**AIM:Design Web Applications using Client Side Session Management.**

**WAP to implement Client side state management techniques and Server side state management techniques on the form design attached with the assignment.**

A) **SESSION MANAGEMENT:**

**SOURCE CODE:**

**SM.aspx:**

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="SM.aspx.cs" Inherits="SM" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
     <div>
      Name: <asp:TextBox ID="name" runat="server"></asp:TextBox>
      <br />
      Age: <asp:TextBox ID="age" runat="server"></asp:TextBox>
      <br />
      Branch: <asp:TextBox ID="branch" runat="server"></asp:TextBox>
      <br />
      <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Submit" />
    </div>
    </form>
</body>
</html>
```

**SM.aspx.cs:**

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

public partial class SM : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
```

```
        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            Session["name"] = name.Text;
            Session["age"] = age.Text;
            Session["branch"] = branch.Text;
            Response.Redirect("SM2.aspx");

        }

}
```

**SM2.aspx:**

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="SM2.aspx.cs" Inherits="SM2" %>
<!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 runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
    <div>
        Name: <asp:Label ID="name" runat="server"></asp:Label>
        <br />
        Age: <asp:Label ID="age" runat="server"></asp:Label>
        <br />
        Branch: <asp:Label ID="branch" runat="server"></asp:Label>
        <br />
    </div>
    </form>
</body>
</html>
```
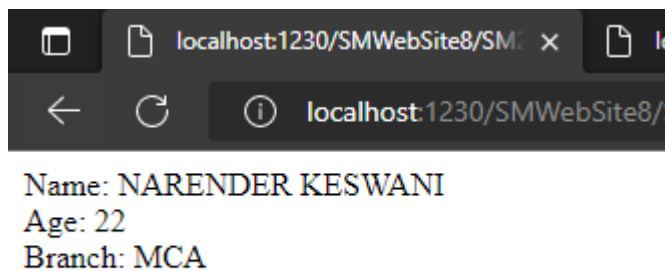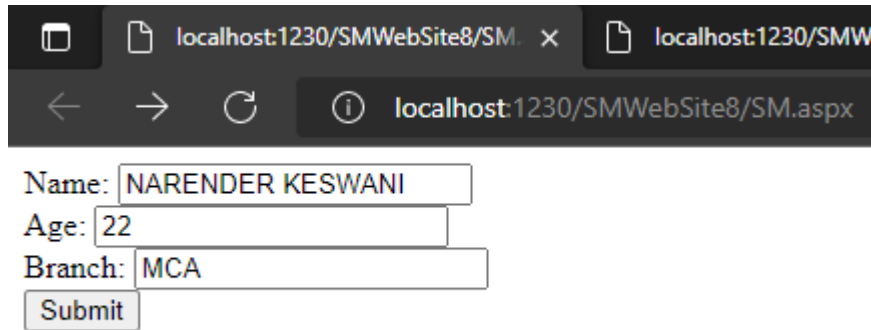
**SM2.aspx.cs:**

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

public partial class SM2 : System.Web.UI.Page
{
```

```
protected void Page_Load(object sender, EventArgs e)
{
    if (Session["name"] != null)
    {
        name.Text = Session["name"].ToString();
    }
    if (Session["age"] != null)
    {
        age.Text = Session["age"].ToString();
    }
    if (Session["branch"] != null)
    {
        branch.Text = Session["branch"].ToString();
    }

}
}
```

**OUTPUT:**

**B) COOKIE:**

**SOURCE CODE:**

**Cookie.aspx:**

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

<!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 runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
   <div>
     Name: <asp:TextBox ID="name" runat="server"></asp:TextBox>
     <br />
     Age: <asp:TextBox ID="age" runat="server"></asp:TextBox>
     <br />
     Branch: <asp:TextBox ID="branch" runat="server"></asp:TextBox>
     <br />
     <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Submit" />
   </div>
   </form>
</body>
</html>
```

**Cookie.aspx.cs:**

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

public partial class Cookie : System.Web.UI.Page
{
  protected void Page_Load(object sender, EventArgs e)
  {
```

```
    }

    protected void Button1_Click(object sender, EventArgs e)
    {
      HttpCookie userInfo = new HttpCookie("userInfo");
      userInfo["name"] = name.Text;
      userInfo["age"] = age.Text;
      userInfo["branch"] = branch.Text;
      Response.Cookies.Add(userInfo);
      Response.Redirect("C2.aspx");
    }


}
```

