AI224: OPERATING SYSTEMS

Lab 2

Description. This lab aims to introduce you to Java, an object-oriented programming language. You will learn the basic concepts of Java to then write and execute effective Java programs on GNU/Linux operating systems.

Task 1

In this first task, the instructor will introduce the Java software environment and Java programming language and discuss how to use them on GNU/Linux systems.

Task 2

In this second task, you're gonna write some Java code for the following problems. You can start with any of the problems (the rest is to be completed at home):

2.1. Write a Java code that allows a user to guess a value between 0 and 100. The user is given 10 tries. The program should display to the user a green "Congrats!" message when the user's input value hits the guessed value, and a red "You Lost. Goodbye" message when the user fails after 10 tries. Use loops in your code.

2.2. Write a Java code that creates a list of students (use `ArrayList` data structure). Each student is identified by first name, last name, and grade (e.g., A, B, ..., or F). The user of the program should be able to add as many students as they want. They can also remove students from the list when they want to.

2.3. Write a Java code that asks a user to input a string. The code processes the given string and decides whether the string is palindrome or not.

2.4. Write a Java code that asks a user to input a positive integer. The code processes the given integer and decides whether the integer is a spy number or not.

2.5. Write a Java code that creates a directory, named "Windows", in your Desktop's GNU/Linux directory.

2.6. Write a Java code that reboots your operating system after 5 seconds.