

Game Engines

1

Conduct research about the use of game engines in real-world projects.

B.A. (Hons) in Game Art and Visual Design

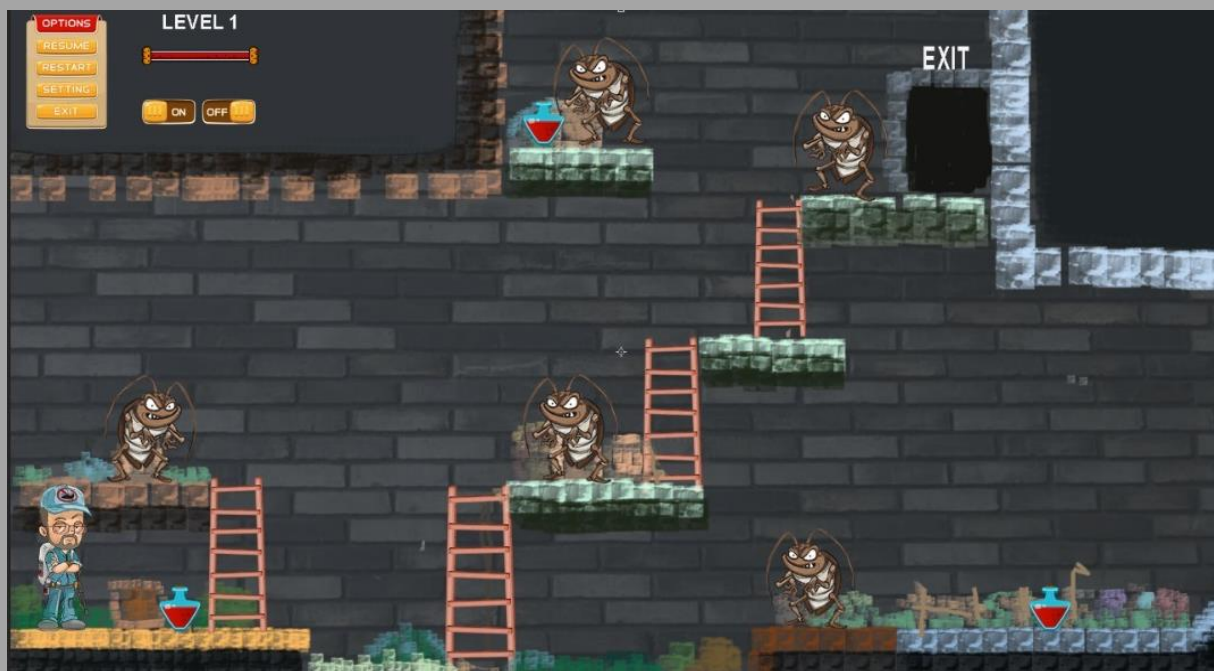
Williana Blundell

Task 1: Conduct Research About the Use of Game Engines in Real-World Projects

Game Description

Game Narrative

In the city of Grimville, all citizens carelessly threw all their hazardous and toxic waste out, that was drained off into the city's underground sewer system. However, the citizens were not aware that the cockroaches, that lived underground, started to consume all the chemicals that were present in the water. This caused a chemical reaction with their DNA structure, and made them bigger, powerful, smarter and into Roaches! All having the same objective, to conquer the city of Grimville. The only person is capable to stop the Roach Infestation, the one who poses the potion that kills all cockroaches underground, and that is Joe the Pestinator.

