBindings property **24_36**
 DragMove method **24_45**
 WindowState property **24_50**
 WindowStyle property **24_44**
 Windows Communication Foundation (WCF) **28_2**
 Windows Presentation Foundation (WPF) **24_2**, **25_2**
 WindowState property of Window control **24_50**
 WindowState.Minimized constant **24_50**
 WindowStyle property of Window control **24_44**
 wire format **28_4**
 Withdrawal class (ATM case study) **30_12**, **30_13**, **30_15**, **30_18**, **30_23**, **30_26**, **30_34**, **30_35**, **30_37**, **30_38**, **30_39**, **31_4**, **31_5**, **31_7**, **31_8**, **31_9**, **31_10**, **31_12**
 workflow of an object in the UML **30_22**
 World Wide Web Consortium (W3C) **24_4**
 WPF (Windows Presentation Foundation) **24_2**, **24_30**
 App.xaml **24_18**
 App.xaml.vb **24_18**
 AxisAngleRotation3D control **25_34**
 Background property **24_37**
 Binding class **24_52**
 Border control **24_20**, **25_23**
 Brush class **24_37**
 Button control **24_20**, **24_29**, **24_37**
 Canvas control **24_24**, **25_6**
 CheckBox control **24_37**, **25_23**
 code-behind class **24_17**, **24_18**
 CollectionView class **24_57**
 ColorAnimation control **25_29**
 ComboBox control **24_37**
 command binding **24_36**
 command library **24_33**
 CommandBinding class **24_36**
 commands **24_33**
 content control **24_17**
 ContentControl control **24_17**, **24_20**
 ContentPresenter class **24_48**
 control **24_17**, **24_47**
 control template **24_47**, **24_48**
 ControlTemplate class **24_49**
 ControlTemplate control **25_23**
 data binding **24_52**
 data provider **24_58**
 data template **24_55**
 data view **24_57**
 DataContext property **24_57**
 DataTemplate class **24_55**
 dependency property **24_43**, **24_50**

- DiffuseMaterial control 25_33, 25_33
- DirectionalLight control 25_34
- DockPanel control 24_20
- DoubleAnimation control 25_29
- Ellipse control 25_5
- EmissiveMaterial control 25_33
- event handling 24_25
- EventSetter class 24_42
- Expander control 24_20
- GeometryModel3D control 25_32
- GradientStop control 25_14
- Grid control 24_17, 24_23
- GridView control 24_54
- GridViewColumn class 24_55
- GroupBox control 24_22
- HorizontalAlignment property 24_19
- ICommand interface 24_33
- ImageBrush control 25_12
- IsMouseOver property 24_50
- KeyboardEventArgs class 24_30
- KeyDown event 24_30
- KeyUp event 24_30
- Label control 24_17
- layout container 24_17, 24_28
- layout control 24_19
- Line control 25_5
- LinearGradientBrush control 25_12
- ListView control 24_52
- logical tree 24_47
- lookless control 24_47
- Margin property 24_19
- MaterialGroup control 25_33
- MaxWidth property 24_19
- MediaElement control 25_12
- Menu control 24_37
- MenuItem control 24_37
- MeshGeometry3D control 25_32
- MinHeight property 24_19
- MinWidth property 24_19
- Model3DGroup control 25_31
- ModelVisual3D control 25_31
- MouseButtonEventArgs class 24_29
- MouseEventArgs class 24_29
- MouseDown event 24_29, 24_32
- MouseLeftButtonUp event 24_29, 24_33
- MouseMove event 24_29
- MouseRightButtonDown event 24_29
- MouseRightButtonUp event 24_29
- MouseWheel event 24_29
- MouseWheelEventArgs class 24_29
- ObjectDataProvider class 24_58
- Panel control 24_17
- PerspectiveCamera control 25_34
- PointAnimation control 25_29
- Polygon control 25_5
- Polyline control 25_5
- PreviewMouseDown event 24_32
- PreviewMouseLeftButtonUp event 24_32
- RadialGradientBrush control 25_12, 25_23
- RadioButton control 24_20, 24_29, 24_37, 25_9, 25_23
- Rectangle control 25_5
- resource 24_38
- resource binding 24_42, 24_48
- Resources property 24_41
- RichTextBox control 24_34
- RotateTransform control 25_15
- RotateTransform3D control 25_34
- routed events 24_30
- RoutedEventArgs class 24_29, 24_30
- ScaleTransform control 25_15, 25_24
- Separator control 24_37
- Setter class 24_42, 24_50
- SkewTransform control 25_15, 25_24
- Slider control 24_41
- SolidColorBrush control 25_9
- SpecularMaterial control 25_33
- StackPanel control 24_22
- Storyboard control 25_27
- style 24_38
- Style class 24_42
- template binding 24_49
- Template property 24_48
- TextBlock control 24_57, 25_2
- TextBox control 24_30, 25_14
- ToolBar control 24_37
- ToolBarTray control 24_37
- TranslateTransform control 25_15
- trigger 24_50
- Trigger class 24_50
- VerticalAlignment property 24_19
- Viewport3D control 25_29
- visual tree 24_47
- VisualBrush control 25_12
- Window control 24_17, 24_25, 24_45
- WrapPanel control 24_20
- XmlDataProvider class 24_58
- WPF bitmap effect 25_18
- WrapPanel control (WPF) 24_20
- Orientation property 24_20
- WSDL (Web Service Description Language) 28_9, 28_11
- WSDL (Web Services Description Language) 24_5
- www.era.in.com/products/zam3d/DefaultPDC.asp 25_32
- www.nasa.gov/multimedia/hd/index.html 25_18
- www.oasis-open.org 26_2
- www.w3.org/XML/Schema 26_5, 26_6
- www.w3schools.com/schema/default.asp 26_6
- www.xml.org 26_2
- X**
- x:Class attribute (XAML) 24_17
- x:Class attribute of a UserControl 29_4
- x:Name attribute of a control 29_4
- Xalan XSLT processor 26_15
- XAML (Extensible Application Markup Language) 24_2, 29_2, 29_3
- attribute 24_17
- default namespace 24_17
- element 24_17
- end tag 24_17
- markup extension 24_42, 24_49, 24_52
- namespace 24_17
- nested element 24_17
- presentation XAML namespace 24_17
- root element 24_17
- standard XAML namespace 24_17
- start tag 24_17
- x:Class attribute 24_17
- XAML** view 24_17
- .xap file extension 29_5
- XAttribute class 26_33
- XBRL (Extensible Business Reporting Language) 24_4
- XComment class 26_34
- XContainer class 26_32
- Add method 26_38
- Descendants method 26_32
- Element method 26_33
- Elements method 26_26
- Nodes method 26_34
- XDocument 29_13
- XDocument class 26_23
- Load method 26_25
- Root property 26_25
- XDocumentType class 26_33
- XElement class 26_23
- Attribute method 26_33
- Elements method 26_26
- HasElements property 26_26
- Name property 26_25
- Value property 26_26
- Xerces parser from Apache 24_6
- XHTML (Extensible HyperText Markup Language) 24_4, 26_13
- XML (Extensible Markup Language) 24_2, 28_9
- attribute 24_12
- attribute value 24_12
- child element 24_9
- container element 24_9
- declaration 24_7, 24_10
- document 24_52
- element 24_4
- empty element 24_12
- end tag 24_4
- instance document 26_11, 26_12
- node 24_10
- parent element 24_9
- parser 24_5
- processor 24_5
- prolog 24_8
- root 24_10
- root element 24_4
- start tag 24_4
- vocabulary 24_5
- XML document containing book information 26_17

