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<b>Game</b>	Where Are My Ingredients?

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# Table of Contents

<b>1.0 Project Overview .....</b>	<b>4</b>
<b>1.1 Group Members .....</b>	<b>4</b>
<b>1.2 Owner of the Game .....</b>	<b>4</b>
<b>1.3 Game Genre and Synopsis .....</b>	<b>4</b>
<b>2.0 Development Schedule.....</b>	<b>5</b>
<b>3.0 Game Design.....</b>	<b>6</b>
<b>3.1 Storyline .....</b>	<b>6</b>
<b>3.2 Game Concept .....</b>	<b>9</b>
<b>3.2.1 Quick Overview.....</b>	<b>9</b>
<b>3.2.2 Similar Games .....</b>	<b>9</b>
<b>3.2.3 Game Progression .....</b>	<b>10</b>
<b>3.2.4 Attacks.....</b>	<b>10</b>
<b>3.2.5 Spell .....</b>	<b>11</b>
<b>3.2.6 Buffs and De-buffs .....</b>	<b>12</b>
<b>3.3 Environment and Background .....</b>	<b>13</b>
<b>3.3.1 Early Map Design .....</b>	<b>13</b>
<b>3.3.2 Background Design .....</b>	<b>16</b>
<b>3.4 Mission .....</b>	<b>18</b>
<b>3.5 Goals.....</b>	<b>18</b>
<b>3.6 Challenges.....</b>	<b>18</b>
<b>3.7 Resources .....</b>	<b>18</b>
<b>3.8 Collision Points.....</b>	<b>19</b>
<b>3.9 Characters and NPCs .....</b>	<b>22</b>
<b>3.10 Head Up Display (HUD).....</b>	<b>24</b>

<b>4.0 Final Writeup .....</b>	<b>25</b>
<b>5.0 Individual Writeup .....</b>	<b>26</b>
<b>5.1 Yip Zi Xian – TP059963.....</b>	<b>26</b>
<b>5.2 Goh Min Xuan – TP067281.....</b>	<b>26</b>
<b>5.3 Goh Wai Kuen – TP066257 .....</b>	<b>27</b>
<b>5.4 Yap Jiann Yang – TP061468.....</b>	<b>27</b>
<b>5.5 Tan Jia Yi – TP060983 .....</b>	<b>28</b>
<b>6.0 References.....</b>	<b>29</b>

## **1.0 Project Overview**

### **1.1 Group Members**

<b>Name</b>	<b>TP Number</b>	<b>Focus Area</b>	<b>Participation Marks</b>
Yip Zi Xian	TP 059963	Unity Script Programmer	19
Goh Min Xuan	TP 067281	Level Designer, Storywriter	18
Goh Wai Kuen	TP 066257	UI Designer, Dialogue Writer	18
Yap Jiann Yang	TP 061468	Unity Animator	19
Tan Jia Yi	TP 060983	Level Editor, Video Editor	18

**NOTE:** Each member is responsible to hand in a sketch of their own level idea and provide to the level designer to further improve on before handing over to level editor to draw it in Unity.

### **1.2 Owner of the Game**

The game, “Where Are My Ingredients?”, falls under the ownership of an organization known as “Quintets GDev”. This organization was brought together on a temporary basis to tackle a university group assignment of a module called Computer Games Design: High Concept & Preproduction. The group members of this organization comprise exactly five members as mentioned in the previous chapter. Each members assumes ownership within the framework of the organization roof that holds significance for all legal matters and rights concerning the game. The legal integrity and rights associated with the game will be diligently and strictly upheld and maintained by Quintets GDev.

### **1.3 Game Genre and Synopsis**

“Where Are My Ingredients?” is a 2D pixelated platformer storytelling game where the player will need to control the character through the treacherous mountain and mysterious dark cavern cave in search for his missing ingredients to make the perfect sandwich for breakfast. There will be numerous skill tests for the player like reaction speed test, timing, projectile trajectory, and prediction. Players will navigate through five different levels with different type of gameplay style to ensure that the player will not get bored. There are also some hidden items which can be found and collect to use it at the player’s advantages by listening to certain conversations by non-playable characters (NPCs). Eventually, the player will find all ingredients that are needed to assemble the perfect ultimate sandwich in the world.

## **2.0 Development Schedule**

<b>Phase</b>	<b>Name</b>	<b>Focused Tasks</b>
Idea Phase	All members involved	Provide general idea and storyline, character, setting, gameplay, enemies, items etc.
Design Phase	Goh Wai Kuen, Goh Min Xuan	Map design sketches, improve members' early drafts, gathering sprites.
Programming Phase	Yip Zi Xian, Yap Jiann Yang, Goh Wai Kuen	Create an actual playable game based on proposed idea with minor changes, implementing user interface.
Marketing Phase	Tan Jia Yi	Create a game trailer for marketing and promoting, provide a gameplay guide / tutorial.
Debugging Phase	Tan Jia Yi	Test the overall game, check any bugs or places that can't be reached, balancing game difficulty.

## **3.0 Game Design**

### **3.1 Storyline**

#### **Prologue**

Quaso and his friend embarked on a daring adventure in the enchanted forest. As hunger struck, Quaso eagerly reached for his sandwich, only to find the eggs, lettuce, ham, and tomatoes mysteriously vanished! A quick glance revealed his mischievous friend gobbling up his sandwich's precious contents. Enraged, Quaso clenched his fist with a furious urge to pummel his friend.

However, his friend, fearing a hearty thrashing, spilled the beans - quite literally - about a forest secret. This secret promised the ultimate sandwich-making ingredients. The forest concealed the crispiest, greenest lettuce that crunched like a symphony of freshness. Nestled within were eggs so tender and golden that even the sun would envy their glow. And oh, the tomatoes – plump, juicy, and sweet as if kissed by woodland fairies. A ham of such decadence that even the pigs themselves would be jealous. But the pièce de resistance? A sauce so divine that even the universe couldn't comprehend its mere existence of heavenly flavour.

With wide eyes and a grumbling stomach, Quaso hung onto every word, then decisively chose to trust his friend. Armed with hope and an empty picnic basket, they ventured into the heart of the forest, ready to discover ingredients that could create the sandwich of legends.

#### **Chapter 1 – The Lettuce**

Wow, Quaso did indeed discover the forest's most vibrant and crispiest lettuce. As he took a bite, his mouth was flooded with the refreshing juice of the lettuce. That bite seemed to infuse his taste buds with the forest's oxygen and the vitality of nature itself. The emerald green of the lettuce leaves shone even brighter under the sunlight, as if nature's own brush was dancing upon his tongue. Each leaf emitted a delicate aroma, carrying threads of sweetness, as if it were a gift from the earth itself.

Having found the lettuce, Quaso decided to press on in his search for the remaining ingredients. As he prepared to move forward, he suddenly came across an elderly figure within a peculiar mechanical form. The figure emitted an eerie sound and spoke, "Proceed, young one, and you shall uncover the power of the wind."

