SWEN 601 HOMEWORK

Introduction to Java

The goal of this assignment is to get you started programming in Java using IntelliJ IDEA, Git, and GitHub. Please refer to your notes and the lecture slides if you get stuck.

If you have not done so already you will need to:

- 1. Sign up for a GitHub account.
- 2. Install Git on your computer.
- 3. Install IntelliJ IDEA on your computer.

GitHub classroom is a platform that is integrated into GitHub and make managing class assignments easier (at least from the perspective of the instructor and staff). Your instructor and Course Assistant will have access to your GitHub repository and will be able to use it to provide you with starter code, verify your commit history, download releases, and so on.

- 1. Your instructor will provide you with a link to a GitHub classroom invitation. When you open the link in a browser, you will be prompted to accept the invitation to this assignment. Upon accepting the invitation, a GitHub repository will be created for you. This may take a few minutes.
- Open a terminal window and clone the empty repository to your computer. Remember that the repository will be empty, and so Git will print a warning message.
- 3. Use IntelliJ to create a new Java Project in the empty directory. Remember, you will need to browse to the location where you created the empty repository and create the project inside the same folder. IntelliJ will suggest naming the project the same as the folder name: this is fine.



Use the "..." button to browse to your repository.

- 4. Use the pop-up menu (right-click) to create a file in your src folder called "honesty.txt." Open the file in the editor and type the following: "I understand the SWEN-601 academic honesty policy and the penalties for violating the policy." and then type your name and email address. Save the file.
- 5. Use IntelliJ to create a new Java class named Carroll. Use the terminal in IntelliJ to push your class to GitHub.
- 6. Examine the quote below. It is a quote from *Alice in Wonderland* by Lewis Carroll. Modify your class so that, when executed, it prints the quote so that it appears exactly as it does in the image below, line-by-line (note that the 'd' in the word 'and' and the last '1' in the word 'Carroll' appear in the same column).

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"Begin at the beginning,", the King said, very gravely, "and go on till you come to the end: then stop."

-Lewis Carroll
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- a. You must use a separate call to System.out for each line in the text.
- b. Use the terminal to add/commit/push your code to GitHub at least twice.
- c. You will notice a problem trying to include double quote (") characters in your printed text. This is because Java expects double quotes to begin and end strings, and so gets confused when a double quote is in the middle of a string. To include a double quote in your printed output, you will need to *escape* it using a backslash (\) character. For example: "This string has a \"double quotes\" in the middle."
- 7. If you have not done so already, add comments to your class. Consider adding at least the following:
 - a. A multi-line comment at the top of the file including the name of the class, your name, your email, and a sentence or two describing the purpose of the assignment (i.e. to learn Java and practice with Git, etc.).
 - b. A multi-line comment before the main method describing what it does.
 - c. A single line comment at the very end of the file, e.g. // end of class Carroll

- 8. When you are sure that you have finished and have pushed your final code to GitHub from the terminal, open your repository in a browser. Notice that there is a tab just above your source code called "Releases." Click it and then the "Create a new Release" button.
 - a. Use "v1.0" as your tag.
 - b. Make sure that "master" is selected.
 - c. Type a meaningful name, e.g. "Homework 01 v1.0."
 - d. Type a description.
 - e. Click the "Publish Release" button.
- 9. Use the "Source code (.zip)" link to download your release. Submit this to the Homework 01 assignment on MyCourses.

If you need to make a second release (e.g. your first release contains an error), click on the "release" tab above your repository again and use the "Draft a new release" button in the top right. Name your tag something like v1.X (where X is a number).

Grading Rubric

Exceptional Performance 4	Competent Performance 3	Acceptable Performance 2	Developing Performance 1	Beginning Performance 0
All assignment instructions followed. Program runs as described.	A small number of minor problems, e.g. 1-2 instructions not followed, specifications not met, few commits, few comments, etc.	Several minor problems, e.g. several instructions not followed, specifications not met, few commits, few comments, etc.	Many minor or major problems, e.g. code does not compile or run, does not meet functionality requirements, etc.	Very little effort or no submission at all.
100%	88%	75%	50%	0%

Submission Requirements

You must submit the "Source code (.zip)" for a release from your GitHub repository before the assignment deadline. Late submissions are not accepted. If you attempt to submit to your instructor or the Course Assistant through email, your email will be deleted without a reply.