COMP232 Data Structures and Problem Solving	Spring 2024
Instructor: William Goble	Homework 0

All of the sample code and homework assignments for this section of COMP232 will be managed via git and GitHub. As a reminder, GitHub provides a cloud based version control system for software development. GitHub and git are used extensively in professional and open source software development. For our purposes in this class, you will use git and GitHub to retrieve sample code, assignment boilerplate, and submit and receive feedback on your work. In addition, by storing your code on GitHub you will always have a backup!

The Assignment

1. Open a web browser and go to https://github.com
    a. If you do not already, sign up for a GitHub account.
    b. After creating an account, GitHub will send you an email to verify it is real. Once you've done that, your GitHub account will be active.
    c. Navigate to the class Teams Channel and post the following information:
        i. A brief introduction about yourself, this could be a fun fact or something you are looking forward to this year. ii. Your GitHub username
2. On Moodle, under the How To section, you will see a link titled "Invitation Link for Sample Code". Follow this link and if not already, log into your GitHub account.
    a. Here you should see a message to accept an assignment. Once you accept the assignment, GitHub will provide you with a link that you can use to access the code repository for the example code to be used in the class.
    b. Click the green **Clone or download** button, and copy the web URL
    c. Open the Eclipse Icon
        i. Navigate to Window -> Show View -> Other -> Git -> Git Repositories
        ii. A Git Repositories view should appear below the Package Explorer
        iii. In the Git Repositories view, clink on **Clone a Git Repository and the repository to this view.** In the window that opens up, paste the URL copied above and your Git username and password. Click Next and Finish.
        iv. A Git Clone should appear in the Git Repositories window
        v. Right Click on the Git Repository and Select **Import Projects -> Import Existing Projects -> Finish** vi. At this point a Java project should now appear in the Package Explorer tab in the left part of the Eclipse window
        vii. Run Welcome.java which is inside the testPackage.
            1. You should see "Welcome to COMP232" displayed in your Eclipse console.

Question 1. (10 points) Create a new class that extends the SpaceAlien class and implements the ZapsWithSlime interface. Feel free to be creative, but a suggested minimum would be to add at least one field and also override the doGreeting() method in addition to implementing the ZapsWithSlime interface.

Question 2. (10 points) Write a few sentences in your own words describing the differences between the following three software concepts:

1. Overriding a method
2. Overloading a method
3. Implementing a method

It's fine to use sources for this question, but if you consult a source *you should cite it and also make sure to write your answer in your own words.*

N.B: When a question requires a written answer (as in Question 2 above), insert your answer into the homework assignment document. Meaning you should start typing your answer immediately after this paragraph. When you have finished the assignment, export the document as a PDF and save it in your GitHub repository, in the top-level folder called noncode-answers.

Answer: Overriding a method is when a subclass is made off of a method that is already defined in the superclass while overloading is doing multiple of the same method but with different parameters and finally implementing a method is actually creating the code and logic for a method and making it from the ground up.