Computer Assignment 3

Deadline: Mar 1, 2024, 11:59 PM

Winter 2024

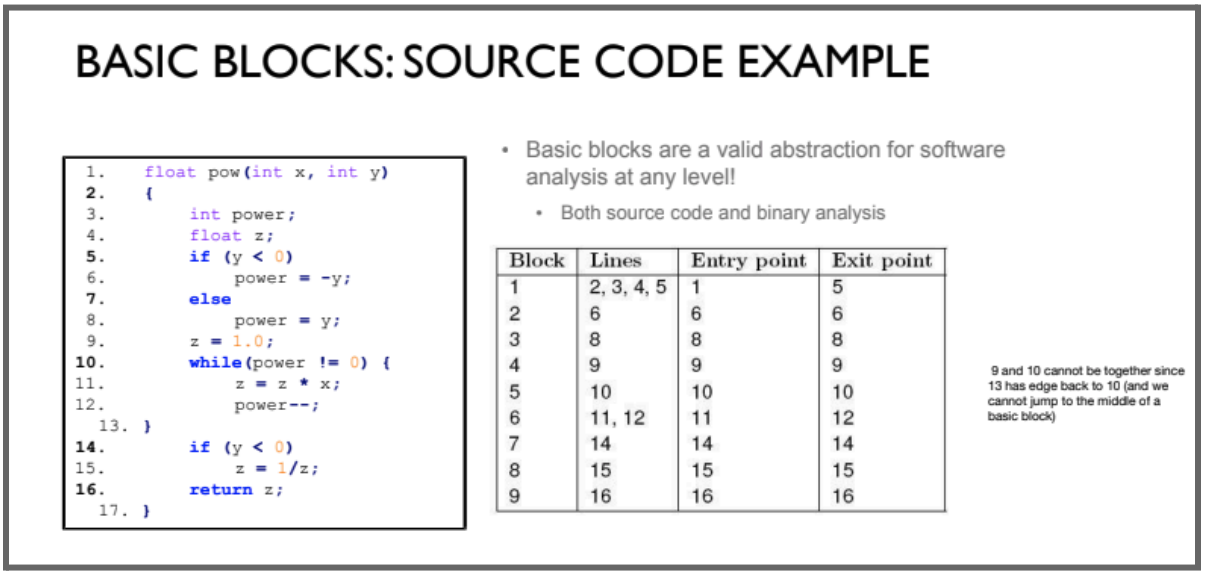
(Upload it to Gradescope.)

Project Description

This assignment focuses on learning the basics of static binary analysis tools. Specifically, we build a simple Python-based static analysis tool.

The objective of this assignment is to write a Python program that can parse an assembly or C++ program (your choice) and create the control-flow graph of the program. We have provided two simple programs here: (link). Follow these instructions to create the control flow:

1. Create a Jupyter notebook and write a Python program that takes a C++ or an assembly and prints a table like the one shown in the lecture during the class (see below).



2. Note that you only need to create the table for the MAIN function. Ignore other functions added by the compiler if you are using an assembly version.

3. Repeat this process for the second program.

What to submit:

Submit your notebook in PDF format. Your PDF file should show your well-commented code first and then the table for each program. Add a description at the end, briefly describing your algorithm.

Good luck!