Quaso was both intrigued and taken aback by this peculiar encounter. His taste of the forest's bounty still fresh in his memory, he wondered what this "wind's power" could possibly entail. With a heart full of curiosity, he ventured onward, eager to unlock the secrets that lay ahead.

Sure enough, Quaso stumbled upon the power of the wind, Focus Gale, hidden in a corner of the forest.

## Chapter 2 – The Eggs

After traversing mountains and valleys, Quaso stumbled upon a nest of eggs that gleamed like precious gemstones. He picked up one egg, gazing at it as he cradled it in his hand, feeling its gentle warmth. The egg's shell was smooth, shimmering with a subtle golden glow, as if harbouring some mystical energy within. He softly caressed the egg's surface, experiencing its shape and texture as if he were touching a precious piece of art.

He scrutinized the egg closely, his heart brimming with anticipation. This egg was the key ingredient he sought for a delicious sandwich. Gently placing the egg back into his basket, he pondered whether he would prepare a softly runny sunny-side-up or a fluffy and delightful scrambled egg for his upcoming culinary masterpiece.

After finding the eggs, Quaso continued his journey in search of the remaining ingredients. Along the path, he noticed a mysterious stone monument with words engraved upon it: "The enigmatic cavern will bestow upon you power from the depths of hell."

Following the guidance of the stone monument, Quaso eventually discovered the legendary power from the depths of hell, Inferno Slash.

## Chapter 3 – The Tomato

Having gained the mighty power, Quaso effortlessly found the tomato. He held the tomato in his hand, feeling its plumpness and smoothness. The tomato's skin was a vibrant shade of red, its sheen reflecting both moisture and the vitality of life. He gave it a gentle sniff, and the faint aroma of tomato wafted through the air, as if he were standing amidst a ripe orchard.

He cradled the tomato in his palm, using his fingertips to gently stroke its surface. The tender touch conveyed the tomato's ripeness and fullness, as if he could sense the nourishment of the earth within its very being.

## Chapter 4 – The Ham

Suddenly, Quaso caught a whiff of an aroma that seemed to have travelled from the highest echelons of ham heaven itself! This fragrance, like an ethereal dance of flavours, emanated from the most exquisite nuances of the ham, casting a spell of intoxication. The scent carried a delicate balance of salty-sweet, prompting Quaso to involuntarily close their eyes and conjure visions of this ham maturing ever so gracefully in the embrace of oakwood smoke, exuding a unique and tantalizing essence.

Within the aroma, a faint trace of herbs and spices intermingled, tickling Quaso's taste buds as if gently nudged awake. In this fleeting moment, their senses were tantalized, eagerly anticipating the indulgence that the ham of paramount craftsmanship promised to deliver.

Following the trail of fragrance, Quaso stumbled upon a sign that declared, "In the darkest corner of the forest lies the power of light."

Quaso pushed through obstacle after obstacle with determination, finally reaping the cherished reward he had dreamed of—a piece of ham, the saltiest, most delectable, and succulent one the world had to offer. His heart raced with excitement as he delicately held the ham in his hands, savouring its texture and shape. The exterior of the ham was a masterpiece of golden crispness, while the meat within appeared tender and juicy, as if it were a canvas painted with the essence of deliciousness. A whiff revealed a rich smoky aroma that ignited his taste buds instantly.

Deep down, Quaso understood that this ham was more than just a mere meal; it was a tangible manifestation of his unwavering effort and a reward well-deserved. With a gentle slice of his knife, the ham yielded, its aroma engulfing the air, impossible to resist. The tender meat melted upon contact with his palate, releasing a salty, savoury explosion that danced across his taste buds, plunging them into a realm of utter bliss.

As he ventured a bit further ahead, he laid eyes on the most radiant source of light in the world the punch of twilight.

With the newfound ingredients in tow, Quaso continued his journey deeper into the heart of the forest. His steps led him to a mysterious cave, curiosity compelling him to step inside. And there, right before his eyes, he beheld the sauce so divine that even the universe couldn't comprehend its mere existence of heavenly flavour.



## Chapter 5 – The Sauce

With little effort, Quaso secured the universe's most divine sauce. However, this simple act triggered an unexpected turn of events—the cave trembled violently! A trap had been sprung! Razor-sharp blades swirled and slashed toward him with an unrelenting frenzy. Quaso's instincts screamed at him, urging him to bolt out of this eerie cavern at once.

### Epilogue

After enduring countless hardships, Quaso managed to escape successfully. He returned home with the acquired ingredients and skilfully crafted a sandwich of unparalleled deliciousness. Taking the first bite, he savoured the flavour with a contented sigh, "Mm~ truly the most exquisite sandwich made from the finest ingredients in the world. This is divine!"

With the thought that indeed, the best rewards come after the hardest struggles, the story comes to an end. Or is it? Where is the elder in a suspicious machine?

## **3.2 Game Concept**

### **3.2.1 Quick Overview**

The basic concept of the game is to survive and complete each level by reaching the checkpoint at the end of the map. It is a simple 2D platformer game with enhanced gameplay and combat mechanics. The idea is that the protagonist is seeking for ingredients to assemble the best sandwich and players will controls the protagonist in search of the ingredients by hack-and-slash and exploring five different maps. Each map will have their own uniqueness and difficulties along with hidden items that can help the player throughout the game.

### **3.2.2 Similar Games**

There are similar games like Brawlhalla (Blue Mammoth Games, n.d.), Dan the Man (Halfbrick, n.d.), Pico Park (Tecopark Incorporation, 2019) etc. There are all 2D platformer games with different gameplay and mechanics as well as distinct visual and sound effects. Experiencing and evaluating the uniqueness of each game mentioned above, Where Are My Ingredients? takes inspiration from these games like implementing keyboard-only controls, melee combat, ranged combat etc. Aside from that, we included storytelling within the game so that players will feel that they are truly embark on a journey to find these ingredients for a sandwich.

### 3.2.3 Game Progression

Assuming players start from Level 1, they will be spawned in a very large map for them to play around and explore. Tutorials are provided with dialogue with a narrator called Circuit and players will learn the basic mechanics as well as combat mechanics. They will introduce to different collectable items for special effects, enemies, and level components like hazards, moving and jumper platforms.

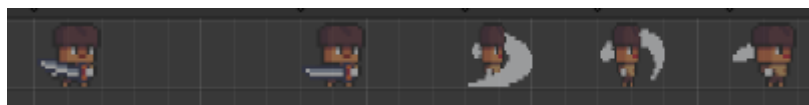
After that, they will need to locate the doorway to another level where they will meet an elder in a suspicious machine and start their journey. Players will progress through 4 different levels at which the final level will be the hardest as it is designed as a trap level. In Level 1 to Level 3, players will journey through forests and mountains whereas Level 4 and Level 5, players explore further down caves and caverns.