**C2.aspx:**
```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="C2.aspx.cs" Inherits="C2" %>

<!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 runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
  <div>
    Name: <asp:Label ID="name" runat="server"></asp:Label>
    <br />
    Age: <asp:Label ID="age" runat="server"></asp:Label>
    <br />
    Branch: <asp:Label ID="branch" runat="server"></asp:Label>
    <br />
  </div>
  </form>
</body>
</html>
```
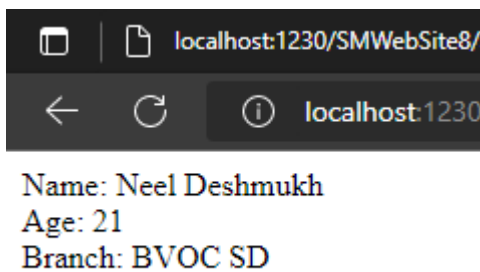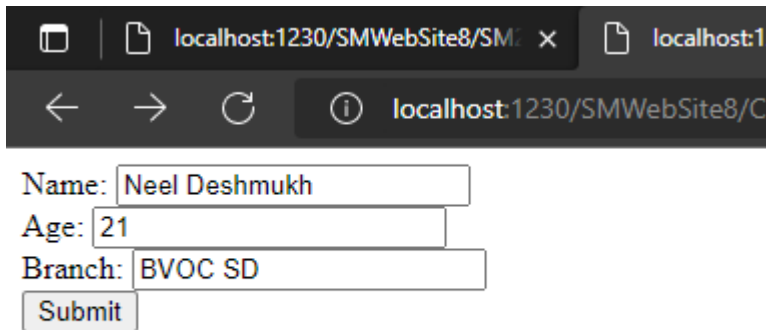
**C2.aspx.cs:**
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
```

```
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class C2 : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        HttpCookie reqCookies = Request.Cookies["userInfo"];
        if (reqCookies != null)
        {
            name.Text = reqCookies["name"].ToString();
            age.Text = reqCookies["age"].ToString();
            branch.Text = reqCookies["branch"].ToString();
        }
    }
}
```

**OUTPUT:**

**C)**    **QUERY STRINGS:**

**SOURCE CODE:**

**QueryString.aspx:**

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="QueryString.aspx.cs"
Inherits="QueryString" %>
<!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 runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
  <div>
    Name: <asp:TextBox ID="name" runat="server"></asp:TextBox>
    <br />
    Age: <asp:TextBox ID="age" runat="server"></asp:TextBox>
    <br />
    Branch: <asp:TextBox ID="branch" runat="server"></asp:TextBox>
    <br />
    <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Submit" />
  </div>
  </form>
</body>
</html>
```

**QueryString.aspx.cs:**

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

public partial class QueryString : System.Web.UI.Page
{
  protected void Page_Load(object sender, EventArgs e)
  {

  }
```

```
    protected void Button1_Click(object sender, EventArgs e)
    {
        Response.Redirect("QS2.aspx?name=" + name.Text + "&age=" + age.Text + "&branch=" +
branch.Text);
    }
}
```

**QS2.aspx:**
```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="QS2.aspx.cs" Inherits="QS2" %>

<!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 runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
  <div>
    Name: <asp:Label ID="name" runat="server"></asp:Label>
    <br />
    Age: <asp:Label ID="age" runat="server"></asp:Label>
    <br />
    Branch: <asp:Label ID="branch" runat="server"></asp:Label>
    <br />
  </div>
  </form>
</body>
</html>
```

**QS2.aspx.cs:**
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

public partial class QS2 : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        string names = Request.QueryString["name"];
        string ages = Request.QueryString["age"];
        string branchs = Request.QueryString["branch"];
```

```
            name.Text = names;
            age.Text = ages;
            branch.Text = branchs;
        }
    }
```

