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 th pesterminator.
- → 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.
    - Players can make the player shoot acid slime towards the enemy, The Roaches, by pressing the z or cntrl buttons.
    - Players can make the player to double jump by pressing the space bar.
- → The mechanics of the game is a fixed level, 2D platform, were the player navigates through various obstacles such as hazards and enemies. The objective of the game is to take the protagonist to the top level to pass through the door to succeed in completing the level.
- → The screen movement of the game, the main camera has a cinemachine attached to it, giving the flow of the game smooth as the virtual camera follows the character towards the tiled map, environment.
- → Health bar, decreases as soon as the player hits the enemy or hazards;
    - Enemy -1 out of 3 hearts
    - Hazards minus 3 hearts – restart game

Gameplay

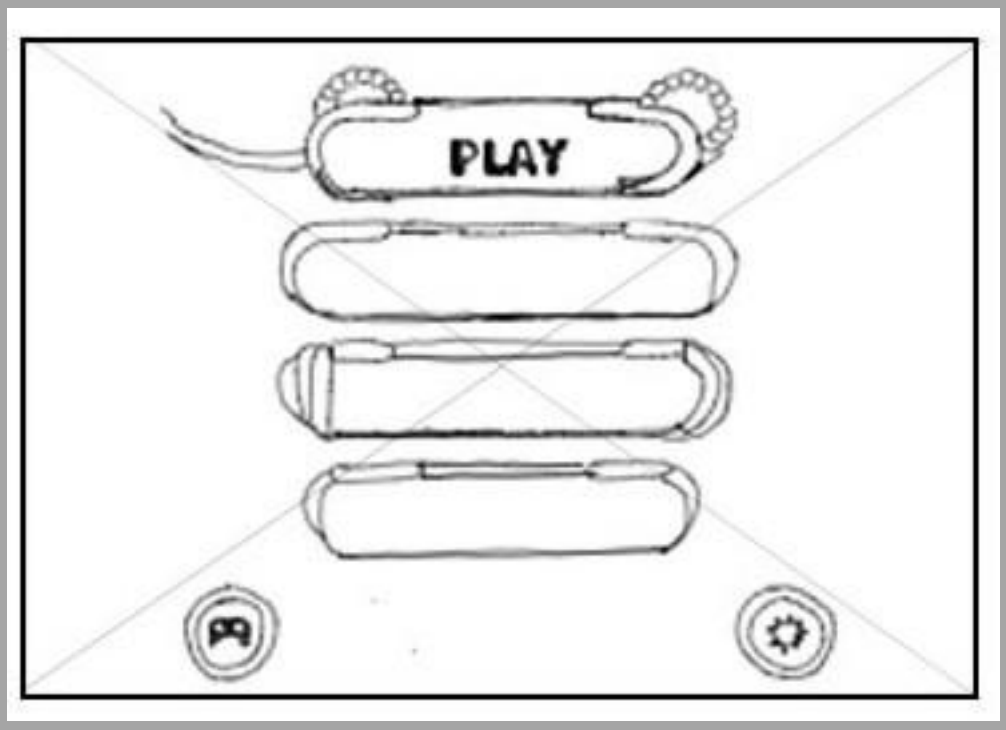
The gameplay of the game is that the players are encountered with the protagonist that leads them to a fixed level platform. The players need to control the player and take him to the finish line, that is the door that will lead him "to his next mission". The players need to avoid hitting the player through hazards such as the water and spikes, and when the protagonist encounters the enemy, the players must attack the enemy using the shooting mechanics that the character has, and avoid being hit by his mutant eggs.

