**12)** **Develop a web application in ASP.NET that showcases the use of**

**different state management techniques. The application should**

**include the following functionalities:**

**- Cookies:**

**a) Develop a page with a counter that increments each time the**

**page is loaded.**

**b) Use cookies to persistently store and retrieve the counter**

**value. Display the counter on the page.**

**- Application State:**

**a) Implement a feature that maintains a count of the total**

**number of visits to the application.**

**b) Use Application State to store and update the visit count.**

**Display the count on the web page**

**Cookies:**

**1)add->webform1:**

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

<!DOCTYPE html>

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

<head runat="server">

<title>Cookie Counter Page</title>

</head>

<body>

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

<div>

<h2>Cookie Counter</h2>

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

{

public partial class WebForm1 : System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

if (!IsPostBack)

{

int counter = GetCounterFromCookie();

counter++;

SetCounterInCookie(counter);

lblCounter.Text = "Counter: " + counter;

}

}

private int GetCounterFromCookie()

{

HttpCookie cookie = Request.Cookies["CounterCookie"];

return (cookie != null && int.TryParse(cookie.Value, out int counter)) ? counter : 0;

}

private void SetCounterInCookie(int counter)

{

HttpCookie cookie = new HttpCookie("CounterCookie", counter.ToString());

cookie.Expires = DateTime.Now.AddMonths(1);

Response.Cookies.Add(cookie);

}

}

}

**2)add->webform2:**

<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm2.aspx.cs" Inherits="cookiee.WebForm2" %>

<!DOCTYPE html>

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

<head runat="server">

<title>Cookie Counter Page</title>

</head>

<body>

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

<div>

<h2>Cookie Counter</h2>

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

</div>

</form>

</body>

</html>

**Webform2.aspx.cs:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.UI;

using System.Web.UI.WebControls;

namespace cookiee

{

public partial class WebForm2 : System.Web.UI.Page

{

protected void Page\_Load(object sender, EventArgs e)

{

if (!IsPostBack)

{

int visitCount = (int)Application["VisitCount"];

visitCount++;

Application["VisitCount"] = visitCount;

lblVisitCount.Text = "Total Visits: " + visitCount;

}

}

}

}

**3)Double Click on global.asax:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

using System.Web.Optimization;

using System.Web.Routing;

using System.Web.Security;

using System.Web.SessionState;

namespace cookiee

{

public class Global : HttpApplication

{

void Application\_Start(object sender, EventArgs e)

{

// Code that runs on application startup

//RouteConfig.RegisterRoutes(RouteTable.Routes);

//BundleConfig.RegisterBundles(BundleTable.Bundles);

Application["VisitCount"] = 0;

}

}

}