# 2 Requirements Chapter

This chapter will focus on the requirements to make a game. This chapter will investigate similar games, a survey which gathers information on what people want from a 2D game, personas, functional requirements, non-functional requirements, a wireframe sketch of the game map, what software the creation of the game needs, and the difficulties the creator of the game will encounter.

## 2.1 Similar games

**Hollow Knight**

**Figure 1** is a screenshot of a similar game called *Hollow Knight (CHAN, 2022).* In **figure 1** there is 5 skulls representing the players health bar. Under the skulls there is a number representing the money the player has, and to the left there is a big circle that will fill up with “soul” when the player damages enemies. The player can use this to heal.



Figure : Screenshot of Hollow Knight game environment and UI

**Figure 2** displays the different types of enemies. the player can encounter in Hollow Knight *(Locke, 2022)*.

A picture containing wall, indoor, dark

Description automatically generated

Figure : Screenshot of Hollow Knight game showing different types of enemies

**Figure 3** shows one of the many boss fights from Hollow Knight. Most of the boss fights in Hollow Knight have two phases. The first phase being easier and the second adding another ability or more challenge to the fight.



Figure : Screenshot of a Boss fight in Hollow Knight

**Ori and the Will of the Wisps**

**Figure 4** and **Figure 5** are screenshots of a similar game called *Ori and the Will of the Wisps (Irwin, 2022).* The game is a 2D Metroidvania.In this game the player encounters many incredible characters and is compelled to explore the beautiful world while following along with the story of the game.



Figure : Screenshot from Ori and the Will of the Wisps showing the player interacting with the creatures in the world



Figure : Screenshot from Ori and the Will of the Wisps showing the player interacting with the creatures in the world

**Figure 6** shows a screenshot of the basic UI. In the top right there is the currency called spirit light, the player can buy maps and items with it. At the bottom middle of the screenshot there are the 3 abilities the player can use. (Ori and the Will of the Wisps PC & Console 2020, 2022)

A picture containing nature, cave

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Figure : Screenshot of Ori and the Will of the Wisps UI

**Figure 7** shows a screenshot of the upgrade system. The player can acquire may upgrades that help the progression of the game and make it easier for the player. (Crego, 2020)



Figure : Screenshot of Ori and the Will of the Wisps Upgrade abilities

The author’s game will contain an interesting environment along with a boss the player can fight. It will have abilities that the player can find upgrades for, and it will have multiple different types of enemies and allies for the player to interact with.