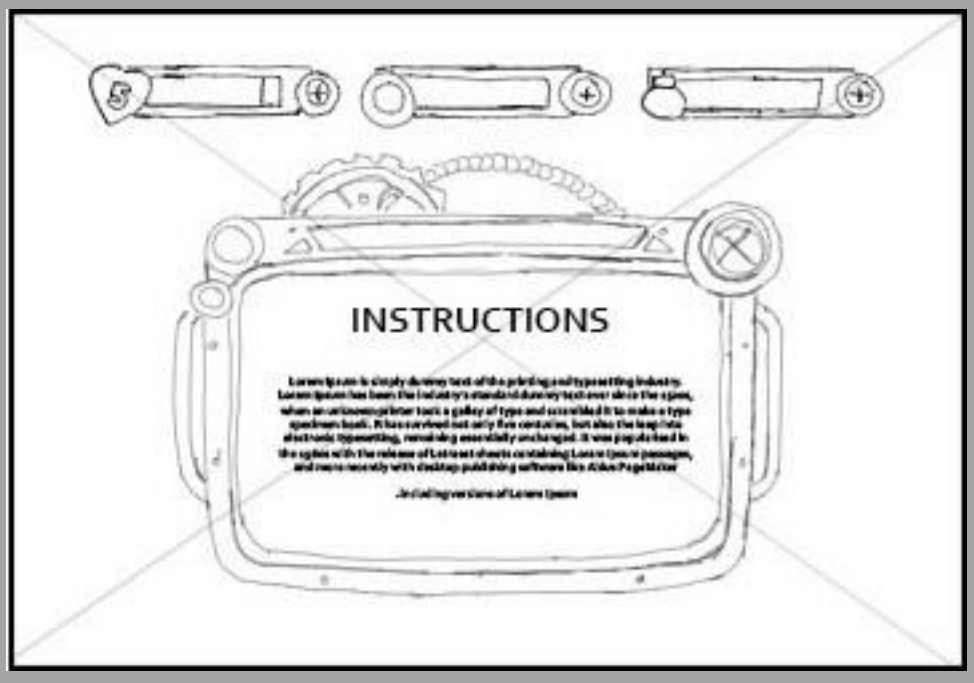
(Music/Sound)

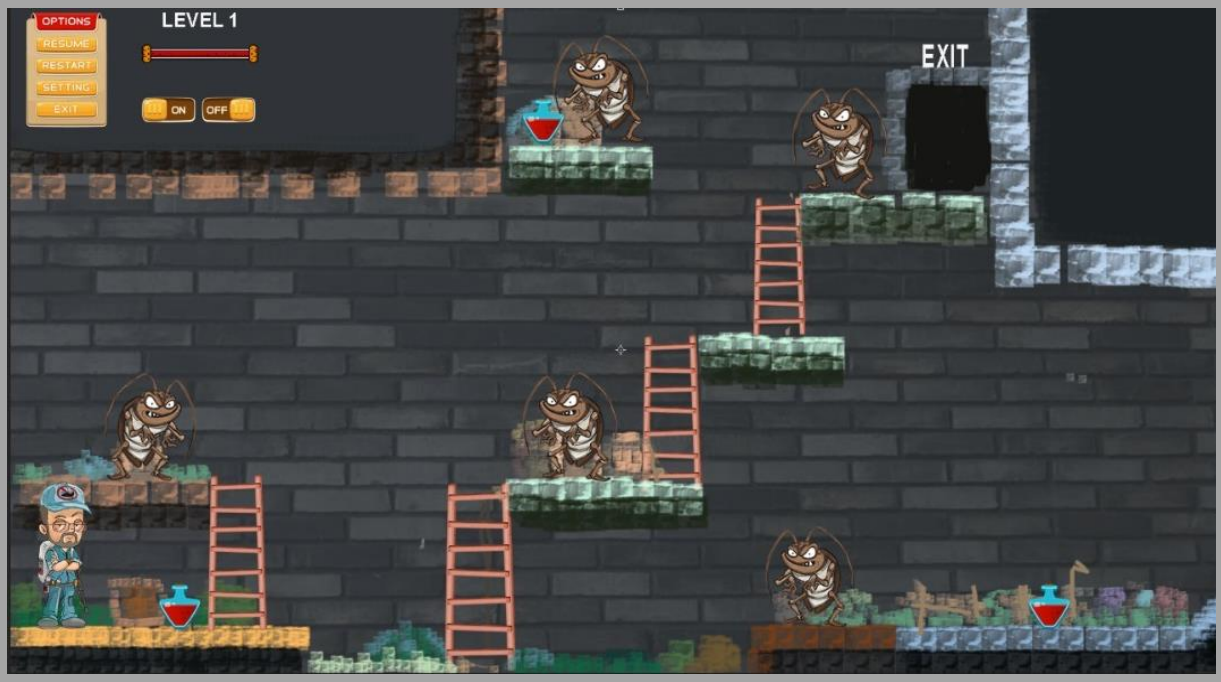
The game has a simple ambience music that is a classic, bouncy, 2D mellow tunes that entices the player more in playing the game.

