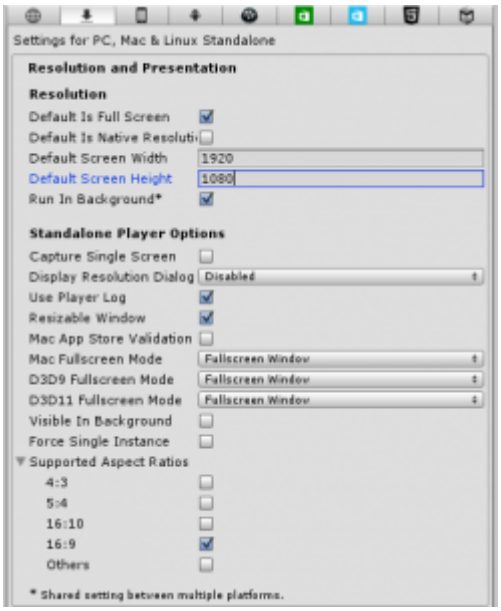
# Game Engines

## Task 2

### a. The target device (incl. screen resolution, input methods)

We plan on having the game will be on a computer. Although we do wish to try to have it on having it on the phone.




Overall, today most screens aspect ratios are 16/9 or 16/10. The standard screen resolutions are normally 720p (1280x720) or 1080p (1920x1080). And since it is a pixel game the scale 2:1, the target 1080p.

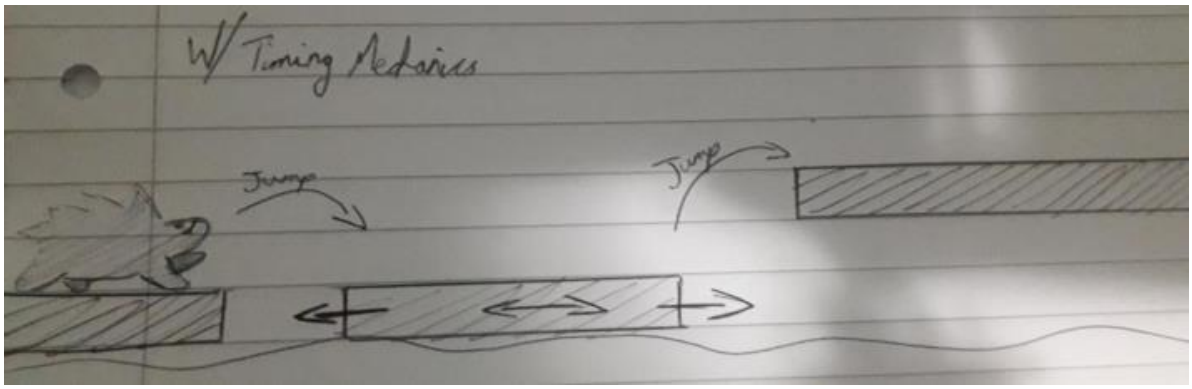
Or we were also thinking of using a resolution based of the Gameboy Colour. Its screen resolution was similar to the original Game Boy, which is 160×144 pixels with a 10:9 aspect ratio.

## b. Controls methods and game mechanics

The player has the option to pick between moving with the keyboard or with the mouse. It is an endless runner (with an agility mechanic). It is also timed based, if you do not move you will be punished as lava will kill.

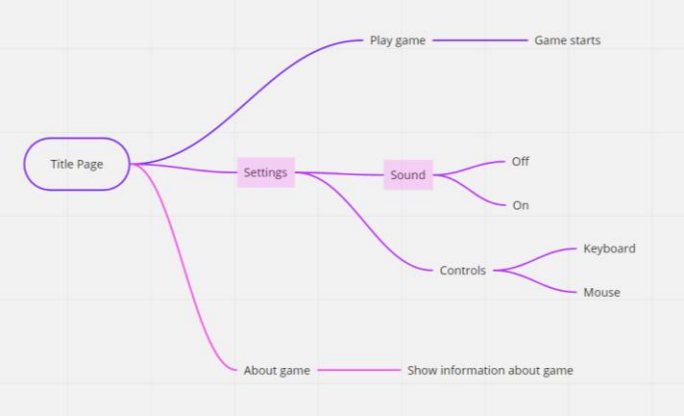
This will be an agility/ dexterity. As the player would have to avoid the enemies as it climbs up the mountain. The dino is able to go up or down (preferably the player will need to go up as the lava is rushing in from the bottom).