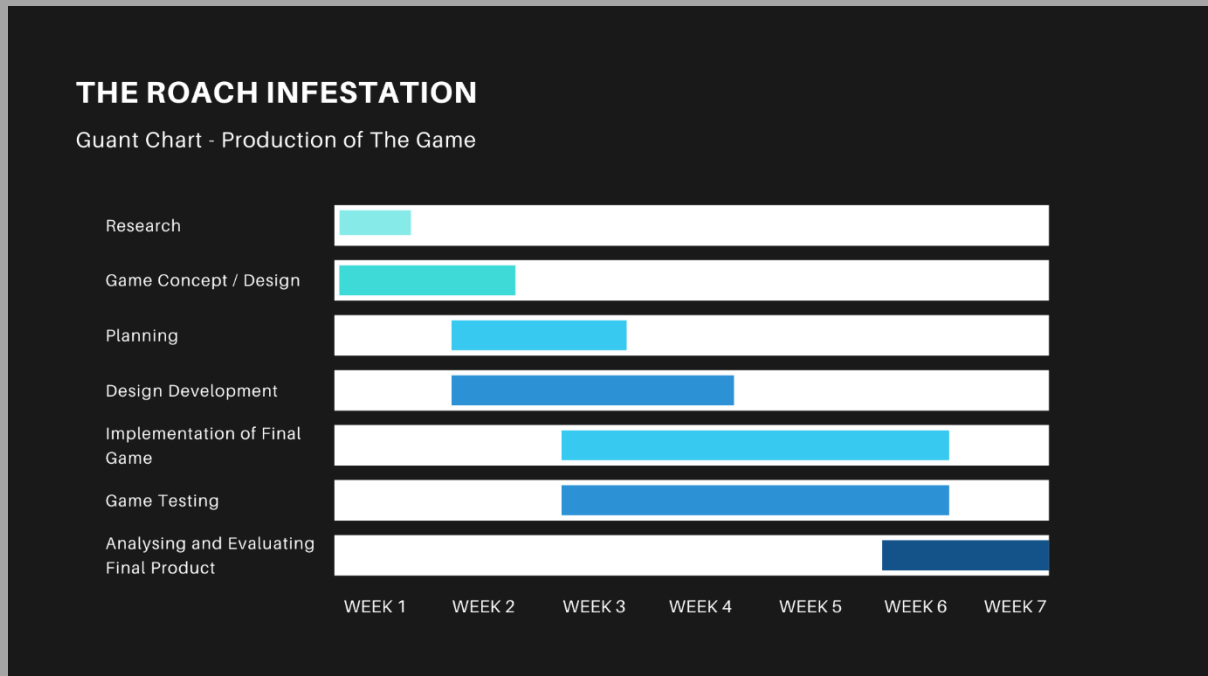


Game Synopsis

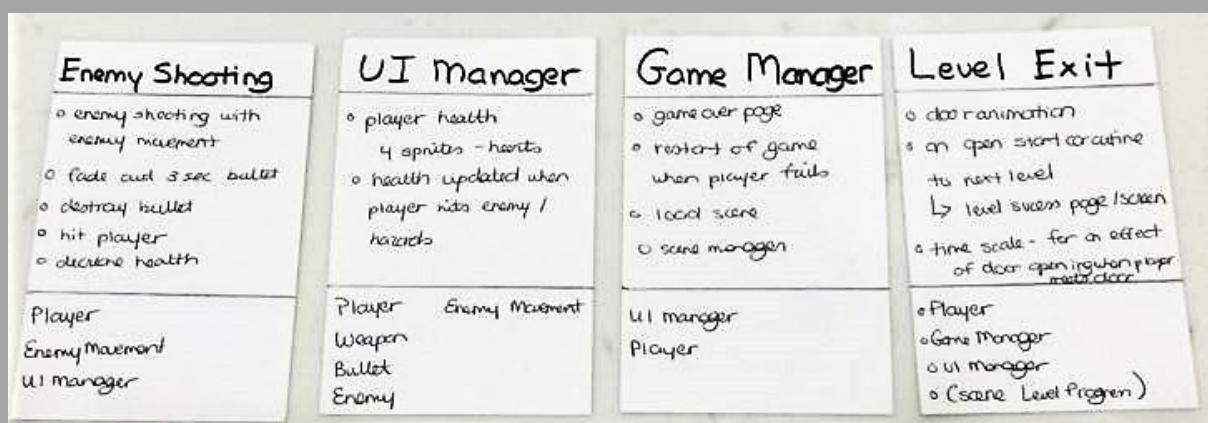
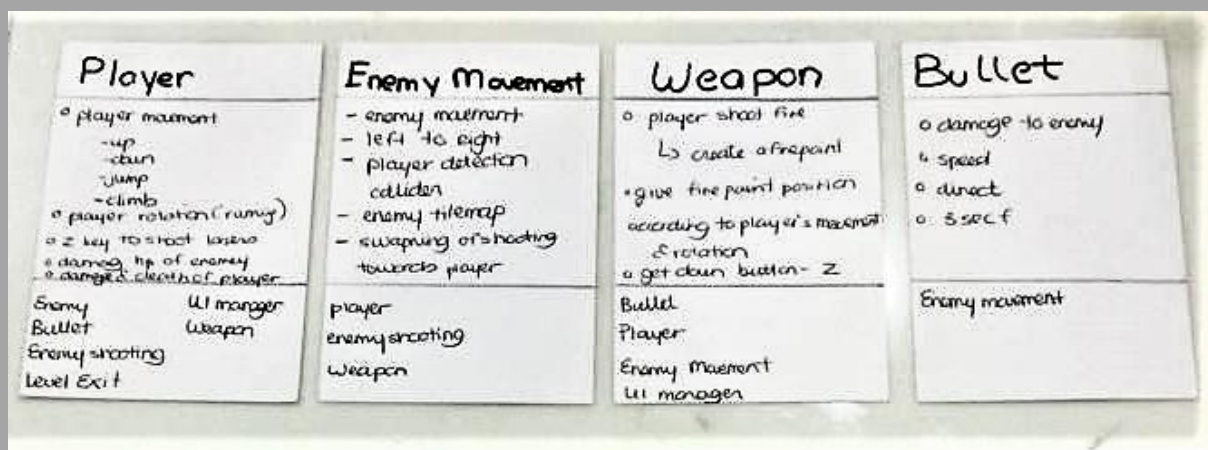
The main objective of the game is that the player plays as Jo, the Pestinator character because he is the protagonist of the game. Furthermore, his role is to make sure to survive

