

The theme of this project is about the main character waking up in their room and realizing that something has stolen their things and their cat (Lucky the cat). The main character has to venture around his house for clues and picking up various items that might help them later on in the game. The first part of the game involves going around the house and collecting things. The second part is when the hero confronts the thieves and fights them. After successfully beating them and their boss, the hero is able to reclaim his cat and other stolen items.

Design

I made a space abstract class that which had the following derived classes: Closet, Bedroom, LivingRoom, Kitchen, Garage, OutSide and Cave. These spaces had a virtual function called inspectSpace() which allowed the user to describe the area and gain clues. Some areas also allowed the user to pick up items that would be helpful in their quests.

I also made a creature abstract class which the hero, troll, and boss classes were derived from. I used a list class from a previous assignment as the container to hold the characters items. In this game the character only had three types of items: cookies (to regain health), rocks (weapons), and a bat(weapon). These classes have functions to attack and take damage.

Test Plan

For testing I tried to test each piece as soon as possible when I had a section done. I thought this would be easier than trying to isolate the problem later on when the code got too lengthy. Here are some of the test cases I performed:

- the hero is able to transition between spaces and back track
- the hero is able to interact with the spaces
- the hero is able to have a back pack and remove/add items
- the hero can't carry items if they don't have a back pack
- the hero isn't allowed to pick up more than one cookie pack or bat however the hero can keep collecting rocks to throw at trolls
- the hero can eat/throw rocks/swing his bat and fight trolls
- the hero is not allowed to use items they don't have yet

Reflection

Initially, I drew diagrams of my game to help plan the sequence of the game. This helped me determine how my game should progress. My original diagram seemed to be more complex than my "finished" game because I had to cut out some material to make sure that I had enough time to finish. I also still have some memory leaks even after using valgrind because I wasn't able to determine where the leak was or how to fix it correctly. Overall it took me awhile to get my theme going which caused me to have to rush through everything else. I think that next time I will just have to try to plan things better and design my program earlier.