

This is CS50x

OpenCourseWare

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Mario



Implement a program that prints out a double half-pyramid of a specified height, per the below.

```
$ ./mario
Height: 4
# #
## ##
### ###
#### ####
```

Specification

- Write, in a file called `mario.py` in `~/pset6/mario/more/`, a program that recreates these half-pyramids using hashes (`#`) for blocks, exactly as you did in [Problem Set 1](#), except that your program this time should be written (a) in Python and (b) in CS50 IDE.
- To make things more interesting, first prompt the user with `get_int` for the half-pyramid's height, a positive integer between `1` and `8`, inclusive. (The height of the half-pyramids pictured above happens to be `4`, the width of each half-pyramid `4`, with a gap of size `2` separating them).
- If the user fails to provide a positive integer no greater than `8`, you should re-prompt for the same again.
- Then, generate (with the help of `print` and one or more loops) the desired half-pyramids.
- Take care to align the bottom-left corner of your pyramid with the left-hand edge of your terminal window, and ensure that there are two spaces between the two pyramids, and that there are no additional spaces after the last set of hashes on each row.

Usage

Your program should behave per the example below.

```
$ ./mario
Height: 4
# #
## ##
### ###
#### ####
```

Testing

No `check50` for this problem, but be sure to test your code for each of the following.

- Run your program as `python mario.py` and wait for a prompt for input. Type in `-1` and press enter. Your program should reject this input.

- Run your program as `python mario.py` and wait for a prompt for input. Type in `1` and press enter. Your program should reject this input as invalid, as by re-prompting the user to type in another number.
- Run your program as `python mario.py` and wait for a prompt for input. Type in `0` and press enter. Your program should reject this input as invalid, as by re-prompting the user to type in another number.
- Run your program as `python mario.py` and wait for a prompt for input. Type in `1` and press enter. Your program should generate the below output. Be sure that the pyramid is aligned to the bottom-left corner of your terminal, and that there are no extra spaces at the end of each line.

```
# #
```

- Run your program as `python mario.py` and wait for a prompt for input. Type in `2` and press enter. Your program should generate the below output. Be sure that the pyramid is aligned to the bottom-left corner of your terminal, and that there are no extra spaces at the end of each line.

```
# #
## ##
```

- Run your program as `python mario.py` and wait for a prompt for input. Type in `8` and press enter. Your program should generate the below output. Be sure that the pyramid is aligned to the bottom-left corner of your terminal, and that there are no extra spaces at the end of each line.

```
  # #
 ## ##
### ###
#### ####
##### #####
##### #####
##### #####
##### #####
##### #####
```

- Run your program as `python mario.py` and wait for a prompt for input. Type in `9` and press enter. Your program should reject this input as invalid, as by re-prompting the user to type in another number. Then, type in `2` and press enter. Your program should generate the below output. Be sure that the pyramid is aligned to the bottom-left corner of your terminal, and that there are no extra spaces at the end of each line.

```
# #
## ##
```

- Run your program as `python mario.py` and wait for a prompt for input. Type in `foo` and press enter. Your program should reject this input as invalid, as by re-prompting the user to type in another number.
- Run your program as `python mario.py` and wait for a prompt for input. Do not type anything, and press enter. Your program should reject this input as invalid, as by re-prompting the user to type in another number.

How to Submit

Execute the below, logging in with your GitHub username and password when prompted. For security, you'll see asterisks (`*`) instead of the actual characters in your password.

```
submit50 cs50/problems/2020/x/sentimental/mario/more
```

