

Customer Requirements:

- The Cave (20x20 squares) is generated separately and provided via a text file.
- The Cave contains walls, a pit, a monster, and a treasure.
- Items in the cave follow the following constraints: the pit and treasure are at least two squares apart (i.e., at least one square between them), and the monster is at least three squares from the pit and treasure (i.e., at least two squares between them).
- Note: The cave is ringed by walls (i.e., no escaping!). Internal walls will have to be discovered by the Hero.

For each run of the program, the hero must be randomly placed in the cave. The hero must not be placed within three squares of the monster (i.e., at least two squares of separation) and within two squares of the pit and treasure (i.e., at least one square separating them).

The Hero has the following items (*note: these are “hypothetical objects” and DO NOT need to be created or used!*):

- Flashlight {shines one square in all directions (N, S, E, and W)}
- Spear {can be thrown once and reaches two squares to kill the monster}. Note: It does not need to be aimed. Attacking automatically kills the monster if the option is available.
- Map {moving into a square marks that spot as visited and is updated based on the flashlights uncovering}

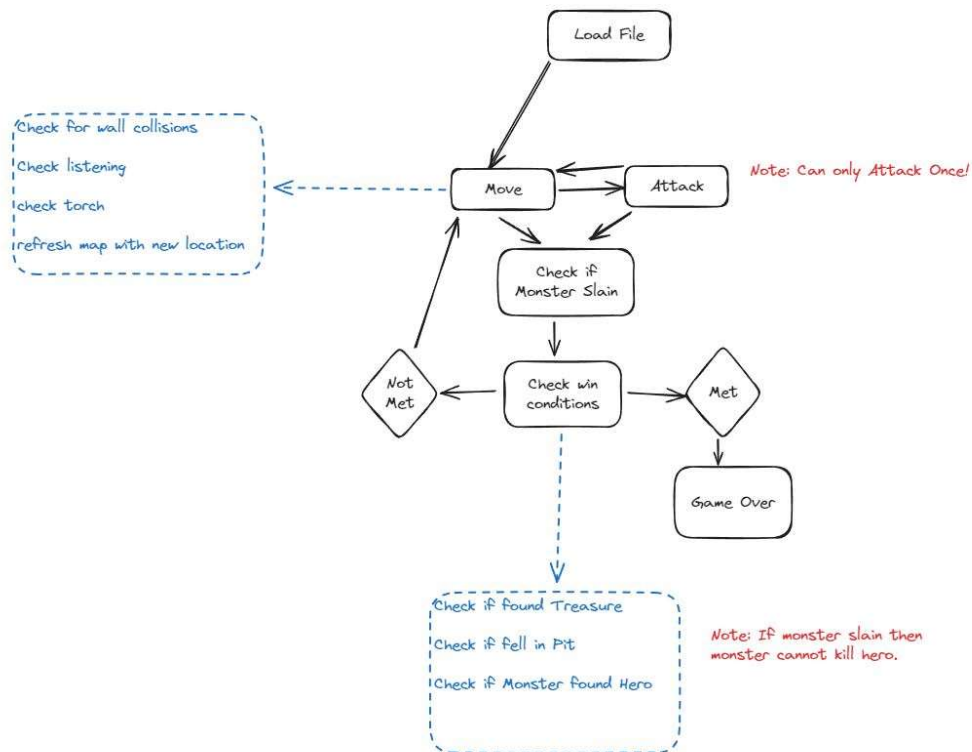
A player's turn consists of making a movement/action decision:

- Move - the hero can move north, south, east, or west
- Action - the hero can throw the spear (to kill the monster)
- Exit or Restart (starting with reading from a new file)

Results of actions:

- Move
- Moving changes the location of the hero in the direction selected
- The hero can see/hear walls, the pit, the treasure, and the monster
- Moving onto the square containing the pit or treasure will end the game in failure or success, respectively
- Moving to a square adjacent to the monster will also end the game (in failure)
- Action - The hero can throw the spear. Note: the action will not be successful if the monster is not within two squares of the hero

Pseudocode



Game Manual

Welcome to the Cave! An adventure game where you the Hero must find the hidden treasure. To begin the game Select the Menu option File and select Load. Navigate to your game file and select it.



Once loaded the player map will be displayed and your Hero will randomly spawn in the cave. Your character will be able to move by using the D-Pad of movement keys on the left. He can also attack by using the Attack key on the right. Note: Your Hero only has ONE spear. Once he uses it, it will be gone. So, attack wisely and listen for the monster. You may hear its presence before it finds you. There are other hazards located within the darkness. Be mindful of where you step. Your ears and torch will be your best friend. Good Luck, and thanks for playing.

Python Libraries Used

tkinter

sys

webbrowser

PySimpleGUI (See Key below to use this library)

Known Bugs:

- I was not able to get the game flavor text to output to the game screen. Instead, it will output to the Python console.
- The console will let you know if the game win conditions have been met, but the game does not end. You will need to exit the game and reload it to play again.

PySimpleGui Key:

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