**OUTPUT:**



**D) ViewState:**

**SOURCE CODE:**

**ViewState.aspx:**

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
     <div>
        Name: <asp:TextBox ID="name" runat="server"></asp:TextBox>
        <br />
        Age: <asp:TextBox ID="age" runat="server"></asp:TextBox>
        <br />
        Branch: <asp:TextBox ID="branch" runat="server"></asp:TextBox>
        <br />
```

```
        <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Submit" />
        <asp:Button ID="Button2" runat="server" OnClick="Button2_Click" Text="Restore"/>
    </div>
    </form>
</body>
</html>
```

**ViewState.aspx.cs:**

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

public partial class ViewState : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        ViewState["name"] = name.Text;
        name.Text = "";
        ViewState["age"] = age.Text;
        age.Text = "";
        ViewState["branch"] = branch.Text;
        branch.Text = "";
    }

    protected void Button2_Click(object sender, EventArgs e)
    {
        name.Text = ViewState["name"].ToString();
        age.Text = ViewState["age"].ToString();
        branch.Text = ViewState["branch"].ToString();
    }
}
```
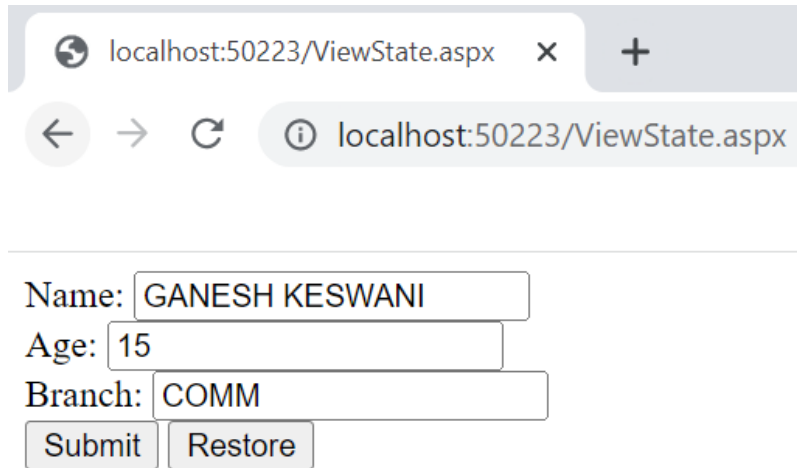
**OUTPUT:**

localhost:50223/ViewState.aspx    ✕    +

← → C    ⓘ localhost:50223/ViewState.aspx

Name: GANESH KESWANI

Age: 15

Branch: COMM

Submit   Restore

**E)**   **HiddenFields:**

**SOURCE CODE:**

**HF.aspx:**

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
     <div>
       Name: <asp:TextBox ID="name" runat="server"></asp:TextBox>
       <br />
       Age: <asp:TextBox ID="age" runat="server"></asp:TextBox>
       <br />
       Branch: <asp:TextBox ID="branch" runat="server"></asp:TextBox>
       <br />
       <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Submit" /> <br />
       <asp:HiddenField ID="HiddenField1" runat="server"></asp:HiddenField>
       <br />
       <asp:HiddenField ID="HiddenField2" runat="server"></asp:HiddenField>
       <br />
       <asp:HiddenField ID="HiddenField3" runat="server"></asp:HiddenField>
```

```
        <br />
         <asp:Label ID="Label1" runat="server"></asp:Label>
        <br />
        <asp:Label ID="Label2" runat="server"></asp:Label>
        <br />
        <asp:Label ID="Label3" runat="server"></asp:Label>
        <br />
    </div>
    </form>
</body>
</html>
```

**HF.aspx.cs:**

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

public partial class HF : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }

    protected void Button1_Click(object sender, EventArgs e)
    {

        HiddenField1.Value = name.Text;
        HiddenField2.Value = age.Text;
        HiddenField3.Value = branch.Text;

        Label1.Text = HiddenField1.Value.ToString();
        Label2.Text = HiddenField2.Value.ToString();
        Label3.Text = HiddenField3.Value.ToString();

    }

}
```
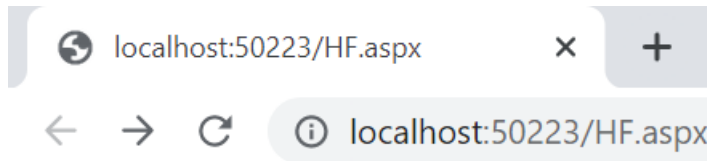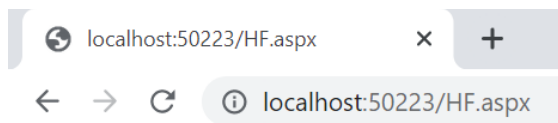
**OUTPUT:**

