

1. Write an ASP .NET program that demonstrate the structure of ASP.NET application • Single page model • Code behind model (Two-page model).
-

Single Page Model :

Html File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="SinglePageModel.aspx.cs"
Inherits="SinglePageModel" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Single Page Model</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Single Page Model</h1>

        <asp:Label ID="lblMessage" runat="server" Text=""></asp:Label>

        <asp:Button ID="btnClickMe" runat="server" Text="Click Me" OnClick="btnClickMe_Click" />

    </form>

</body>

</html>
```

SinglePageModel.aspx.cs File :

```
using System;

using System.Web.UI;

public partial class SinglePageModel : Page

{

    protected void btnClickMe_Click(object sender, EventArgs e)

    {

        lblMessage.Text = "Button clicked!";

    }

}
```

clicked

Clicked at 22-11-2022 18:52:22

```
}
```

Code-Behind Model (Two-Page Model) :

Page(TwoPageModel.aspx) :

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="TwoPageModel.aspx.cs"
Inherits="TwoPageModel" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Two Page Model</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Two Page Model</h1>

        <asp:Label ID="lblMessage" runat="server" Text=""></asp:Label>

        <asp:Button ID="btnClickMe" runat="server" Text="Click Me"
OnClick="btnClickMe_Click" />

    </form>

</body>

</html>
```

Code-Behind (TwoPageModel.aspx.cs) :

```
using System;

using System.Web.UI;

public partial class TwoPageModel : Page

{

    protected void btnClickMe_Click(object sender, EventArgs e)

    {

        lblMessage.Text = "Button clicked!";

    }

}
```

clicked

Clicked at 22-11-2022 18:52:22

2. Write an ASP .NET program that demonstrates use of basic server controls.

Html File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="BasicControlsDemo.aspx.cs"
Inherits="BasicControlsDemo" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Basic Server Controls Demo</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Basic Server Controls Demo</h1>

        <asp:Label ID="lblMessage" runat="server" Text="Enter your name:" />

        <br />

        <asp:TextBox ID="txtName" runat="server" />

        <br />

        <!-- Button Control -->

        <asp:Button ID="btnSubmit" runat="server" Text="Submit" OnClick="btnSubmit_Click" />

        <br />

        <asp:DropDownList ID="ddlOptions" runat="server">

            <asp:ListItem Text="Option 1" Value="1" />

            <asp:ListItem Text="Option 2" Value="2" />

            <asp:ListItem Text="Option 3" Value="3" />

        </asp:DropDownList>

        <br />

        <asp:Label ID="lblResult" runat="server" Text="" />

    </form>

</body>

</html>
```

C# File-

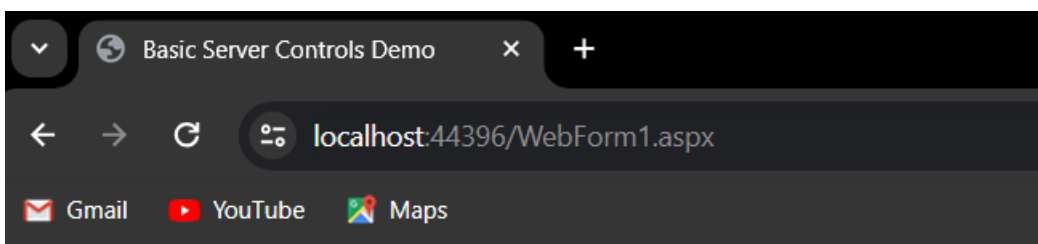
```
using System;

public partial class BasicControlsDemo : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            // Set initial values or perform actions when the page loads for the first time.
        }
    }

    protected void btnSubmit_Click(object sender, EventArgs e)
    {
        string name = txtName.Text;

        string selectedOption = ddlOptions.SelectedItem.Text;

        lblResult.Text = "Hello, " + name + "! You selected: " + selectedOption;
    }
}
```



Basic Server Controls Demo

Enter your name:

Hello, yash chandrashekhar khadke! You selected: Option 2

3. Write an ASP .NET program that demonstrates use of rich controls.

Html File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="RichControlsDemo.aspx.cs"
Inherits="RichControlsDemo" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Rich Controls Demo</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Rich Controls Demo</h1>

<asp:GridView ID="GridView1" runat="server" AutoGenerateColumns="false">

    <Columns>

        <asp:BoundField DataField="ID" HeaderText="ID" />

        <asp:BoundField DataField="Name" HeaderText="Name" />

        <asp:BoundField DataField="Age" HeaderText="Age" />

    </Columns>

</asp:GridView>

<br />

    <asp:Button ID="btnLoadData" runat="server" Text="Load Data" OnClick="btnLoadData_Click"/>

</form>

</body>

</html>
```