12 Index

- XML document that describes various sports 26_14
- XML document using the `laptop` element defined in `computer.xsd` 26_12
- `.xml` file extension 24_5
- XML file generated by `XMLCombine` 26_37
- `xml` namespace prefix 24_13
- XML namespaces demonstration 24_13
- XML Path Language (XPath) 26_13
- XML Schema 24_6, 24_16, 26_6, 26_9
 - complex types 26_9
 - simple types 26_9
- XML Schema document defining simple and complex types 26_11
- XML Schema document for `book.xml` 26_8
- XML Schema URI (<http://www.w3.org/2001/XMLSchema>) 26_8
- XML used to mark up an article 24_7
- XML Visualizer G_8**
- XML Working Group of the W3C 24_4
- `XMLCombine` Format Checking 26_47
- `XmlDataProvider` class (WPF) 24_58
 - `IsAsynchronous` property 24_58
- `XmlNodeType` enumeration 26_34
- `xmlns` attribute in XML 24_14, 24_15
- `xmlns` namespace prefix 24_13
- `XmlReader` class 24_6
- `XName` class 26_25
 - `LocalName` property 26_25
 - `Namespace` property 26_37
- `XNamespace` class 26_33, 26_35, 28_47
- `XNode` class 26_34
 - `NextNode` property 26_35
 - `PreviousNode` property 26_35
 - `XPathSelectElements` extension method 26_32
- `XObject` class 26_34
 - `Document` property 26_34
 - `NodeType` property 26_34
 - `Parent` property 26_34
- `XPath` (XML Path Language) 26_13, 26_13, 26_32
- `XPathSelectElements` extension method of class `XNode` 26_32
- `XProcessingInstruction` class 26_34
- `.xsd` filename extension 26_7
- XSL (Extensible Stylesheet Language) 24_6, 24_16, 26_13
 - variable 26_21
- XSL document that transforms `sorting.xml` into XHTML 26_18
- `.xsl` filename extension 26_15
- XSL-FO (XSL Formatting Objects) 26_13
- XSL Formatting Objects (XSL-FO) 26_13
- XSL style sheet 26_13, 26_21
- XSL template 26_16
- `xsl` template element 26_16
- XSL Transformations (XSLT) 26_13
- `xsl:for-each` element 26_17
- `xsl:output` element 26_16
- `xsl:text` element 26_20
- `xsl:value-of` element 26_17
- `XslCompiledTransform` class 26_40
 - `Load` method 26_40
 - `Transform` method 26_40
- XSLT processor 26_15
- XSLT that creates elements and attributes in an XHTML document 26_15
- `XText` class 26_34
 - `Value` property 26_34

Z

- `ZIndex` attached property of `Canvas` control 24_24