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Assignment 1.1

My implementation of Assignment 1.1 was written and run in python. It works by taking a whitelist of the class of builtins in python, so that programs run within the sandbox cannot do potentially dangerous operations such as exec, eval, open, compile, import, or others. Any computational program that only uses the allowed builtins can be run in my sandbox.

To run my code, the command is "python sandbox.py [testprogram.py]", where testprogram.py is any program such as the supplied "fibonacci.py" or "countdown.py".

My sandbox is Turing Complete, as it can run another instance of the original sandbox from inside, along with the third argument, which is the test program to be executed. However, in order for this implementation to work, I needed to use one of the exec or open commands when in the inner sandbox. This does not work in the current implementation since the necessary commands are not found in the whitelist.

If the sandbox-within-a-sandbox implementation was working, it would be invoked as follows: "python sandbox.py sandbox2.py [testprogram.py]".