# *Web Programming IV (420-C40-HR)*

# *Lab 7 – State Management*

Date assigned: Thursday, February 16, 2017

Date due: **Thursday, February 16, 2017, 4:00 p.m.**

**Learning Objectives**

Upon successful completion of this lab exercise, the student will be able to:

* Work with Sessions, ViewStates and Cookies

Lab Set-Up

1. Create a solution called **YourUserName\_C40\_L07** in your H:\420-C40\Labs folder. Make sure to keep the checkbox selected that creates a folder for the solution (it should already be checked) and is not stored using Azure.
2. Remember to pretty up your pages with titles, headers and CSS.

To do:

**Part A – Sessions**

1. Create an aspx form called sessionCounter.aspx that has a label and two buttons.
2. Use the Page\_Load method to load the value of the session variables “ClickCounter” and “DataTimeLast” to a page level variable. If the values do not exist initialize the page level variable to 0 and the DateTimeLast to now
3. Use the Page\_PreRender method to save the session variables “ClickCounter” to whatever the current value of the page level variable of the counter and the “DateTimeLast” variable to the current value of the appropriate page level variable.
4. Add values of the two buttons of Count 1 and Count 2 respectively. When Count1 is selected, increment the click counter by 1. If Count 2 is selected, increment the click counter by 2. In both cases update the date time variable to the current time.
5. When either button is pressed, update the label to display the click counter and the time of the last click like: “You clicked the button x times. The last time on dd-MM-yyyy, hh:mm:ss

**Part B – Cookies**

1. Create a new empty aspx page called cookieCounter.aspx.
2. Repeat the above exercise but save the values in cookies that expire in 14 days. Add a note in comments on why pre-render does not work in this situation.

**Part C – View State**

1. Create a new empty aspx page called viewstateCounter.aspx.
2. Repeat the above exercise but save the values in viewstate variables.

**Part D – Nag Counter**

1. Create a nag counter page called nag.aspx which has a text box for the name and email address (set both to complete automatically) and a button with the value Register.
2. Each time the user visits the site, check to see there is a nag counter cookie. If there is, increment the counter by one. If the counter is evenly divisible by 5 display a message in a label that indicates that the user must register.
3. After the user fills in the text boxes, delete the nag counter cookie and create two more cookies containing the name and email address. After registering, display the user’s name and email address whenever they visit the site and turn off the nag counter.

**Part E – Undo It**

1. Create an asp web form page called undo.aspx. The form has three fields for Name, Phone Number and City. It also has two buttons, one a regular button labelled Send and the other a link button labelled Undo. When the Send button is pressed, save the value of each of the fields in a separate viewstate variable.
2. When the Undo link button is pressed, reset the values of the field to the original values using the values currently in the viewstate.
3. Create a class called ThePerson with 2 constructors (blank and complete) and three attributes for Name, Phone and City. Make the class serializable by decorating it (putting [Serializable] before the class definition).
4. Create a new asp web form called undo2.aspx (I would do a Save As from undo.aspx as the forms are identical). This form is identical to the previous one, except that, in this case, store the values in an object and save the object in the ViewState. When Undo is pressed retrieve the values from the object stored in the viewstate.

**To submit**

When you have completed the lab exercise, create a single zip file called YourUserName\_C40\_L07.zip. The zip file must contain all of the parts of the lab in the folder you created at the beginning of the lab. Copy the file to the Moodle page for the course.