

Game Engines 1

Task 2

Kendra Muscat & Maya Montanaro Delia

CA-GVD-5.2

The Target Device

The device the game would be played on is a computer. The resolution is played at full screen at 1920 x 1080. The players would use their mouse to click buttons in the UI and menus to access settings, highscore and to start the game. The game uses simple mechanics like walking left and right, and the character can also jump which is used to avoid obstacles. These are all inputted by the player when they press the left arrow key to move left, the right arrow key to move right and 'space' to jump.

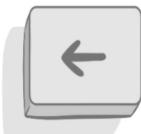
The idea is to use simple input methods that most people will understand. Since the mechanics and controls are fairly simple, the game could also become a mobile game in the future. It could easily be controlled by the touch screen, since there are only three simple controls.



Controls Methods & Game Mechanics

The games feature Operational rules which allows the player to move forward into the game. These rules include for there to be platforms for the player to walk on and gaps in between which allows the player to fall down the platforms and get higher scores. Constitutive rules include the players movement which are left, right and jump. These are rules that allow the player to progress since the player has to follow these rules to move forward. These rules would prevent the player from holding the same key and moving in one direction. Since the player would eventually have to press jump to avoid the obstacles. Another rule featured in the game is that the player could pass from one side of the screen and appear on the other.

Left



Right



Jump



Pause



Controls Methods & Game Mechanics

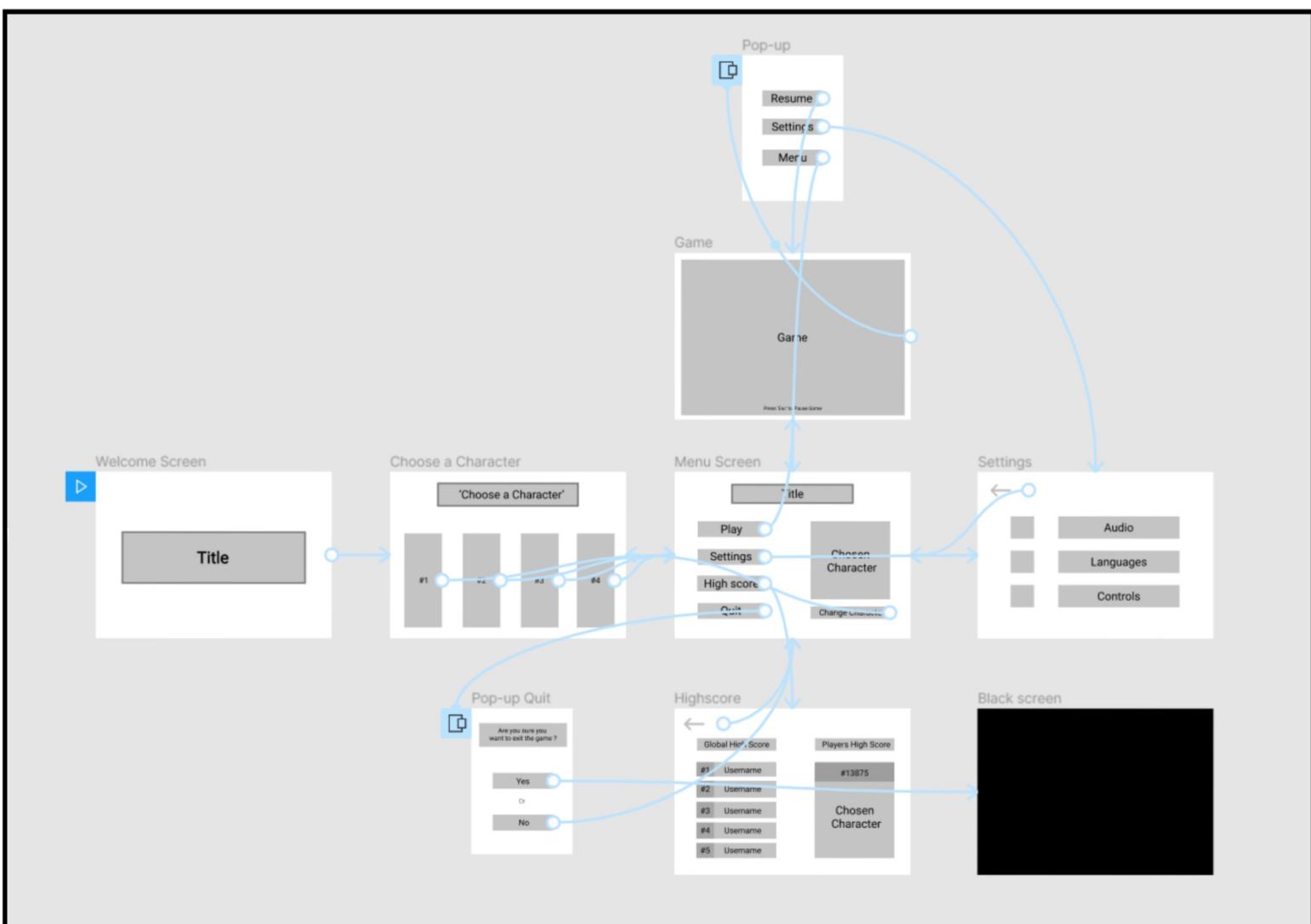
The main objective of the game is to fall down platforms to get to different environments and to get a higher high score. To do this the player must avoid obstacles and collect items along the way which could increase the chances to survive longer and could also get extra points added to his score.

