

CS 4308 – Concepts of Programming Languages - Spring 2021

Assignment 1

The goal of this assignment is to provide a general introduction to the evaluation of programming languages and simple grammar concepts. Include the questions/problems in your answers.

1. Compiling and running programs on the command line.
 - a. Write a program in Java and an equivalent program in C++, that computes the area of a trapezoid. Describe the input and output of the program. Do not use hard-coded input values. The source code must be well structured and organized with appropriate comments. Include the documentation in the report (see 'submission_report.pdf').
 - b. Open a command line window and compile the Java program with the 'javac' compiler.
 - c. Verify that you have a compiled program using the 'dir' command (on Windows).
 - d. Run the compiled program using the 'java' virtual machine.
 - e. Compile and link the C++ program using the GNU C++ compiler.
 - f. Verify that you have an executable file of the program.
 - g. Execute the executable program.
2. Investigate the general principles and goals of a system programming language. Provide two or three examples of system programming languages.
3. Solve Problem Set #3 - Page 157 (163) from the Textbook
4. Solve Problem Set #7d - Page 163 from the Textbook.

Submit your assignment in a report format, see 'submission_report.pdf' and 'Rubrics_for_grading.pdf'.