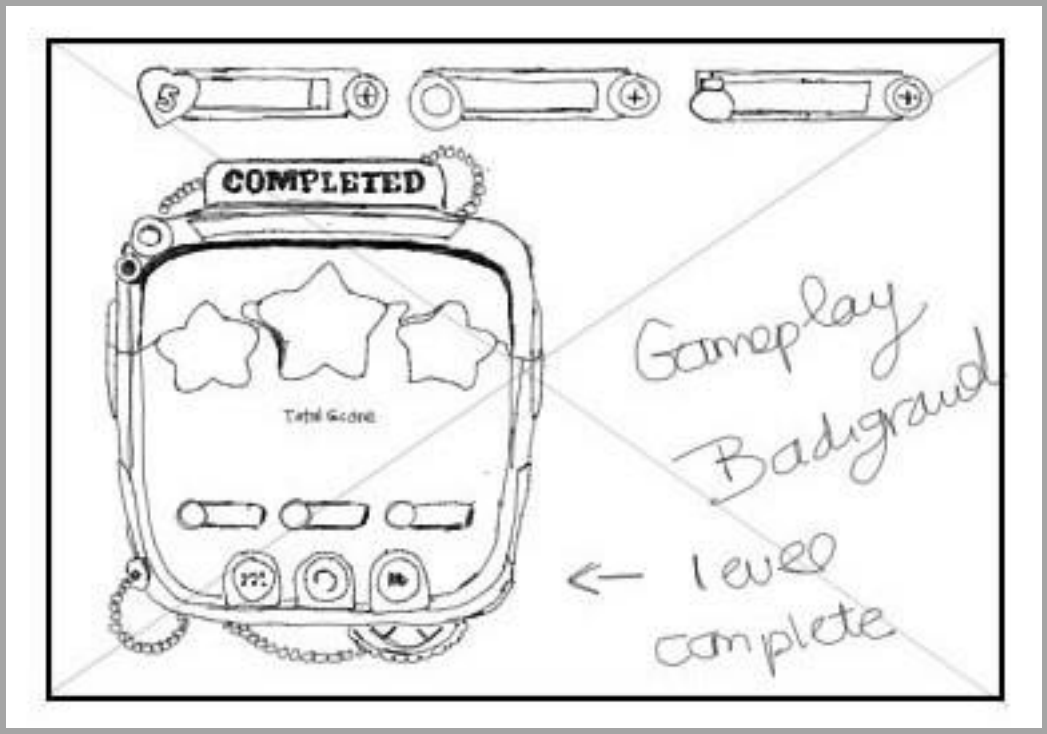
Game Screens

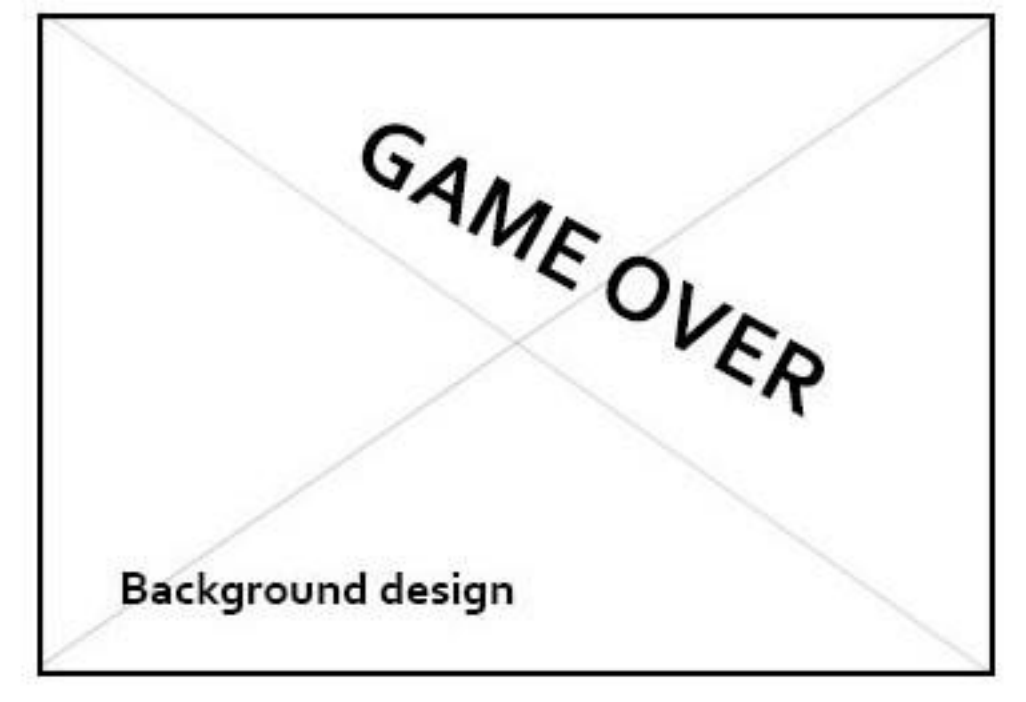
- → Main menu
- → Options
- → Instructions
- → Gameplay
- → Level Complete
- → Game Over page