Aside from that, players will also find hidden spells which can be collected to boost their gaming experience. They will be guided by dialogues and hidden messages to indicate where the hidden spells are located. After they collected the spells, they will be told by the narrator how to cast the spells.

When they reached the final doorway that they can't interact, they are considered as completed the game. A message left by the developers will be triggered to show appreciation and the time spent by players to explore and play the game.

### 3.2.4 Attacks

There are various attacks implemented in the game, primarily basic attack, combo attack, and heavy combo attack.



Basic attack can be performed by pressing on “J” key while grounded or on airtime. It will only do a fixed amount of damage and perform a single strike. They will be no delay for attacking.



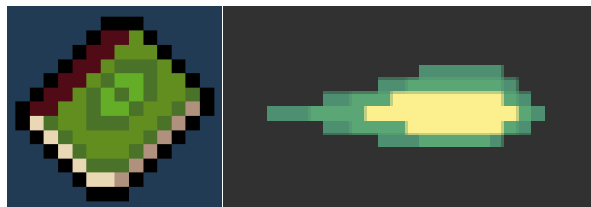
Combo attack can only be performed by pressing on “K” key while grounded and it will be cancelled if the player moves or jumps or die. It will only do a fixed amount of damage and perform up to three strikes. There will be no delay for attacking.



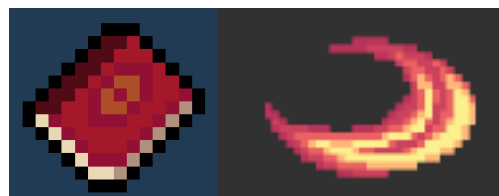
Heavy combo attack can only be performed by pressing on “L” key while grounded and it will be cancelled if the player moves or jumps or die. It will do a high amount of damage and perform up to two strikes. There will be a delay before attacking.

### 3.2.5 Spell

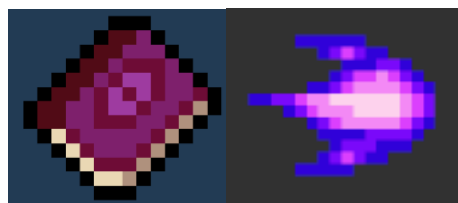
There are three hidden spells, quick chant, heavy chant, and melee chant, located throughout different levels of the game. Players can locate each spell, collect it, and learn the spells to improve combat capabilities. The location of each spell will be provided by dialogues from non-playable characters (NPCs).



Quick chant spell is a high velocity spell that has low damage, medium cooldown time and casting time, and longer range. The left image will be the spell book to be collected by players and right image will be the projectile image. This spell can be used as a long-range sniping spell to execute mobs.



Heavy chant spell is a low velocity spell that has high damage, long cooldown time and casting time, and medium range. The left image will be the spell book to be collected by players and right image will be the projectile image. The projectile will rotate on its z-axis when being casted. This spell can be used to execute mobs that have high health point faster.



Melee chant spell is a medium velocity spell that has medium damage, low cooldown time and casting time, and short range. The left image will be the spell book to be collected by players and right image will be the projectile image. This spell can be used to increase damage output when mobs are too close to players.

### 3.2.6 Buffs and De-buffs

There are numerous buffs and de-buffs scattered around the map where players can pick up and avoid. All buffs and de-buffs duration are fixed and will respawn after a set amount of time.



The Advance Apple will allow players to have their movement speed doubled and jump at a longer distance so players can speed through the map.



The Jump Jalapeno will allow players to have their jump height doubled so players can reach normal unreachable platforms easier.



The Full Health will restore maximum health point to the character.



The Recover Health will only restore a limited amount of health point to the character.

