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**Design Document for:**

# **GET TO THE SUN**

**Get To The Sun**

“It’s not a bug, it’s a feature”™

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# **Design History**

The reason why we made this game was because all the members of the group wanted to make something that would be a great experience for us as programmers. Also the fact that we could have the chance of getting our game to be judged and learn something in the process. As a result we formed a group and decided to make a game that could potentially be in the Games Fleadh. Due to these points, we pushed ourselves to the limit spending hours creating our very first game in order to reach the highest potential we could achieve.

We used piskel which is an online pixel art editor to design the world assets such as the character, world blocks, weapons, monsters and the bosses. Then, we started to experiment with how to use unity as it was going to be our game engine and due to our lack of experience we feel we have stepped away with valuable skills. None of the team members had previous experience making games so we had to learn everything from scratch and improve as we went along. After that, we began scripting and creating the game world. We hope you enjoy.

## **Version 1.10**

So in version 1.1 we finalized the idea of the game, we decided on a game that would be categorized as an adventure,maze and platforming game. The first act of operation was creating the assets we were going to use for the game.. This was our starting point as we believed it would help us envision the game. We also decided that the game would be made on Unity. This decision would turn out to be detrimental as we would be exploring a foreign game engine whilst learning a new programming language.

**Version 2.00**

This would prove to be the first major development in our game, the scripts would be made in order for our game to operate, but as we were still learning we came across warnings and errors that came with the development process such as issues with monster movement and player movement. As we improved our skills in unity we started on the creation of our levels that were to be part of the game.This would be quite the process as we needed to learn things about map design and incorporate the factors of a maze, and not just a platforming game. We had to implement many other things such as proper file/ asset management as this would make it easier to find things necessary.

**Version 2.10**

In this build we started developing the user interface and what would be displayed in the hud such as the score system which could be increased by collecting items such as coins, gems, health and finally beating mobs in the game. The hearts not only increased your score but also increased the life of the player. Other changes we made are the implementation of features such as the home screen and the ability to pause the game. Other changes include scene changes and minor fixes to the map due to scripting restrictions.

# **Game Overview**

## **Philosophy**

**Philosophical point #1**

As it is not every day you get a chance to make a game with friends, we believed it would be a fun and informative task to try and do. We understood the challenge that stood ahead of us but decided to stay driven. We were motivated and positive that we could present something that could be enjoyed by a vast audience.

### **Philosophical point #2**

The game we built is run through Unity and our game was designed for people on PC and because of this the game will have a limited player base, as we did not set it up in a way to include other platforms due to the code for the controls.

### **Philosophical point #3**

The main goal of the game was to learn and to improve our unity, programming and interpersonal skills.. This was exceedingly important, the scouring of tutorials, the hours spent figuring annoying issues out was detrimental to the completion of the game. Each individual withstood these challenges and faced them head on. It was an exciting learning experience and we feel very content and proud of the final product. Our ultimate goal was to have something to look back on and think, yeah, we gave it our all. Whether we make it to Games Fleadh or not.

## **Common Questions**

### **What is the game?**

The game is what we would call a maze game with aspects of platforming and adventure. This game resembles other games such as older nintendo games like super mario and sonic. The gameplay is fun and very easy to play and understand.

### **Why create this game?**

We decided to create this game as we believed that it would be a fun experience and the fact that it would be an interesting task for us to do that not only increases our knowledge on game development and help us in terms work placement. We finalised on 2D as some members in the group like playing games similar to stardew valley and terraria.

### **Where does the game take place?**

The game takes place in a world of fantasy, in which an adventurer is stuck in a hole and is trying to make his way back up in order to be back in line with society,

### **What do I control?**

The player will control the explorer who will be the hero in our game.

### **How many characters do I control?**

You will only be controlling one character in our game and that will be the explorer in our game.

### **What is the main focus?**

The game’s main focus is escaping the levels filled with monsters, as the player is trying to escape the maze, there will be monsters that are trying to kill you as you make your way through the levels we made.

### 

### **What’s different?**

The game is different in the way that a normal maze game would have no replayability, but with our game time as a factor and because this is a factor, the player can improve on his time each playthrough. There is also a scoring system that is a part of our game and due to that there is another way to play our game.

# **Feature Set**

# **General Features**

4 different levels

Play as an adventurer

2D graphics

32-bit color

## **Multiplayer Features**

There are no multiplayer features to our game as it is strictly single player, there is no connection to the internet thus not allowing the multiplayer to be applied.

## **Editor**

The player is unable to edit the level as the levels are already pre-set and we do not have the ability to implement that aspect as our game has no connection to the internet

## **Gameplay**

The game is very maze-like.

The game controls are very simple and easy to understand.

Has replay ability (due to time factor).

Can be played with different solutions

# **The Game World**

**Overview**

The world of the game is set in a fantasy scenario of an adventurer stuck in a cave and making his way out slowly and facing foes that will cause harm to him. Each level has different monsters and a different design to go with it.

**World Feature #1**

Our world has many things that support it as we have 4 different levels it makes, exciting and as it is a maze some of the levels may have shortcuts to allow the player to beat his previous time.

**World Feature #2**

The different monsters in each level make our levels even more interesting as it makes you think about what's coming up next and how to defeat the monsters without/ take less damage.

**The Physical World**

**Overview**

The physical world has walls that can be climbed and because of that we reward the player for finding secrets. The world itself is pretty straightforward and changes were made to make it slightly more difficult.

