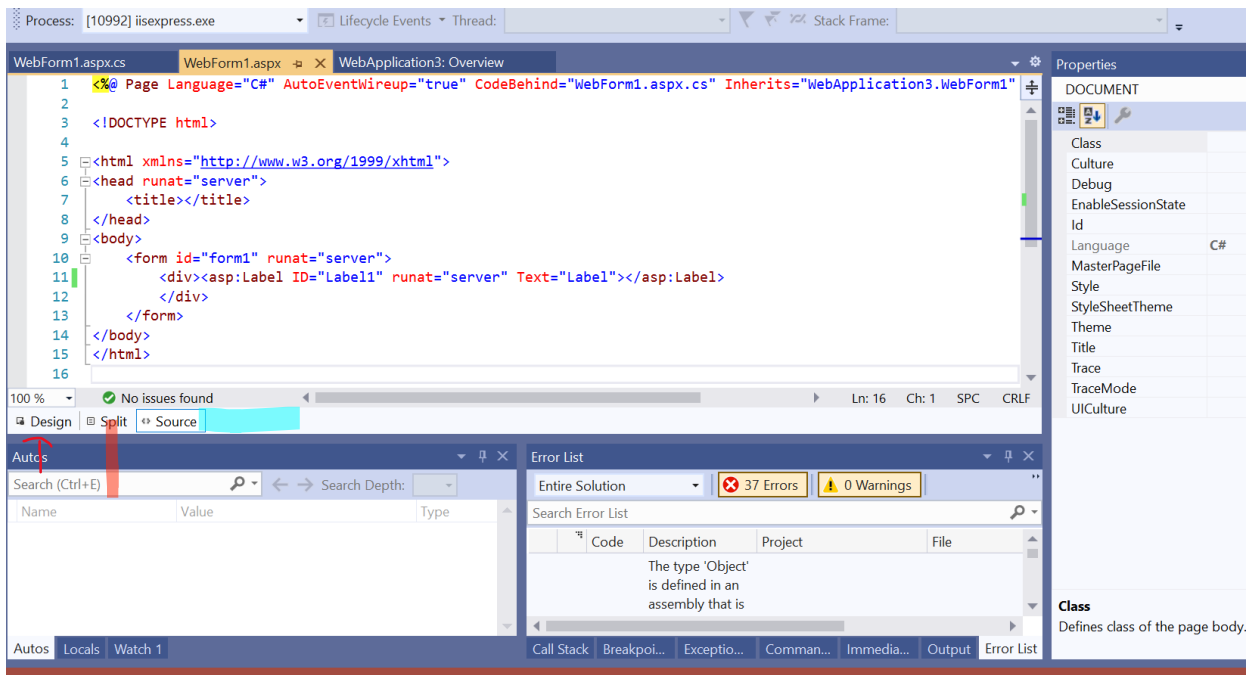


ASP.net web controls

ASP.NET Web Controls

- The Web controls reside in the `System.Web.UI.WebControls` namespace, which is available to all Web Forms pages automatically.
- It provide a range of functionality, from simple data entry to complex data validation.
- Two classes are considered to be base classes of ASP.NET server controls:
`System.Web.UI.Control` and `System.Web.UI.WebControls.WebControl`.
- The `System.Web.UI.Control` class is the base class for all server controls. This provides the properties, methods, and events shared by all web controls.
- The `System.Web.UI.WebControls.WebControl` class derives from the `Control` class and adds style properties such as `Font`, `ForeColor`, and `BackColor`.



Label Control:

The Label control used to display text in a set location on a Web page, also it can customize the displayed text through the Text property.