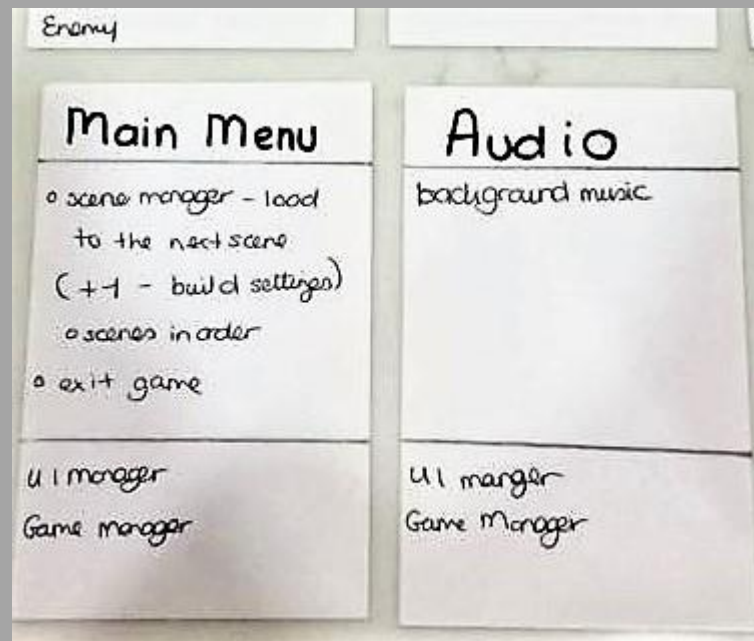
during the fixed level, by not getting hit by the slime of the Roaches. To go up a level, Jo needs to eliminate all the Roaches present in the level and reaches the exit for the next level.

