

# Computer Science 1 : Java Programming

Dr. David Cline

## Program 8: First GUI

Throughout the semester, we have been working on command line applications. While the command line can be a powerful form of interacting with the computer, most modern applications have a graphical user interface, or GUI. This program will give you some initial experience making GUI applications with Swing.

### Things you will learn

- How to set up a simple GUI based on JFrame
- Setting up listeners and responding to events

### Directions

1. Write an original GUI application in Java using Swing. The program can be a simple game, or an application that demonstrates some of the capabilities of Swing, for example.
2. The application must do something non-trivial that is controlled by GUI components such as buttons, text boxes, drop-down boxes, etc. For example, it might draw different things, or change colors, based on button presses.
3. The GUI elements should be layed out reasonably using layout managers.
4. At least one element in your GUI program besides the title bar must include your name.
5. As always, make sure the proper block comment is at the top of your main file with your name, and use proper indentation and other code style guidelines.
6. Once your program is working, pass it off directly to the instructor or TA. Also, turn in your code to D2L.

### Suggestions

- Get the skeleton of your GUI working first. First get the buttons drawing properly, then go on to listen to and respond to events.
- Initially, hook up the event listeners so that they print something to the console when a button is pressed. That way you can know that your code is getting events.
- If your program will draw shapes, make a subclass of JPanel called "DrawPanel" or something like that to draw the objects and your name. Override the "paintComponent" method of this class.

## Point Breakdown (20 points total)

Compiles and runs on command line	Required for a non-zero score
Proper indentation, spacing, header comment	2 pts
Shows your name on a GUI element	3 pts
Quits when you press the x on the window	3 pts
Has reasonable layout	2 pts
Multiple elements controlled by GUI components	10 pts