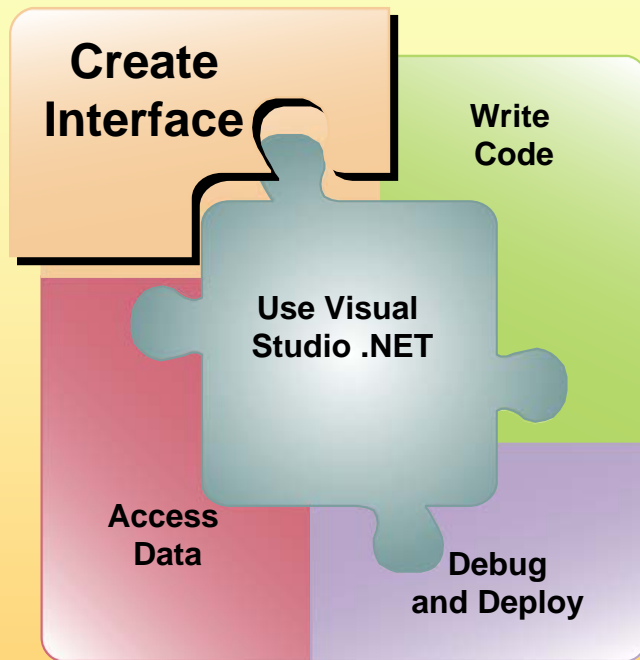


Module 10:
Web Forms and XML
Web Services

Overview



- Working with Web Forms
- Using XML Web Services

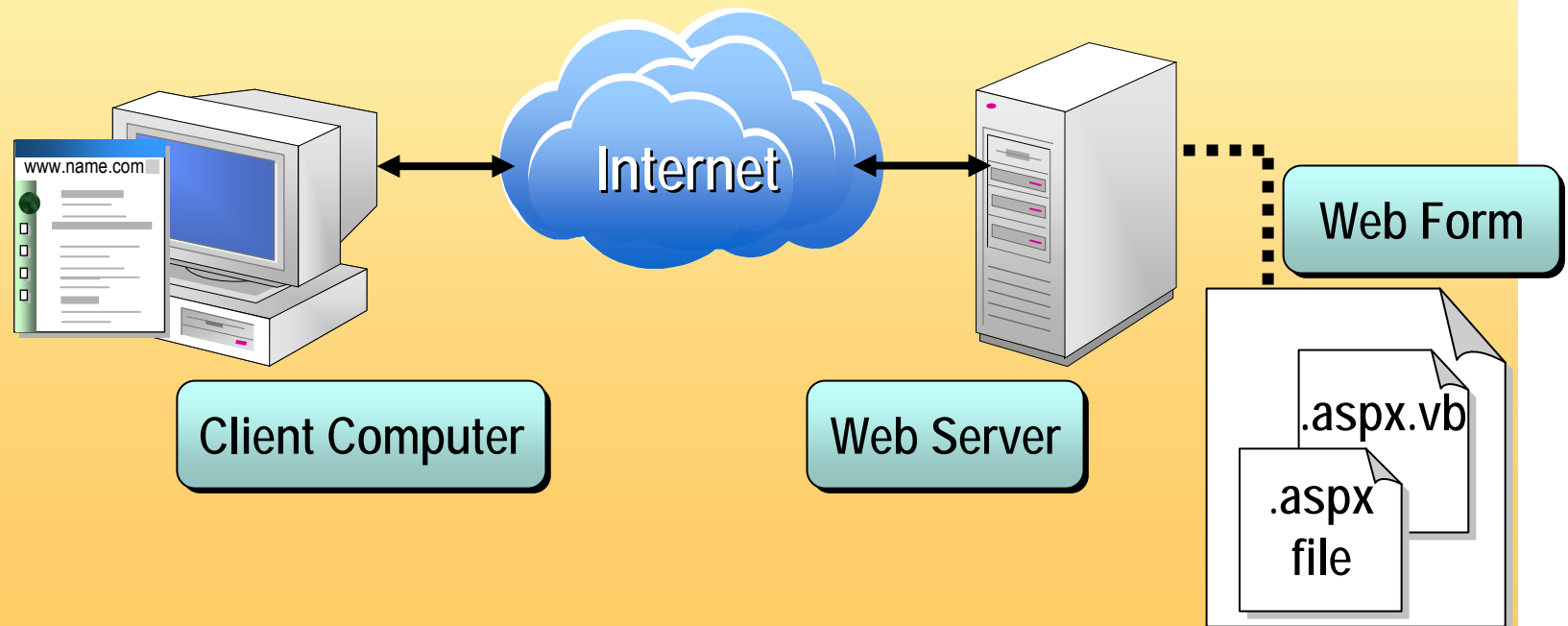
Lesson: Working with Web Forms

- What Are Web Forms?
- How to Create a Web Application Project
- Components of a Web Form
- How to Add Controls
- How to Add an Event Handler
- How to Build and Run a Web Forms Page

What Are Web Forms?