While our main mechanic is an agility game, we decided to add another mechanic. This will be a timing mechanic in where the some of the floors move from side It would be interesting to have, as it would create more stress for the player to have. As they would have to time their movements so they would survive the lava.

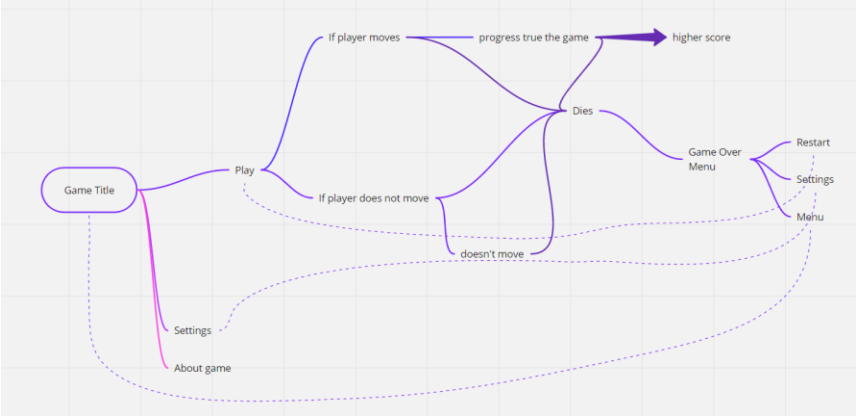


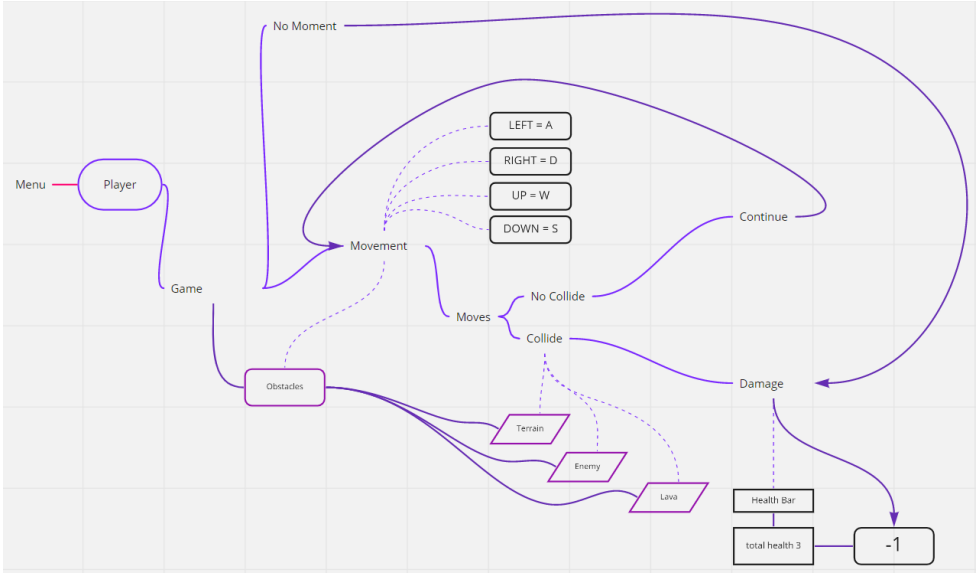
## c. Gameplay flowcharts

Here are the possible user flows for the full menu navigation.

