

# Assignment 1c

COMP 2526 Object-Oriented Programming with Java

Due on Monday February 1st at 11:59 PM

## 1 Purpose

Continue to practice basic Java skills. Explore the WHY and HOW in object oriented programming. Compare and contrast the maintainability of good and bad object oriented designs.

## 2 Description

For the third and final iteration of assignment 1, you will add a graphical user interface to both 1a and 1b. A basic GUI class is provided that implements the `UserInterface` interface. We have also provided classes for each of 1a and 1b:

1. Unzip the archive folder and copy its contents to your Eclipse workspace
2. In Eclipse, choose File > New > Java Project
3. For Project Name, use the name of the archive folder `COMP_2526_A1c`
4. Eclipse will detect the existing project in the workspace and you can click Finish
5. Note how we have divided the code from 1a and 1b into separate packages.

## 3 Requirements

This assignment should demonstrate how expanding and maintaining a software system can be easier with a well planned design. Think about the effort required to incorporate a GUI into both 1a and 1b. You must adhere to these rules:

### Assignment 1b changes:

Change the Main class's `main()` method to work with EITHER the console or a window. Users start the program giving a parameter (at the console prompt) of either "console" or "gui" (case doesn't matter). If neither is provided the program ends. The prompt is caught in the `main()` parameter "args". The condition statement is provided for you, you only need to enter the code for either case (hint: this is 2 lines of code, 1 for each case).

### Assignment 1a changes:

Use the Main class provided. You must make the GUI portion work for 1a. You may use the GUI class as is, or you can incorporate it into the Main class provided. You CANNOT make or use any other classes (i.e. all the classes used in 1b are NOT ALLOWED). You do NOT need to keep the console portion working. You can change any of the code in any method and add any methods.

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## **GUI:**

We have provided a prototype graphical user interface which is crying out for improvement. This is an excellent opportunity for you to apply what you have learned about layouts, textboxes, etc., in COMP 1510 to make the GUI more attractive and easy to use. Keep it simple, and have fun!

## **4 Marking Guidelines**

70% A1a GUI added

10% A1b GUI added

20% Comments and style (follow your lab instructor's guidelines)

Good luck!