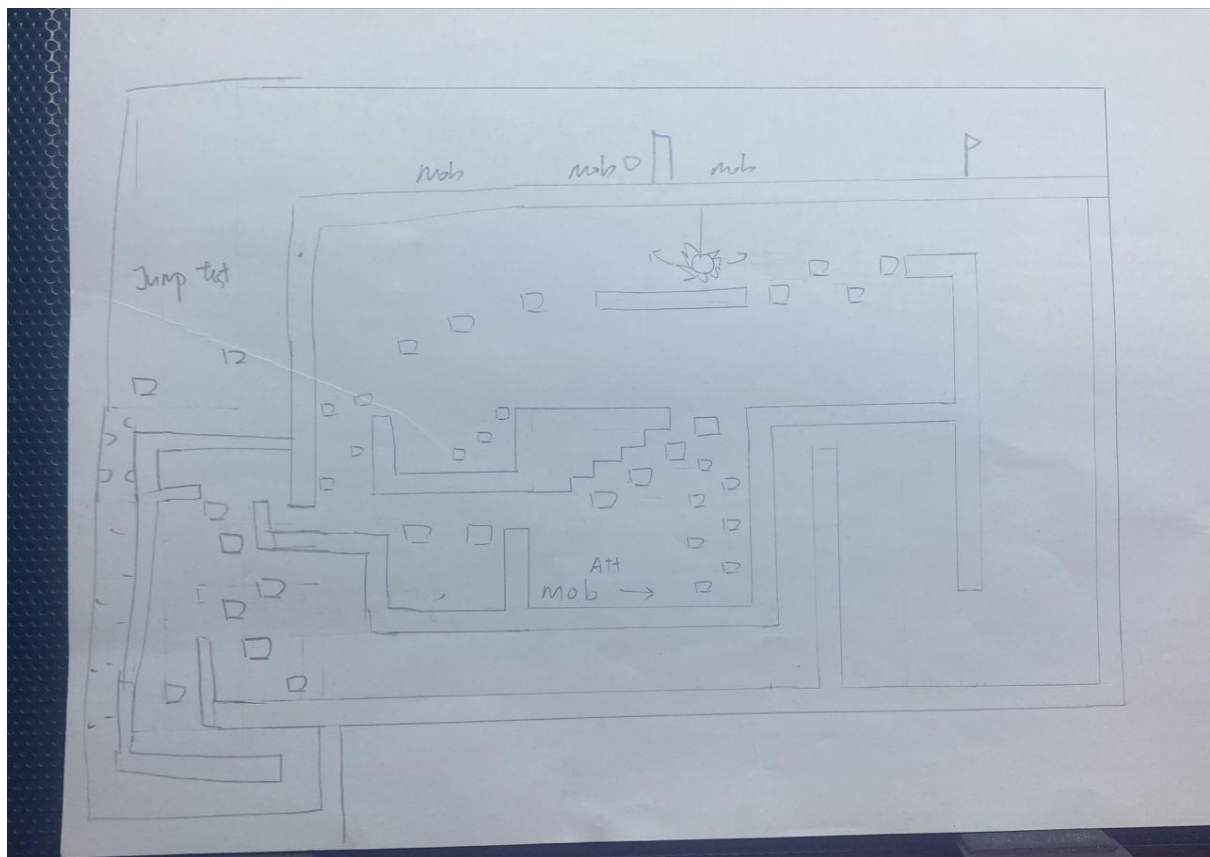


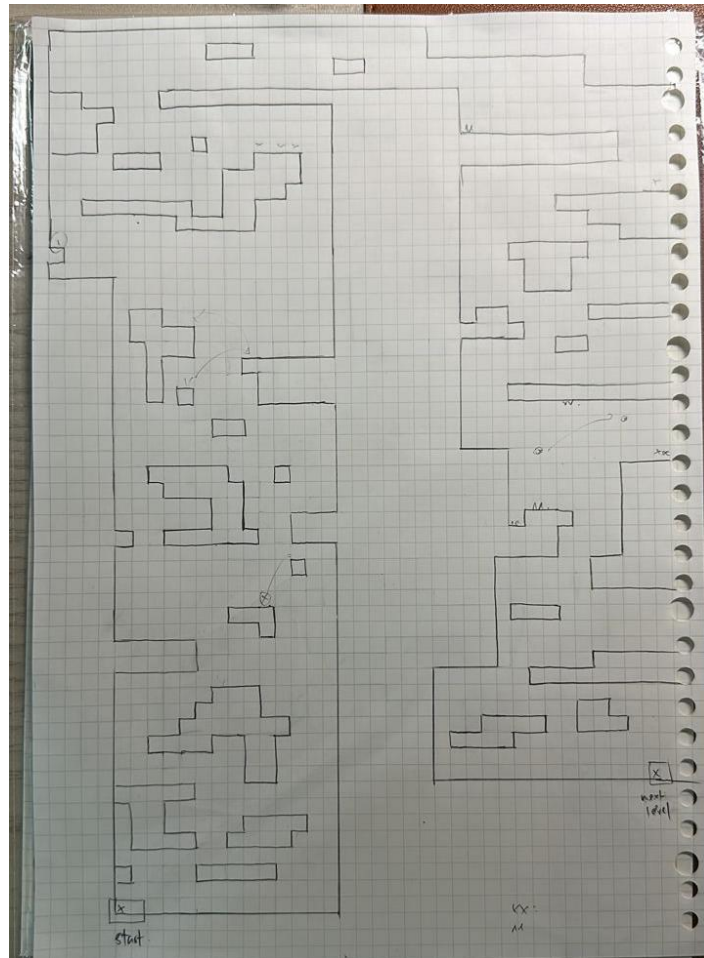
The Slow Shroom will cause players to have their movement speed decreased by half and jump at a shorter distance.