The game's process would start at the top of the screen. The player can then either fall down the gap in between the platforms or could pass through one side of the wall to avoid an obstacle. The player could die on a thorn or fire which would result in a game over. Once the player is met with these obstacles he can choose to jump over the thorn or go around it, but once the player is met with the fire, they would have to go around since it is not jumpable. The game could also result in a game over if they can't catch up to how fast the platforms are moving and this could result in the player touching the top of the screen and die. Throughout the players attempts at getting a higher high score the game could be paused and resumed which allows the player to continue playing from where he left off.

Game Screens

Wireframe for Game

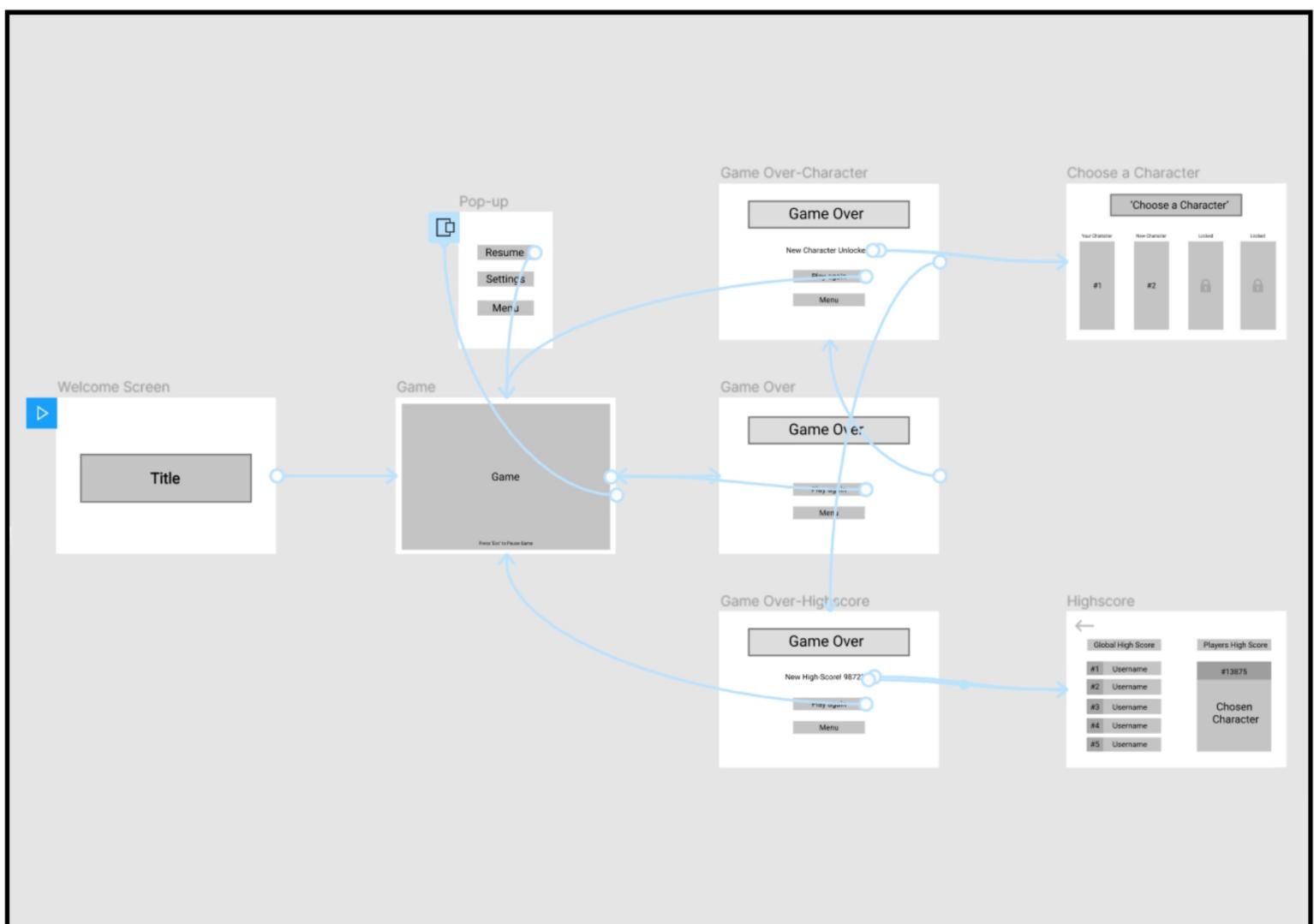
Created on Figma



Game Screens

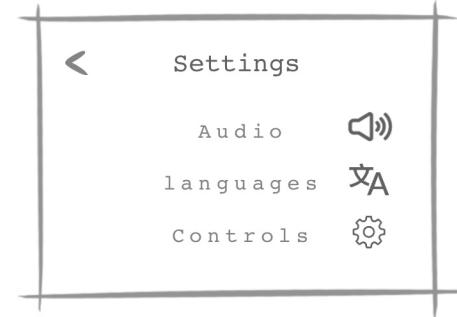
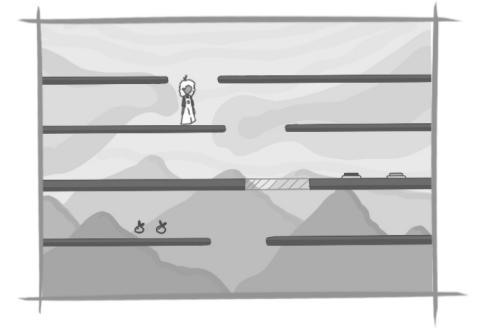
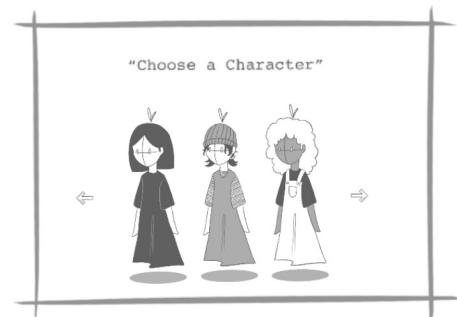
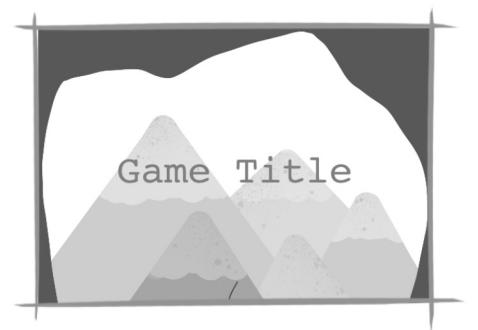
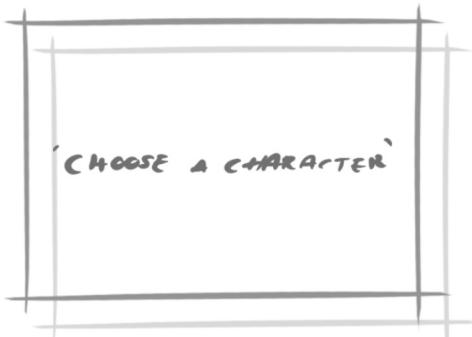
wireframe for Gameplay

