

Game engines

For game engines we picked Helix jump for our reference, it is a simple casual game where the player is falling and avoiding certain platforms while descending levels, other versions of the game differ with the platforms making it that the player needs to go through specific colours to pass the platform, we were thinking of mixing both versions together to make it more pleasing and interesting to viewers, what we also tried doing is something similar to the t-rex google game where the background would change from daytime to night-time to make it more interesting to the players.

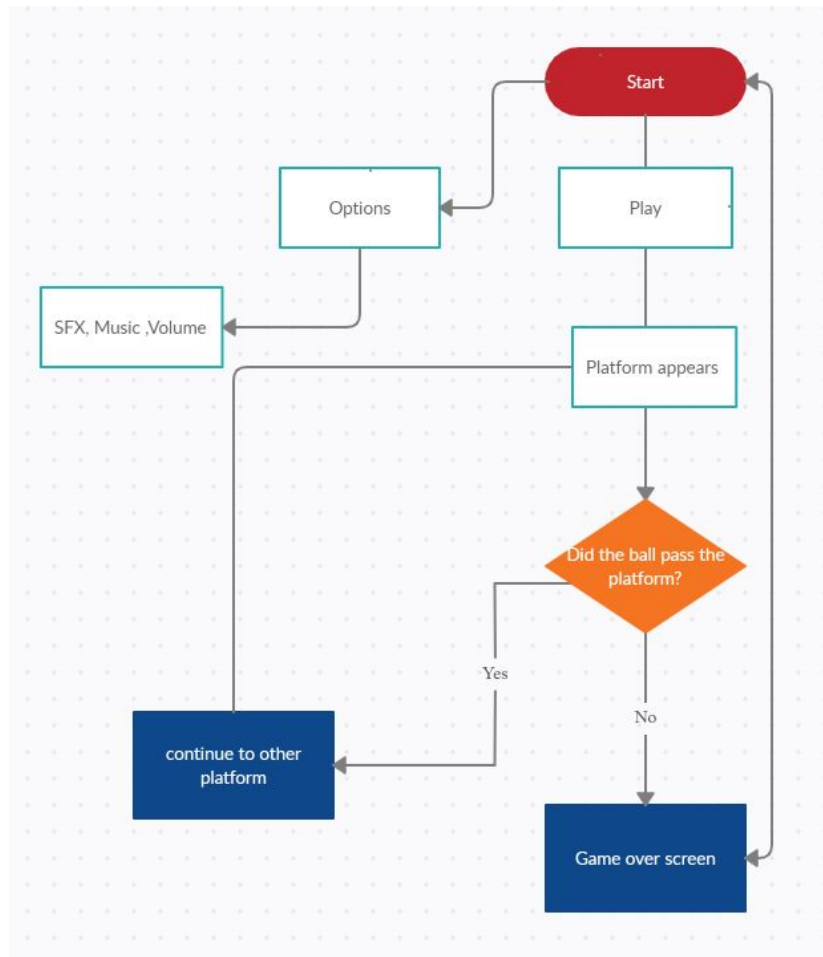


The target device:

When it comes to mechanics we are going to use Rising / Falling Mechanics for the game, Since we are going to use pc to create the game we decided that the screen resolution would be 1600 x 1200 pixels which would be the standard size. For the input methods we are going to use the arrow keys on the keyboard or if the person feels more comfortable using a mouse they can use that which the icon for the mouse changes to a hand and he/she can grab the platform and move it. Since we are going to add it on pc we were also thinking of making it more focused on windows than mac, so it can be supported on both platforms.

Gameplay flowchart:

The player must always descend down without getting struck. If the player does get struck he will have to start from the beginning again, the game is basically always on repeat but in a way the main idea is always to go down and survive each platform, because of the repetitive process we were thinking of adding some background illustrations to make it more appealing and interesting, we would have sound effects which doesn't make the game feel bland or always in silence which can annoy the player.