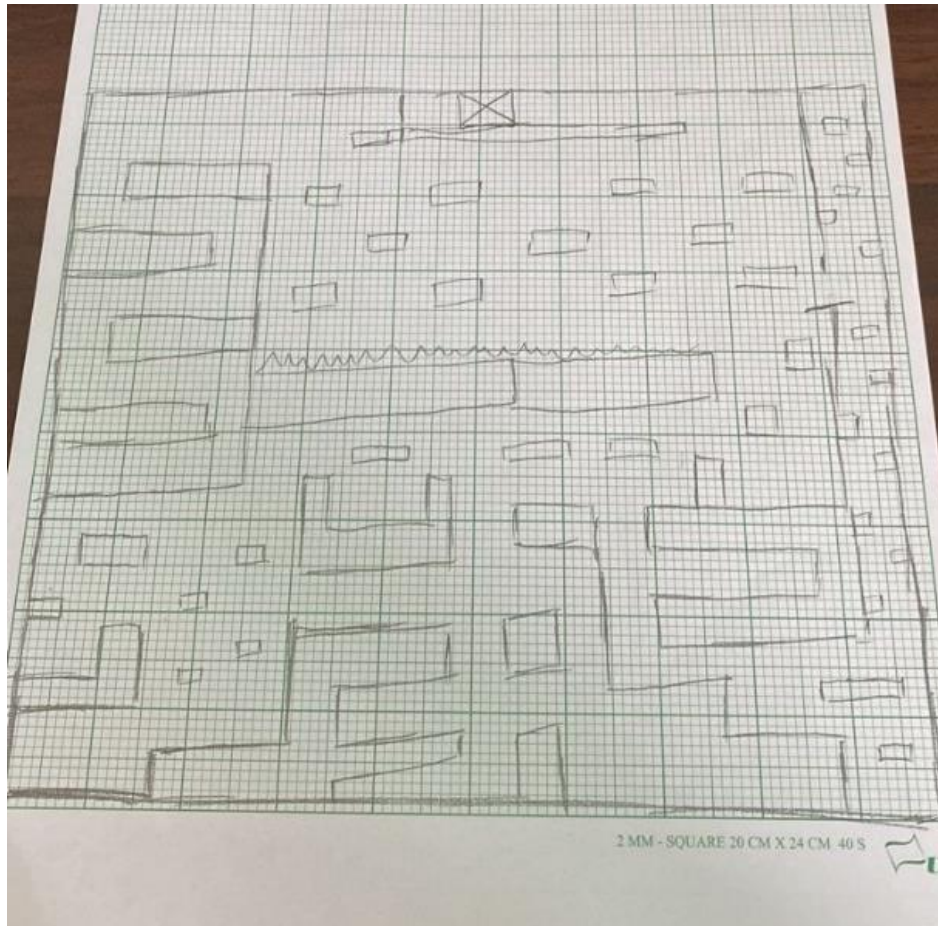
### 3.3 Environment and Background

#### 3.3.1 Early Map Design

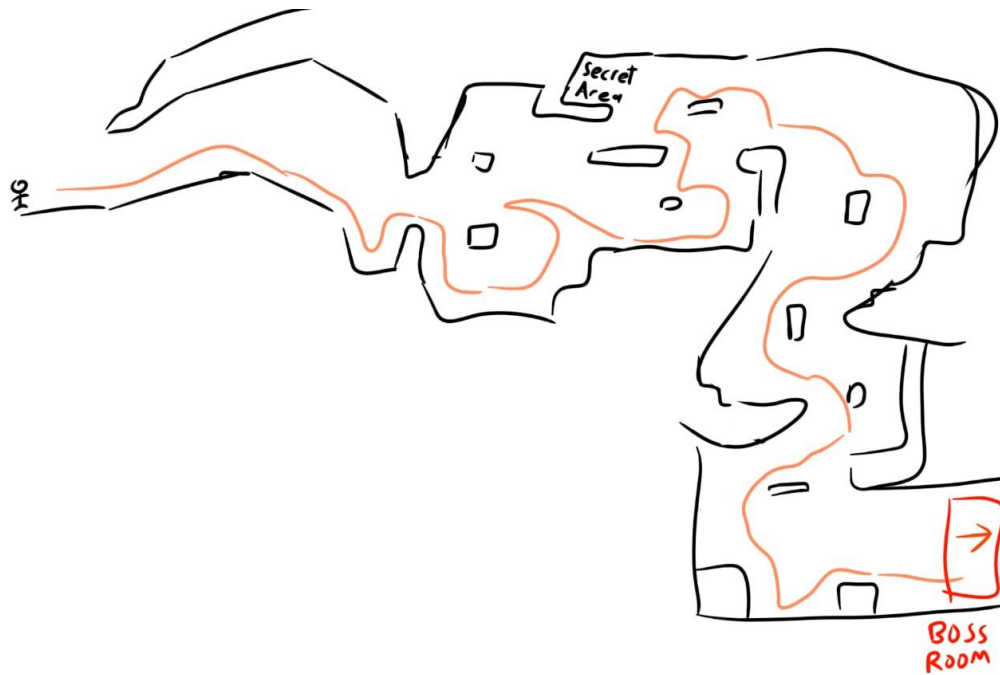
Initially, all members provided an idea concept of their own map in either paper or Unity template. After that, further enhancement and improvement are made to balance out the area that are difficult to navigate and hard to reach. Bigger areas are cleared out to locate mobs and hazards to increase the difficulty while smaller areas are finely designed to place hidden items or buffs. In some map design, there are several routes to reach the checkpoint so that players can explore more alternatives or easier path to reach the checkpoint to another level. Below are the early map design sketches for Level 1 to 5 respectively:





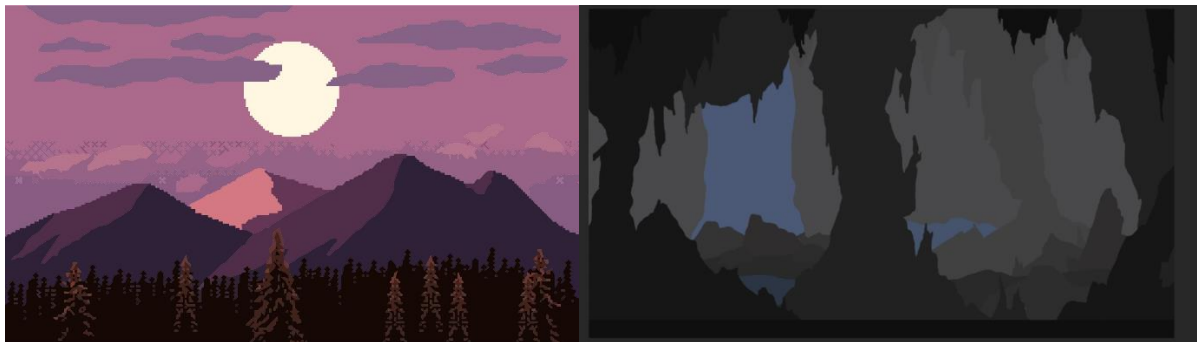






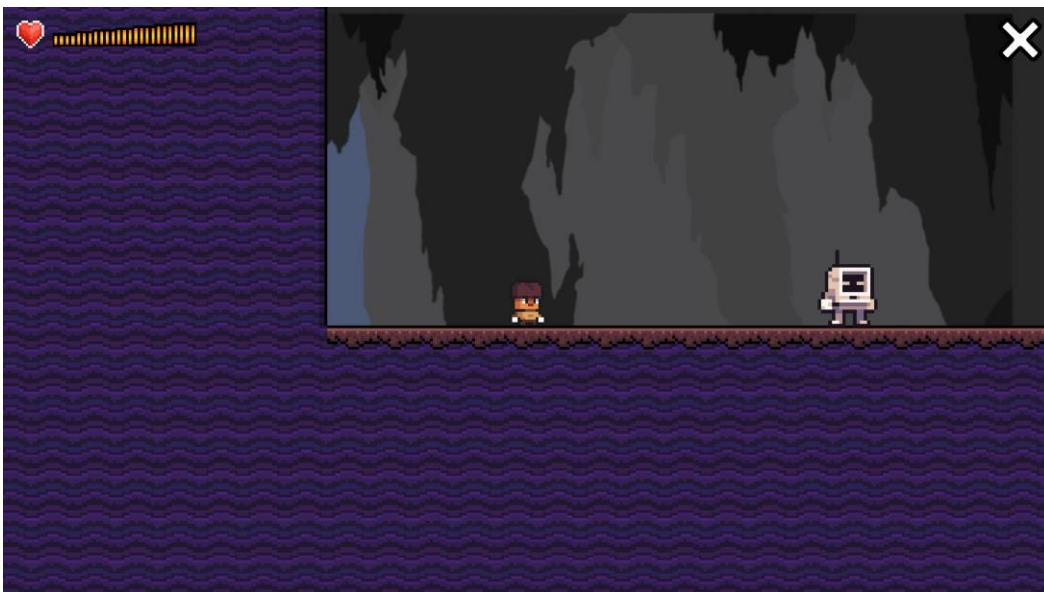
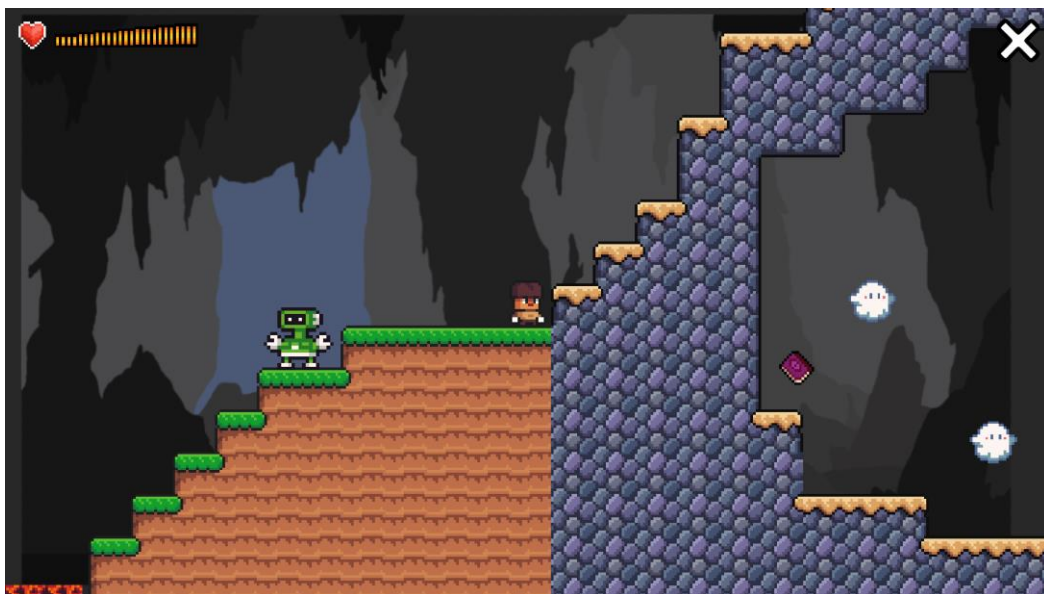
### 3.3.2 Background Design

Since the setting of the game is written as the player are journeying through forest, mountains, and cave, two fixed background images are included to the camera where it will be static and not moving, creating a certain depth to the game.