Programmable Web pages based on ASP.NET technology

- HTML is sent to the browser on the client computer or device
- Code and controls that run the UI stay on the Web server



Demonstration: Using Web Forms



- In this demonstration, you will learn how to use a Web Form to create a simple Web application

How to Create a Web Application Project

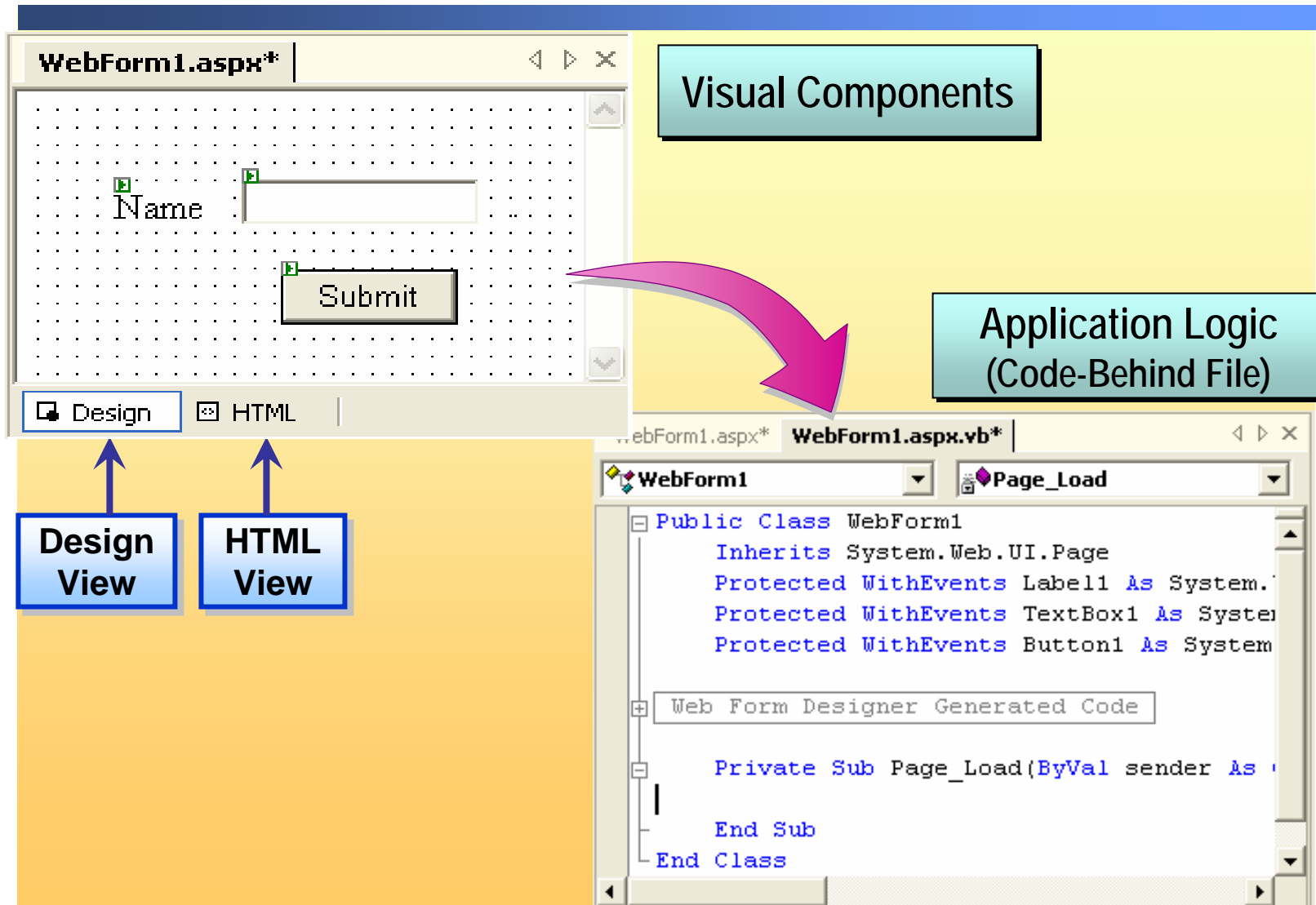
■ Use ASP.NET Web Application Template

The screenshot displays the Microsoft Visual Basic .NET design environment for a web application project named 'WebApplication2'. The main workspace shows a grid layout for 'WebForm1.aspx'. The interface includes a menu bar, a toolbar, a toolbox on the left, a Solution Explorer on the right, and a Properties window at the bottom right. A Task List window is also visible at the bottom left.