# Pros and cons of the games

## 2.2 Survey

## 2.3 Persona

**Figure 8** and **figure 9** show two personas that were created to illustrate potential users of the game

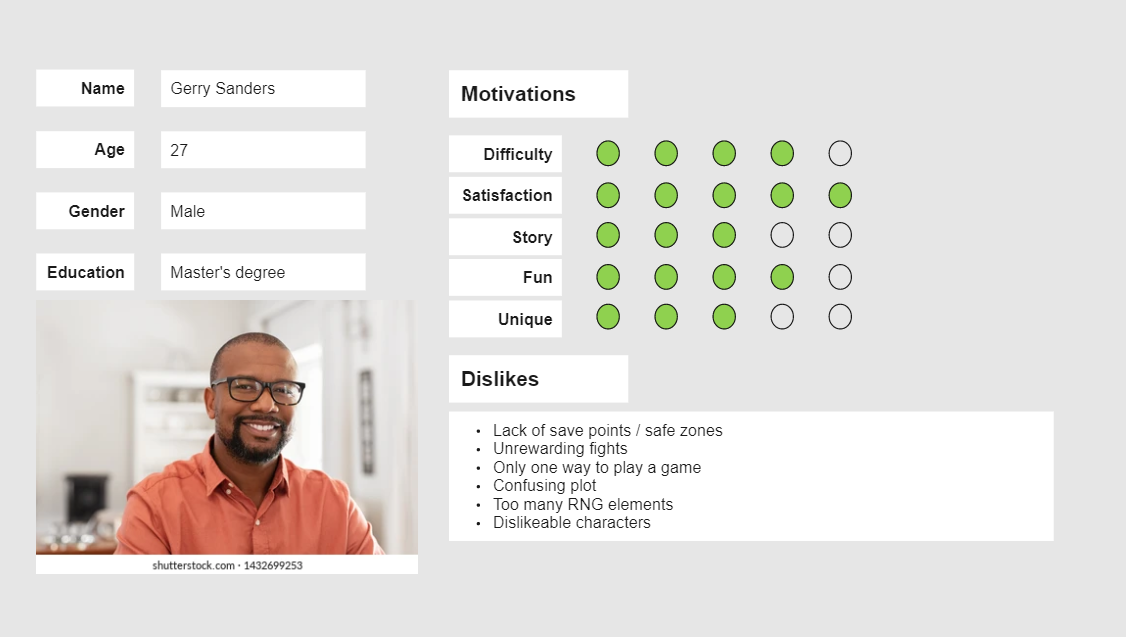


Figure : Persona 1

Graphical user interface

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Figure : Persona 2

## 2.4 Functional Requirements

* Basic movement controls
* Health bar
* Sword attack
* Story progression
* Item pickups
* Enemies
* 3 different areas to explore
* A boss fight for each area (this might be too much for the time frame)
* Autosave
* Load saves

## 2.5 Non-Functional Requirements

* Satisfying movement
* Pleasing Haptics
* Interactable environment + Destructible terrain

## 2.6 Software

The author will be using Unity to create and run the game and visual studio code as their code editor. They will be using a physics engine.

## 2.7 Paper Prototype

These are my Map Paper Prototypes

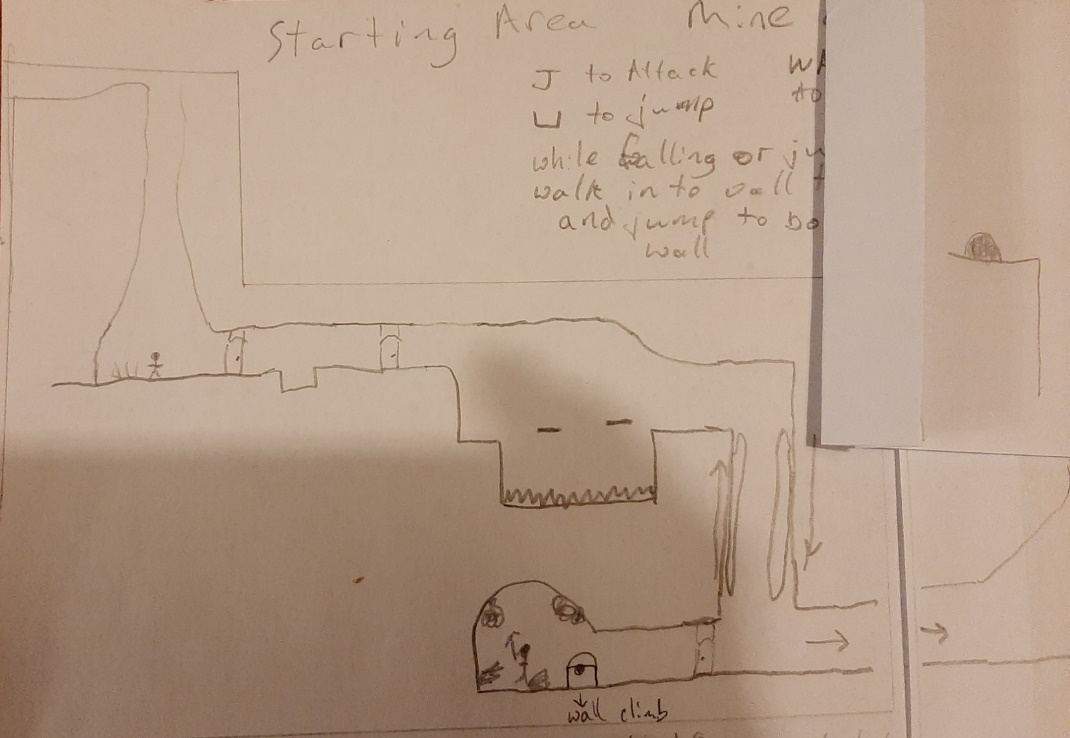


Figure Starting area Paper Prototype

This is the area that the player starts the game in. The player learns the controls of the game here, they learn to jump and attack.

