

## LAB Assignment #1 – Using .NET Delegates and .NET Controls

Student: \_\_\_\_\_

Due Date: Monday, May 22, 2017.

Purpose: The purpose of this Lab assignment is to:

- Practice the use of delegates in event-handling
- Practice the use of Advanced .NET Controls
- Develop complex GUI apps using properties, events, and methods of UI controls

References: Read the course's text and notes. This material provides the necessary information you need to complete the exercises.

Instructions: Be sure to read the following general instructions carefully:

- This lab should be completed **individually** by all the students.
- The project **must be named** using the first name and last name. For John Smith the project name should be **JohnSmithM15\_Lab1\_Ex1** for the first exercise, **JohnSmithM15\_Lab1\_Ex2** for the second exercise, and so on.
- You will have to demonstrate your solution in a scheduled lab session. Submit the zipped projects through the **dropbox** link on **eCentennial**.

**Exercise #1:**

Write a C# Windows application that **dynamically** creates the GUI below. The event handling for the Submit button should be also dynamically implemented.

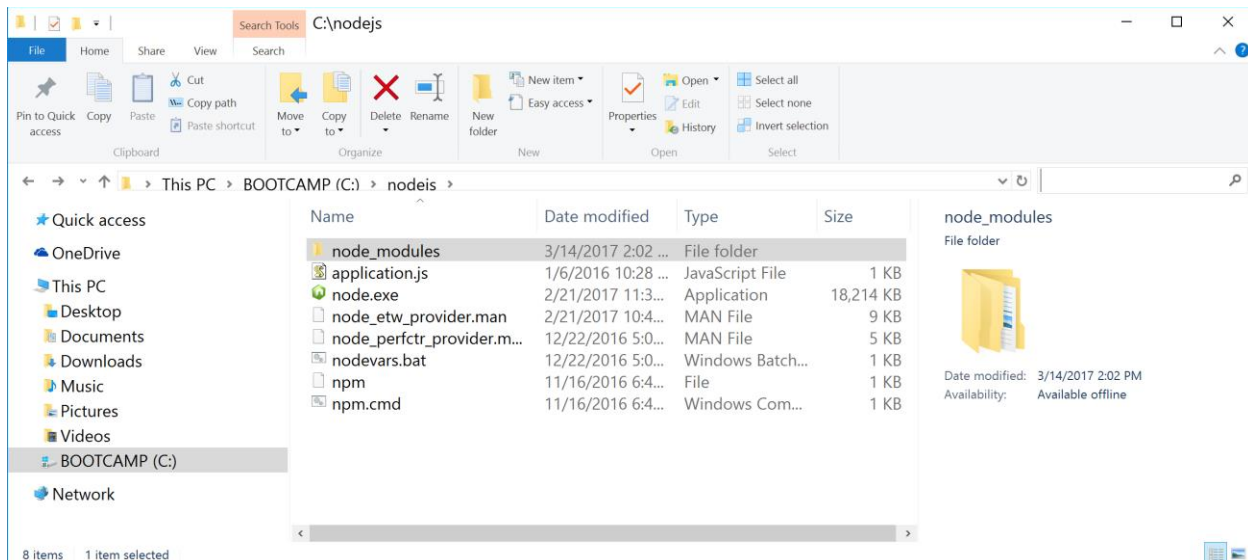
The screenshot shows a Windows application window titled "Dynamic Form". Inside the window, there are four text input fields arranged vertically, each with a label to its left. The first field is labeled "Student Name" and contains the text "john smith". The second field is labeled "Program" and contains the text "SET". The third field is labeled "Email" and contains the text "jsmith@gmail.com". The fourth field is labeled "Semester" and contains the text "SEM4". Below these four fields is a single button labeled "Submit". The window has a standard Windows title bar with minimize, maximize, and close buttons.

Your program should display your name, program name, email, and semester in text box controls whenever user clicks on “Submit” button.

(2 marks)

### Exercise # 2:

Your task is to design and develop a Windows application that can be used as a light version of Windows 10 File Explorer. You will have to design the GUI using Visual Studio 2015. No need to generate it dynamically. Include the following .NET controls: TabControl, SplitContainer, ToolStrip, StatusStrip, MenuStrip, TreeView, ListView as shown below.



Allow the user to navigate through Directories and view the subdirectories and files of a selected directory. Allow the user to **copy**, **rename**, and **delete** the selected file. Allow the user to change the view of the **ListView** control to **Details**, **List**, and **SmallIcons**. Use the properties and methods of **DirectoryInfo** and **FileInfo** objects to implement the above operations. You may use the code from SimpleExplorer example for showing the directory structure of your system using a **TreeView** and a **ListView**.

(5 marks)

### Exercise #3:

In this exercise you will develop a simple word processor application named **SimpleWord**. In a MenuStrip control provide the necessary menu items to open RTF or a plain text documents, and exit the application. In ToolStrip controls, provide all the toolstrip items that allow the user to change the *font*, *font size*, **cut**, *copy*, and *paste*, change the *color* of the text, etc. Use the Copy method of RichTextBox control to copy the text in clipboard. Use the Paste property of RichTextBox control to paste the selected text. You may also use the SelectedText property which returns the selected text. Check for more properties and methods of RichTextBox control here: <http://msdn.microsoft.com/en-us/library/system.windows.forms.richtextbox.aspx>.



(3 marks)

**Evaluation:**

Evaluation item (for each exercise)	Weight
<b>Functionality</b> (all required operations as described in exercises):	<b>85%</b>
<b>Friendliness</b> (Alignment, Fonts, Colors, etc.)	<b>15%</b>
<b>Total</b>	<b>100%</b>