Annotations in pink highlight key components:

- Controls:** A bracket on the left points to the 'Web Forms' section of the toolbox, which contains various UI controls like Label, TextBox, Button, LinkButton, ImageButton, HyperLink, DropDownList, ListBox, DataGrid, DataList, Repeater, CheckBox, CheckBoxList, RadioButtonList, RadioButton, Image, Panel, Placeholder, Calendar, and Components.
- Web Form:** An arrow points to the main design area, which contains text indicating grid layout mode and instructions on how to change the page layout property to FlowLayout.
- Solution Explorer:** A bracket on the right points to the 'WebApplication2' project folder in the Solution Explorer, showing files like References, AssemblyInfo.vb, Global.asax, Styles.css, Web.config, WebApplication2.vsdico, and WebForm1.aspx.
- Properties:** A bracket on the bottom right points to the Properties window, which shows the 'DOCUMENT' properties for the selected element, including 'a:link', 'asp:Compat', 'background', 'bgColor', 'bgProperties', 'bottomMargin', and 'bgColor' (Document background color).

Components of a Web Form



How to Add Controls

Server controls: components that run on the server

- Web server controls:

- Created specifically for ASP.NET
- Available from the Web Forms tab of the Toolbox

- HTML server controls:

- HTML client controls that you convert to run as server controls
- Available from the HTML tab of the Toolbox

How To Add an Event Handler

- Many events are triggered by user action in the browser
- Code to handle a raised event is executed on the server
- When code completes execution, the Web page is sent back to the browser with any changes from the event

```
Public Sub Button1_Click(...)
```

```
End Sub
```

How to Build and Run a Web Forms Page

- In Solution Explorer, right-click the Web Forms page and then click Build and Browse
- Shortcut: Press CTRL+F8 to run the Build and Browse command



