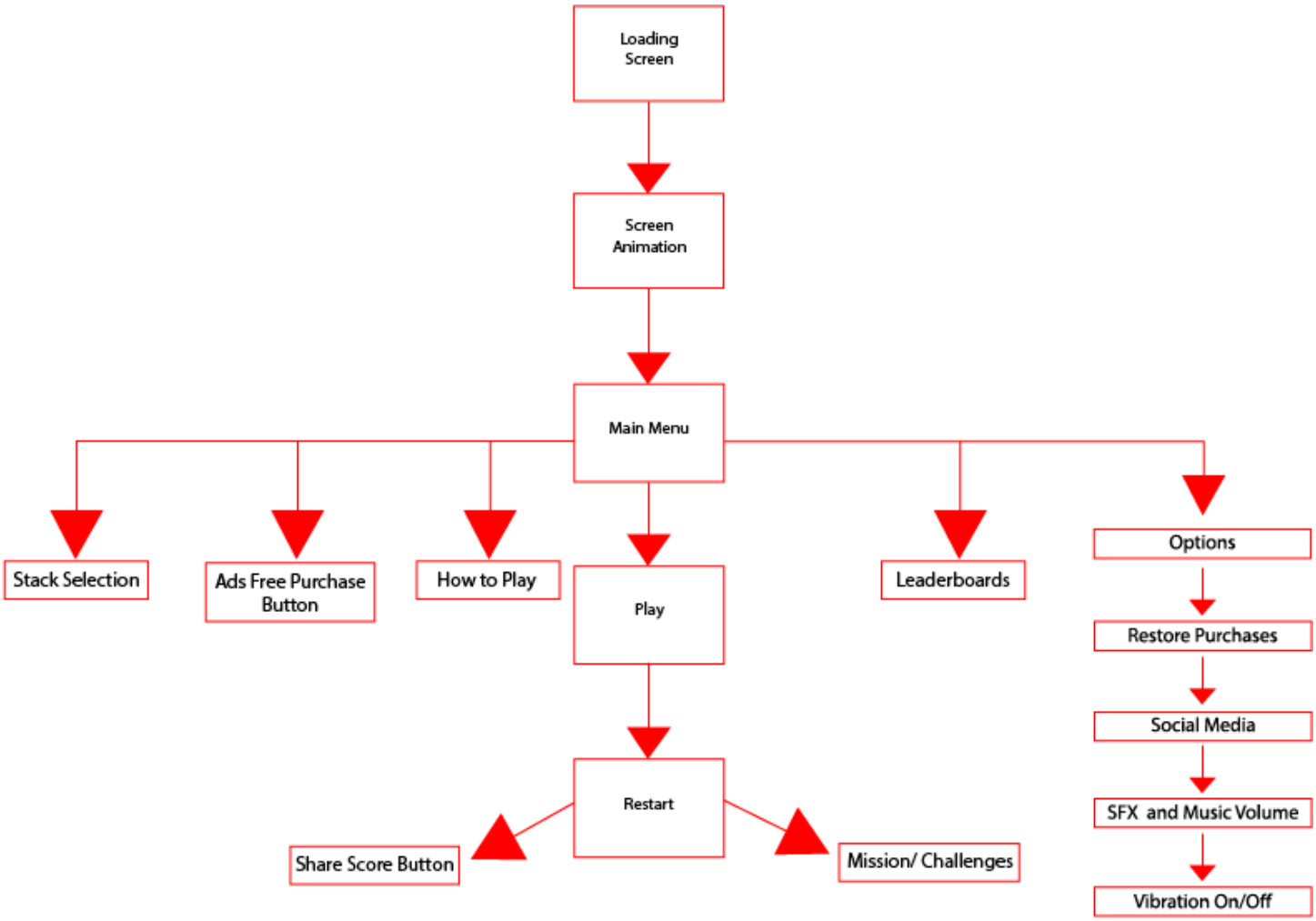
Basics of Game Engines Task 1

Design Brief

Target Device (Screen Resolution and Input Method)

- Since the game we will be creating will be on desktop we will use the screen resolution of **1920x1080 (High Definition) at 9:16 ratio (portrait)**
- As input method for the replication of **Stack** the only input will be the spacebar key on the keyboard to stack the cube when playing the game.
- The mouse will also be used to navigate through the main menu.

Gameplay Flowchart (A representation of the game flow logic)



Pseudocode (Representation of the game's code in plain English)

Player script

//If spacebar is pressed a cube will be stacked on the position.