### **Key Locations**

The key locations in the world are the boss rooms, they are quite noticeable as they are different to mobs you have met before and harder to kill as well.

**Travel**

The player moves around the world by foot, he also has the ability to jump and climb in order to overcome certain challenges.

### **Scale**

208 x 67,+ 126 x 63 + 204 x 77 + 137 x 46

13936 + 7938 + 15708 + 6302 = 28008 blocks

### **Objects**

Gems, Coins, Torches. Health.

### **Weather**

There are no aspects of weather in our game as the game takes place underground.

### **Day and Night**

There is no sense of day or night but we have features implemented that restricts the visibility of the map thus explaining the torches.

### **Time**

Time is implemented by play time and does not affect the game in any other way.

## **Rendering System**

### **Overview**

The game will automatically load and render the whole level upon entering the level.

### **2D/3D Rendering**

The rendering engine we used for our game was provided by unity. The render style we chose for the game is 2D.

## **Camera**

### **Overview**

The camera is set in a 2D fashion that will allow smooth gameplay.

### **Camera Detail #1**

The camera in our game is locked to the explorer so it will always follow the player showing a set range of vision .

## 

## **Game Engine**

## **Overview**

The game engine we used for our game was that of unitys game engine.

### **Game Engine Detail #1**

The unity game engine keeps everything in check and this is done by the scripts provided and the scripts made that are applied to the world.

### **Water**

There is no water in our game. As it did not fit with our games aesthetic.

### **Collision Detection**

The game engine handles collision detection well due to the in built components provided. For example capsule, circle and rectangle.

**Lighting Models**

### **Overview**

The lighting will be made automatically dark, by choice of us.

### **Lighting Model Detail #1**

The world of the game is lit up by the player, in order to make the game more challenging. The lighting

### **Lighting Model Detail #2**

The world will also be lit up in another way and that is torches that are placed around the map, and these will not act as hints in any way whatsoever.

# 

# **The World Layout**

## **Overview**

The layout of the level will be kept a secret as the purpose of the game is a maze.

# **Game Characters**

## **Overview**

The characters and monsters in our games are based heavily on fantasy.

## **Creating a Character**

In our game, there is no character customisation but as you beat the levels, changes will be made to your sword as you go up.

## **Enemies and Monsters**

The enemies in our game were made with the idea of being beaten, as they increase the score. Monsters will all be different be it colour, design or maybe even size. The monsters will fit the design of the level the player is on.,

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# **User Interface**

## **Overview**

The UI is very simple and easy to understand, this is done so by limiting the available options given to the player to reduce any confusion.

## **User Interface Detail #1**

The UI will just display the score, time, health bar of your character and health bar of the enemy monster

# **Weapons**

**Overview**

The weapon used in our game will be a sword, the sword changes element when the player enters a new portal.

## **Weapons Details #1**

The sword in our game will have different affinities, that will represent the level you are on.

# **Musical Scores and Sound Effects**

### **Overview**

The sound in the game will be dark and gloomy to fit the aesthetics of the game.

**Red Book Audio**

We are using a script that manages the audio throughout the game. It makes it simple to implement the sound effects using the other scripts as a reference to trigger each sound, this makes adding new sounds very simple.

## **Sound Design**

The sound in the game was implemented by Roberto in our group. The software to create the sounds were a web app called BeepBox and then for sound effects Blendwave was used

# **Single-Player Game**

**Overview**

This single-player game was made intended to be friendly for users of all ages. The fact that we incorporated a different design for level makes the game interesting for players as you wonder what is next. When you beat the game once the replayability is quite high as we made it with that intention.

## **Single Player Game Detail #1**

As we have the score system, the player can continuously play with the intention of getting a better score than the previous playthrough.

## **Single Player Game Detail #2**

The same can be said for the factor time we implemented, The player can keep trying to beat his previous times.

## **Story**

The game is not story driven but we plan on end

## **Hours of Gameplay**

The game we made lacks the ability to be played by multiple people so we had to think of a way that can keep the players interested and that was done so with the game details mentioned above. We tried to take some inspirations from games like Getting over it by Bennett Foddy, and Jump king by Nexile.

## **Victory Conditions**

The player can beat the game by beating the boss and making his through the levels.

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# **Character Rendering**

## **Overview**

The rendering of the character will be rendered automatically by unity.

## **Character Rendering Detail #1**

The mobs and characters are rendered as soon as you enter the level

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# **Extra Miscellaneous Stuff**

## **Overview**

We are working on a small feature to improve the feel of the game as sometimes during the gameplay it can feel clunky.

## **Junk I am working on…**

We had different ideas we wanted to put into our game but our ability to make games and time restricted us. One such thing would be bombs that could explode to reveal secret areas that would grant you loot but we had to scratch that idea due to various limitations.

Another idea we had was elemental effects on the map for example an ice map where all the blocks were slippy and things such as that.

# **“Objects Appendix”**

1. Torches
2. Gems
3. Coins
4. Hearts

# **“User Interface Appendix”**

1. Player health (hearts).
2. Enemy health bar.
3. Score
4. Time

# **“Character Rendering and Animation Appendix”**

1. Character move
2. Character idle
3. Character attack
4. Enemy idle
5. Enemy move
6. Enemy attack

# **“Story Appendix”**

The explorer was looking for the ruins of some lost city but suddenly as he came across what seemed to be an entrance to the city he fell down a hole and got teleported to some underground world. Then he realised that he must fight his way out of this cave system in order to get back to his life in civilisation.