WebForm1.aspx

```

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication3.WebForm1" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
    <div><asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
    </div>
  </form>
</body>
</html>

```

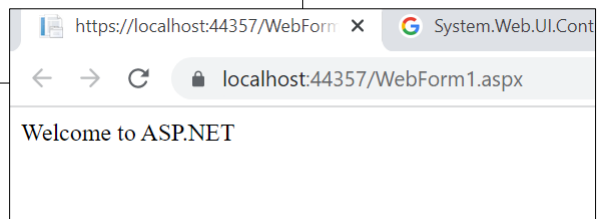
WebForm1.aspx.cs

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace WebApplication3
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            Label1.Text = "Welcome to ASP.NET";
        }
    }
}

```

**Button Control:**

Button control displays a push button control on the Web page. By default, a Button control is a Submit button. You can provide an event handler for the Click event to programmatically control the actions performed when the Submit button is clicked.

WebForm1.aspx:

```

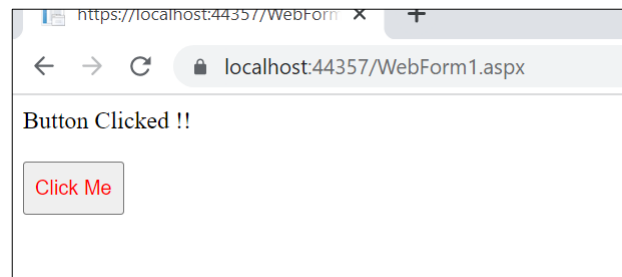
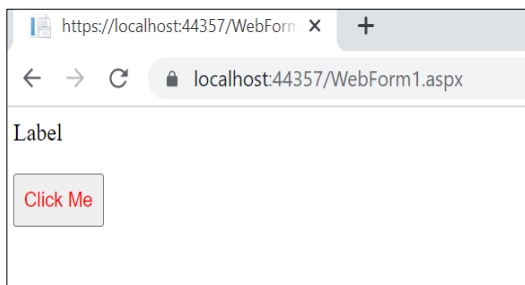
<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
    <title>Untitled Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Button ID="Button1" runat="server" Text="Button" onclick="Button1_Click" />

            <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
        </div>
    </form></body></html>

```

WebForm1.aspx.cs

```
using System;
public partial class _Default : System.Web.UI.Page
{
    protected void Button1_Click(object sender, EventArgs e)
    {
        Label1.Text = "Button Clicked !!";
    }
}
```

**Textbox Control**

- The TextBox server control is an input control which can be used to accept user input.
- By default Textboxes comes with a single line of text , you can also use the TextBox control to display a multiline text box or a text box that masks user input by changing the value of the TextMode property to TextBoxMode.MultiLine.

Defaul.aspx

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
    <title>Untitled Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>

            <asp:Button ID="Button1" runat="server" Text="Button" onclick="Button1_Click" />

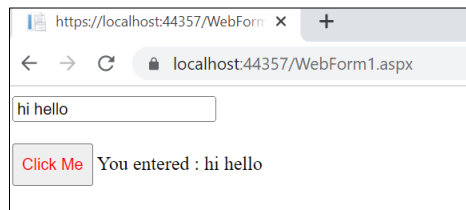
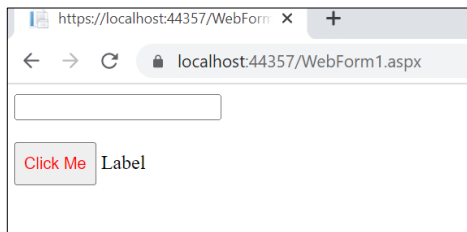
            <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
        </div>
    </form>
</body></html>
```

WebForm1.aspx.cs

```

using System;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
namespace WebApplication3
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Button1_Click1(object sender, EventArgs e)
        {
            Label1.Text = "You entered : " + TextBox1.Text;
        }
    }
}

```

**DropDownList Control**

The drop-down list can contain any number of items and allows the user to select a single item from the drop-down list.

```

<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
    <title>Untitled Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:DropDownList ID="DropDownList1" runat="server">
</asp:DropDownList>

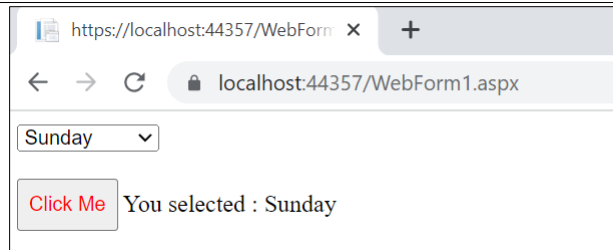
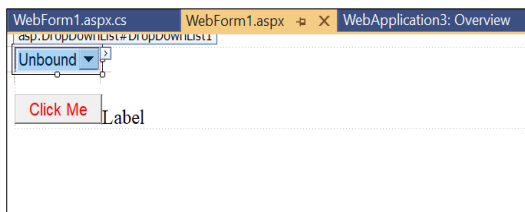
            <asp:Button ID="Button1" runat="server" Text="Button" onclick="Button1_Click"
/>

            <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
        </div>
    </form>
</body>
</html>