}

Game Manager

//If the cube is stacked perfectly the score will increase.

//If the cube is not stacked perfectly the shape will decrease in size.

//If the cube is stacked perfectly on a streak it will increase in size.

}

Menu Script

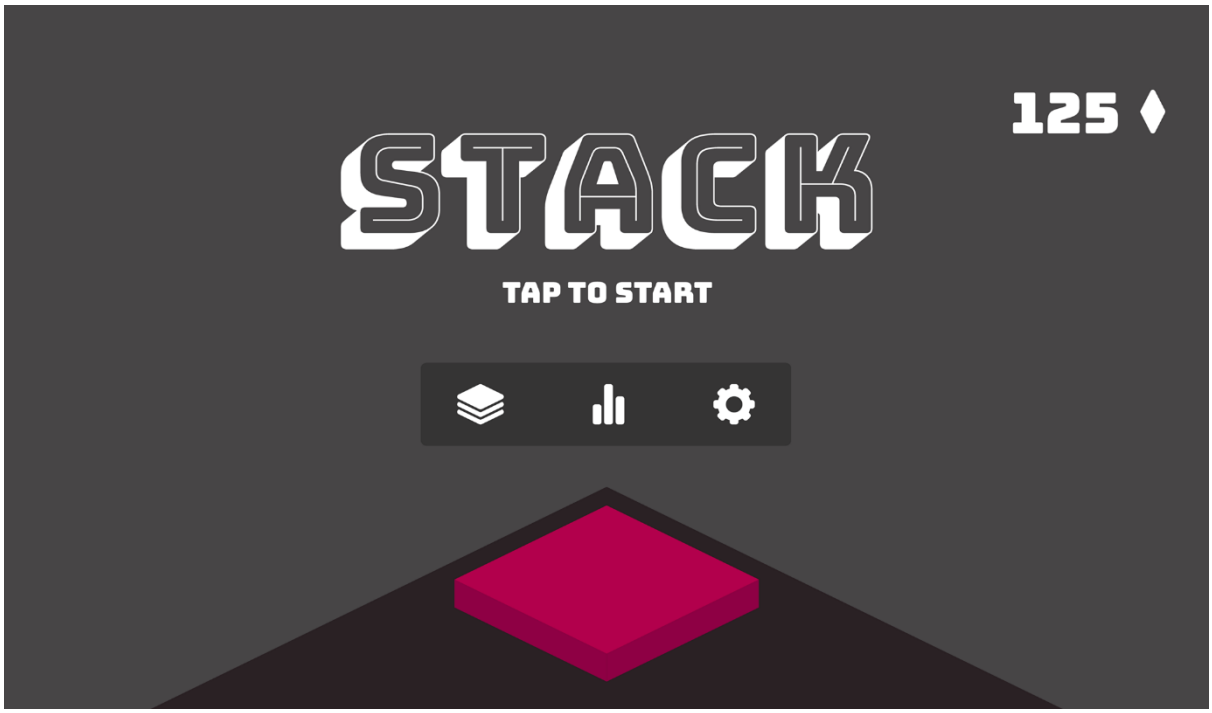
//If the enter button is pressed the game will start.

//If the left click is pressed on the stack selection button a new menu will open.