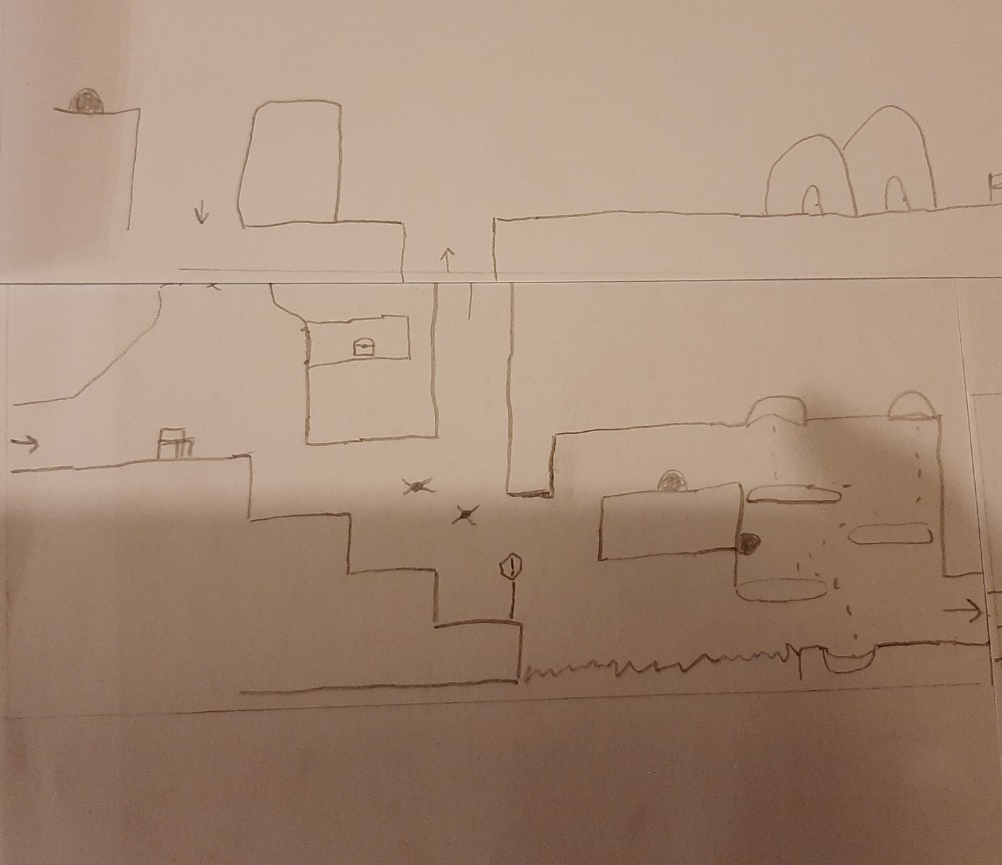


Figure Starting area Paper Prototype mid-section

This is the mid-section of the first area where the player learns to wall jump and scale walls