The tile palettes are also picked based on the setting of the levels. For instance, Level 1 to 3 are in the forest and mountains and grass tiles are used while the terrain is designed to be scaling up and down, horizontally, and vertically. For Level 4, it will be representing the entrance of a cave thus both grass tiles and rocks tiles are used, and the background are set to a cave image. For Level 5, it will be using dark rocks tiles to mimic the darkness of a cave.





### 3.4 Mission

The mission of the game is to assemble the most delicious and mouthwatering sandwich in the world by embarking on a journey in search for very fine, fresh, and divine ingredients hidden in the vast forest, treacherous mountain, and the depth of cave and cavern. Players will need to hone their skills in timing, prediction, instincts, reaction time etc to complete their journey and achieve success by making their sandwich with the ingredients gathered.

### 3.5 Goals

The goals are to collect each ingredient, lettuce, tomato, eggs, and the divine sauce throughout the levels and escape from a trap that NPCs have setup for the character. Each level will have a doorway to proceed further and a step closer to complete their journey while the difficulty and size of the level will increase throughout the game.

### 3.6 Challenges

During the journey in search for the divine ingredients, players will encounter different mobs which will attack the player, including melees, ranged, and airborne enemies. However, some mobs are just friendly and will follow the character around. Players will have to avoid these enemies to prevent dying or just fight them off with attacks from the character. Another challenge is that there will be traps, hazards, dangerous surfaces that players will need to guide the character to navigate through without losing life as the character only has 25 health points.

### 3.7 Resources

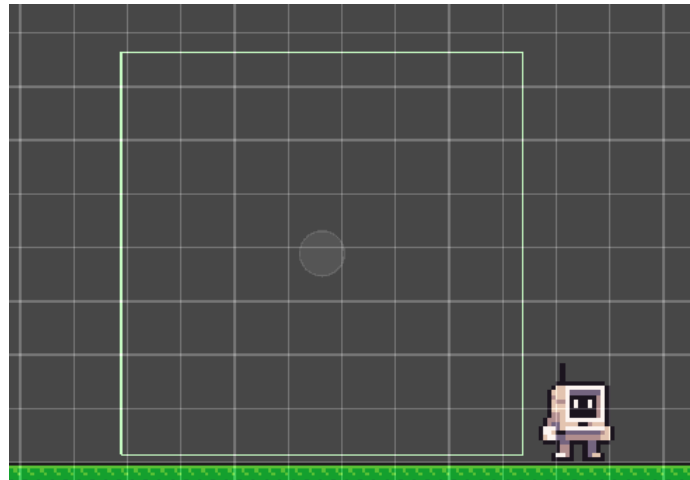
As for the sprites, tiles, user interface, and background, they are gathered from several sources as listed below:

- a. Sprites:
  - <https://bdragon1727.itch.io/>
- b. Tiles:
  - <https://bdragon1727.itch.io/>
- c. User Interface:
  - <https://bdragon1727.itch.io/>
  - <https://penzilla.itch.io/basic-gui-bundle?download>
- d. Background:
  - <https://www.indiedb.com/news/devlog-6-background-art>

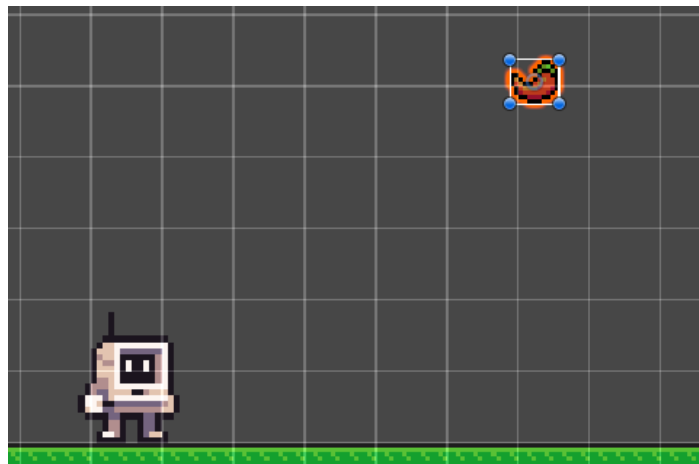
- <https://ansimuz.com/site/tag/background/>
- e. Ability icons:
  - <https://www.artstation.com/artwork/D52G69>

### 3.8 Collision Points

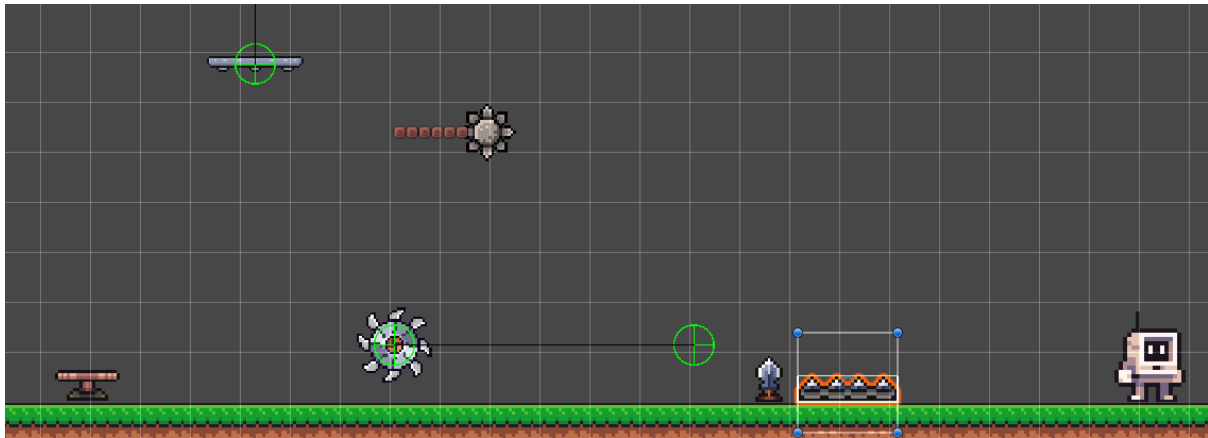
Collision points are implemented throughout all levels of the game so that players will feel that most of the elements in game are interactable.



Since there are storytelling in the game, a large collision point is introduced throughout the levels to trigger the dialogue from the narrator and the antagonist.



As there are various collectable items in game, collision points are implemented to the items so that it can detect whether the character has interacted with the collision box thus triggering a certain function to increase movement, jump height etc.