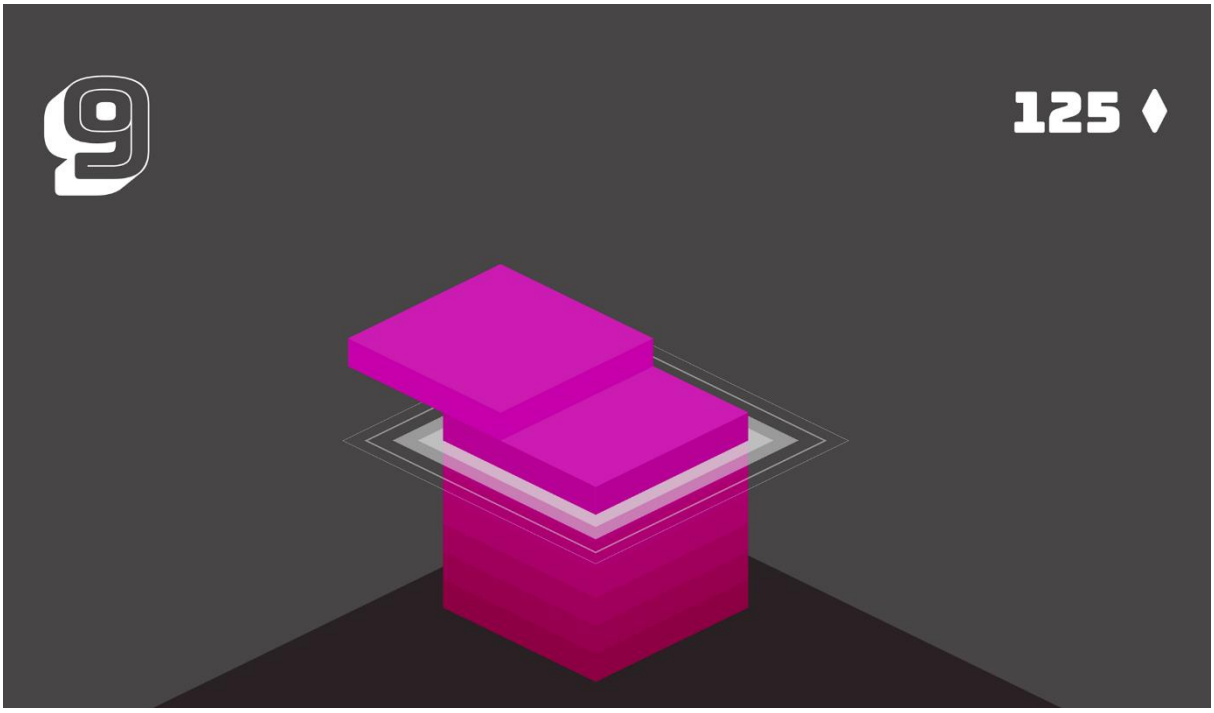
//If the left click is pressed on the option button the options menu will open.

}

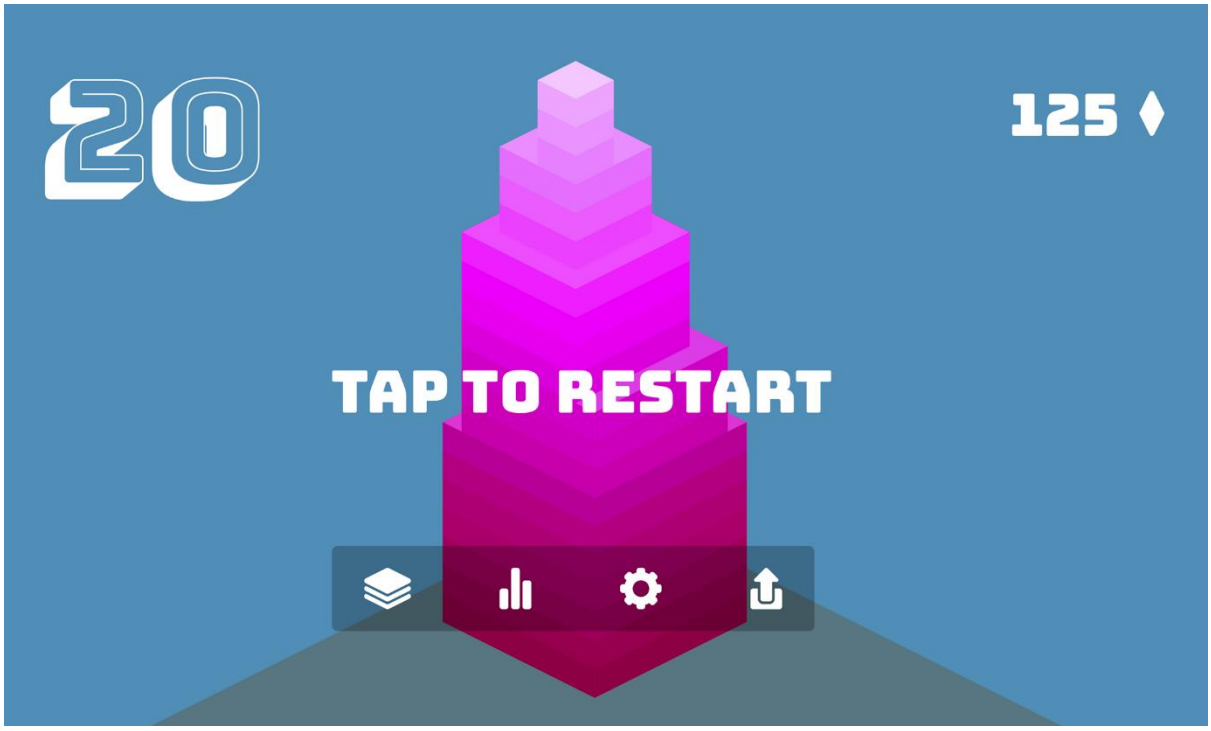
Walkthroughs(An explanation of the gameplay loop including screenshots)



This screenshot shows the main menu when the game is opened on desktop. It has 3 different icons that open different menus such as options, stack selection and leader boards.