localhost:50223/HF.aspx     ×     +

←  →  C     ⓘ localhost:50223/HF.aspx

Name: NARENDER KESWANI
Age: 21
Branch: MCA
Submit

localhost:50223/HF.aspx     ×     +

←  →  C     ⓘ localhost:50223/HF.aspx

Name: NARENDER KESWANI
Age: 21
Branch: MCA
Submit


NARENDER KESWANI
21
MCA


**F) ApplicationState:**

**SOURCE CODE:**

**ApplicationState.aspx:**

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

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
```

```
<body>
  <form id="form1" runat="server">
   <div>
    Name: <asp:TextBox ID="name" runat="server"></asp:TextBox>
    <br />
    Age: <asp:TextBox ID="age" runat="server"></asp:TextBox>
    <br />
    Branch: <asp:TextBox ID="branch" runat="server"></asp:TextBox>
    <br />
    <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Submit" />
   </div>
  </form>
</body>
</html>
```

**ApplicationState.aspx.cs:**

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

public partial class ApplicationState : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void Button1_Click(object sender, EventArgs e)
    {

        Application["name"] = name.Text;
        Application["age"] = age.Text;
        Application["branch"] = branch.Text;
        Response.Redirect("AS2.aspx");
    }
}
```

**AS2.aspx:**

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="AS2.aspx.cs" Inherits="AS2" %>


<!DOCTYPE html>
```

```html
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
     <div>
    Name: <asp:Label ID="name" runat="server"></asp:Label>
    <br />
    Age: <asp:Label ID="age" runat="server"></asp:Label>
    <br />
    Branch: <asp:Label ID="branch" runat="server"></asp:Label>
    <br />
   </div>

   </form>
</body>
</html>
```
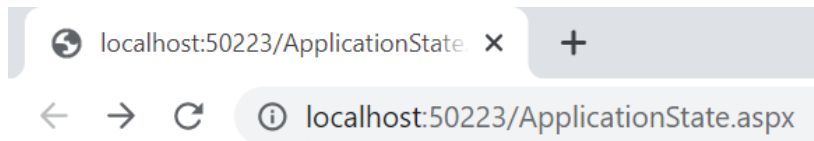
**AS2.aspx.cs:**

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

public partial class AS2 : System.Web.UI.Page
{
  protected void Page_Load(object sender, EventArgs e)
  {
    if (Application["name"] != null)
    {
      name.Text = Application["name"].ToString();
    }
    if (Application["age"] != null)
    {
      age.Text = Application["age"].ToString();
    }
    if (Application["branch"] != null)
```
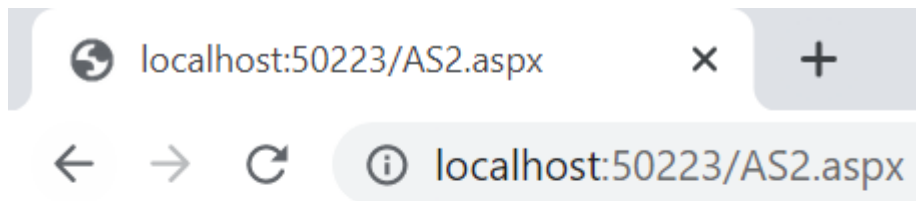
```
      {
         branch.Text = Application["branch"].ToString();
      }
   }
}
```

**OUTPUT:**





**CONCLUSION:**
From this practical, I have learned and implemented client & server-side session management in asp.net.