Guant Chart



CRC Cards





Task 2: Prepare Workspace and Assets for the Game

Target Device

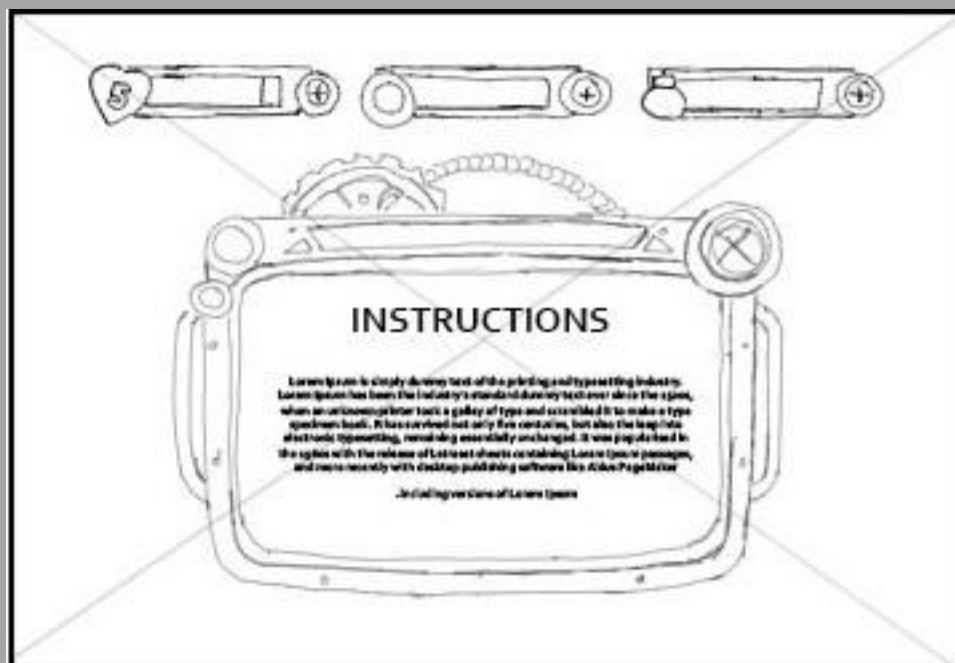
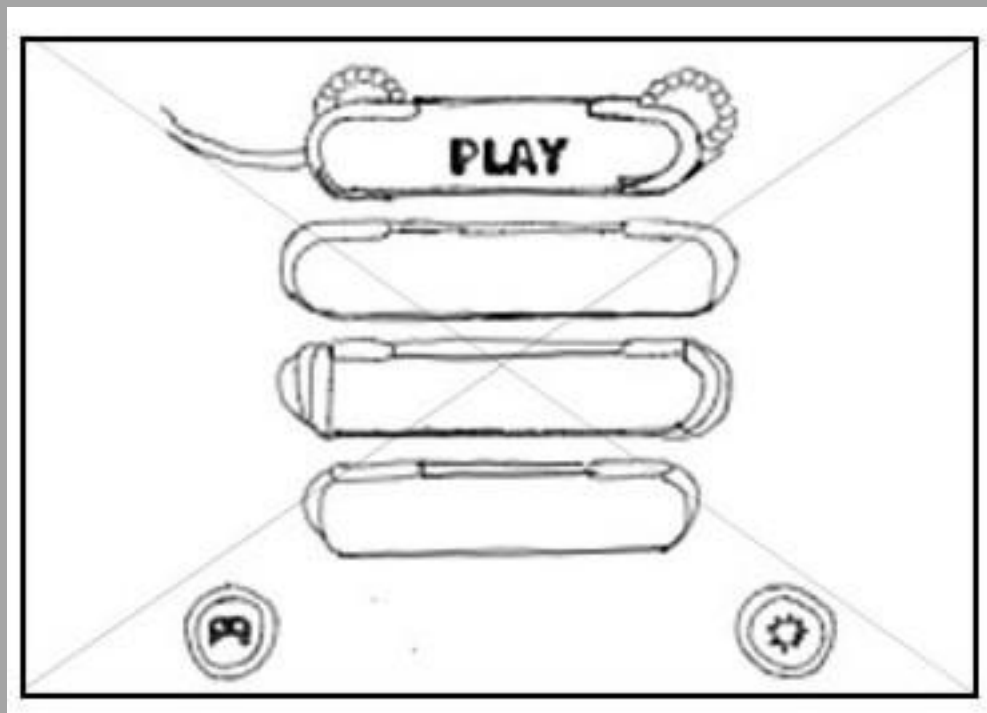
For the fixed level, Roach Infestation Game, I am aiming to design the game for both webpage and android/tablet design platform. As for the screen resolution that I will be working on the Unity program, for the webpage, it will be in the ratio of 16:9 converted as 1920 x 1080 aspect ratio for a full HD quality.