This screenshot shows the gameplay of Stack with the record of perfectly stacked cubes on the top left of the screen and the in-game credits on the top right.



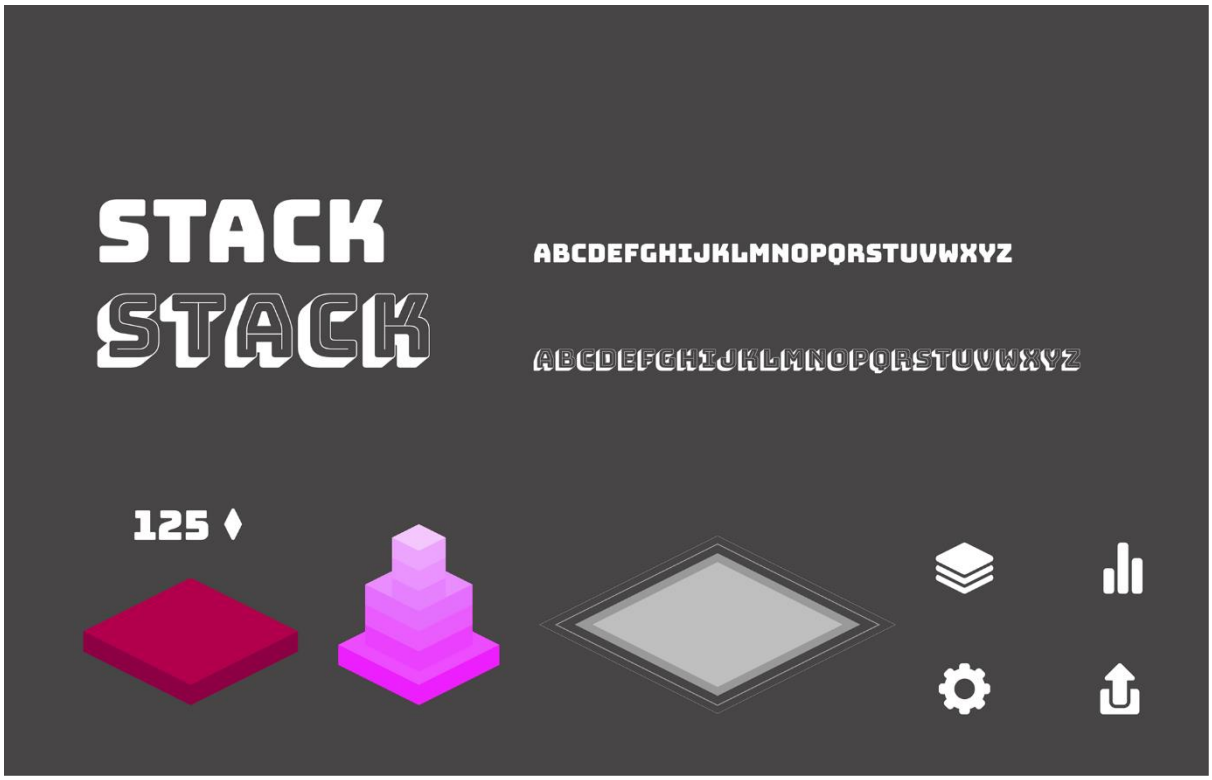
This screenshot is the menu that comes up when the game is over, the player loses the streak, and the cube becomes smaller and smaller than the game is over. A set of icons appear on the screen which are the stack selection, leader boards , options and the option to share your score with your friends.

Game Objective(Define the main objective of the game)

Our game will be based on the hyper casual game called **'Stack'.**

The objective of this game will be to stack moving boxes as high as possible. Each box will move from end to end and the user needs to time his input perfectly so no parts of the box will be lost. If the box is partially on top on the other boxes, it will lose the space that is not touching with the other box, and eventually if the timing is not accurate, the boxes will lose more & more space. If the box is missed the game is lost.

Art Assets (2D/3D) (Collection of the artwork needed for the game)



This picture shows all the art and assets that we will be using to recreate the game. Most of the assets are 3D and very similar to the original game. Two typefaces will be used to make the game look more interesting.

As colours we will use the same colours used in the original game for both the backgrounds and the cubes.

The game will be created by

Andrei Mercieca and Zane Da Silva Pires.