**ASSIGNMENT 2**

Name: Lucas Monico

Athabasca ID: 3572445

Course: COMP 206

Date: 13 November 2024

**ASSIGNMENT 4:**

The first thing I did for this project was read the Wikipedia page for ‘Colossal Cave Adventure’ as well as watch this YouTube video:

<https://www.youtube.com/watch?v=sfGrPM5Bxeo>

While I’m not quite old enough (31) to have first-hand experience with text-based adventure games during their heyday, though I’m not entirely ignorant about their existence as I’ve always been interested in video game design and history. I also read many Choose Your Own Adventure novels as a kid, which had a similar premise.

My next step was to read Lewis Carroll's original novel, as I had never read it before and had only seen a couple of different movie adaptations of it. I'm not going to lie; the book was fairly odd, There was some fun wordplay in it, though.

After I read the book, I started making separate text files with all the characters, notable locations, items, and actions. I also drew some quick sketches of the locations for the game. I started piecing the game components together like filling out the descriptions for the different characters and locations as well as mapping out all the connection points between locations.

I knew this game was not going to have combat as Alice is a child, it will mostly be exploration and dialogue driven. Trying to stay true to the original while still giving the player freedom for moments of emergent gameplay. Or at least attempt to. This is supposed to be a relatively simplistic assignment I don’t want to make to mistake of increasing the scope to unrealistic levels for my ability.

I also made a simple block diagram of how to map will look. I understand that several of the rooms will only have one way in and out (share an entrance+exit) which is technically against the assignment guidelines, but for story purposes it seemed appropriate in certain cases and also kind of seemed like an arbitrary rule that doesn’t make much sense.

It is now January 16th. I took a long break as some personal things came up and I was procrastinating as I was having an issue with paralysis from analysis. I have not written any code since mid November so I’m feeling rather out of practice. I decided to watch a few tutorials videos that have a similar premise to this project:

[C++ Code-along Ep 8: Demo RPG Game | Core Stat Abstractions & Overloading Operators](https://www.youtube.com/watch?v=0BkNyp8wJkU&list=PLalVdRk2RC6pqOVxRNj5Uui7FN4r-WorM&index=8)

This one was particularly similar to this project so I watched both episodes, though I found her code process to be rather chaotic and not well explained:

[Let's make a text adventure in C++ (part 2/2) - Open Source Gamedev](https://www.youtube.com/watch?v=ikA4yiurkug)

I know I need to compartmentalize this project into smaller segments to prevent myself from being overwhelmed with the scale. I’ll start sorting the different classes and their objectives (Locations, Characters, Items, Actions, Inventory, etc.)

LOCATIONS:

* Should contain a description of the surroundings and pathways for travel
* Should contain hints in the description for items and characters that can be interacted with
* Some locations will have a temporary state that will change upon the next visit (either due to a one time event or because characters leave that area)
* Can travel North, South, East, or West for navigation (Some travel will be forced if an event is triggered – e.g. Tears event in the doorway hall at the beginning of the game)

CHARACTERS:

* There will be 23 characters in the game. I’m not sure yet If I will make them all intractable through actions yet or if they will be side decoration for dialogue (e.g. the ocean bank segment where Alice meets the Mouse & gang)
* Characters are: Alice, Sister, White Rabbit, Queen of Hearts, King of Hearts, Cheshire Cat, Duchess, Caterpillar, Mad Hatter, March Hare, Dormouse, Mock Turtle, Knave, Mouse, Dodo, Lory, Cook, Pigeon, Two, Five, Seven, Bill the Lizard, Frog Footman, Gryphon, and Pig Baby, \*enormous\* puppy
* Some characters will have special interactions with the ACTION keys and special interactions with used items in Alice’s inventory
* I am unsure how many liberties I can take with the dialogue from the original Alice in Wonderland book – due to it being public domain is it considered plagiarism to copy dialogue word for word? Or can I give credits at the beginning of the game to Lewis Carrol to acknowledge the borrowed work? I will have to modify the text and take creative liberties to avoid any possible issues.

ITEMS:

* Items are intractable objects found in the environs of the current location the player character is oriented.
* Some items can be added to Alice’s inventory using the TAKE action – and some will not be allowed to be TAKE(n)
* Some items could possibly be given directly to Alice from another non player character and therefore will never be interacted with or TAKE(n) from the environment.
* Some items in the game will be: Orange Marmalade, tiny golden key, curtain (cannot be added to inventory), tonic bottle (shrinking effect when consumed), little glass box (cannot be added to inventory), small cake (enlarging effect when consumed), white kid gloves, hand fan, box of comfits (in inventory at start of game), thimble (in inventory at start of game), small bottle (in W Rabbit’s house – enlarging effect), little cake/pebble (shrinking effect), stick, Mushroom piece (shrinking), Mushroom piece (neck stretching), Pig baby, tea, bread, croquet mallet (flamingo), tart, squeaky pencil, etc.

INVENTORY:

* Will be a storage container that can be accessed at anytime during gameplay.
* Will hold all items that have been given by NPCs or taken from the environment
* Will be able to do several actions with them (Throw, Inspect, Use)

ACTIONS:

* Commands input by the user to perform tasks such as: Talk, Inspect, Take, Move/Go, Throw (item only), Use (item only)

Considering how much word play and dialogue is involved in this game, I wanted to make it exploration and dialogue driven. Meaning I didn’t want to have fail states like death (so no combat). Now I would have to get a bit more creative with my writing abilities as a novel is obviously very linear in it’s storyline.

I then began creating the appropriate hpp and cpp files for the components of the game:

Main.cpp – where the game class object will be created and ran

Game.hpp and .cpp – where the main game logic and game class are declared and defined

Locations.hpp and .cpp – where the Location class logic is declared and defined

Characters.hpp and .cpp – where the Character class logic is declared and defined

Items.hpp and .cpp – where the Item class logic is declared and defined

Inventory.hpp and .cpp – where the Inventory class logic is declared and defined

Actions.hpp and .cpp – where the Action class logic is declared and defined

I used a few other people’s projects as reference as I was having a tough time deciding how to proceed with this project. I referenced:

[TextAdventure · master · Rachel Wil Sha Singh / Simple CPP Text Adventure · GitLab](https://gitlab.com/RachelWilShaSingh/simple-cpp-text-adventure/-/tree/master/TextAdventure?ref_type=heads)

[Zelda-Game/Zelda at master · harismuneer/Zelda-Game · GitHub](https://github.com/harismuneer/Zelda-Game/tree/master/Zelda)

I started with the Game.hpp and .cpp files. Leaving the Game constructor and destructor and default as I couldn’t think of anything for them just yet. The main.cpp will create a Game class object then run the member function of Game.startGame() which will output a few intro lines for the game and load the game data by calling loadGameData(); Then that will call the individual loading functions for the text files of Characters, Locations, Items, etc. Those individual functions have similar but not quite the same function of loading and parsing a text file then inputting the data into vectors to organize.