PLAY

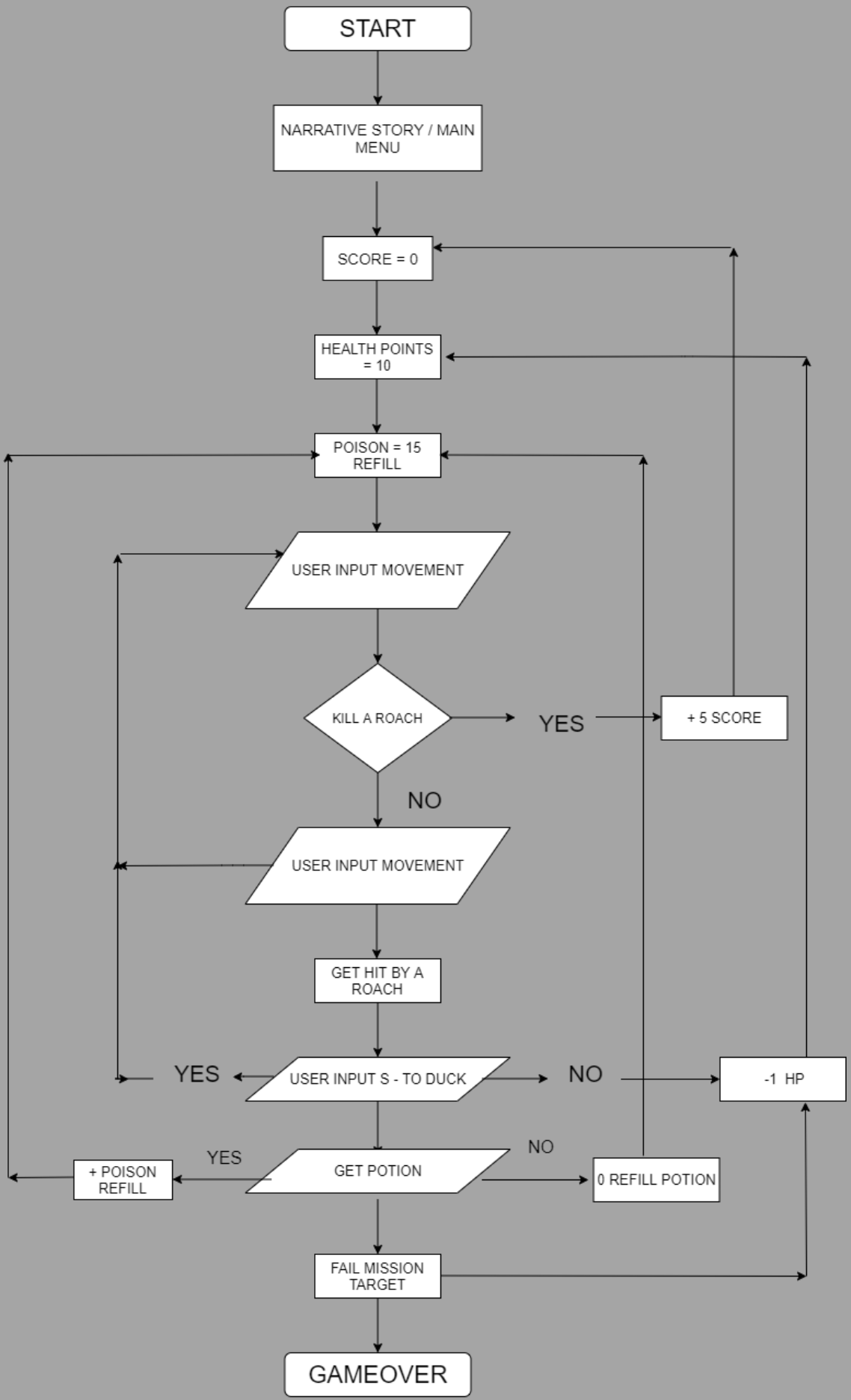

INSTRUCTIONS


OPTIONS
RESUME
RESTART
SETTING
EXIT
LEVEL 1
ON
OFF
EXIT


COMPLETED
Total Score
Gameplay
Badgraud
level
complete


GAME OVER
Background design

Gameplay Flowchart



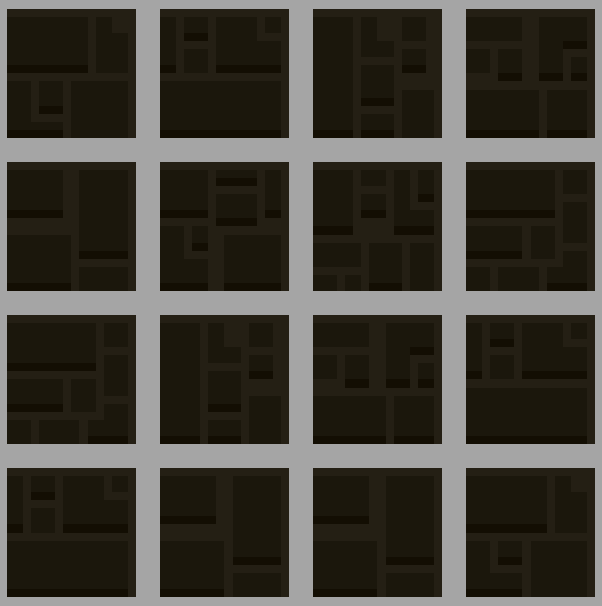
Game Objectives

The aim of the game, The Roach Infestation, is for the player to control the protagonist, throughout the one fixed level game. Player also need to avoid obstacles for their characters in order not to get hit and get instant death and restart of the game. The player controls the character through basic core / control mechanics such as running, left and right, climbing up and down the ladder using the arrow keys, jumping by pressing down the space bar and shooting acid slime towards enemies by pressing the z button or cntrl button. The player only has three lives, gets hit by enemy -1, hits by hazards -3 health points. Getting the player to the door is when the level of the game is complete.

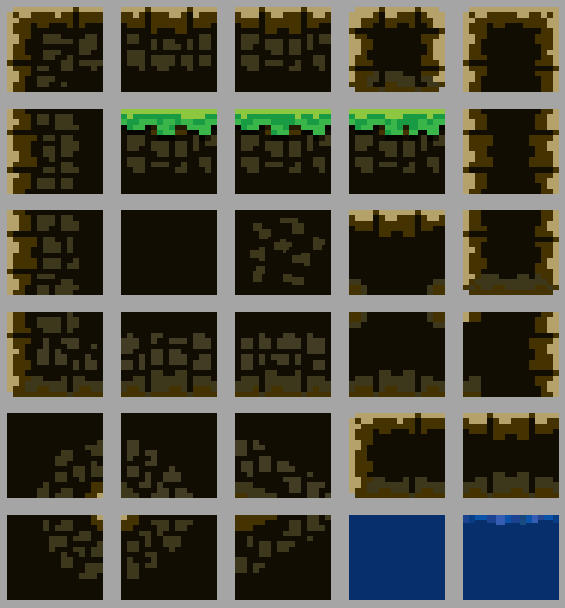
Art Assets and Theme

The main theme and concept of the game is a classic 2 D online / Web game, that its art style is quite drawn cartoonish, giving it some humour, revolting and robust style. The art is a mixture of hand drawn characters, animations, background and user interface, to other additional online assets for extra detail. The Background gameplay is created using assets of tile map, through tile map palette I assigned the chosen tiles, and divided the platform into background, foreground and interactable, giving the game more depth to it. The characters animation is hand draw, precisely on Adobe Photoshop, using grid, cell size 100 x 100 pixels, making sure to use the same resolution of the screen as of the game 1920 x 1080 pixels, 300 dpi for excellent quality and smooth animations. Hazards and interactable are added throughout the platform creating obstacles and loading of scene managers. As for the user interface, keeping with the same style, colours and theme with the game to make the interaction between player and the gameplay more reachable, easy to understand and navigate.

