https://github.com/Justinvalcarcel/CS9163

Sandbox uses a blacklist. File handling, imports and access to built-ins are blocked. Sandbox failed to print its example files. Examples and test files run fine on their own printing out the values for both the Fibonacci numbers and powers of 2. Sandbox fails to print anything from any file.

To test if sandbox was working, the following was done:

A bad implementation of the Fibonacci function was written in which redundant recursive functions are called. The parameter '9' was entered to test if the program will actually run and print something. Nothing was printed. '35' was inputted as a parameter next. Due to computing constraints, this will take about 6 seconds to compute on my computer, however, the sandbox just asks for my input program and exists in less than a second when I enter it. This might be due to a string and commenting syntax which was not closed properly in the sandbox hereby blocking all programs that the sandbox runs. Refer to the following lines of code for the sandbox:

```
insert = """
import sys

for x in sys.modules:
    sys.modules[x] = None

"""


.
.
.

code = insert + code

exec(code)
```

`insert` is a line of code added to the program code and concatenated incorrectly. When commenting out '`code = insert + code`' the example files actually run and so does my timing analysis as explained before. This sandbox, therefore, is not Turing Complete since it does not give an answer to a computable program or attempt to give an answer for any computable program. No further exploits were done.