Created on Figma



Game Screens

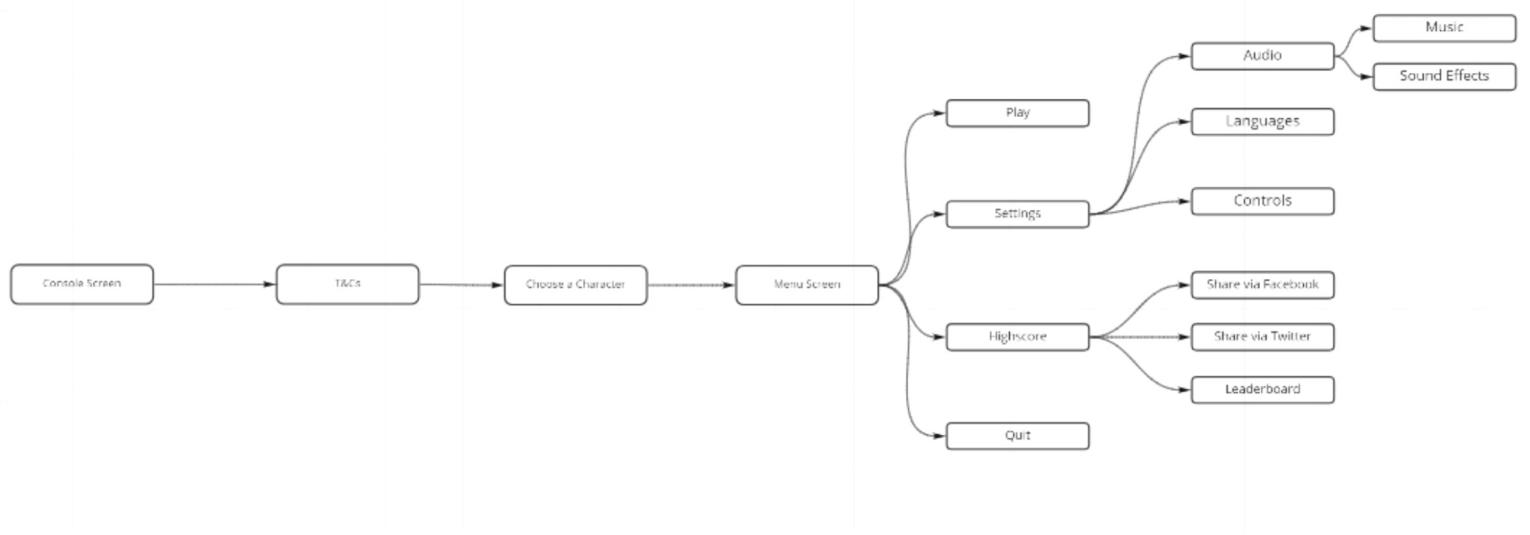
Main Pages Brainstorm



Gameplay Flowchart

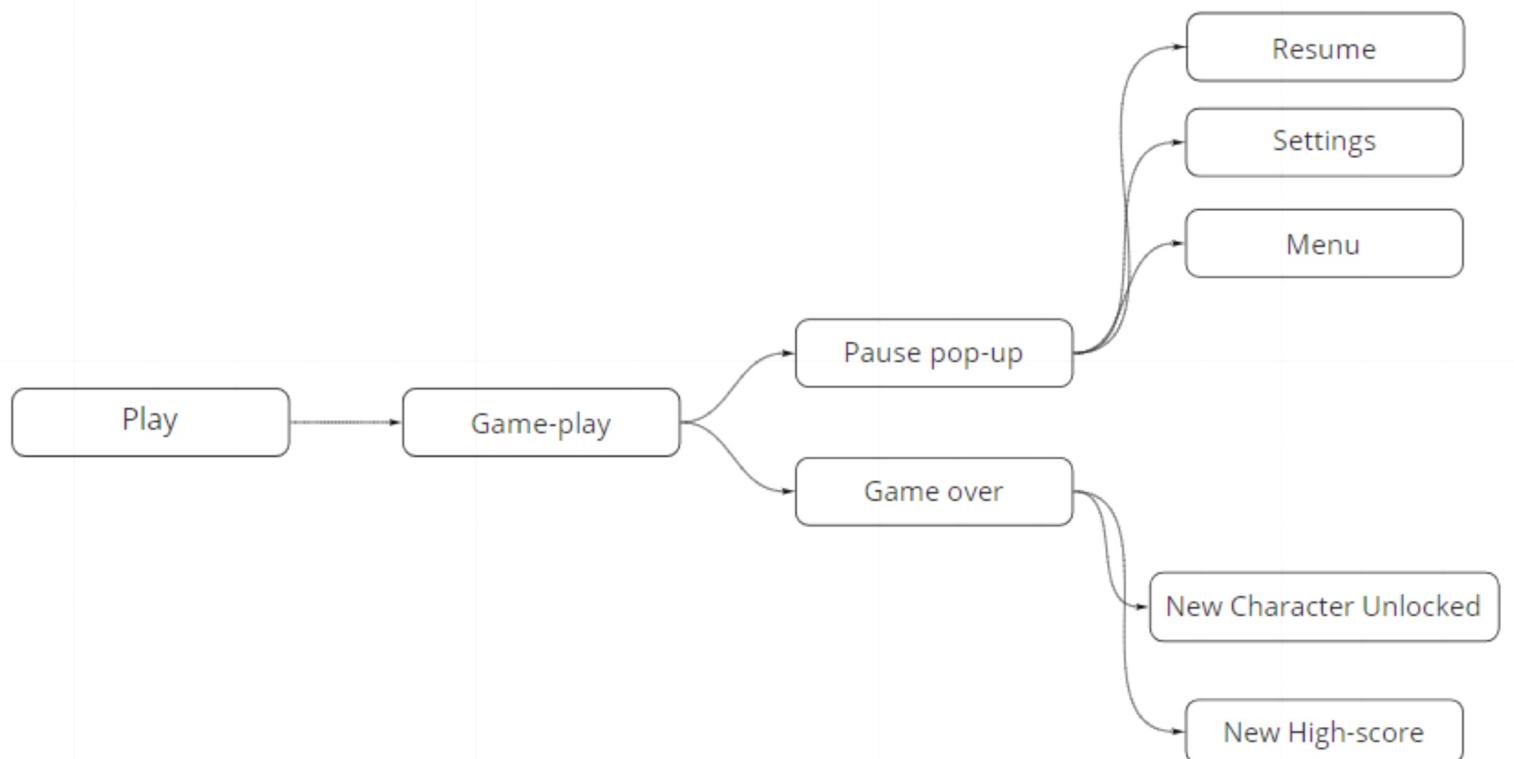
Userflow of Game

Created on Miro



Userflow of Gameplay

Created on Miro



Game objectives

The game features different outcomes. The outcome of the game will always result in a game over. The game over screen could be triggered by different elements in the game such as the obstacles present and the player reaching the top of the screen. The game over outcome could also result in a new high score that the player could have gotten. This could also result in a lower high score than what the player had already gotten. From here the player could start over and play again. This once again will lead him to a game over which could give him a higher high score.