C# File-

```
using System;

using System.Collections.Generic;

public partial class RichControlsDemo : System.Web.UI.Page

{

    protected void Page_Load(object sender, EventArgs e)

    {

        if (!IsPostBack)

        {
```

```

        // Set initial values or perform actions when the page loads for the first time.
    }
}
protected void btnLoadData_Click(object sender, EventArgs e)
{
    // Simulated data (you can replace this with data from a database)
    List<Student> students = new List<Student>
    {
        new Student { ID = 1, Name = "John", Age = 20 },
        new Student { ID = 2, Name = "Alice", Age = 22 },

new Student { ID = 3, Name = "Bob", Age = 21 },
    };
    GridView1.DataSource = students;
    GridView1.DataBind();
}
public class Student
{
    public int ID { get; set; }
    public string Name { get; set; }
    public int Age { get; set; }
}
}

```

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4. Write an ASP .NET program that demonstrates use of Validation controls.

Html File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="ValidationControlsDemo.aspx.cs"
Inherits="ValidationControlsDemo" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Validation Controls Demo</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Validation Controls Demo</h1>

        <asp:Label ID="lblName" runat="server" Text="Name:" />

        <asp:TextBox ID="txtName" runat="server" />

        <asp:RequiredFieldValidator ID="rfvName" runat="server" ControlToValidate="txtName"

            Text="*" ErrorMessage="Name is required." InitialValue="" Display="Dynamic" />

        <br />

        <asp:Label ID="lblAge" runat="server" Text="Age:" />

        <asp:TextBox ID="txtAge" runat="server" />

        <asp:RangeValidator ID="rvAge" runat="server" ControlToValidate="txtAge"

            Text="*" ErrorMessage="Age must be between 18 and 99." MinimumValue="18"
MaximumValue="99" Type="Integer Display="Dynamic" />

        <br />

        <asp:Label ID="lblEmail" runat="server" Text="Email:" />

        <asp:TextBox ID="txtEmail" runat="server" />

        <asp:RegularExpressionValidator ID="revEmail" runat="server" ControlToValidate="txtEmail"

            Text="*" ErrorMessage="Invalid email format." ValidationExpression="^\w+([-+.]
\w+)*@\w+([-.]
\w+)*\.\w+([-.]
\w+)*$"

            Display="Dynamic" />

        <br />

        <asp:Button ID="btnSubmit" runat="server" Text="Submit" OnClick="btnSubmit_Click" />

        <br />

        <asp:Label ID="lblResult" runat="server" Text="" />

    </form>

</body>
```

</html>

C# File-

```
using System;
```

```
public partial class ValidationControlsDemo : System.Web.UI.Page
```

```
{
```

```
    protected void Page_Load(object sender, EventArgs e)
```

```
    {
```

```
        if (!IsPostBack)
```

```
        {
```

```
            // Set initial values or perform actions when the page loads for the first time.
```

```
        }
```

```
    }
```

```
    protected void btnSubmit_Click(object sender, EventArgs e)
```

```
    {
```

```
        if (Page.IsValid)
```

```
        {
```

```
            string name = txtName.Text;
```

```
            int age = Convert.ToInt32(txtAge.Text);
```

```
            string email = txtEmail.Text;
```

```
            lblResult.Text = "Validation successful! Name: " + name + ", Age: " + age + ", Email: " + email;
```