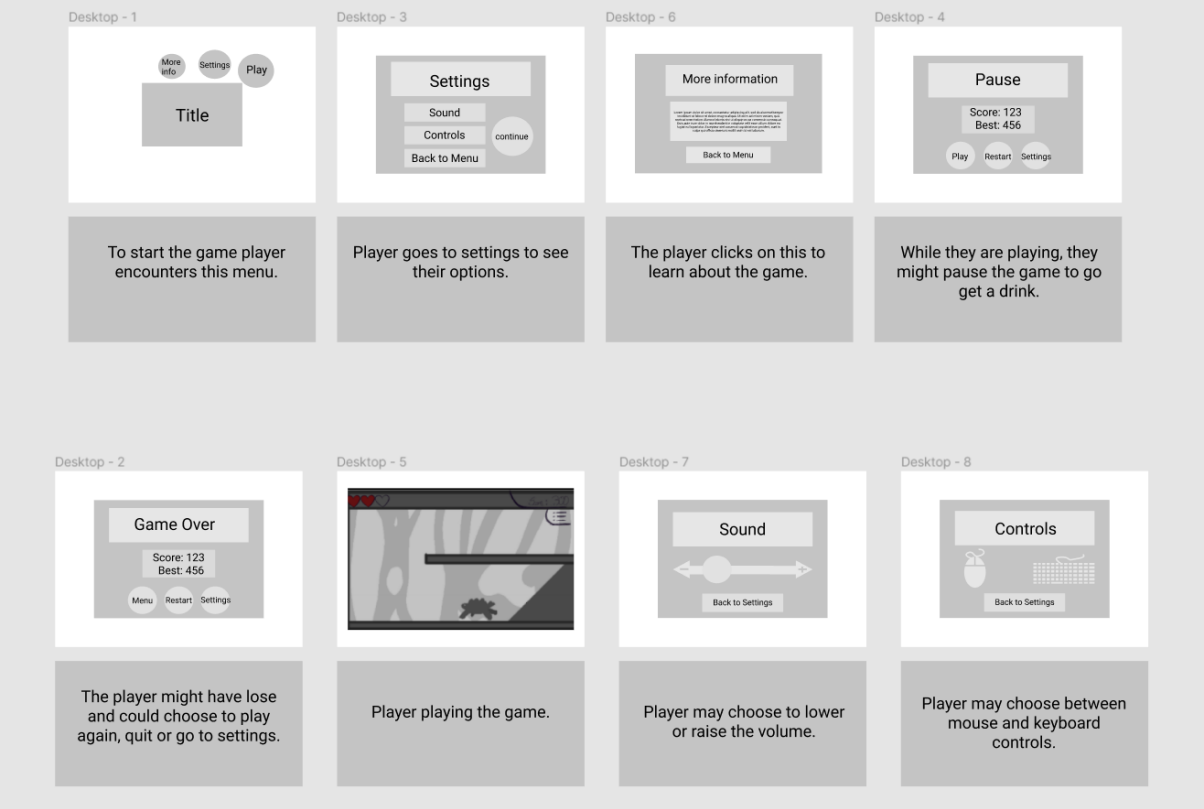



User flow of the overall journey of the intended gameplay.



A list of User Stories which all the planned functions that will satisfy user actions.



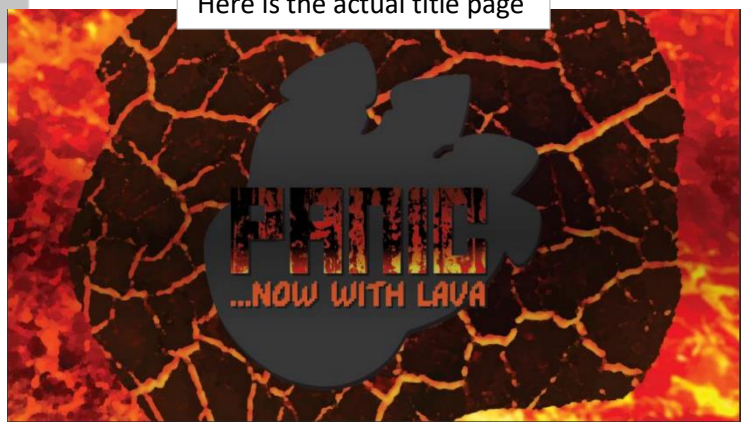

## d. Game objectives

The main objective of the game is to survive and beat your high score. The main rule is to survive. If get hit, you lose a heart and if all the hearts are gone you die. Another rule is that you need to be constantly moving as if you stop for a certain amount of time you will be killed by lava.