```

WebForm1.aspx.cs

```
protected void Button1_Click1(object sender, EventArgs e)
{
    Label1.Text = "You selected : " + DropDownList1.SelectedItem.ToString();
}
protected void Page_Load(object sender, EventArgs e)
{
    DropDownList1.Items.Add("Sunday");
    DropDownList1.Items.Add("Monday");
    DropDownList1.Items.Add("Tuesday");
    DropDownList1.Items.Add("Wednesday");
    DropDownList1.Items.Add("Thursday");
    DropDownList1.Items.Add("Friday");
    DropDownList1.Items.Add("Saturday");
}
```

WebForm1.aspx

Enter the day:

```
<asp:DropDownList ID="DropDownList1" runat="server">
  <asp:ListItem Text="Sunday" Value="1"></asp:ListItem>
  <asp:ListItem Text="Monday" Value="2"></asp:ListItem>
  <asp:ListItem Text="Wednesday" Value="3"></asp:ListItem>
  <asp:ListItem Text="Thursday" Value="4"></asp:ListItem>
  <asp:ListItem Text="Friday" Value="5"></asp:ListItem>
  <asp:ListItem Text="Saturday" Value="5"></asp:ListItem>
</asp:DropDownList>
```

WebForm1.aspx.cs

```
namespace WebApplication4
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Button1_Click(object sender, EventArgs e)
        {
            Label1.Text = "Your have selected :favorite color is : " +
            DropDownList1.SelectedItem.Text + DropDownList1.SelectedItem.Value
        }
    }
}
```

Listbox Control:

You can use the Add or Insert method to add items to a list box. Use the Rows property to specify the height of the control.

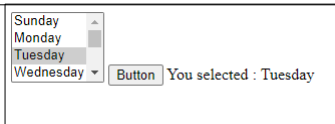
WebForm1.aspx

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
    <title>Untitled Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:ListBox ID="ListBox1" runat="server"></asp:ListBox>
            <br />
            <asp:Button ID="Button1" runat="server" Text="Button" onclick="Button1_Click" />
            <br />
            <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
        </div>
    </form>
</body>
</html>
```

WebForm1.aspx.cs

```
namespace WebApplication3
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            ListBox1.Items.Add("Sunday");
            ListBox1.Items.Add("Monday");
            ListBox1.Items.Add("Tuesday");
            ListBox1.Items.Add("Wednesday");
            ListBox1.Items.Add("Thursday");
            ListBox1.Items.Add("Friday");
            ListBox1.Items.Add("Saturday");
        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            Label1.Text = "You selected : " + ListBox1.SelectedItem.ToString();
        }
    }
}
```



WebForm1.aspx

```

<body>
  <form id="form1" runat="server">
    <div>
      <asp:ListBox ID="ListBox1" runat="server"
OnSelectedIndexChanged="ListBox1_SelectedIndexChanged">
        <asp:ListItem>DarkCyan</asp:ListItem>
        <asp:ListItem>DarkBlue</asp:ListItem>
        <asp:ListItem>DarkGoldenrod</asp:ListItem>
        <asp:ListItem>DarkGray</asp:ListItem>
        <asp:ListItem>DarkGreen</asp:ListItem>
        <asp:ListItem>DarkKhaki</asp:ListItem>
        <asp:ListItem>DarkMagenta</asp:ListItem>
      </asp:ListBox>
      <asp:Button ID="Button1" runat="server" Text="Button" OnClick="Button1_Click"
    />
      <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
    </div>
  </form>
</body>