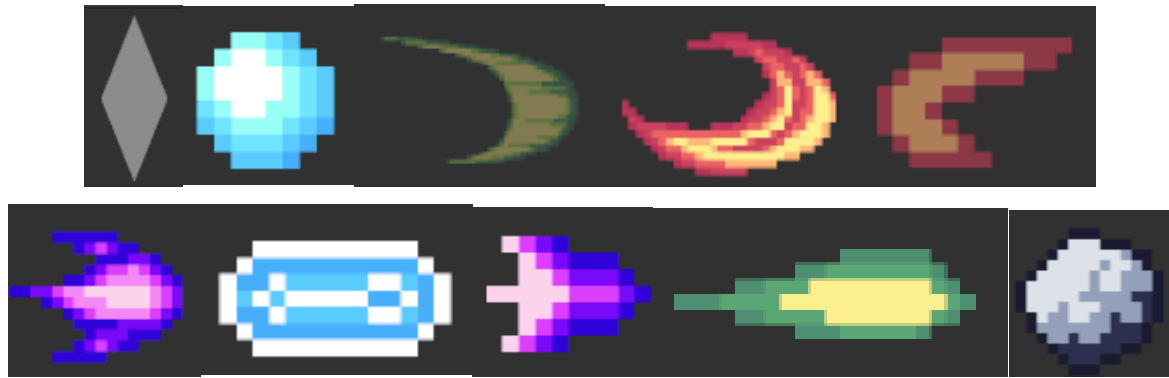


Collision points are also added to the jumper platform (far left of the image) to trigger an automatic jump effect to the character whereas the moving platform (far top left of the image) will detect whether the character is on the platform so that it can update the position of the character without players controlling the character.

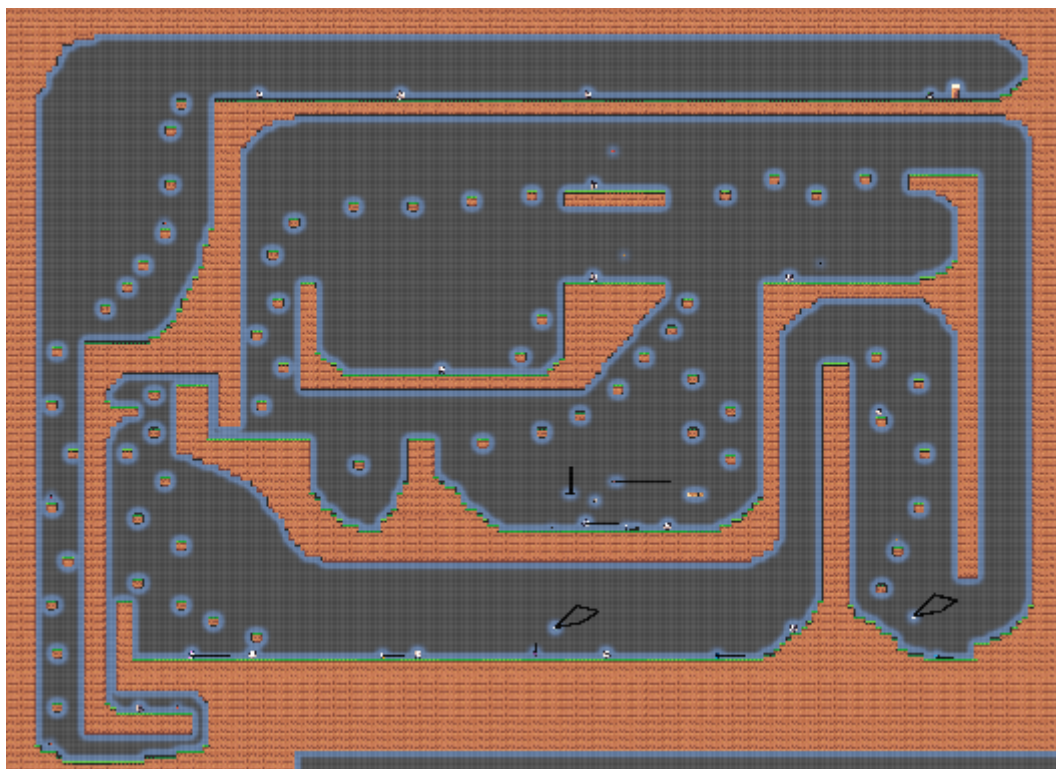
On the other hand, hazards and traps like the skull crusher, shuriken, spear, and spike have different collision points. For example, since skull crusher and shuriken are round, they both inherit a circular collision point whereas the spear and spike will inherit the traditional box collision point. When the character comes in contact with these hazards and traps, a function to reduce the life or instantly kill the character will be triggered.



When players reached the end point of the level, there will be a doorway for players to interact with it. It will not trigger any functions when the character goes near but it will detect the character is in the collision points. If players pressed “Enter” or “Return” key while inside the collision point, they will be teleported to another level.



For all projectiles existing in the game, each of them will have a collision point so that it can detect whether it has collided with the map, enemy, or the character. If it collides with the character or enemies, it will reduce the health and trigger a sound effect, indicating that the projectile has been in contact with the character or the enemies. If the projectiles collides with the map, it will trigger another sound effect, indicating that players or the enemies have missed their shot.



As for the map, there will be collision point around the tiles to detect the character is grounded so that it will reset the jump count and trigger different animations and keep the character on ground instead of falling constantly.

### 3.9 Characters and NPCs

Characters can be divided into three major categories: protagonist, non-playable characters (NPCs), and enemies. They serve different purposes and are crucial for the game progression and storytelling.

#### Protagonist



The protagonist is the character that players will control to find the divine ingredients and assemble the perfect sandwich in the world. It is a very basic sprite illustrated by bdragon1727 with a vast additional sprite for animation rendering.

#### Non-Playable Character (NPCs)



Circuit is the narrator of the game which players will meet when they first play the game starting from Level 1. It will provide dialogues for the game mechanics and introduces new players to the different items, enemies, level components of the game.



Robot or also known as Elder in Suspicious Machine in the game is the antagonist of the game where it will be seen near the doorway at Level 1. It mainly will be in the storyline where the character will progress through to search the divine ingredients. In the end, it will reveal itself to be the one who kills all who seeks these divine ingredients where it lays a trap for players to escape from.



Blankey and Jumpy Lumpy are harmless and cute wandering creatures that will interact with the character when players go near it. They do nothing and will just follow the character.

### Enemies



A split image and personality from Blankey, Blankey Ranger, is an airborne enemy that will fire a blue fireball towards the location of the character given that players wander near enough. It will follow a fixed path and will patrol the area when the character is far away.



An emotionless, bulky biological machine, known as Dude Monster, is a grounded, melee enemy that will launch furious punches to the character if comes face to face with it. It is considerably dangerous to kill it in smaller and tight areas and players are suggested to use ranged attacks.



Orchid is another airborne enemy that will only face one direction while flying vertically. Even though it will move up and down, if the character goes too near, it will stop to fire projectile at the character which will travel a long distance before the projectile disappears.