The game features system dynamics which help the player understand the game better. When it comes to UI the game features simple buttons with sprites of specific designs, from this the player can understand what is clickable and what is not. These buttons give feedback to the player that the button has been pressed by changing colour and taking the player to another scene. UI is also the main way that could guide the player to different elements of the game which could help him understand controls and also adjust settings. All of the UI features elements which helps the player understand what everything means. These are also featured in the gameplay.

The gameplay is made up of objects which include sprites that represent what the objects are. The game includes the character sprite which can change direction depending on what direction the player is walking to and also an animation to show the player that once he presses space to jump, it works. The character can collide with objects and obstacles which could lead to the character dying or could increase points.

Game objectives

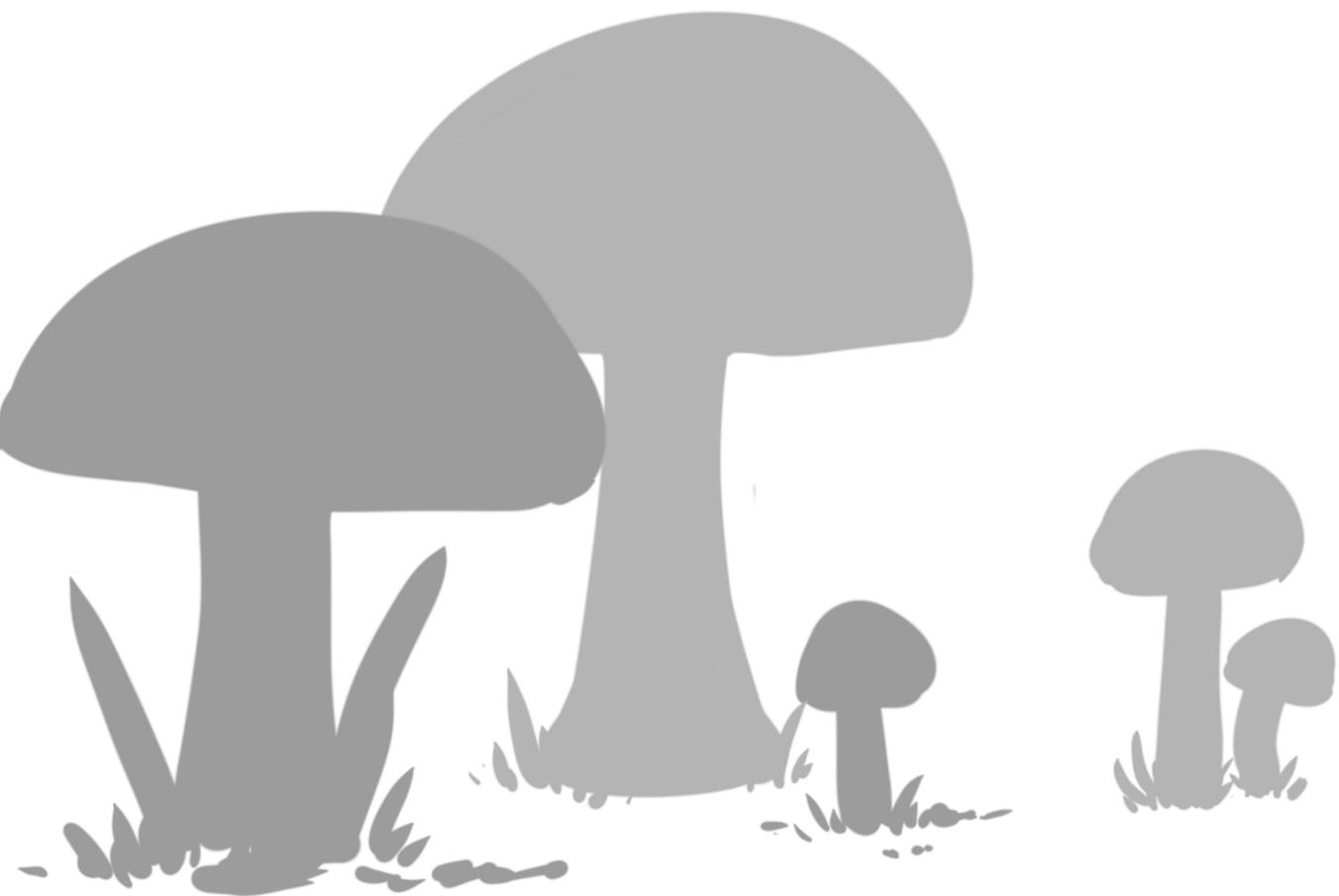
Obstacles are also shown with the use of sprites, the types of sprites used help the player understand what objects could harm the character. The sprites used are fire and thorns, these were chosen since it would be simple for the player to understand that they should be avoided. Once the player collides with any of these, the player will know that he died since the game over menu would pop up which would give feedback to the character to avoid hitting that object again.

The game also features powerups with sprites that resemble strawberries, this would signify to the player that it can be consumed. Once the character collides with the strawberry it will disappear, this will allow the player to notice that he has collected it. Once the strawberry is picked up the players speed will be multiplied by twice the original speed. This powerup could help the player to move faster and reach other platforms faster. The increase in speed would give feedback to the player that something has changed, and the player would know to pick up the power up once again.