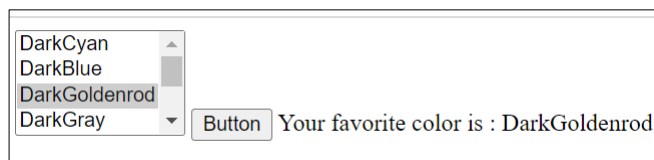
```

WebForm1.aspx.cs

```

namespace WebApplication4
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Button1_Click(object sender, EventArgs e)
        {
            Label1.Text = "Your favorite color is : " +
            ListBox1.SelectedItem.Text.ToString();
        }
    }
}

```



Checkbox Control:

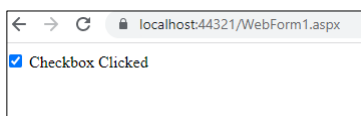
CheckBoxes allow the user to make multiple selections from a number of options and CheckBoxes comes with a caption, which you can set in the Text property.

WebForm1.aspx

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head id="Head1" runat="server">
    <title>Untitled Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:CheckBox ID="CheckBox1" runat="server" Text="CheckBox"
                AutoPostBack="True" oncheckedchanged="CheckBox1_CheckedChanged" />
            <br />
            <asp:Label ID="Label2" runat="server" Text="Label2"></asp:Label>
        </div>
    </form>
</body>
</html>
```

WebForm1.aspx.cs

```
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void CheckBox1_CheckedChanged(object sender, EventArgs e)
        {
            if (CheckBox1.Checked == true)
            {
                Label1.Text = "Checkbox Clicked";
            }
            else
            {
                Label1.Text = "";
            }
        }
    }
}
```



RadioButton Control

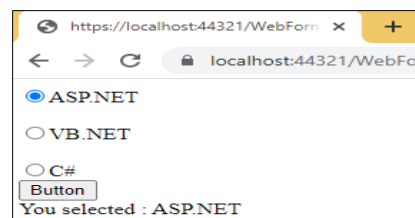
Radio button allows the user to choose only one of a predefined set of options. When a user clicks on a radio button, it becomes checked, and all other radio buttons with same group become unchecked. The buttons are grouped logically if they all share the same GroupName property.

WebForm1.aspx

```
<body>
    <form id="form1" runat="server">
        <asp:RadioButton ID="RadioButton1" runat="server" GroupName="language"
Text="ASP.NET"/>
        <br />
        <br />
        <asp:RadioButton ID="RadioButton2" runat="server" GroupName="language"
Text="VB.NET"/>
        <br />
        <br />
        <asp:RadioButton ID="RadioButton3" runat="server" GroupName="language" Text="C#" />
        <br />
        <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Button" />
        <br />
        <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
    </form>
</body>
```

WebForm1.aspx.cs

```
public partial class WebForm1 : System.Web.UI.Page
{
    protected void Button1_Click(object sender, EventArgs e)
    {
        if (RadioButton1.Checked == true)
        {
            Label1.Text = "You selected : ASP.NET";
        }
        else if (RadioButton2.Checked == true)
        {
            Label1.Text = "You selected : VB.NET";
        }
        else if (RadioButton3.Checked == true)
        {
            Label1.Text = "You selected : C#";
        }
        else
        {
            Label1.Text = "";
        }
    }
}
```



LinkButton Control

LinkButton displays a hyperlink-style button control on a Web page. By default, a LinkButton control is a Submit button. You can also use the Command Argument property with a Command button to provide additional information about the command to perform, such as specifying ascending order.

WebForm1.aspx

```
<body>
  <form id="form1" runat="server">
    <asp:LinkButton ID="LinkButton1" runat="server"
OnClick="LinkButton1_Click1">VB.NET</asp:LinkButton>

    <br />
    <asp:LinkButton ID="LinkButton2" runat="server"
OnClick="LinkButton2_Click">C#</asp:LinkButton>

    <br />
    <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
  </form>
</body>
```

WebForm1.aspx.cs

```
namespace WebApplication3
{
    public partial class WebForm1 : System.Web.UI.Page
    {

        protected void LinkButton1_Click1(object sender, EventArgs e)
        {
            Label1.Text = "VB.NETm is clicked ";
        }

        protected void LinkButton2_Click(object sender, EventArgs e)
        {
            Label1.Text = "C# is clicked ";
        }
    }
}
```

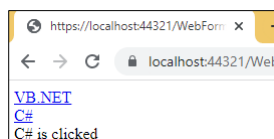


Image Control

Image control is to display any valid image supported by the requesting browser on the Web page. The path to the displayed image is specified by setting the ImageUrl property.

