CMPT 276 Phase 4: Report

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The Game:

Our game is a 2d puzzle adventure game called Cat'acomb Crawler. The basic premise is that you, the player, are a cat statue in a catacomb that suddenly came to life. You need to escape the catacomb that you are stuck in by collecting all the chests around the map, which will unlock the door to your freedom. Along the way, you can collect coins for bonus points, all the while avoiding a very persistent bat that is trying to stop your escape. Be careful not to step on any traps in the catacombs!

During the original planning and design phase, we did a lot of things knowing that we would eventually have to change them, as we do not know what technologies and resources would be available to us during the development phase. As such, there are many differences, both asthetic and functionality wise, from our original planning and design phase.

Aesthetic wise, we made a complete overhaul on what the theme of the game would be like. In the original UI design, the difference is very apparent, as while we kept the general layout of what the game would be like, with a timer and a score tracking on the top of the screen, the aesthetic and style of the game itself has changed alot. In the UI design, we can see that the game takes place outdoors, with trees and bushes as obstacles, bags of money and cash as items on the floor, a ghost chasing you around and bombs on the floor as traps. This ended up being different from what we created, as while the use cases for these items remain the same or similar to what we have, we changed what these items represent for a more coherent and consistent design asthetic, with dungeon walls, a bat, spikes and chests and coins.

From a functionality standpoint, a lot has also changed, which can be seen when taking a look at the UML that we originally had for the design phase. Firstly, there was alot of changes on a class and how they interact with each other. The changes we made was necessary, as it made for a more organised view with easier implementation. It allows us to get rid of useless classes that has too little things to do, or split up god classes that holds too much. On top of that, we created and removed some classes as we did not account for them originally or we no longer see a use for it in the game. For example, when we originally created the UML, we never thought about what technologies we will use for the map and the characters to move in the game. On top of that, we never accounted for a winning or game over menu. Those had to be added as its own classes in the future. Then, there are the weapon objects that we originally wanted to implement in the game. We ended up removing this however, as we realised that these items are not going to be useful in game.

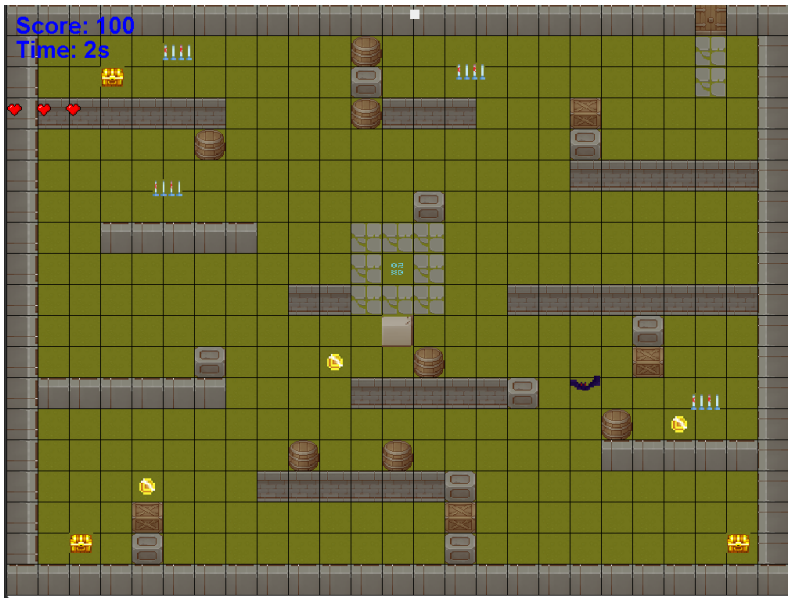
Overall, we learnt a lot throughout this development process. Seeing as this was our first big group project, it does not come as a surprise that everything we did ended up being a lesson. The first big lesson we all learnt in regards to development is that things will always change, and no matter how good you are, there will always be unpredictable things that go

wrong. This means that we needed to approach doing projects differently. Firstly, instead of being too hung up in planning everything to make sure that the groundwork is perfect before we started implementing, we should just start and see where it takes us, as often times the answer will be clearer when you are implementing things. On top of that, we learnt that we needed to allocate more time in doing things, even if we think it is easy, as there will always be unpredictable roadblocks that can hinder your plans and make things take longer than we originally thought it would be.

Tutorial/Demo:

Youtube video: https://youtu.be/b-A-jUVjmh0

Upon starting the game, the user will be greeted by the image shown above. This is the starting screen of the game. Clicking the exit game button will close the game. To play the game, click Start Game.



Upon starting the game, the user will then be met by the screen shown above. This is the main part of the game. On the top left corner shows the player character's stats, including the player's score, how long the player has been on this round, and the health of the player.

The main objective of the game is to collect all the chests, which has been scattered all around the map. Upon completing this, the door, which can be seen on the top right corner of the screenshot, will open, allowing the player to exit the catacomb and win the game.

While doing this, there are several other things the player needs to keep track of. Firstly, there are coins scattered all around the map, which can spawn and despawn at random places and at random times. This gives the player bonus points, increasing the point stats upon collection. Secondly, there are enemies that can and will harm and kill the player character. The first enemy is the bat. This enemy can move around the map and will follow the player character around, and touching it means game over. The second enemy are traps that have been scattered all around the map. This enemy does not move, and will remove a health point whenever the player character touches it. Of course, the player can choose to collect these bonus points and will need to avoid these enemies, while also making sure that they do not walk into a wall. Winning and dying will trigger different screens with two buttons, one will restart the game and the other will close it, as shown in the screenshots below.

The controls of the game is fairly simple, as most of the things the player can do, such as collecting items and exiting the door, is done automatically by walking into the items. The only thing the player needs to control is the character's movement, which is done using the arrow keys on the keyboard, with up being moving upwards in the map, left and right moving in each direction respectively, and down being going downwards.