Don't get fooled by the friendly face and waving hands of Owlet. Owlet will stop and stare at the character before throwing a huge rock at the player with some delay.



Pink is a runner, and it will run and chase players, causing the character to be glitched, bumped or fall off platforms. It does not harm or damage to the character, but it can be considered as an annoying enemy in game.

### 3.10 Head Up Display (HUD)

The head up display of the game is rather simple. At the top left corner, players are presented with the health icon and how much health point the character currently have. On the top right corner, players will have an exit button to quit to the level selection interface to choose which level they want to play next. The ability menu at the bottom left corner will appear depending on which spell players have found and learnt. If players did not collect the spell books, the ability menu will not appear.





## **4.0 Final Writeup**

Overall, in terms of game development, this is the first time our group members have created a game from scratch, and we are quite satisfied with the product. However, there are a lot of areas to be improved on. The proudest part of the game would be the animation of the character including walk, run, jump, fall, and three different attack animations. It is quite hard to configure these animations in the animator as we would need to manually include certain functions to trigger the attack hitbox in sync with the animation.

The initial idea is to create an immersive 2D platformer game and as realistic and logical mechanics as possible. For example, when the character dies, instead of reviving at the initial spawn point, the character should revive at where it dies. Another example is that when the character is being pushed or cornered, there is a possibility that the character will glitch into the wall thus making the game cannot be completed. To add on, the camera is not clamp when the character goes near corners or small areas where it will expose a lot of tiles in the camera, causing the game experience to be reduced.

By addressing these major issues and fixing some minor bugs and mechanics, we believe that the game has potential to be sold to small game companies to further develop and enhance in terms of the different game modes, world, and game mechanics etc. Although it is a traditional 2D platformer game and easier to develop compared to other game genres like combat, competitive, or 3D games, we are quite satisfied with the product that we can complete within 14 weeks.

## **5.0 Individual Writeup**

### **5.1 Yip Zi Xian – TP059963**

As the one who focuses more on Unity script programming, I do learn a lot of object-oriented programming in terms of C#. I would say it is very similar to Java as C# derived from it, so both shared a lot in common. I think that the hardest part for me is the Unity interface because it was new to me and there are a lot of settings that need to be configured before I can start my script writing. For example, configuring the components like box collider, rigid body, images, canvas, camera etc. Sometimes, the script won't work not due to the error in the code but the error or missing components in Unity thus I was required to be more focus and careful while making any changes to the components. Besides that, I need to work with Jiann Yang to get the animations working because he was focusing on the different animations transitioning between each other. In addition, I would also like to highlight that I need to work with Goh Min Xuan so that the gameplay and mechanics would be on point or mostly accurate based on the story she wrote.

### **5.2 Goh Min Xuan – TP067281**

Building my first 2D platform game in Unity was an exhilarating journey! Working with my teammates was phenomenal – they were helpful, organized, and we got along splendidly!

Although I was initially nervous, our team consisted of people who shared my passion for game creation. Everyone worked seamlessly together – we came up with ideas, designed levels, shared thoughts, and exchanged feedback without any difficulties or disagreements. My teammates taught me so much; they made even the most challenging aspects of game development seem effortless!

Everyone on our team was welcoming and accommodating, which made things even better. We communicated frequently and assisted each other whenever difficulties arose during the creation of our game. While there were some tricky obstacles we needed to overcome as developers, the feeling of working through them and making our game successful was incredible!

Upon completion, I felt proud to have collaborated with friends to create such a worthwhile game! This experience taught me the value of teamwork and the importance of

having friends who support your efforts. I will cherish all of our fun times brainstorming, collaborating on solutions to problems, and finally seeing our creation take form – this journey has only strengthened my love for game development!

### **5.3 Goh Wai Kuen – TP066257**

During the development of our 2D platform survival game, I took the role of designing Menu User Interface (UI) and the Game Level Panel. Although my expertise mostly resides in the field of 3D game production, the process of moving to a 2D setting was not as easy as I imagined. Specifically, the act of slicing the buttons was novel to me and required some adaptation. Nevertheless, the primary objective has consistently been to guarantee not only an aesthetically pleasing design but also a user experience that is easy to comprehend and use. The objective was to design user interface (UI) for the menu that would facilitate the navigation of new players. The game panel after the start button was created to provide five separate levels, aiming to generate enthusiasm and ensure clear decisions.

The collaborative and interdependent nature of our team significantly contributed to effectively addressing problems and guaranteeing accomplishments of the game. All members demonstrated persistent dedication, creative thought, and careful focus on the specifics. The effectiveness of our game was enhanced by our collaborative approach, which was characterised by implementation of strategic planning and execution of tasks in a timely manner.

### **5.4 Yap Jiann Yang – TP061468**

This is the first time I've started learning and doing game development. I enjoy games and have wanted to try game dev for a long time, so I'm glad I got my first chance here.

During development, I mainly worked in the ideation and animation department. The idea of collecting ingredients to make a sandwich was first proposed by me, which was then fleshed out into the full storyline by Min Xuan.

I also helped animate and code some of the player movements. For example, I gave each attack unique timings and damage so players could have more versatility. I closely worked together with Zi Xian in this phase. We successfully created combo attacks that worked smoothly with the other animations.

Through the course of development i learned that sufficient planning was crucial. Due to time and skill constraints, many additional ideas and polish were skipped. For example, one of my ideas of having enemies that would change states when damaged could not be implemented.

Through this course, I've learned to appreciate the games I play even more. Many parts of game development require vastly different skillsets, from ideation, programming, and art direction. I am glad our team was able to utilise our skillsets to complete our game.

### **5.5 Tan Jia Yi – TP060983**

As a level editor, I have responsible in the debugging phase for finding the bugs and the hidden glitches which will affect the players' experiences. I need to navigate every place of the game world to satisfy and fix the collision issues that hindered smooth movement and eradicate the problems that will cause players getting stuck in the terrain. But while testing the game, I have found some bugs that cause by Unity itself which cannot completely fixed by using codes. Furthermore, whenever I modify the bugs that I found, I will also adjust the difficulty level of the level appropriately if I noticed that they are not suitable in the level. When I turned the placement of obstacles, enemies, and the pick-up items, I have envisioned a continuous level that will escalating difficulty that can attract players and avoid their intense frustration.

And as a video editor, I started to craft a compelling game trailer that can attract players and enable them to understand how the game works. To create the game trailer, I need to be very creative and innovative to ensure that the trailer video of the game can catch the players' attention to inspire them to look forward to the game. I have also created a gameplay introduction video that like a guideline or tutorial for the game. The content of the gameplay video is to introduce all the gameplay skills and the level backgrounds in the game.

Through the intricate process of game debugging and the artistry of video editing, I realized that edit a 2D platform game is a very useful and interesting experience that provides an unforgettable experience for me.

## **6.0 References**

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