Pseudocode:

If ball passes the platform
It changes colour

If ball hits a specific colour
If player loses the player gets sent back to main menu

If the ball hits a specific platform
The background changes

If the ball catches a coin
The player gets a point

If player presses the left arrow key
The platform moves to the left

If player presses the right arrow key
The platform moves to the right

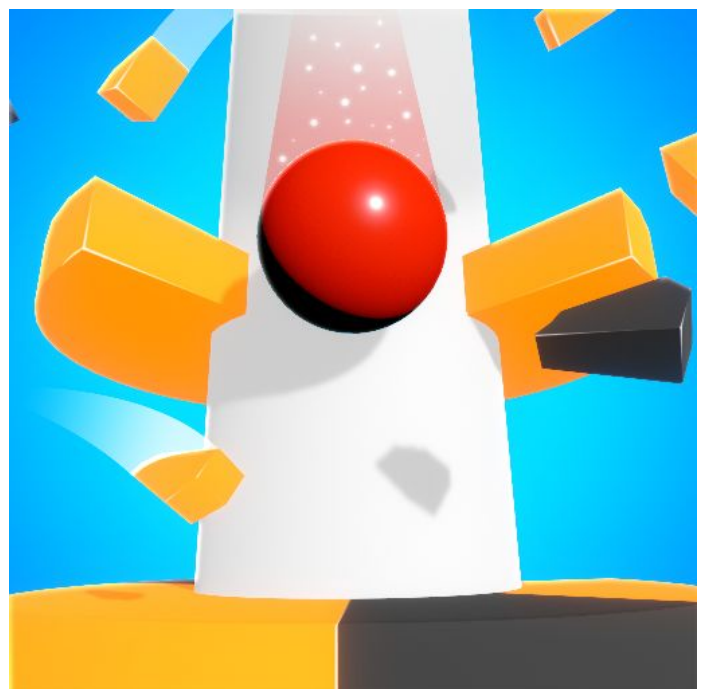
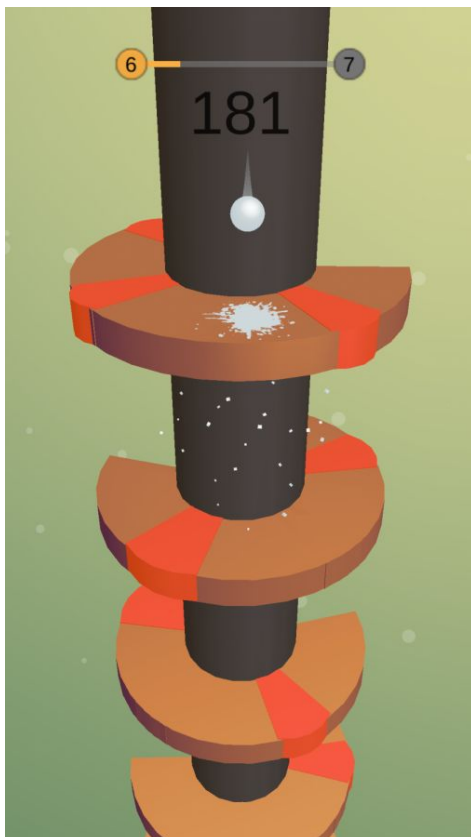
If player uses mouse to drag
The platform moves according to the mouse