```
        }
```

```
    else
```

```
    {
```

```
        lblResult.Text = "Validation failed. Please check the form.";
```

```
    }
```

```
}
```

The screenshot shows a web form titled "form#form1" with the following elements and validation messages:

- Name:** A text input field with a red error message "required feild" (sic) to its right.
- Contact:** A text input field.
- Contact:** A second text input field with a red error message "confirm contact" to its right.
- Age:** A text input field with a red error message "age limit" to its right.
- Email:** A text input field with a red error message "email is required" to its right.
- SUBMIT**: A button at the bottom of the form.

The form is enclosed in a blue border, and the validation messages are displayed in red text.

5. Write an ASP .NET program that demonstrates use of Intrinsic Objects.

Html File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="IntrinsicObjectsDemo.aspx.cs"
Inherits="IntrinsicObjectsDemo" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Intrinsic Objects Demo</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Intrinsic Objects Demo</h1>

        <asp:Label ID="lblMessage" runat="server" Text="Welcome to the Intrinsic Objects Demo!" />

        <br />

        <asp:Button ID="btnSetSession" runat="server" Text="Set Session Variable"
OnClick="btnSetSession_Click" />

        <br />

        <asp:Button ID="btnGetSession" runat="server" Text="Get Session Variable"
OnClick="btnGetSession_Click" />

    </form>

</body>

</html>
```

C# File-

```
using System;

public partial class IntrinsicObjectsDemo : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            // Set initial values or perform actions when the page loads for the first time.
        }
    }
}
```

```

}

protected void btnSetSession_Click(object sender, EventArgs e)
{
    Session["MySessionVar"] = "Hello from Session!";
    lblMessage.Text = "Session variable set.";
}

protected void btnGetSession_Click(object sender, EventArgs e)
{
    // Use the Session object to get a session variable
    string sessionValue = Session["MySessionVar"] as string;
    if (!string.IsNullOrEmpty(sessionValue))
    {
        lblMessage.Text = "Session variable value: " + sessionValue;

    else
    {
        lblMessage.Text = "Session variable is not set.";
    }
}
}
}

```

```

NAME: Yash
PASSWORD: ****
LOGIN

```

Welcome

LOGOUT

NAME :

PASSWORD :

LOGIN

6. Write an ASP .NET program that demonstrates use view state, cookies, session state, and application state.

Html File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="StateManagementDemo.aspx.cs"
Inherits="StateManagementDemo" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>State Management Demo</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>State Management Demo</h1>

        <asp:Label ID="lblViewState" runat="server" Text=""></asp:Label>

        <asp:Button ID="btnSetViewState" runat="server" Text="Set ViewState"
OnClick="btnSetViewState_Click" />

        <br />

        <!-- Cookies -->

        <asp:Label ID="lblCookies" runat="server" Text=""></asp:Label>

        <asp:Button ID="btnSetCookie" runat="server" Text="Set Cookie"
OnClick="btnSetCookie_Click" />

        <br />

        <asp:Label ID="lblSessionState" runat="server" Text=""></asp:Label>
        <asp:Button ID="btnSetSessionState" runat="server" Text="Set Session State"
OnClick="btnSetSessionState_Click" />

        <br />

        <!-- Application State -->

        <asp:Label ID="lblAppState" runat="server" Text=""></asp:Label>

        <asp:Button ID="btnSetAppState" runat="server" Text="Set Application State"
OnClick="btnSetAppState_Click" />

    </form>

</body>

</html>
```

C# File-

```
using System;

using System.Web;
```

```

public partial class StateManagementDemo : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            // Initialize ViewState
            if (ViewState["ViewStateData"] != null)
            {
                lblViewState.Text = "ViewState Data: " + ViewState["ViewStateData"].ToString();
            }

            // Initialize Session State
            if (Session["SessionStateData"] != null)
            {
                lblSessionState.Text = "Session State Data: " + Session["SessionStateData"].ToString();
            }

            // Initialize Application State
            if (Application["AppStateData"] != null)
            {
                lblAppState.Text = "Application State Data: " + Application["AppStateData"].ToString();
            }

            // Retrieve Cookie
            HttpCookie cookie = Request.Cookies["DemoCookie"];
            if (cookie != null)
            {
                lblCookies.Text = "Cookie Data: " + HttpUtility.HtmlEncode(cookie.Value);
            }
        }
    }

    protected void btnSetViewState_Click(object sender, EventArgs e)
    {
        // Set data in ViewState
        ViewState["ViewStateData"] = "ViewState Demo Data";
    }
}

```

