Pakistan Institute of Engineering and Applied Sciences

Report

Lab-02: Demonstration of ASP.NET Page Processing

Submitted By: M. Hammad Tahir

Registration No: 03-3-1-033-2022

Course Name: Internet application development

Instructor: Dr. Irfan Hameed

Problem 1) Implement a simple program that uses viewstate to store and retrieve counter value. Whenever Increment button is clicked counter should be incremented by 2? Write code behind below?

Default.aspx:

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Default.aspx.vb"
Inherits="_Default" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <input type="text" id="txtName" runat="server" value="0" />
            <input type="submit" id="incr" name="increment" value="increment"
runat="server" />
        </div>
    </form>
</body>
</html>
```

Default.aspx.vb:

```
Partial Class _Default
    Inherits System.Web.UI.Page

    Private Sub incrementer(ByVal sender As Object, ByVal e As EventArgs) Handles
incr.ServerClick
        Dim Contents As String
        If Me.IsPostBack = True Then
            Contents = CType(Me.ViewState("Text"), String)
        Else
            Contents = "0"
        End If


        txtName.Value = CInt(Contents) + 2
        Contents = txtName.Value
        Me.ViewState("Text") = Contents


    End Sub

End Class
```

Output:
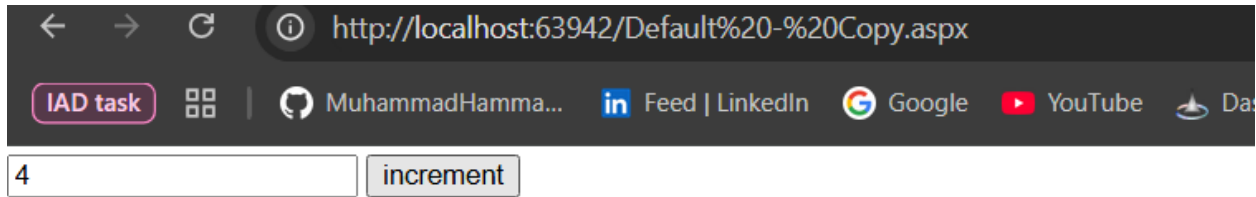
If this page is accessed using different browser windows, or from more than one clients, whether the counter value would be same, or it would be different at different time instants? Give reason for the observation?

Answer: No, the counter value would be different at different time instances because the view state is page-specific and can only be used on that page, when a new request is made from a new client a separate page object will be loaded on the server, that why for every new object there will be separate view-state that can be different.

Problem 2) Extend the program implemented above and make the View State secure? Refer to the textbook for the technique of securing?

Default.aspx:

```
</html><%@ Page Language="VB" AutoEventWireup="false" CodeFile="Default.aspx.vb"
Inherits="_Default" ViewStateEncryptionMode="Always"%>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <input type="text" id="txtName" runat="server" value="0" />
            <input type="submit" id="incr" name="increment" value="increment"
runat="server" />
        </div>
    </form>
</body>
</html>
```
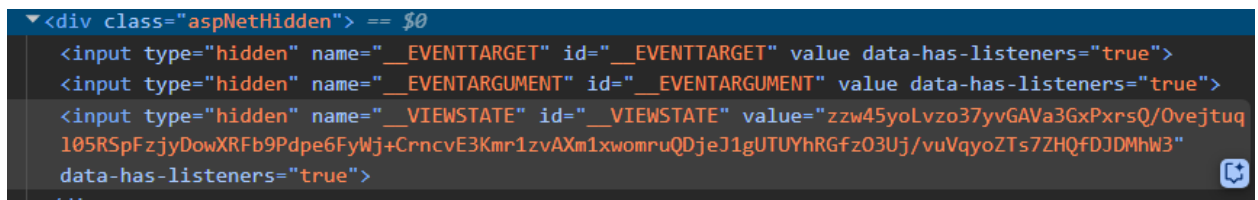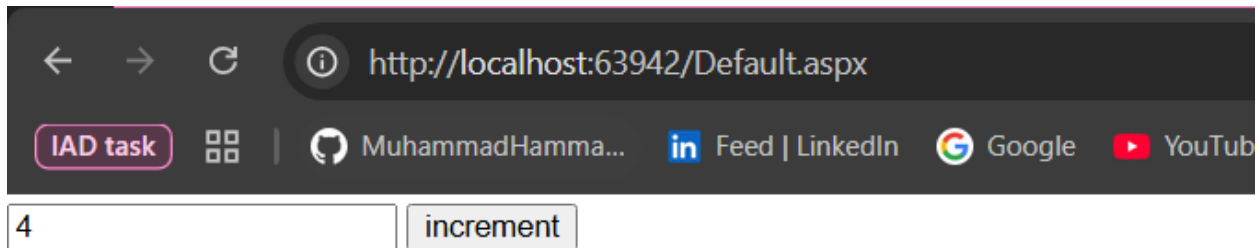
Default.aspx.vb:

