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CMPT 276 Phase 1 - Group 19

Game Name: Maze of the Dead

Theme: Zombies are everywhere and hunting down humans! In this 2D post apocalyptic dungeon crawler, the player's goal is to survive the zombie apocalypse. They need medical supplies, weapons and protective gear to survive. The player navigates through a maze trying to collect these supplies, while avoiding zombie attacks and traps around the maze. The player must escape from the maze alive.

Plan: Our team will have weekly meetings on Discord or in person (if possible). We will share our progress as well as any resources we come across, and discuss aspects of the game such as technical details or design decisions. Once we finish the initial design, we will begin coding. As for each member's coding responsibilities, this will be based on their interest, experience, and availability.

In terms of Git, branches will be created for each feature or bug fix for the project. Commits will be meaningful, and will follow "conventionalcommits.org" standards. Code will only be merged to the master branch after a pull request has been made, discussed with all members to ensure we're on the same page, code is tested and in a working state. For bugs, issues will be created in the Gitlab repository which will be as descriptive as necessary.

Player Experience: When the player opens the game application, they are presented a title screen showing a couple of options, "Press any key to Start", a "Quit" button, and an "Instructions" button. The "Quit" button closes the game. The "Instructions" button takes the player to a screen where it shows the controls "w", "a", "s" or "d" for moving forward, left, backwards, or right respectively as long as there's not a wall in that direction. It also shows the objective of the game - collecting all of the weapons and protective gear (these are regular rewards, giving 10 points each) and escaping the maze. The player can also collect bonus rewards, these are medicine. These give the player 50 points each and appear at random times and disappear after 10 seconds. The player has to avoid the zombies and traps in the maze, to survive. There are 2 types of traps; booby trap where the player loses 10 points, and trapdoor where the player falls and loses 20 points. To leave the instructions page, the player presses any key or the "X" button in the top left corner and the player is returned to the title screen.

On the title screen, when the player presses any key to start or clicks on the button, the player is presented with the actual gameplay. A maze is randomly generated making every playthrough unique. Rewards and traps are placed at random locations on the maze, while zombies start near the end of the maze. When the game starts, a timer will start and the player and zombies begin moving. The player's score is initialized at 100. Zombies try to follow the player. Once they are in the same cell as the player, the zombie will attack the player and the player will lose the game. The player will also lose the game if they have negative points. If they lose the game they are presented with a "Game Over" screen. The player is able to pause the game at any time by pressing the "ESC" key, the timer and zombies stop and they are presented with a pause menu. From there, they can go back to the title screen or resume the game. When the player wins the game, they are presented with a win screen where their score, time and number of bonus awards collected are shown. After that they are shown a leaderboard with other player's scores, if they have a score greater than another player's score they are asked for their name and added to the leaderboard.

Tick: A tick is a fraction of a second. It is a part of the game loop where user input is taken, processed and the appropriate state of actions are taken in game.