```
        lblViewState.Text = "ViewState Data: " + ViewState["ViewStateData"].ToString();
    }

    protected void btnSetCookie_Click(object sender, EventArgs e)
    {
        // Set data in a cookie
        HttpCookie cookie = new HttpCookie("DemoCookie");
        cookie.Value = "Cookie Demo Data";
        Response.Cookies.Add(cookie);
        lblCookies.Text = "Cookie Data: " + HttpUtility.HtmlEncode(cookie.Value);
    }

    protected void btnSetSessionState_Click(object sender, EventArgs e)
    {
        // Set data in Session State
        Session["SessionStateData"] = "Session State Demo Data";
        lblSessionState.Text = "Session State Data: " + Session["SessionStateData"].ToString();
    }

    protected void btnSetAppState_Click(object sender, EventArgs e)
    {
        // Set data in Application State
        Application["AppStateData"] = "Application State Demo Data";
        lblAppState.Text = "Application State Data: " + Application["AppStateData"].ToString();
    }
}
```

```
Enter Value: Yash  
create cookies  
cookie successfully created
```

7. Write an ASP .NET program that demonstrates use of Master Page.

Master Page (Site.master) –

Html File-

```
<%@ Master Language="C#" AutoEventWireup="true" CodeFile="Site.master.cs" Inherits="Site" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Master Page Demo</title>

</head>

<body>

    <form id="form1" runat="server">

        <div id="header">

            <h1>Welcome to My Website</h1>

        </div>

        <div id="menu">

            <ul>

                <li><a href="Default.aspx">Home</a></li>

                <li><a href="About.aspx">About</a></li>

                <li><a href="Contact.aspx">Contact</a></li>

            </ul>

        </div>

        <div id="content">

            <asp:ContentPlaceHolder ID="MainContent" runat="server">

            </asp:ContentPlaceHolder>

        </div>

        <div id="footer">

            &copy; 2023 My Website

        </div>

    </form>

</body>

</html>
```

C# File-

```
Page Title="" Language="C#" MasterPageFile="~/Site.master" AutoEventWireup="true"  
CodeFile="Default.aspx.cs" Inherits="_Default" %>
```

```
<asp:Content ID="Content1" ContentPlaceHolderID="MainContent" runat="server">
```

```
    <h2>Welcome to My Website</h2>
```

```
    <p>This is the home page content.</p>
```

```
</asp:Content>
```

Application name

[Home](#)

[About](#)

[Contact](#)

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8. Write an ASP .net page that used the connection object to connect the database and display the information using datagrid Controls.

HTML File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="EmployeeData.aspx.cs"
Inherits="EmployeeData" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Employee Data</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Employee Data</h1>

        <asp:DataGrid ID="dgEmployeeData" runat="server"
AutoGenerateColumns="true"></asp:DataGrid>

    </form>

</body>

</html>
```

C# File-

```
using System;

using System.Data;

using System.Data.SqlClient;

using System.Web.UI;

public partial class EmployeeData : Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            // Define the connection string

            string connectionString = "Your_Connection_String_Here";
```

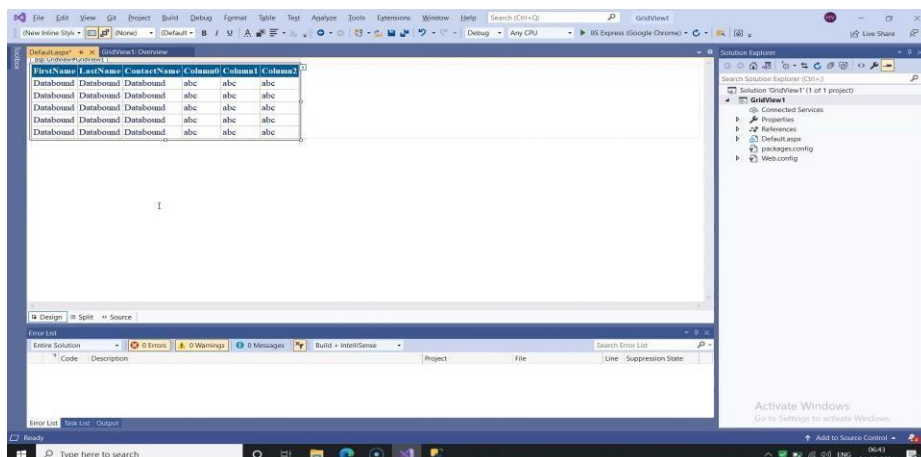
```
// Create a SQL connection
using (SqlConnection connection = new SqlConnection(connectionString))
{
    // Define the SQL query
    string query = "SELECT EmployeeID, FirstName, LastName, JobTitle FROM Employees";

    // Create a SQL command
    using (SqlCommand command = new SqlCommand(query, connection))
    {
        // Open the connection
        connection.Open();

        // Create a data adapter to execute the command
        using (SqlDataAdapter adapter = new SqlDataAdapter(command))
        {
            // Create a data table to hold the result
            DataTable dataTable = new DataTable();

            // Fill the data table with the result of the query
            adapter.Fill(dataTable);

            // Bind the data table to the DataGrid control
            dgEmployeeData.DataSource = dataTable;
            dgEmployeeData.DataBind();
        }
    }
}
```