Practice: Creating a New Web Forms Page



1 Create the project and form

2 Add controls

3 Create an event handler

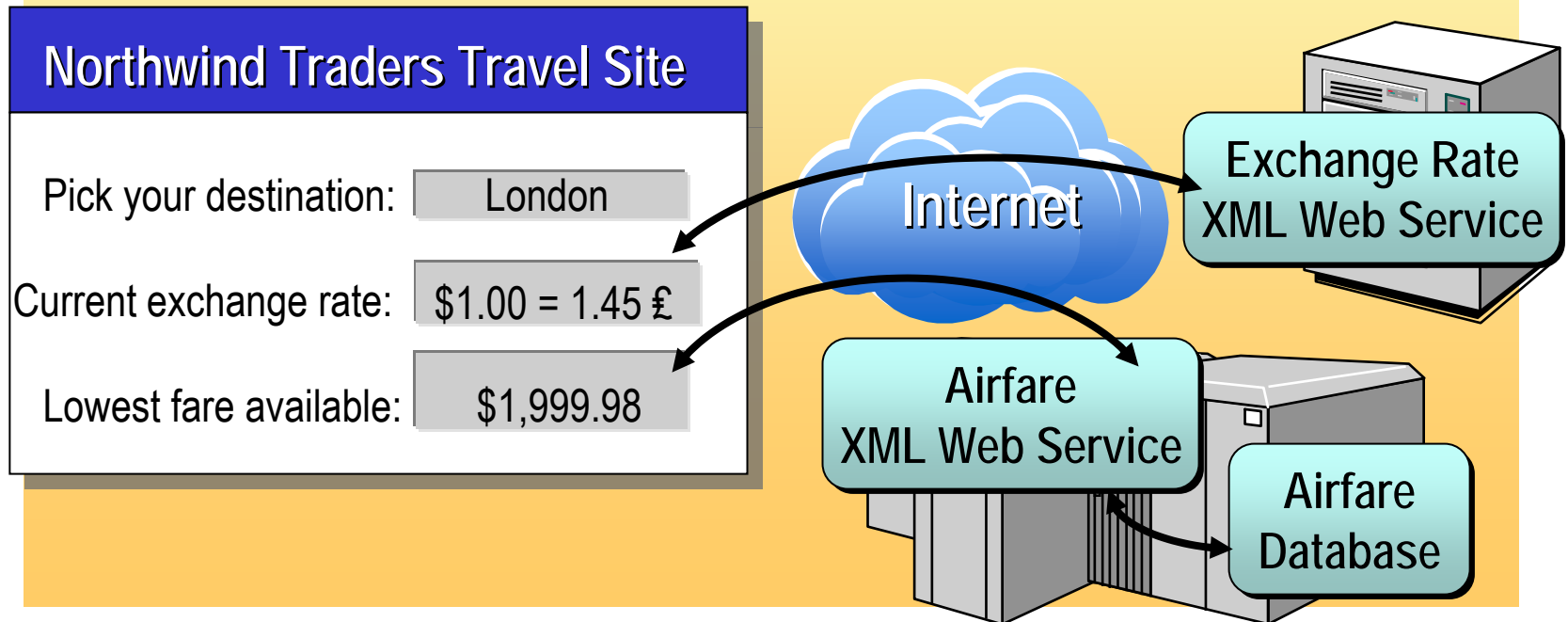
4 Build and run the Web Forms page

Lesson: Using XML Web Services

- What Is an XML Web Service?
- How XML Web Services Work
- How to Discover and Use XML Web Services
- How to Call an XML Web Service by Using a Proxy

What Is an XML Web Service?

- A programmable component that provides a particular function for an application
- Interact with applications by means of the Internet
- Language-, protocol-, and platform-independent