```vb
Partial Class _Default
    Inherits System.Web.UI.Page

    Private Sub incrementer(ByVal sender As Object, ByVal e As EventArgs) Handles
incr.ServerClick
        Dim Contents As String
        If Me.IsPostBack = True Then
            Contents = CType(Me.ViewState("Text"), String)
        Else
            Contents = "0"
        End If


        txtName.Value = CInt(Contents) + 2
        Contents = txtName.Value
        Me.ViewState("Text") = Contents


    End Sub

End Class
```

Output:

Folder structure:
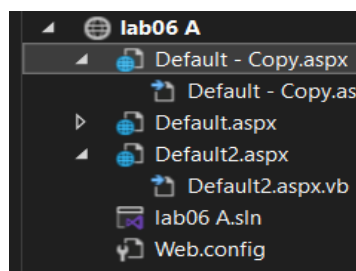
Problem 3) Consider the following definition of customer class. Develop a web form that stores three objects of customer in viewstate. Implement the code for retrieving customer objects also?

```vb
Public Class Customer

    private _firstName As String
    Public Property FirstName() As String
        Get
            Return _firstName
        End Get
        Set(ByVal Value As String)
            _firstName = Value
        End Set
    End Property

    private _lastName As String
    Public Property LastName() As String
        Get
            Return _lastName
        End Get
        Set(ByVal Value As String)
            _lastName = Value
        End Set
    End Property

    Public Sub New(ByVal firstName As String, ByVal lastName As String)
        Me.FirstName = firstName
        Me.LastName = lastName
    End Sub
End Class
```

Default.aspx:

```vb
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Default2.aspx.vb"
Inherits="Default2" %>

<!DOCTYPE html>

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

Default.aspx.vb:

```vb
Partial Class Default2
    Inherits System.Web.UI.Page

    <Serializable()>
```

```vbnet
Public Class Customer
    Private _firstName As String
    Public Property FirstName() As String
        Get
            Return _firstName
        End Get
        Set(ByVal value As String)
            _firstName = value
        End Set
    End Property

    Private _lastName As String
    Public Property LastName() As String
        Get
            Return _lastName
        End Get
        Set(ByVal value As String)
            _lastName = value
        End Set
    End Property

    Public Sub New(ByVal firstName As String, ByVal lastName As String)
        Me.FirstName = firstName
        Me.LastName = lastName
    End Sub
End Class

Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs) Handles Me.Load
    Dim customer1 As New Customer("ali", "raza")
    Dim customer2 As New Customer("Hammad", "Tahir")
    Dim customer3 As New Customer("ali", "Ahmad")

    ViewState("Customer1") = customer1
    ViewState("Customer2") = customer2
    ViewState("Customer3") = customer3

    Dim customer1_retrived As Customer = CType(ViewState("Customer1"), Customer)
    Dim customer2_retrived As Customer = CType(ViewState("Customer2"), Customer)
    Dim customer3_retrived As Customer = CType(ViewState("Customer3"), Customer)

    Response.Write("Customer1: " & customer1_retrived.FirstName & " " & customer1_retrived.LastName & "<br />")
    Response.Write("Customer2: " & customer2_retrived.FirstName & " " & customer2_retrived.LastName & "<br />")
    Response.Write("Customer3: " & customer3_retrived.FirstName & " " & customer3_retrived.LastName & "<br />")

End Sub
End Class
```
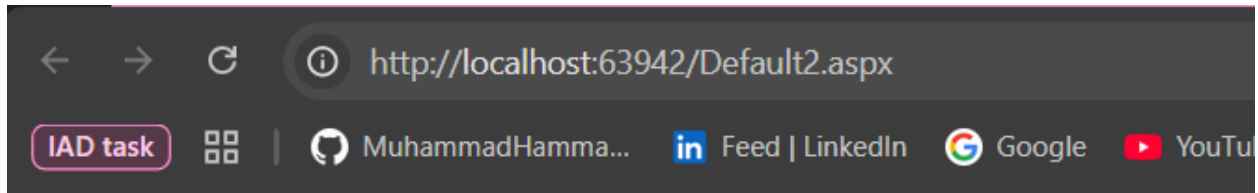
Output:

http://localhost:63942/Default2.aspx

IAD task | MuhammadHamma...   Feed | LinkedIn   Google   YouTu

Customer1: ali raza

Customer2: Hammad Tahir

Customer3: ali Ahmad