9. Demonstrate website navigation controls (sitemap path, treeview, menu) using SiteMap file.

xml File-

```
<?xml version="1.0" encoding="utf-8" ?>

<siteMap xmlns="http://schemas.microsoft.com/AspNet/SiteMap-File-1.0" >

  <siteMapNode title="Home" description="Home Page" url="~/Default.aspx">

    <siteMapNode title="Products" description="Products Page" url="~/Products.aspx">

      <siteMapNode title="Laptops" description="Laptops Page" url="~/Laptops.aspx" />

      <siteMapNode title="Desktops" description="Desktops Page" url="~/Desktops.aspx" />

    </siteMapNode>

  </siteMapNode>

  <siteMapNode title="About Us" description="About Us Page" url="~/About.aspx" />

  <siteMapNode title="Contact Us" description="Contact Us Page" url="~/Contact.aspx" />

</siteMapNode>

</siteMap>
```

HTML File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="Default.aspx.cs" Inherits="Default"
%>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

  <title>Website Navigation Demo</title>

</head>

<body>

  <form id="form1" runat="server">

    <h1>Website Navigation Demo</h1>

    <!-- SiteMapPath Control -->

    <asp:SiteMapPath ID="SiteMapPath1" runat="server" PathSeparator=" > " />

    <br />

    <!-- TreeView Control -->

    <asp:TreeView ID="TreeView1" runat="server" DataSourceID="SiteMapDataSource"
ShowLines="true">

      <DataBindings>

        <asp:TreeNodeBinding DataMember="ChildNodes" TextField="Title" ValueField="Url" />

      </DataBindings>
```

```

</asp:TreeView>

<asp:SiteMapDataSource ID="SiteMapDataSource" runat="server" ShowStartingNode="false" />

<br />

<!-- Menu Control -->

<asp:Menu ID="Menu1" runat="server" DataSourceID="SiteMapDataSource"
Orientation="Horizontal" StaticEnableDefaultPopOutImage="false">

    <DynamicHoverStyle BackColor="#F7F7F7" ForeColor="#7C6F57" />

    <DynamicMenuItemStyle HorizontalPadding="5px" VerticalPadding="2px" />

    <DynamicMenuStyle BackColor="#E3EAEB" />

    <StaticHoverStyle BackColor="#7C6F57" ForeColor="White" />

    <StaticMenuItemStyle HorizontalPadding="5px" VerticalPadding="2px" />

    <StaticMenuStyle BackColor="#5D4617" ForeColor="White" Width="150px" />

</asp:Menu>

</form>

</body>

</html>

```

treecontrol

```

└─ India
    └─ Maharashtra
        └─ Gujrat
            └─ Madyapradesh

```

menucontrol

Contry ▶

10. Write an ASP .net program that demonstrates use login status and login control.

HTML File-

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="LoginDemo.aspx.cs"
Inherits="LoginDemo" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Login Demo</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Login Demo</h1>

        <!-- Login Control -->

        <asp:Login ID="LoginControl" runat="server">

            </asp:Login>

        <br />

        <!-- Login Status Control -->

        <asp:LoginStatus ID="LoginStatusControl" runat="server" LogoutAction="Redirect"
LogoutPageUrl="LoginDemo.aspx" />

        <br />

        <asp:Label ID="lblMessage" runat="server" Text=""></asp:Label>

    </form>

</body>

</html>
```

HTML File-

```
using System;

public partial class LoginDemo : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            if (User.Identity.IsAuthenticated)
            {

```

```
        lblMessage.Text = "Welcome, " + User.Identity.Name + "!";  
    }  
    else  
    {  
        lblMessage.Text = "Please log in.";  
    }  
}  
}  
}
```

Log In

Please enter your user name and password for login.

User Name:

Password:

☐ Remember me next time.

[Log In](#)

[Register](#)
[Additional Help](#)