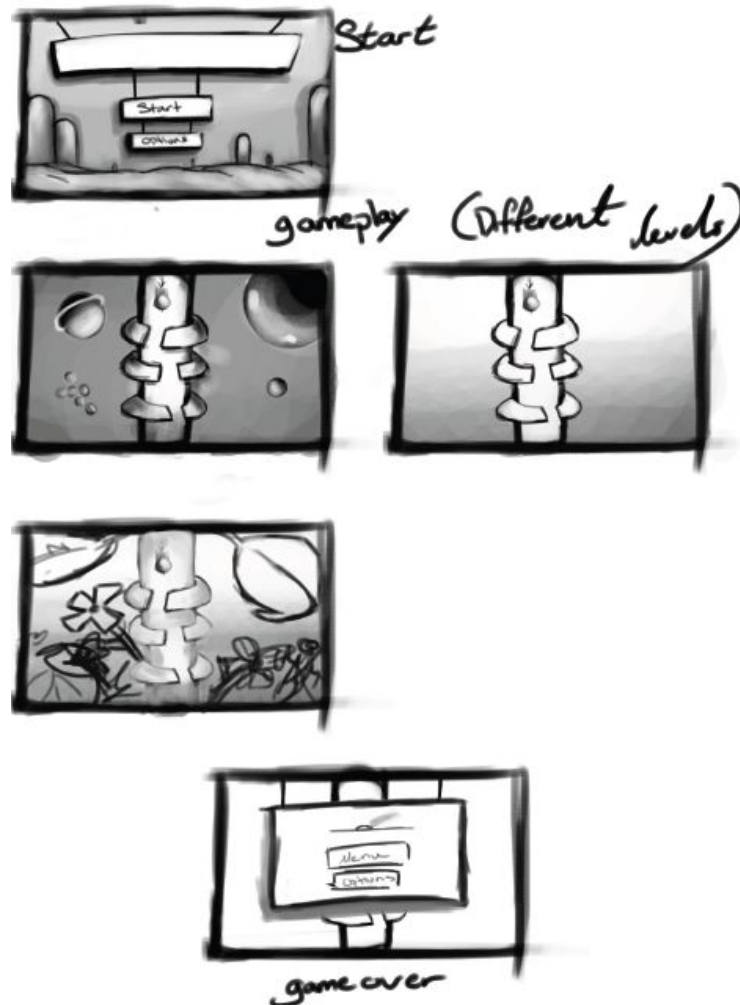
If the player gets a point
The score number would increase by one

If the player collects all of the points
The ball dashes down the platforms breaking multiple platforms at once

Walkthroughs:

- The player starts with the main menu where he is given 2 options; the first option is the options where if the player clicks using the mouse or enter key he will be given 3 setting options which are SFX, music and volume.
- The second option is the start and this is where the player will begin the game.
- The game will start with a ball bouncing on a platform, the player will have to use the arrow keys in order to move or even the mouse.
- While the player is trying to avoid the platforms, points would be scattered in the area for the player to collect.
- If the player gets defeated by the platform an option menu tells him to either quit or restart.





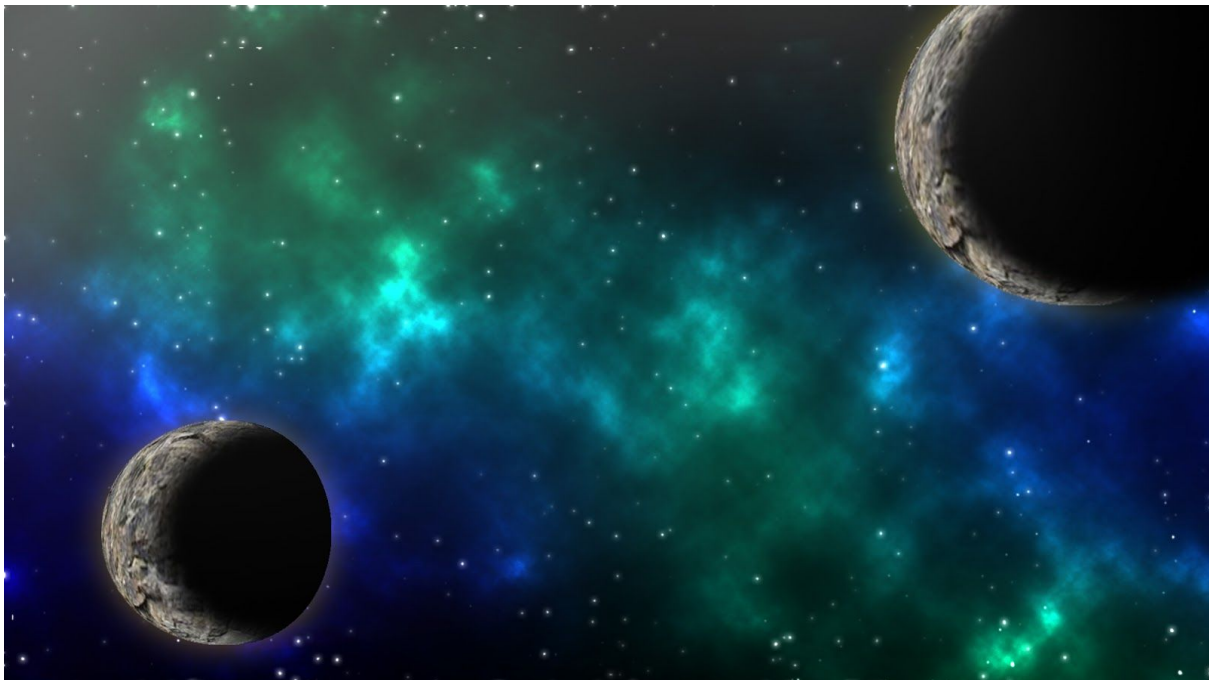
Game Objectives:

The objective is to make sure that the player keeps the ball falling without hitting the platforms while descending downwards. It is also important to note that the player will be given coins around different platform which could be used to give the player a challenge and makes the player feel more engaged, while the ball is jumping it changes colour, this makes it a bit more harder because if the ball is a purple for example then it can only break purple coloured blocks to pass the platform, this gives the player more challenges and also tests his motor skills throughout the gameplay. (To keep note is that the player won't just have challenges to keep him entertained but also the backgrounds that will change every time he descends a platform but also since the beginning would be a cold color which is representing the easiness of the beginning it changes overtime to a warm color which represents the difficulty of the game.)

Art Assets

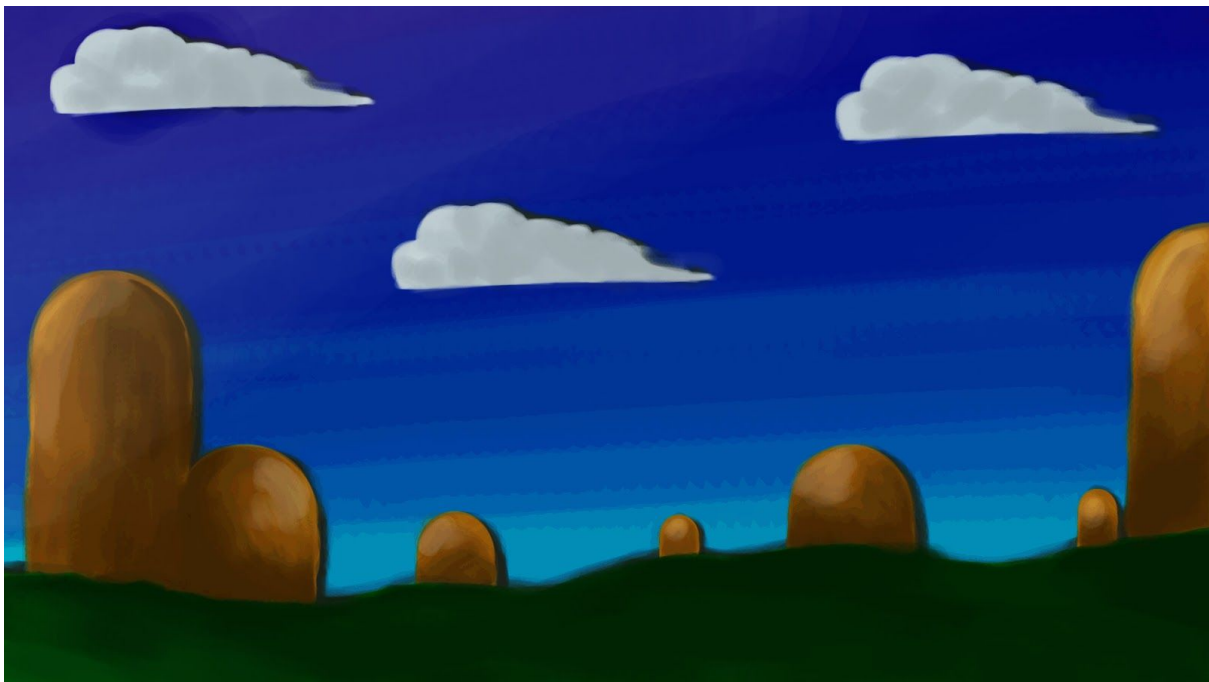


(Concept design for the background using cold colors)





(backgrounds for the game)



(start menu background)



(start)



(game over screen)



(ball concept and point concepts)

Team Members:

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