WebForm1.aspx

```
<body>
  <form id="form1" runat="server">
    <asp:Image ID="Image1" runat="server" Height="19px" Width="106px" />
  </form>
</body>
```

WebForm1.aspx.cs

```
namespace WebApplication3
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            Image1.ImageUrl = "http://net-informations.com/logo.png";
            Image1.AlternateText = "Net-informations.com Logo";
        }
    }
}
```

Calendar control

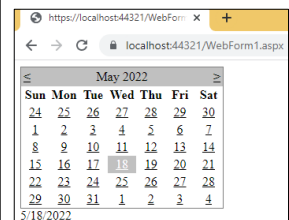
The Calendar control is used to display a calendar in the browser. The control allows you to select dates and move to the next or previous month.

WebForm1.aspx

```
<body>
  <form id="form1" runat="server">
    <div>
      <asp:Calendar ID="Calendar1" runat="server"
        onselectionchanged="Calendar1_SelectionChanged"></asp:Calendar>
      <br />
      <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
    </div>
  </form>
</body>
```

WebForm1.aspx.cs

```
namespace WebApplication3
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Calendar1_SelectionChanged(object sender, EventArgs e)
        {
            Label1.Text = Calendar1.SelectedDate.ToShortDateString();
        }
    }
}
```



HiddenField

HiddenField as name implies, is hidden. This is non visual control in ASP.NET where you can save the value. This is one of the types of client-side state management tools. It stores the value between the roundtrip. Anyone can see HiddenField details by simply viewing the source of document.

HiddenFields are not encrypted or protected and can be changed by anyone. However, from a security point of view, this is not suggested. ASP.NET uses HiddenField control for managing the ViewState. So, don't store any important or confidential data like password and credit card details with this control.

Use of HiddenField

We developers mostly do not show an ID value of table like ProductID, MemberID because users are not concerned with this kind of data. We store that information in HiddenFields and complete our process very easily.

WebForm1.aspx

```
<body>
  <form id="form1" runat="server">
    <div>
      <asp:HiddenField ID="HiddenField1" runat="server" />
      <asp:Label ID="Label1" runat="server" Text="Label1"></asp:Label>
    </div>
  </form>
</body>
```

WebForm1.aspx.cs

```
namespace WebApplication4
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            HiddenField1.Value = DateTime.Now.ToString();
            //Label1.Text = Convert.ToString(HiddenField1.Value);
        }
    }
}
```

Placeholder Server Control:

- Placeholder is an asp.net web server control which used to store dynamically added web server controls on the web page.
- By using a Placeholder control we can dynamically add Label, TextBox, Button, RadioButton, Image and many more web server controls in an asp.net web page.
- Placeholder server control act as a container control to store server controls that are dynamically added to the web page.

Placeholder control does not provide any visible output. we only can see the dynamically added server controls inside a Placeholder control as child controls.

- we can add, insert and remove server controls programmatically in the Placeholder control.

WebForm1.aspx

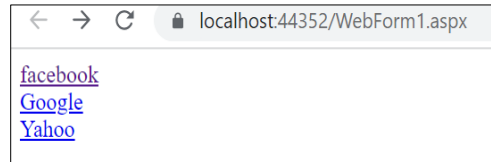
```
<body>
  <form id="form1" runat="server">
    <div>
      <asp:Placeholder ID="Placeholder1" runat="server"></asp:Placeholder><br />
      <asp:Placeholder ID="Placeholder2" runat="server"></asp:Placeholder><br />
      <asp:Placeholder ID="Placeholder3" runat="server"></asp:Placeholder><br />
    </div>
  </form>
</body>
```