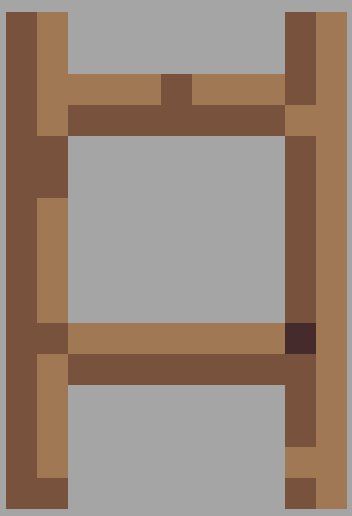
Two-Dimensional Downloaded Game Assets



BACKGROUND TILE MAP PALATTE



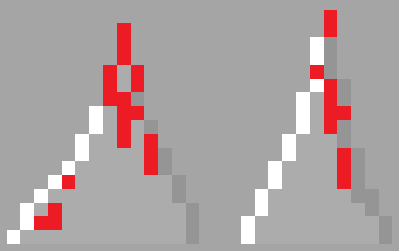
Foreground / Hazards / interactable TILE MAP PALATTE



Ladder tile sprite

ANIMATION DOOR SPRITE

HEART HEALTH BAR SPRITE

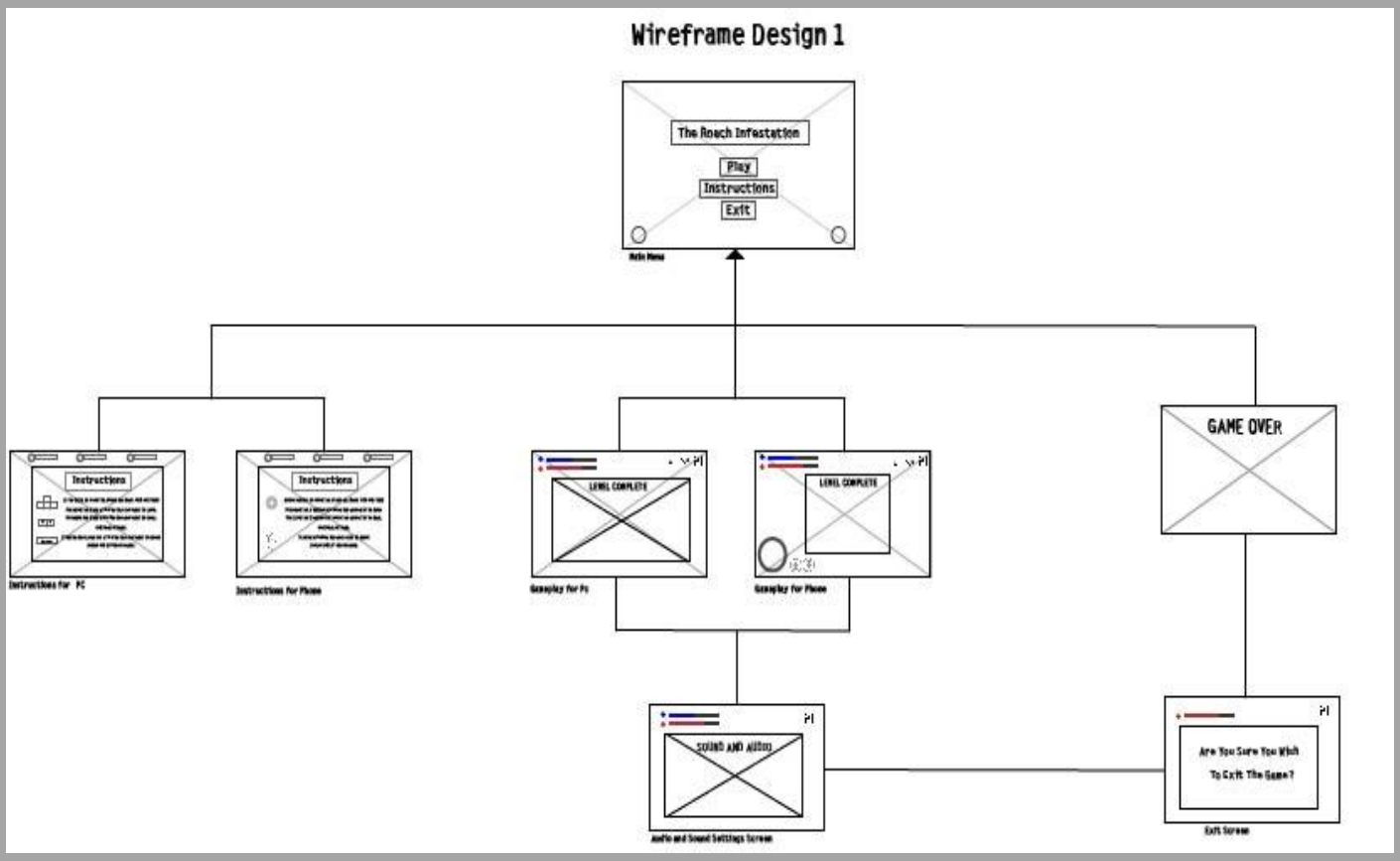
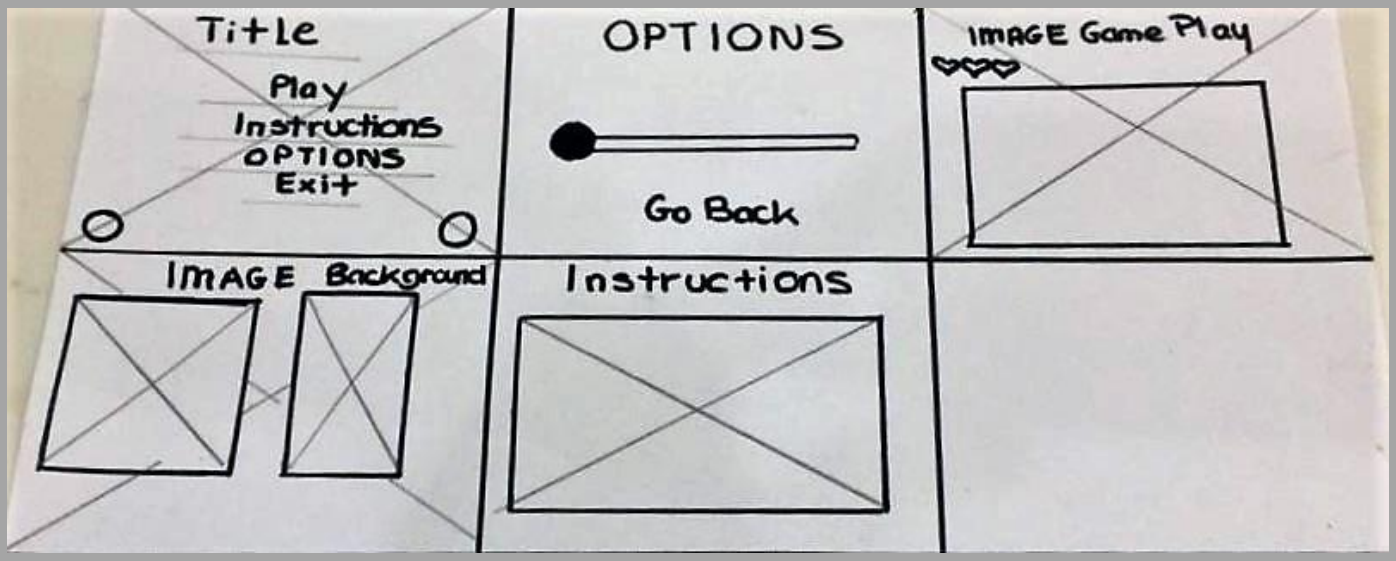


SPIKES HAZARD TILE

HAND DRAWN CHARACTER DESIGN - PROTAGONIST

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

HAND DRAWN ENENMY DESIGN

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

User Interface Wireframe & Outlines