How XML Web Services Work

- SOAP

XML Web services expose functionality by means of SOAP

- WSDL

XML Web services describe their interfaces in a WSDL document

- UDDI

Developers register XML Web services by means of UDDI

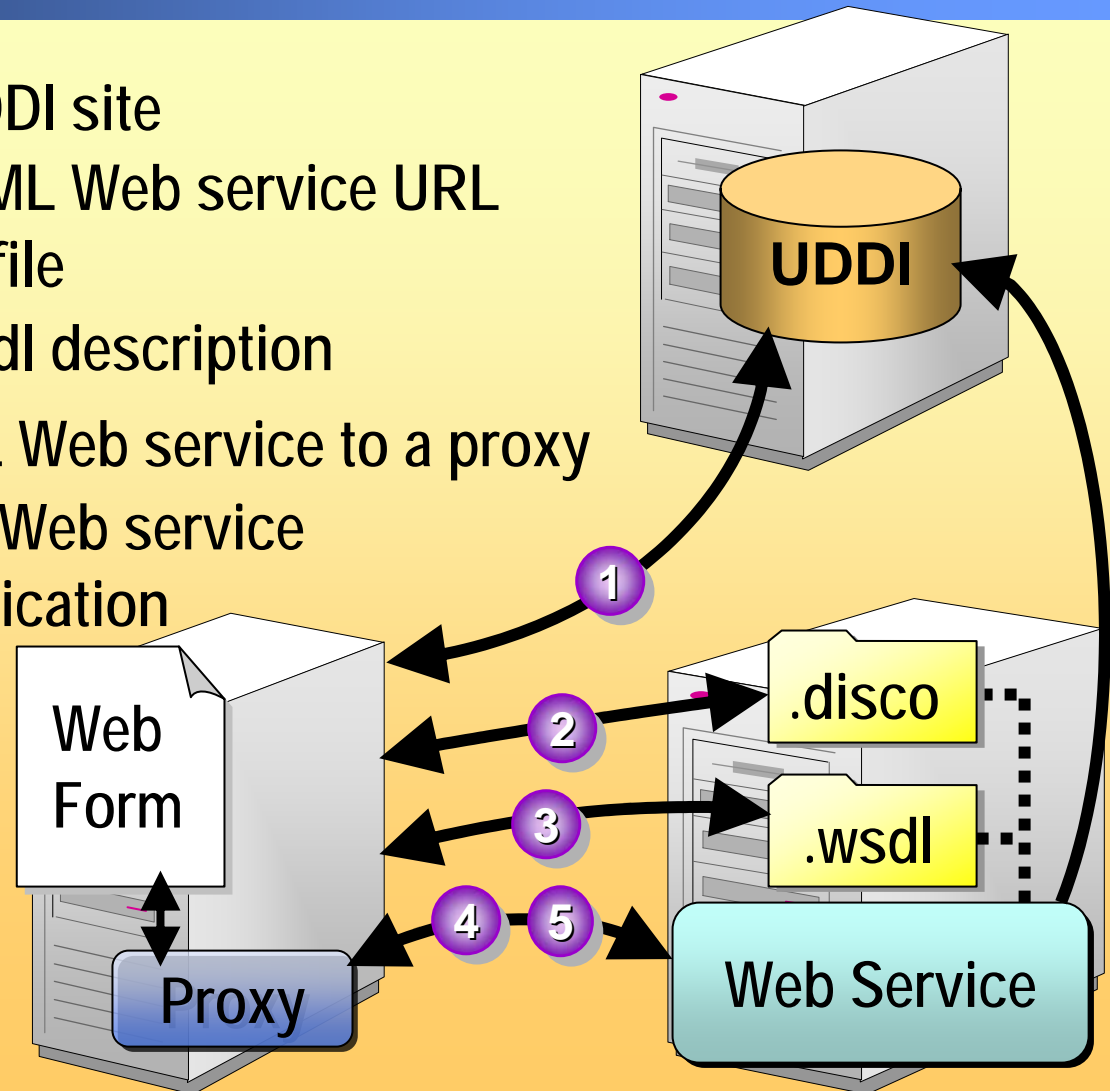
Demonstration: Using XML Web Services



- In this demonstration, you will learn how to view the WSDL document for an XML Web service, call an XML Web service, and use its methods in a simple application

How to Discover and Use XML Web Services

- 1 Query the UDDI site
- 2 Locate the XML Web service URL in the .disco file
- 3 Read the .wsdl description
- 4 Bind the XML Web service to a proxy
- 5 Call the XML Web service from the application by proxy



How to Call an XML Web Service by Using a Proxy

- 1 Create a Web reference for the XML Web service
- 2 Create an instance of the XML Web service

```
Dim WebServiceName As New localhost.service1( )
```

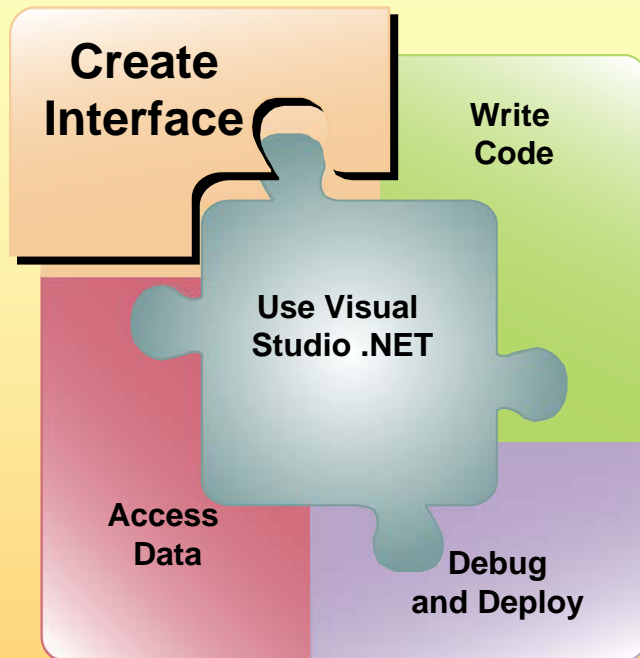
- 3 Call the Web methods of the XML Web service

```
Label1.Text = WebServiceName.WebMethod( )
```

Example:

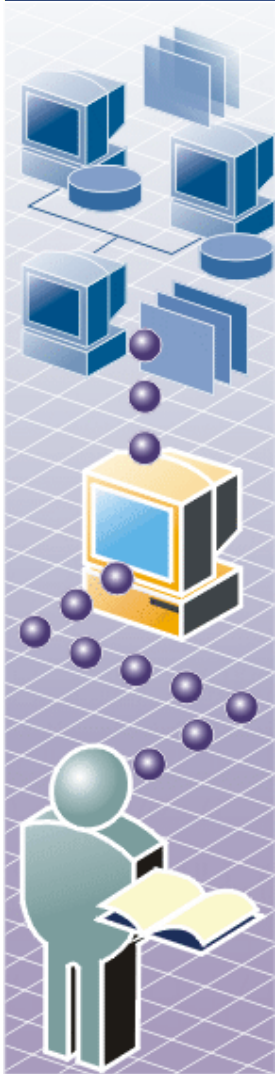
```
Sub GetRatingButton_Click (...)  
    Dim ProxyGetStocks As New localhost.GetStocks( )  
    ResultsLabel.Text = _  
        ProxyGetStocks.GetRating("Contoso, Ltd.")  
End Sub
```

Review



- Working with Web Forms
- Using XML Web Services

Lab 10.1: Creating a Web Application



- Exercise 1: Creating the User Interface
- Exercise 2: Using XML Web Services

Course Evaluation