WebForm1.aspx.cs

```

namespace web_server_controls
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            HyperLink hyperlink1 = new HyperLink();
            hyperlink1.Text = "facebook";
            hyperlink1.NavigateUrl = "http://www.facebook.com/";
            Placeholder1.Controls.Add(hyperlink1);
            HyperLink hyperlink2 = new HyperLink();
            hyperlink2.Text = "Google";
            hyperlink2.NavigateUrl = "http://www.google.com/";
            Placeholder2.Controls.Add(hyperlink2);
            HyperLink hyperlink3 = new HyperLink();
            hyperlink3.Text = "Yahoo";
            hyperlink3.NavigateUrl = "http://www.yahoo.com/";
            Placeholder3.Controls.Add(hyperlink3);
        }
    }
}

```

FileUpload

- FileUpload is an asp.net web server control that allow us to upload a file to the web server from client browser. fileupload server control render a textbox and a browse button in web browser that enable users to select a file from the client computer and upload it to the web server machine.
- user can specify the file to upload by entering full path of the local computer file in the textbox of fileupload control or use the browse button to select a file from local computer file system.

```

<body>
    <form id="form1" runat="server">
        <div>
            <asp:FileUpload ID="FileUpload1" runat="server" />
            <asp:Button ID="Button1" runat="server" Text="Button" OnClick="Button1_Click" />
            <asp:Label ID="Label1" runat="server" Text="Label"></asp:Label>
        </div>
    </form>
</body>

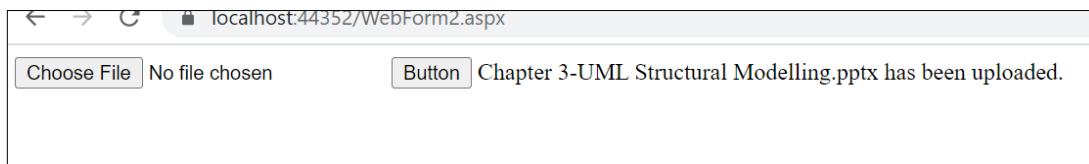
```

```
protected void Button1_Click(object sender, EventArgs e)
{
    string folderPath = Server.MapPath("~/Files/");

    //Check whether Directory (Folder) exists.
    if (!Directory.Exists(folderPath))
    {
        //If Directory (Folder) does not exists. Create it.
        Directory.CreateDirectory(folderPath);
    }

    //Save the File to the Directory (Folder).
    FileUpload1.SaveAs(folderPath + Path.GetFileName(FileUpload1.FileName));

    //Display the success message.
    Label11.Text = Path.GetFileName(FileUpload1.FileName) + " has been uploaded.";
}
}
```



Write a program to design following form

Enter your Name:

Enter your fav color:

DarkCyan
DarkBlue
DarkGoldenrod
DarkGray

Enter the day: Sunday ▼

Select your fav subject:

☐ Subject 1
☐ Subject 2
☐ Subject 3

Select your Gender:

☐ Male
☐ Female

Button


```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace WebApplication4
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            // ShowCourses.Text = "None";
        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            //Label1.Text = "Your favorite color is : " +
            ListBox1.SelectedItem.Text.ToString();
            string fname = TextBox1.Text;
            string s1=ListBox1.SelectedItem.Text.ToString();
            string s2 = DropDownList1.SelectedItem.Text;

```

```

Response.Write("Your name is" + fname);
    Response.Write("<br>");
    Response.Write("Your favorite color is" + s1);
    Response.Write("<br>");
    Response.Write("You have selected:" + s2);
    Response.Write("<br>");
    //Response.Write("Your favourite subject is:" + s3);
    //var message = "";
    if (CheckBox1.Checked)
    {
        Response.Write("you have selected"+CheckBox1.Text);
    }
    if (CheckBox2.Checked)
    {
        Response.Write("you have selected"+CheckBox2.Text);
    }
    if (CheckBox3.Checked)
    {
        Response.Write("you have selected"+CheckBox3.Text);
    }
    Response.Write("<br>");
    string gender=RadioButtonList1.SelectedItem.Text.ToString();
    Response.Write("My Gender is"+gender);
}}

```