Order of the Runner: Dark Ages

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1 Introduction

In the small village of Wronid, in the Kingdom of Vania, King Jaime and Queen Amelia call you to the castle to appear before the royal court. Their majesties report that the kingdom is in debt due to a food crisis and they need your help. They request for you to go on a journey to reclaim the kingdom's wealth, battling enemies and recruiting help on the way. If you fail, the neighboring Kingdom of Viris will conquer the Kingdom of Vania. Thus starts this brave hero's journey.

NOTE: All gameplay and mock ups are subject to change without notice.

2 Roles

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2.1 Team roles

Our team is composed of Benjamin Aronstein, Tessa Check, Darnell Dail, Dayne Hultman, Mikala Spencer, Leonard Lucheck, and Dan Zapotoczny. Dana Dominiak serves as supervisor over the project. Their roles are described follows:

2.1.1 Dayne Hultman - GUI Programmer

My role in the production of this particular game is to create a stable GUI interface that serves as the backbone of the game as well as creating mock ups of game concepts as well as possible methods of how game play would work. I created a map of the transitions that explains how the player would navigate the different sections of the game. I am also responsible for creating certain content of the game, such as enemies and obstacles, as well as possible items and stages of the game.

2.1.2 Benjamin Aronstein - Graphics and Server Admin

Ben's job as lead on graphics gives him the responsibility of conversing with the artists that we hired for the project and working out certain styles and artwork as well as dates of when certain assets are to be delivered.

As server admin, Ben had the job of finding a server where we could store all our assets and files and where everybody could interact or look at certain files. We are currently using the TortoiseSVN server network. Here is a link: https://tortoisesvn.net/

2.1.3 Tessa Check - GDD and TDD Keeper, Level Designer

Her job inquires keeping up to date the General Design Document which holds the main elements of the game as enemies, obstacles, power ups and other concepts. She also keeps up to date the Technical Design Document which holds the technical elements of the game from sprites, sound clips, as well as other technical aspects. She is also a level designer that is responsible for the total environment of the games levels as well as asset and characters that inhabit it. She works closely with Mikala.

2.1.4 Darnell Dail - Sound and Sound Programming

Darnell's job as a sound programmer consists of him being responsible for the processing, storage, and playback of sound effect and music in the game. His current method is by searching websites that offer free music and sound, edits them whenever necessary and picks and chooses sounds that may or may not fit into the genre of our game. Music in any given game is very important as it sets the mood and tone of the game. Sound effects give life to characters and enemies which draws the players back for more fun and excitement.

2.1.5 Mikala Spencer - GDD and TDD Keeper, Level Designer

Her job inquires keeping up to date the General Design Document which holds the main elements of the game as enemies, obstacles, power ups and other concepts. She also keeps up to date the Technical Design Document which holds the technical elements of the game from sprites, sound clips, as well as other technical aspects. She is also a level designer that is responsible for the total environment of the games levels as well as asset and characters that inhabit it. She works closely with Tessa.

2.1.6 Leonard Lucheck - Game Programmer

Leonard's job takes the vision of game designers, the rest of the team, and brings them to life. He works closely with the lead Game Programmer Dan to work on components of the game as well with the other members of the team to figure out what needs to be implemented.

2.1.7 Dan Zapotoczny - Lead Programmer

Dan's job as a lead programmer makes him responsible for the underlying architecture for the video game, as well as for overseeing the work being done by any other programmers working on the project. He supervises and collaborates with the other game programmer, Leonard, on a daily basis.

2.2 User Roles

Here we describe the requirements of each of different types of users. If it is one type of user describe the characteristics of this user, and their requirements. Talk about the priorities of the requirements. What are the feasible requirements under your software/platform given the time frame.

2.2.1 The Users

The users who we are searching out for this particular project are general players who want to spend a little time taking a break from work and relax from the daily stress. So in the general range of ages, I would say that we are looking into groups of 10-18 year old's who don't have jobs quite yet but are able to understand the concepts of game play. They have time to play when they have a break from studying or just want something to play on the weekends. Another group that we are looking at are working adults in a office work space. These groups take time out of their busy schedules at breaks in their work schedule to play the game and to de-stress themselves from the heavy workload that they have been given. These are just the major groups that we are looking at but see that groups from all age gaps will download the game and have fun playing it.