Other elements include more consumables that could increase score, an enemy character and a character which could also give you extra score. These are all indicated by sprites, which allow the player to understand the difference between them. These elements help the game to be as balanced as possible to not only make it challenging to the player but also make it possible enough that the player could keep playing and could manage to get further.

Game objectives

Since the platforms would increase in speed by time, it would have been impossible to continue playing since it would eventually become too fast for the player to continue playing. This is why the powerup was added, the powerup allows there to be balance during the game play since it allows the player to risk losing to pick up a power up, but it would eventually lead him to catch up with the speed of the platforms for a couple of seconds.

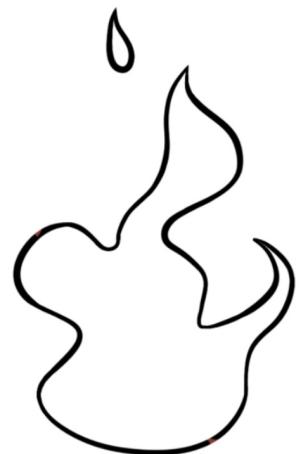


Art Assets: Initial Sketches

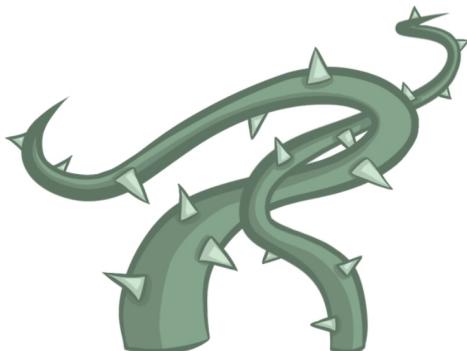
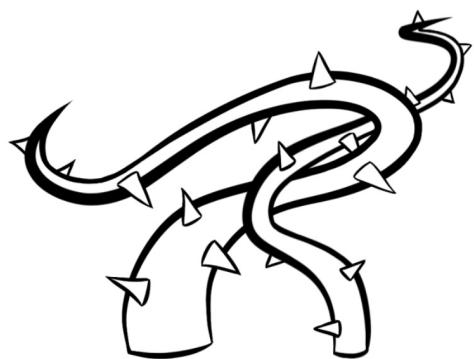


Art Assets: Obstacles

Fire

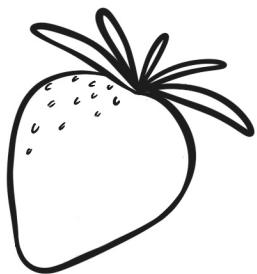


Thorn

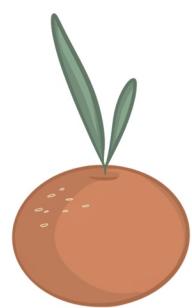
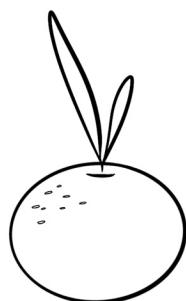


Art Assets: Powerup & Points

Powerup



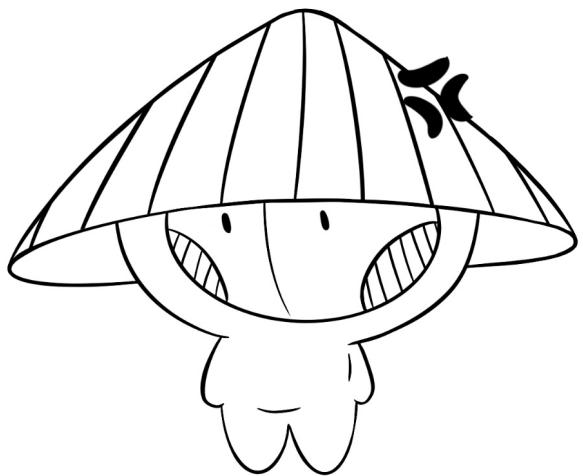
Points



Art Assets: Character (Player)



