

Design

Create an adventure world

Containing 6 spaces

Set four directions north west east south

Grave – W – Mountain – W – Forrest – S – Graveyard – E – Purgatory – E – Forrest – N – Graveyard

Purgatory – S – Underworld

Underworld – N – Afterworld

Set counter to 10, 10 steps

1 space for death Afterworld also serves as final stage to “beat the game”

Starting items axe, fits, flute later affects against monsters but no effect on ending.

4 levels that lead up to 1 level the underworld.

Does not matter which order the user goes but must go through underworld if pass go through afterworld

Choice based game

Orc decision if laughs gives user a crystal to use later for the troll

If Orc ends up mad can kill user or just let user go depending on answers

Troll has a 50 percent chance to win against if using a axe if fighting. Will lose all other times. If user has crystal troll will accept crystal as payment. Gets wisp if everything goes well

Skeleton two options.

Sneak or walk towards.

If user walks towards scares of skeleton leaving head to be either picked up or left

Head will later be used to either scare troll or orc leaving user alone. Used in afterworld to get best ending.

If user gets wisp for underworld level demon will trade for soul therefore “winning” the game but not best ending if does not have skull.

If user does not have wisp can walk away to get ending of sort if not will die.

Items 4 make if user gets all four items by end game

Purgatory -> underworld -> afterworld

Goal try to get the best ending kind of like a simple and inspired game from Detroit be Human

Test Table

Starting items	Journey items	Journey	Death	What is supposed to happen	What happened	What I changed
Axe	None	Get killed in orc fight	yes	The user dies	The game infinitely looped not dying	Added correct if logic to encompass the do while loop of the option to not infinitely loop
None	Wisp	Give wisp to demon	No	After giving the wisp to the demon the user was to go to the afterworld.	User leaves underworld but nothing happens	Insert an if statement if the user leaves the underworld alive they will enter the afterworld as well instead of only death
Flute	Skull wisp	Grab skull from graveyard to then give wisp to demon.	No	User was supposed to get the best ending since they have the core item as well as their soul in exchange from the demon	User got the normal ending when the user dies.	Changed if statement to make sure only the user with the two items may get that ending.
Flute	None	Play flute for the troll	No	The Troll was supposed to give a wisp to the user in exchange	User did not gain a wisp and died in underworld	Added and made sure fighter->wisp = true after that encounter
Axe	None	Throw the axe at the troll but hit the troll	Yes	Troll was supposed to attack the user after the user threw the axe	Axe is never thrown in multiple tests	Fixed random integer generator to make sure it would be a 50 percent roll. Made a mistake in calling rand()
None	Wisp	Gets a better ending than normal since user has wisp	No	The better ending was supposed to play	Normal ending occurred	Adding an extra ending for people with wisps vs people with no wisps aka their souls.
None	Random	Go through space 10 times	No	Was supposed to have 10 steps	Game ended at 3 steps	Fixed where additive counter was located
				No memory leak	Memory leak at beginning of mainfinal.cpp	Initialized objects in same place rather than 2 places.

Reflection

I initially wanted a battle simulator of sorts but I figured that everyone would be going that route. Since watching Detroit Human I figured I make a choice-based game where each choice leads to a different situation. Of course, that would be intense considering the amount of combinations there could be which I could not fully complete in my state. I initially had the game go in a linear fashion. Starting from one end and ending with death being a permanent drop off but I decided against it. I decided to go with a starting point purgatory and then a choice of where to go from there using direction pointers. I initially had problems where my game would not compile because of a missing destructor in the base class of space. I changed that and it fixed the problem. A problem that occurred was that my game would not keep track of when the user is dead or not continuing the game forever despite the user being long dead. I fixed it by making a counter in the fighter class to keep track of when the user was alive or dead. I wanted the game to loop twice if the user chose to just to go through the game again in a different fashion so I set a death counter for the user to choose to go through the game in a different fashion only if they died a certain way. If they died in the "good" endings they would not have that option. After contemplation I chose not to include this function and chose a step counter instead for the user to go back and forth to places they have been to get hints on what to do to obtain the item in another run. Another problem occurred was that after the user leaves the underworld successful nothing happened so I inserted an if statement to make sure the afterworld was after a successful underworld encounter instead of only in death. I had issues in the user having specific items such as their soul and a skull yet having the same ending as another so I had to change it to make sure that when the ending occurred it would check if the user had those two items while the others checked if they only had one or none. An wisp error occurred when the player played the flute the troll would give the flute but it would not change the bool to true. So, I added a set wisp to make sure it was true after the encounter. Another issue was my rand() call was not working appropriately till which I changed it to properly take in an integer to have a 50 percent chance throw. Another issue was my counter variable didn't work properly always ending after four steps instead of 10 so I double checked everything printing the counter variable after each space to check and found that I had added the counter 3 times in purgatory before even leaving. I fixed the problem and the game looped properly for 10 steps. Another problem I had was the game did not compile due to a memory error after using valgrind function for a bit I found that my issue lied within the initialization of the class objects. Instead of initializing it in two different spots I initialized it in only one spot and it fixed the problem. The game is nowhere perfect in terms of balance I hope to add more stuff as I learn more about computer science but overall, I am quite happy about how my game turned out despite being sick most of the time putting this together. I enjoyed my time in this class immensely and appreciate everyone's help and flexibility when I was sick.