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Homework 1

30 August 2021

1) Completed
2) In CSE 2221, “going over the line” means pass off someone else work as your own. This is plagiarism and is a direct violation of the academic policies at OSU. Collaboration is encouraged in the class as sharing ideas and finding new solutions together are important for growth but copying and not crediting the work does more harm than good for the student.
3) The homework grade will not be better if copied homework is submitted rather than my own answers.
4) The Java Language has the Java Virtual Machine, meaning that it is very portable. A code written in one PC can be written anywhere else, which is important when sending or transferring code to someone else. Another advantage is that it is a very secure language, and when the programmer programs something that will decrease the security, Java will let them know.
5) An algorithm is a set of instructions that are unambiguous meaning that they are very clear, executable(able to run), and terminating(being able to stop). A computer can’t do any guess work, so it has to be clear and the computer has to be able to run it or the algorithm won’t make a difference. If the computer is not able to stop the algorithm, it is not usable at all.

6) The two main categories are compile-time errors and run-time errors. Compile-time errors happen when the compiler catches errors in the program and is not able to convert the source code. The compiler will output the error, but a run-time error is when the compiler can run it, but the output is wrong. This means that the programmer did not write it correctly and must change it even though the code can be compiled.

7) Exercises

    a. Compile-time error

    b. Compile-time

    c. Compile-time

    d. Run-time

    e. The program won't be executed if it has compile-time errors. You won't know if the output is wrong because there is no output to assess.

8) The first print line prints out 39 + 3, this print statement prints out the string "39+3" and does not evaluate it as it is a string, not numerical values. The second statement prints out 42 as it evaluates 39+3 and prints the result out because they are numerical values and not strings. The third line prints out 393 because it adds the number three to the end of the string, in this the string is "39" and the program adds "3" to the end of the string and the result becomes "393".