

## Extra Credit Programming Assignment – Due on November 22, 2019 before midnight on Gradescope

25 extra credit homework points

*You have to do it on your own. Please review the Collaboration and Honesty Policy and also the submission requirements below before working on this assignment.*

Give a Python program,  $M$ , such that, when started on any input,  $M$  prints its own description twice. Your program should be in the spirit of the recursion theorem, as discussed in class. Your programs should not get any input, should not write to disk and should not read from disk. The output of your program should be printed using the `print()` function in Python.

### Submission Requirements

- You must use Python. If you absolutely do not know Python, you may negotiate with Ramesh.
- Submit your code on Gradescope.
- Your submission should consist of exactly one source file, with an optional `readme.txt` file. The file is to be named `M.py`.
- Do not use any kind of input (command line, `input()/raw_input()`), file I/O operations (`open()`, `read()`), etc. Programs should output using the Python `print()` function only.
- The submission will be tested on Gradescope.

### General Hints

- If you can't think of a way to write these programs without doing one of the above things, we highly suggest you read pages 246–248 of the book several times over.
- Make sure you thoroughly test your program before submitting.