This is CS50x

OpenCourseWare

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Mario: The Goal Update

Objectives

- Read and understand all of the Mario source code from the last track lesson.
- Add a pyramid of blocks to the generated level.
- Add a flag at the end of the level that either loads a new level or simply displays a victory message to the screen.

Distribution Code

Download this project's distribution code (https://cdn.cs50.net/2019/fall/tracks/games/mario/mario.zip).

It's Game Time

Your second assignment in this track will be a step more difficult than the last, but charmingly tied back into an earlier problem set in the course; this time, rather than constructing a pyramid using hash marks, you'll be creating a pyramid of tiles in a procedurally generated level. Additionally, you'll create the characteristic end-of-level flag that delineates one level from another, choosing to either end the level with a message or transition to a brand new one!

Your goal:

1. Add a pyramid of blocks to the generated level. Taking into consideration the column-based generation we discussed in the track, find a way to generate a Mario-style pyramid like the below, placed directly atop the ground (ASCII flag to the right shown as well):

   ```
      #     ~
     ##     |
    ###     |
   ####     |
  ###############
   ```

   You may choose to alter the pyramid such that it is symmetrical, but avoid a pyramid going the opposite direction, for Mario therefore won't be able to climb it! Also be careful to avoid starting the generation too close to the end of the level :)

2. Add a flag at the end of the level that either loads a new level or simply displays a victory message to the screen. Also tied to generation, this time take the flag and flagpole sprites included in the distro's sprite sheet and create a flagpole at the end of the level that, upon Mario's collision, triggers either a victory message or a reloading of a brand new procedurally generated level.

How to Submit

To submit your code with `submit50`, you may either: (1) upload your code to CS50 IDE and run `submit50` from inside of your IDE, or (2) install `submit50` on your own computer by running `pip3 install submit50` (assuming you have Python 3 (https://www.python.org/downloads/) installed).

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/tracks/games/mario
```