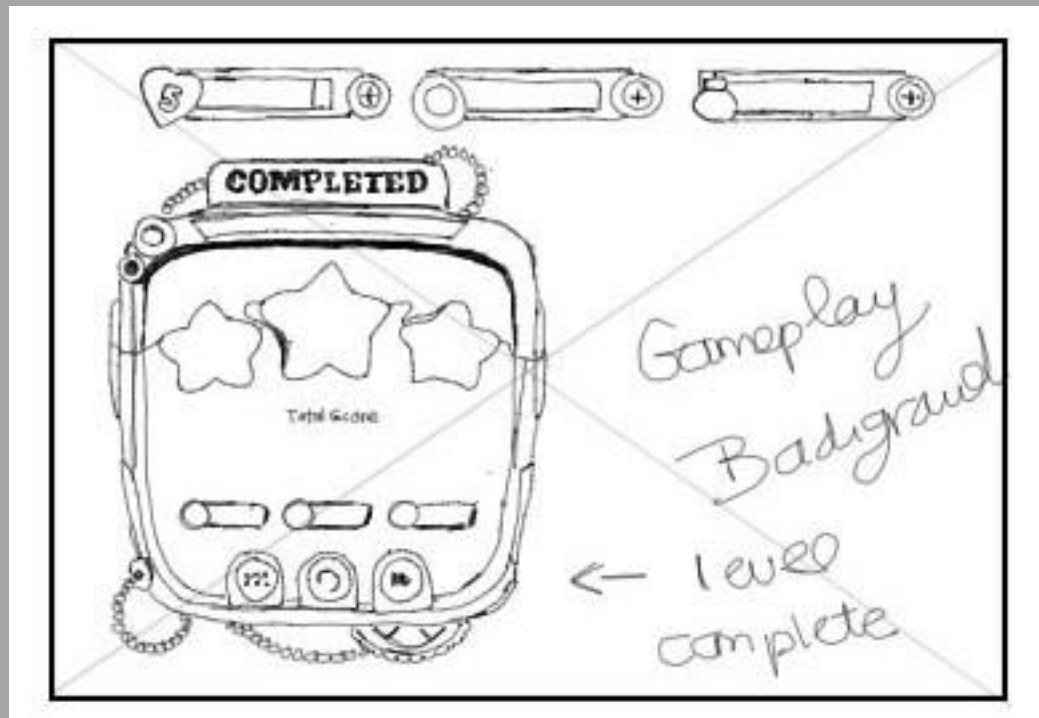
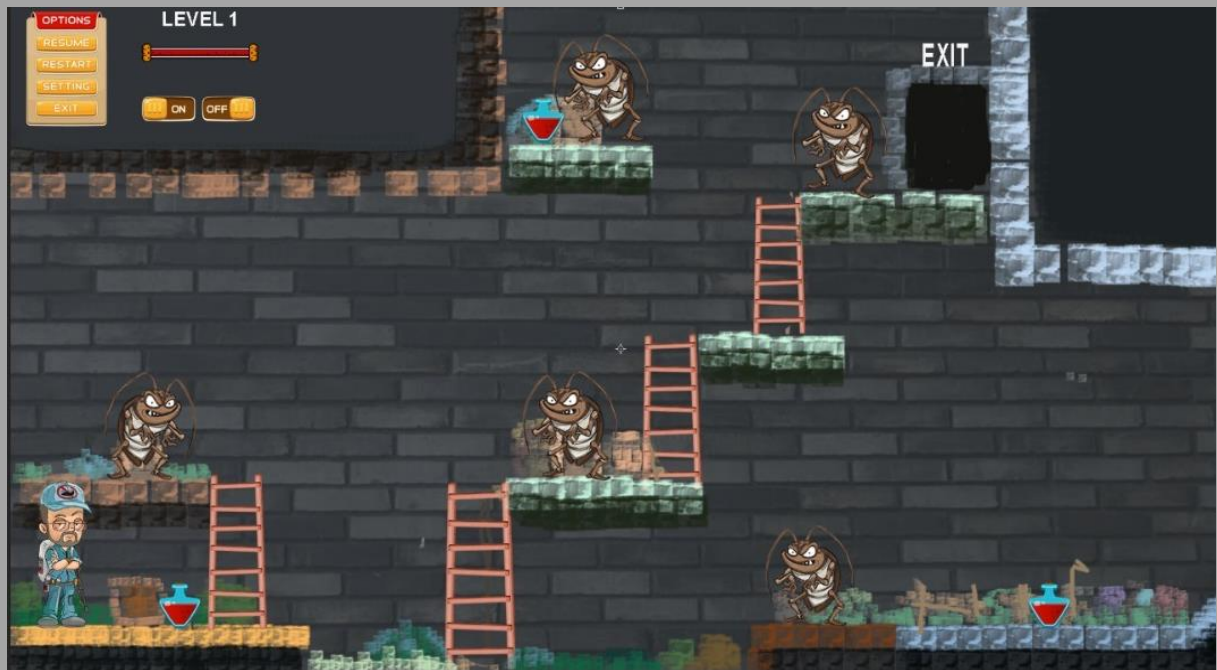
Control methods and Game Mechanics

Core Mechanics

- Players get to manoeuvre around the user interface, each screen taking them to different sections of the game.
- Players get to control the protagonist of the game, which is Joe the pest terminator.
- The players can move the player through control methods:
 - Left arrow key to make the player run to the left.
 - Right arrow key, to make the player run to the right.
 - Up arrow key to make the player climb up ladders.
 - Down button key to make the player climb down ladder.