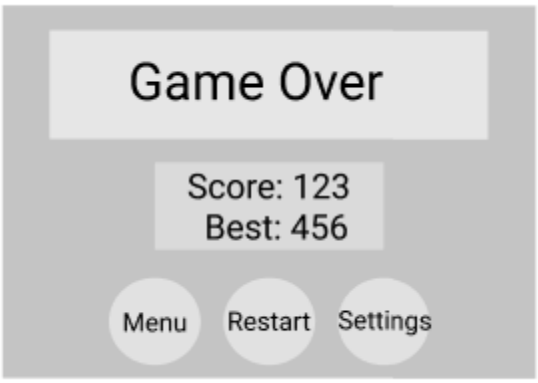
## e. User Interface outlines

These are some of the wireframes from our game

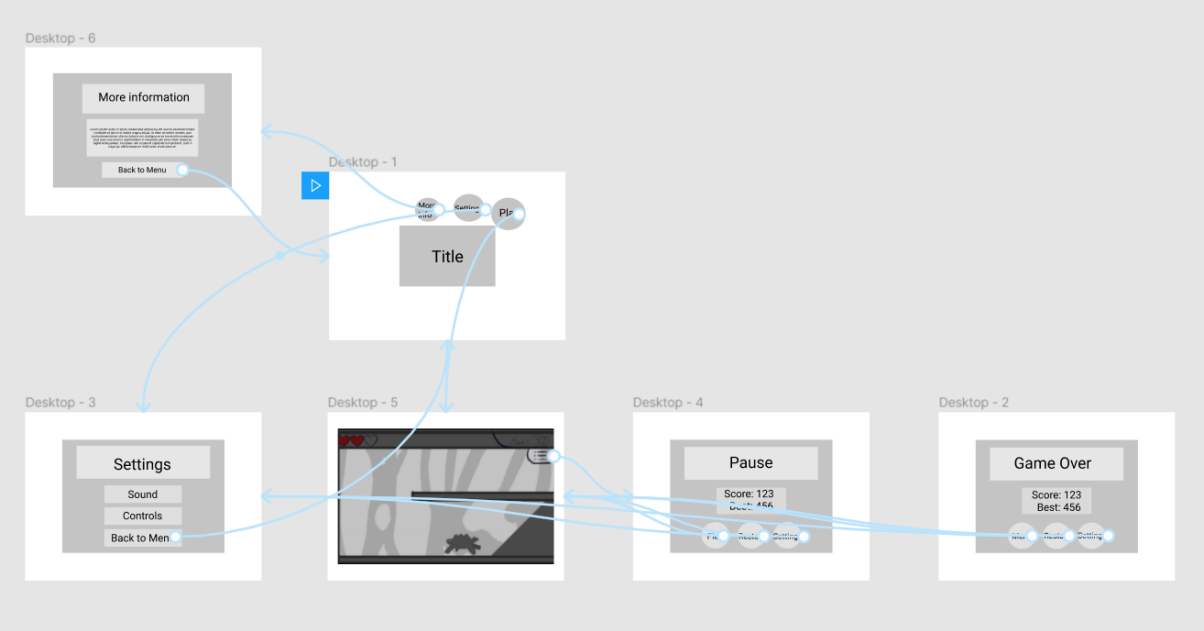

Here is the actual title page







More wire frames from our game (above), and below is how they would work.



## Bibliography

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Pixelation.org. 2014. Typical Dimensions For A Pixel Art Game. [online] Available at: <https://pixelation.org/index.php?topic=16510.0#:~:text=Re%3A%20Typical%20Dimensions%20for%20a%20Pixel%20Art%20Game,-Reply%20%232%20on&text=The%20standard%20screen%20resolutions%20are,)%20or%201080p%20(1920x1080).> [Accessed 8 December 2020].

Portelli, G., 2015. Managing Screen Resolution And Aspect Ratio In Unity 3D. [online] A Clockwork Berry. Available at: <http://www.aclockworkberry.com/managing-screen-resolution-and-aspect-ratio-in-unity-3d/#:~:text=Shipping%20your%20game%20with%20the,fullscreen%20resolution%20for%20the%20game.> [Accessed 8 December 2020].