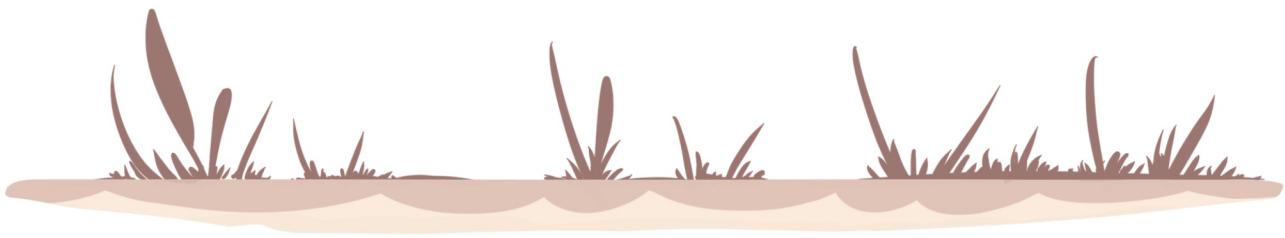
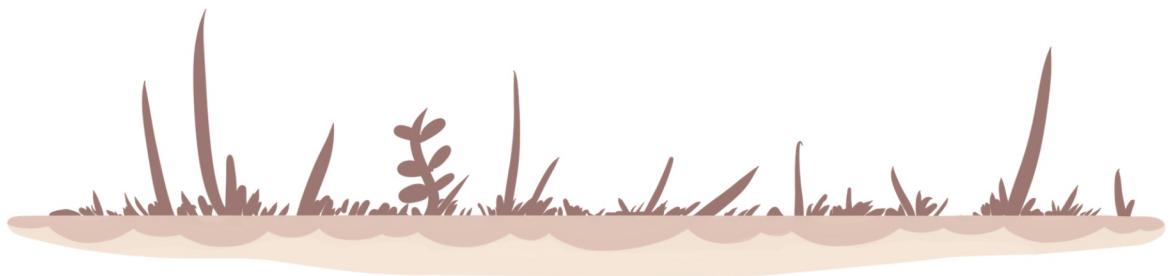
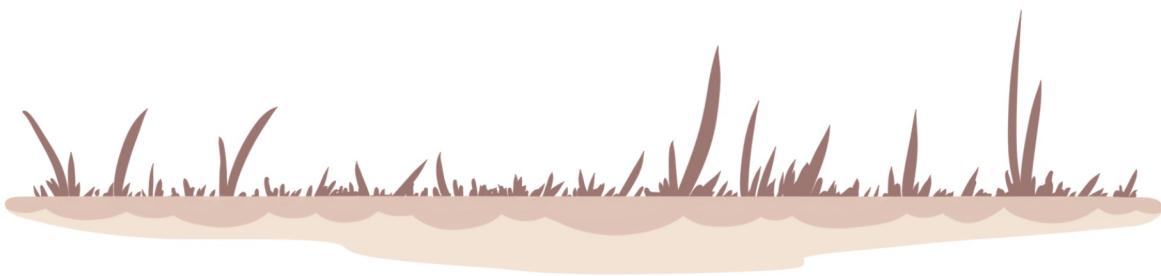
Art Assets: Character (Enemy)



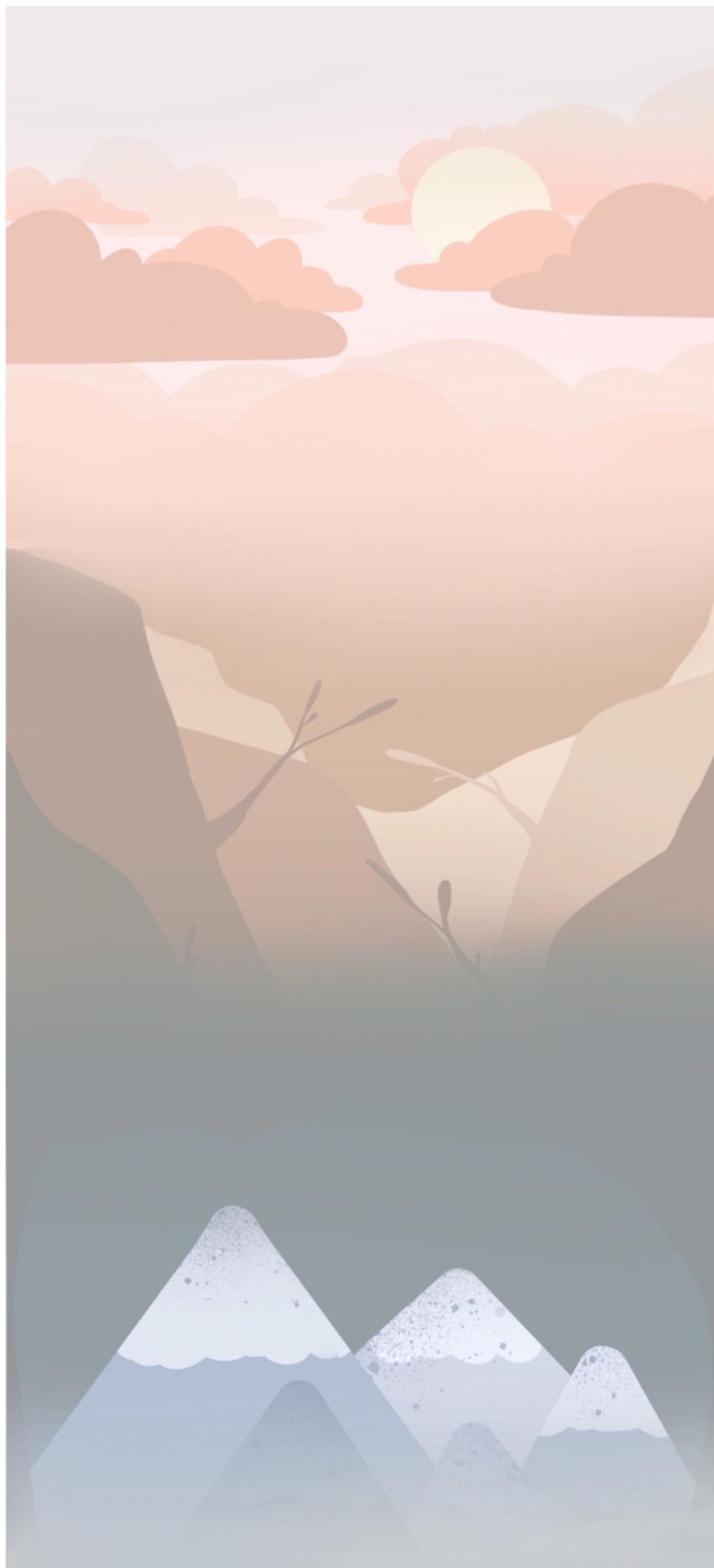
Art Assets: Character (Helper)



