## Brendan Whitaker

## CSE 2221 Homework 1

## Professor Bucci

January 12th, 2017

- 1. "Going over the line" with respect to acceptable collaboration v. academic misconduct would be:
  - turning in an assignment from a previous offering of the course
  - writing up a solution when someone is providing explicit
  - writing up a solution when someone is providing explicit, specific advice for fixing your errors
  - accepting or downloading from any source any part of a solution to an assignment which could help in completing your assignment
  - giving to others or uploading to the internet any parts of a solution to your assignments
  - any of above transgressions with respect to all individuals or entities outside of your own team when working on an assignment permitting teamwork
- 2. Your final exam grade constitutes 30% of your course grade, and additionally, you must earn a passing grade on your final exam in order to pass the course.
- **3.** No, your homework grade will not be better if you look up and copy the answers because you will be caught for plagiarism and receive a zero on the assignment in addition to other, more serious repercussions.
- **4.** The two most important benefits of the Java language are that it is safe, and portable.
- **5.** An algorithm is a sequence of steps for solving a problem which is unambiguous, executable, and terminating.

**6.** The two main categories of errors to be encountered when programming are compile-time(syntax) errors, and run-time(logic) errors.

7.

- a. Compile-time error.
- **b.** Compile-time error.
- **c.** Run-time error.
- **d.** Run-time error.
- **e.** You cannot test a program for run-time errors when it has compile-time errors because by definition, run-time errors occur during the execution of the program, and the program cannot execute if it does not compile, which it won't if it has compile-time errors.
- 8. The print statement

$$System.out.println("39 + 3");$$

prints the literal text string "39 + 3" since it is enclosed in quotes. The print statement

$$System.out.println(39 + 3);$$

computes the quantity

$$39 + 3 = 40$$

and prints "40" since the input is not enclosed in quotes and is interpreted mathematically. The print statement

$$System.out.println("39" + 3);$$

prints the literal text string "39" since it is enclosed in quotes, and then computes

$$+3 = 3$$

and also prints the solution of this expression, and thus prints "393".

## **Additional Question:**

API - Application Program Interface. A set of routines, protocols, and tools for building software applications.

- CPU Central Processing Unit. The circuitry within a computer that executes the instructions of a computer program by performing the basic arithmetic and logic operations specified by the instructions.
- IBM International Business Machines. An American multinational technology company out of New York which had a pivotal role in the infancy of the digital age.
- IDE Integrated Development Environment. A comprehensive software application designed for programming typically containing a source code editor, build automation tools, and a debugger.
- JDK Java Development Kit. A software development kit aimed at Java developers which is an implementation of some version of the Java platform.
- JVM Java Virtual Machine. An abstract computing device that enables computers to run a Java program.
- GUI Graphical User Interface. A user interface which allows a user to interact with electronic devices through graphical icons and visual indicators.
- LAN Local Area Network. An interconnected computer network with a limited area (e.g. residence network).
- MAC Media Access Control. A computer network sublayer between the logical link control and the physical layer.
- RSS Rich Site Summary. A family of web feed formats used to publish frequently updated online information.
  - UUT Unit Under Test. A manufactured product undergoing testing.
- $\bullet~$  XML Extensible Markup Language. A common markup language used for encoding a set of rules which is both human and machine-readable.