→ Game Over page

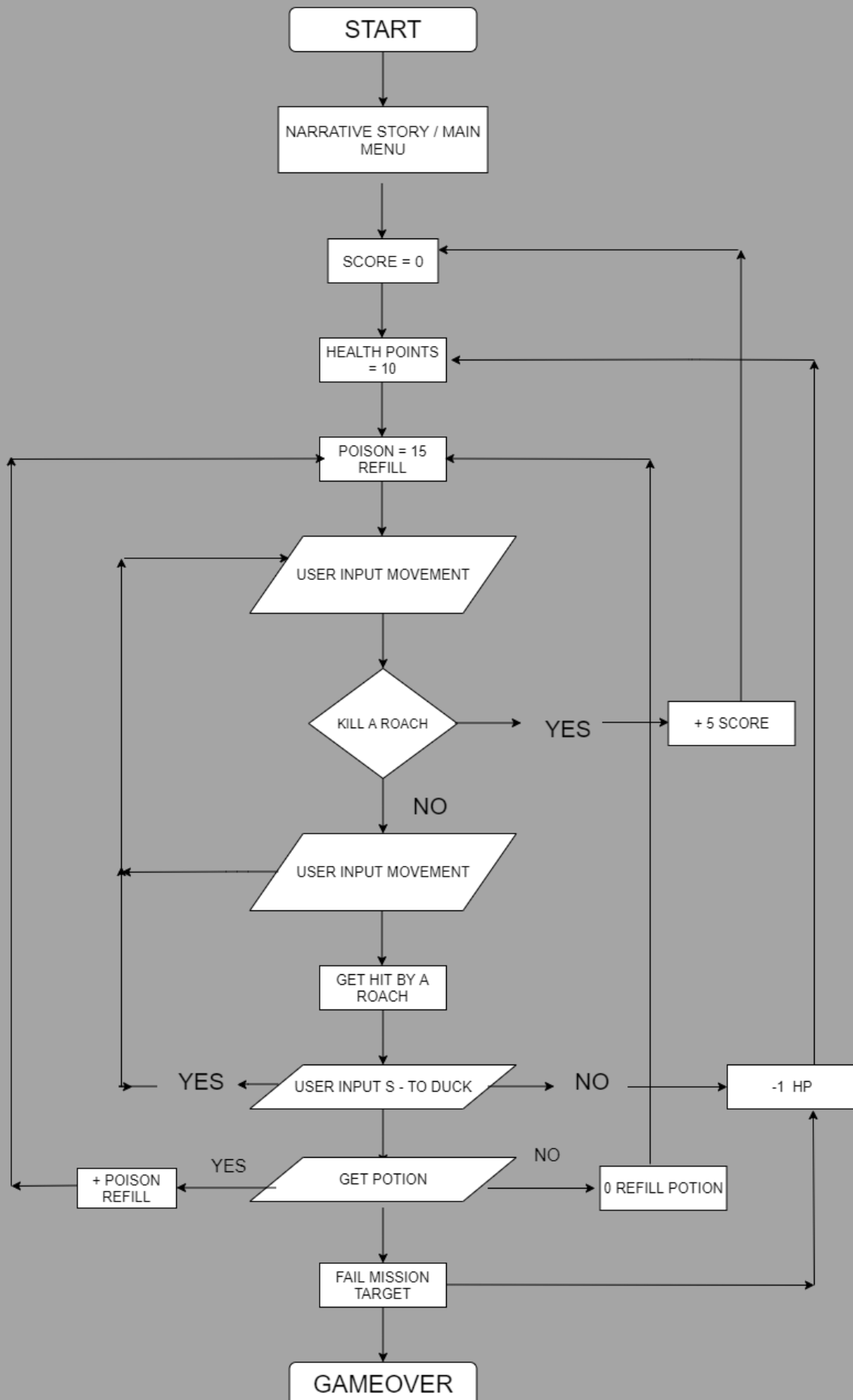


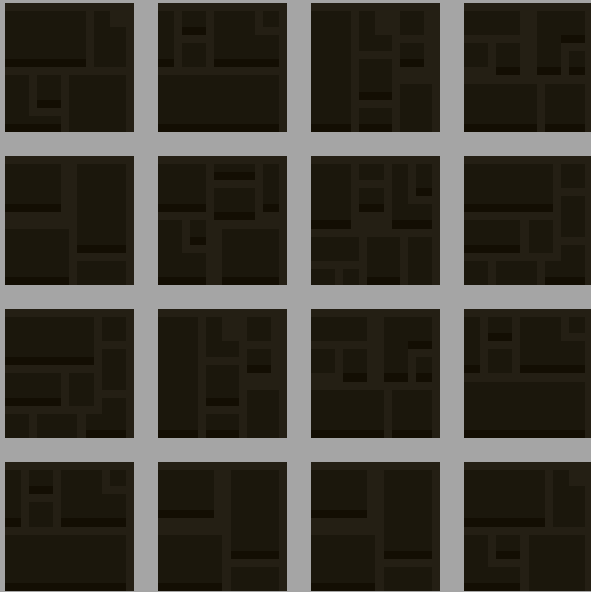


GAME OVER

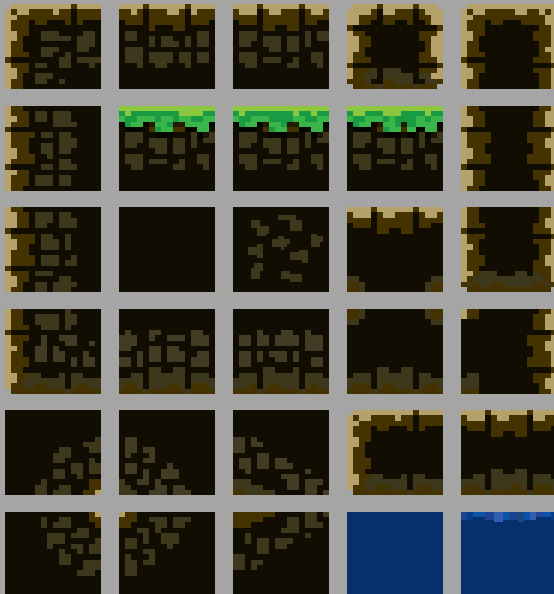
Background design

Gameplay Flowchart

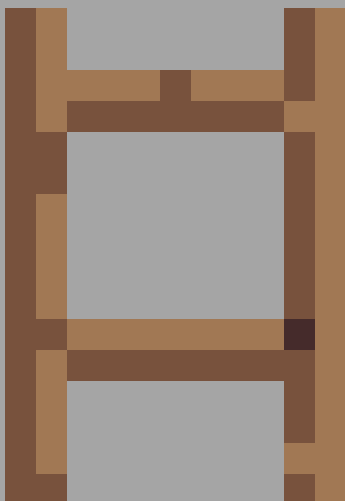




BACKGROUND TILE MAP
PALATTE



Foreground / Hazards /
interactable TILE MAP PALATTE



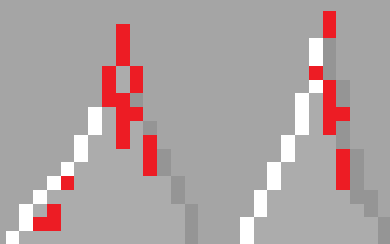
Ladder tile sprite



ANIMATION DOOR SPRITE



HEART HEALTH BAR SPRITE



SPIKES HAZARD TILE



HAND DRAWN CHARACTER
DESIGN - PROTAGONIST



100 x 100 CELL SIZE,
ANIMATIONS HAN DRAWN,
CHARACTER ACTIONS: RUNNING
CLIMBING IDLING AND DYING



HAND DRAWN ENEMY DESIGN



ANIMATED HAND DRAWN 100X100 CELL SIZED ANIMATED ENEMY
ACTION: WALKING AND DYING

User Interface Wireframe & Outlines