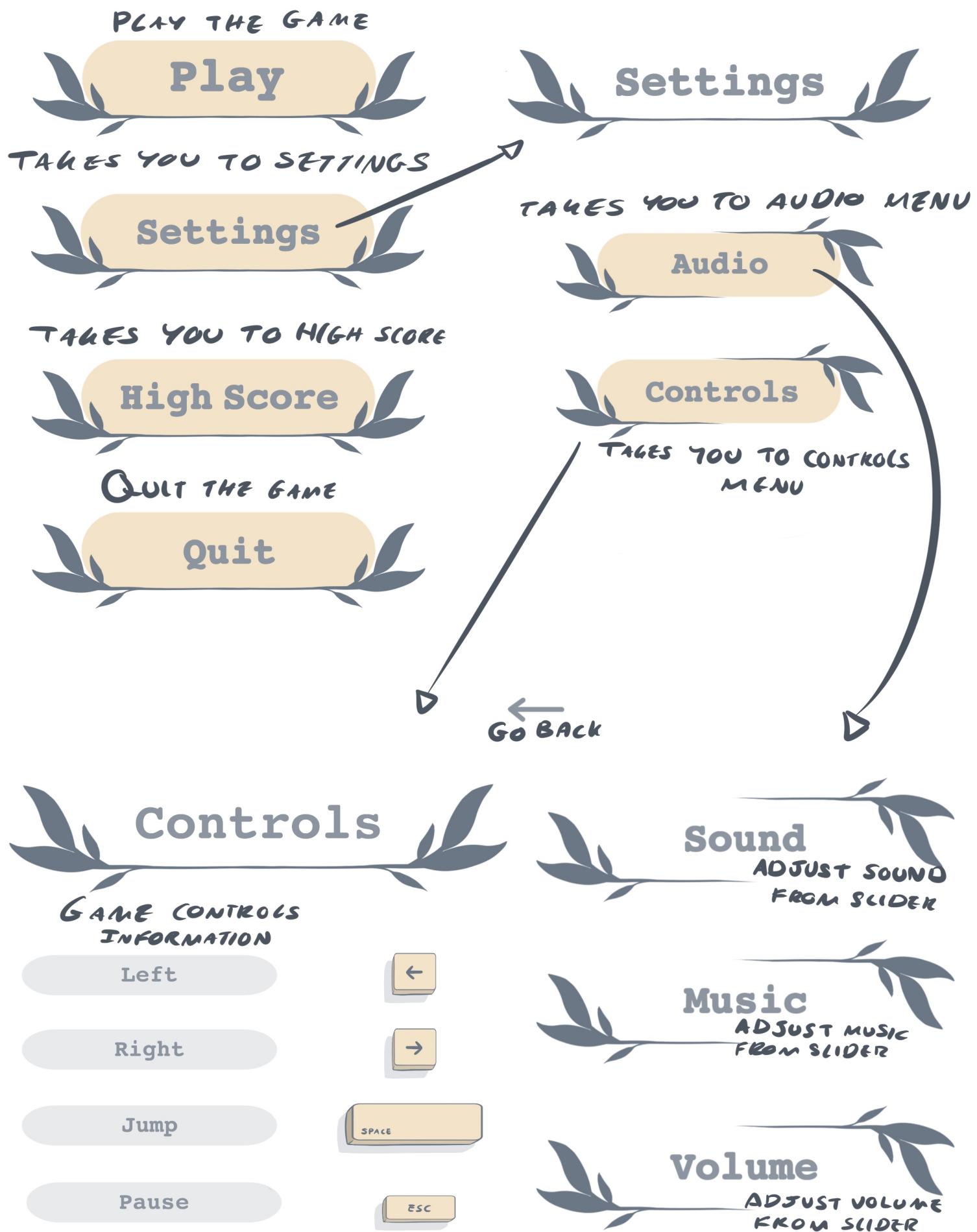
Art Assets: Platforms



Art Assets: Environments



User Interface Outline



User Interface Outline



HIGH SCORE MENU



The End

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