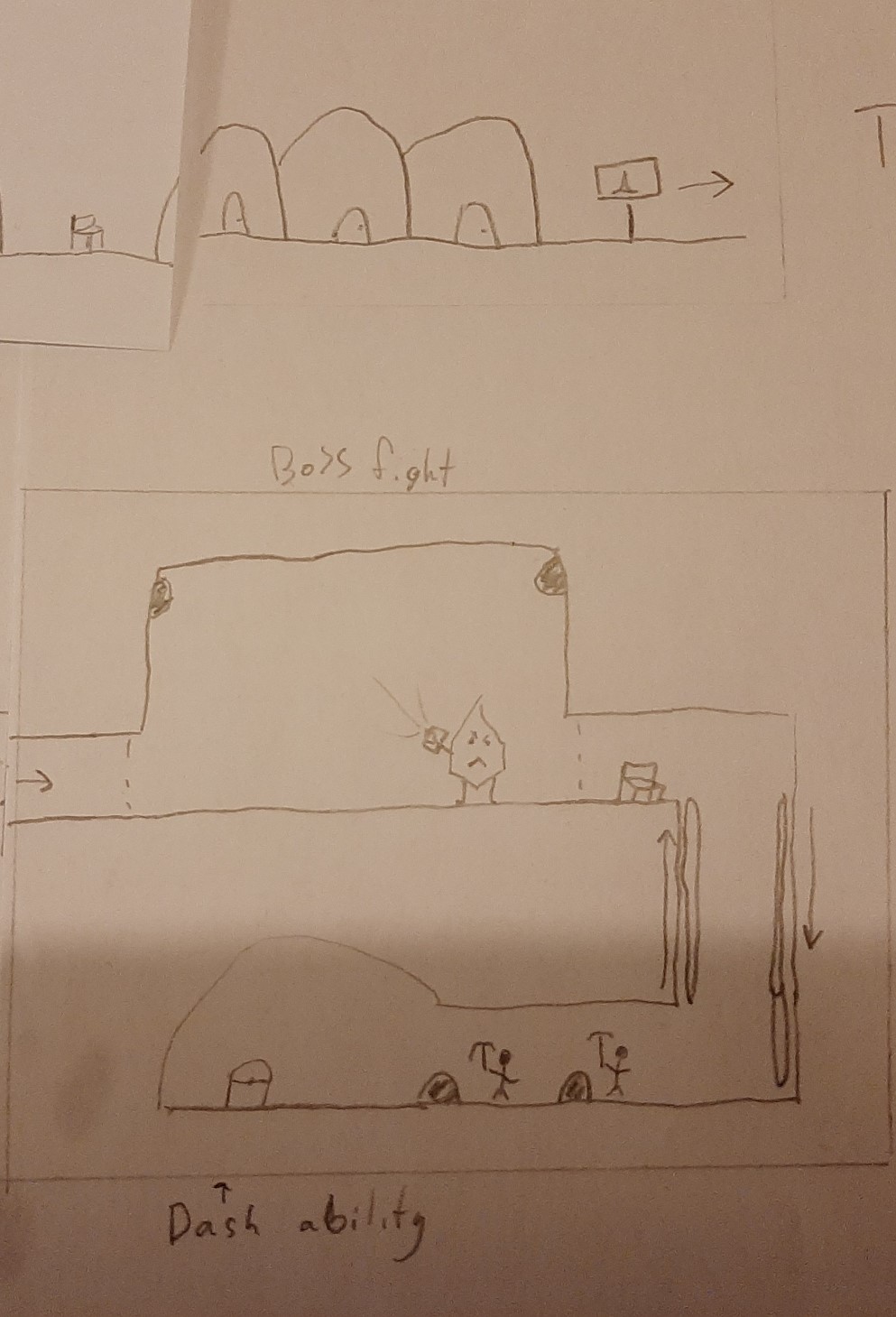
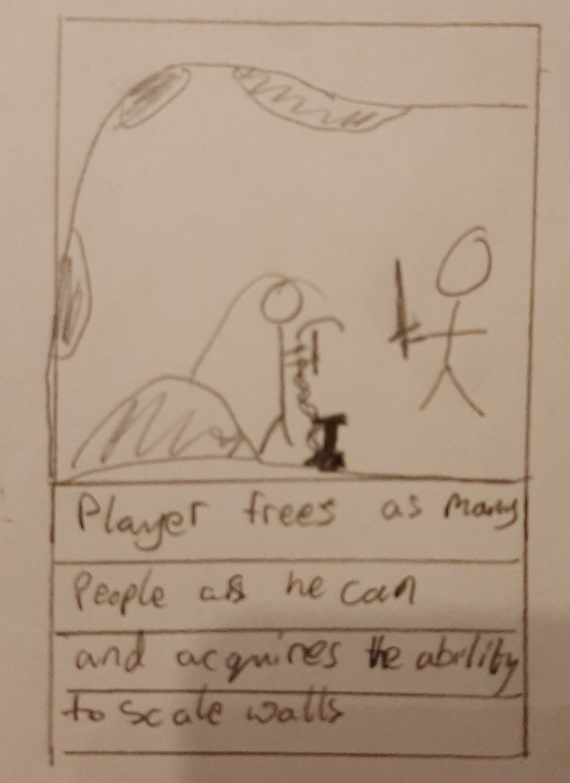
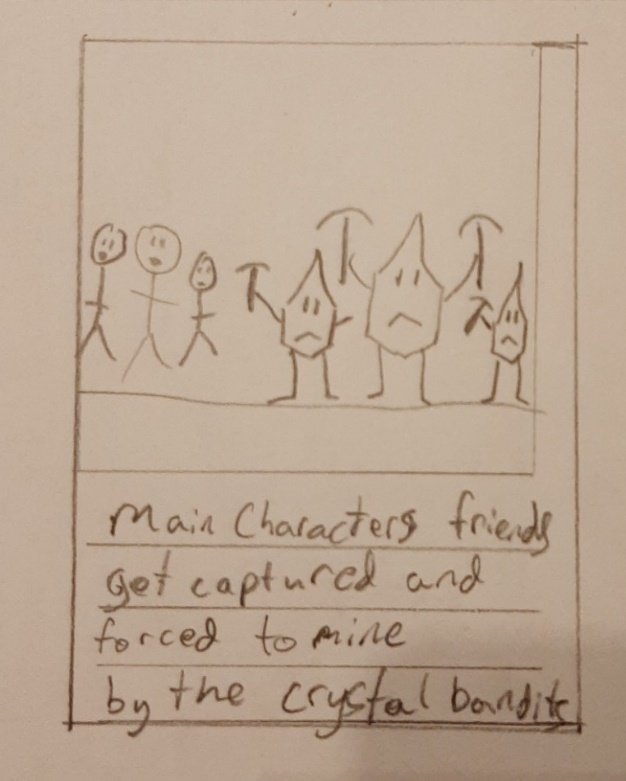
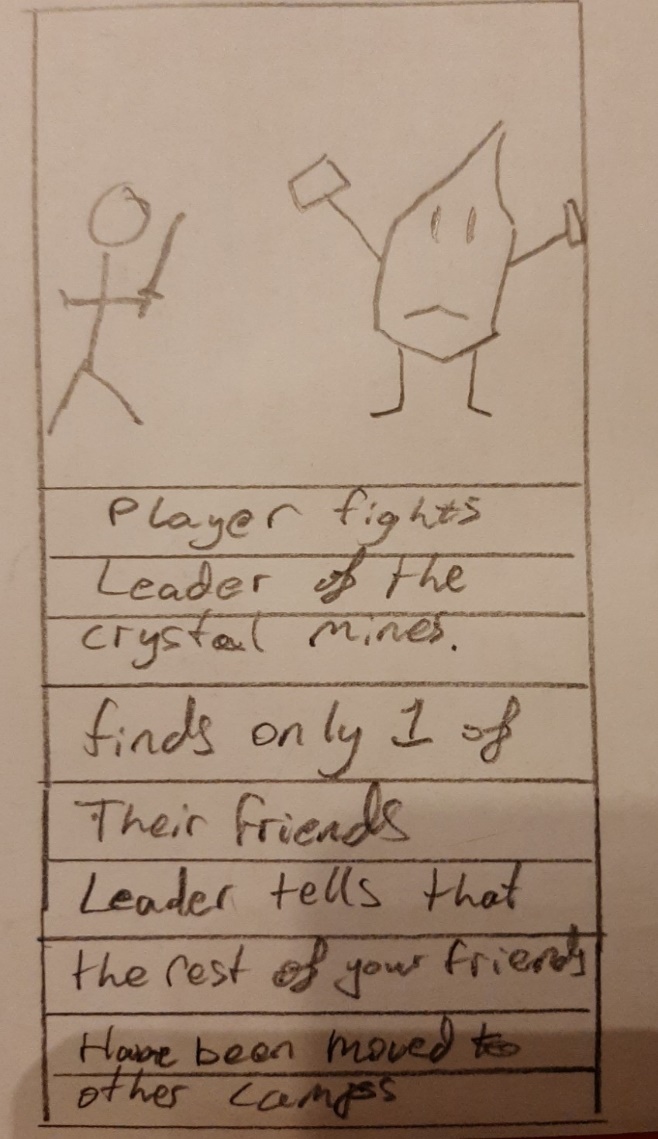


Figure Paper Prototype of Boss fight of area 1

## 2.8 Story board Paper Prototype



A piece of paper with writing on it

Description automatically generated with medium confidenceA piece of paper with writing on it

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## 2.8 Potential Difficulties

This is the author’s first proper 2D game like this. Therefore, the author could experience difficulties with coding enemies, save files and autosave features.

## 2.9 References

CHAN, C. (2022). Get lost in the best Metroidvania games for the Switch. Retrieved 11 June 2022, from https://www.imore.com/best-metroidvania-games-nintendo-switch

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