

## CSE1322L - Lab 12

### **Concept Summary:**

Using Java-Fx and / or Windows Forms

This week we are moving on from text-based programs to programs that have a GUI (Graphical User Interface). What does this mean? A GUI is what is referred to as the *front-end* of a program i.e. it is what you see and interact with when you use a program on your computer that is not text-  
*back-end* which is a regular code text file that contains all the methods that each detail how any of the GUI objects should act and variables that store any







The function `variableName.setText()` can be used in an event handler for a button action to change the value in a label variable associated with a GUI label.

### **How to link an Event Handler to its GUI Button?**

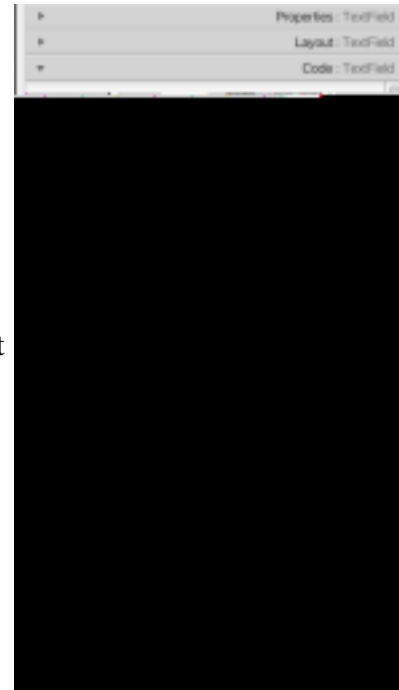
When visiting the Scene Builder and clicking to edit a button,

handlers that you have already made to their respective buttons. Please refer to the figure on the right.

### **Final Comments**

When making a JavaFX project in IntelliJ, the GUI component

this is where you will find the Scene Builder. It will appear as text at first, please click the Scene Builder button on the bottom.



*Please go to page 9 to start your first GUI Lab Exercise*

## **C# - Creating an Example GUI program**

### **Creating a Window**

The first step to creating a GUI application is to use the correct project type. From within Visual work with a GUI, let us get into the specifics on how to make a window.

**NOTE:** After the project finishes being made, the first page that should appear is the one with the window already made. You should see a blank white window in the center panel instead of the code you would normally find there when making a console application.

row to see the

### **NOTE**

of code inside the Main method.

Now you should see the code behind the design of the window. However, do NOT write any code here yet.

We have already made our window, congratulations! (Feel free to change the look and size of

### **Creating Buttons**

We can make many types of interactable objects in our window, but we will keep it simple and use a clickable button.

- 1.
2. Please find the toolbox pop-out menu on the left side bar. Click on it to pop-out the menu.
- 3.
4. Move the mouse cursor back over the blank white page and you should notice the
5. Clicking on the window will create a default button with a default size on that window. You may also click and drag to create a button with the size of the area your cursor moved over. Make sure to add the remaining buttons.

### **NOTE**

the bottom of the code.



*Please go to page 9 to start your first GUI Lab Exercise*



## **FIRST GUI LAB Exercise (Common for C# and Java)**

**NOTE (for Java):**

**1.**

## **Submission Guidelines:**

Please upload the following files onto Gradescope:

### **Java**

Controller.java

Main.java

Calc.java

Lab12.fxml

### **C#**

Form1.cs,

Form1.Designer.cs,

Program.cs

CalculatorClass (that which implements the interface)

Please follow the posted submission guidelines here:

<https://ccse.kennesaw.edu/fye/submissionguidelines.php>

Ensure you submit before the deadline listed on the lab schedule for CSE1322L here:

<https://ccse.kennesaw.edu/fye/courseschedules.php>