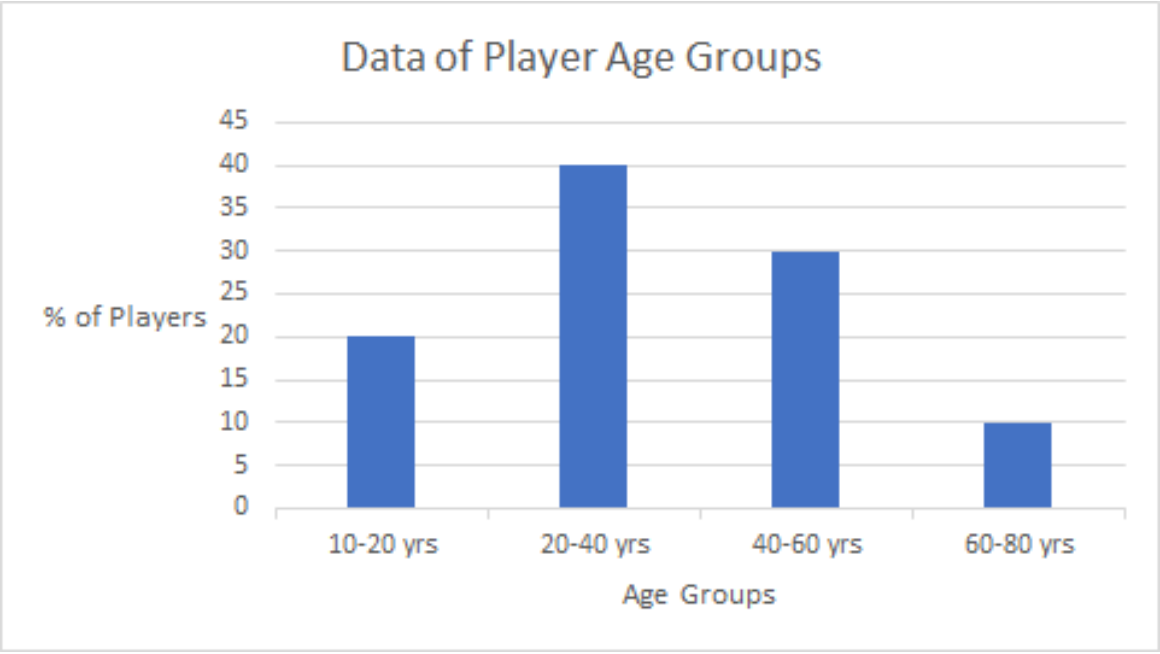

Figure 2.1: Data of Player Age Groups

The requirements of any video game can be broken down into many different parts, but there are a few core mechanics that are essential in any video game. Here are the few components that make any game great:

- *Great Game-play:* Of course this might sound like a given, but for many gaming companies, they usually skip this aspect and go straight to telling a story. This way of planning a game is what I like to call the "Movie Effect", where short cut scenes and unplayable scenes take up a majority of the game with very little game play. While it is imperative that a story should be included (I will discuss this later), game play is by far the best component that needs to be focused on. In some cases, a very popular game can be built just on incredible game play alone and not focus on telling any aspects of a story. Take a look at some very famous examples, such as *Temple Run*, *Angry Birds*, *Flappy Bird*, *Clash Royale*, and *Adventure Capitalist* to name a few. These games don't really draw you in based on the heart pounding story that it tells, but rather the addicting game play that always brings us back, ready for more. For our game we will be utilizing a 2D endless runner that will give the player different options to act on based on the obstacle that the player faces. Here are a few mock ups.

Figure 2.2: Goblins without and with Shield

- *Great Stories:* Like I mentioned before, a game can be successful with great game play, but a story is essential to keep the players coming back. The story is what keeps the players immersed in this vast world you created, whether it be a science fiction story set in the future, or a fantasy that is played during the dark ages. This rule is especially true in most cases when you are designing a single player game. Aside from playing by yourself, there isn't much to do other than collecting some items and doing tasks, with no motivation what so ever. But if you look at it from the perspective that you are a knight sent by the king to collect gold for the kingdom so that the neighboring kingdom doesn't come conquer you, then you are interested in that characters story and can't wait to see what else could come along in his journey.
- *Amazing Art Style:* The art style of any given game is extremely important, no matter what game you are planning to make. Your player is going to be staring at your environments, your art, graphics, characters, enemies, title screens, and put this all together to make a feel for the game. Some games that utilize great graphics for their story/game play include, and not excluded to, *The Last of Us*, *Cuphead*, *The Witcher Games*, and *The Monster Hunter Series*. Of course you want your art style to reflect the tone of the game. You would find it pretty weird to see Mario with graphics that made him look like a real person. You don't need that amount of detail for that kind of game. For our game, we are using 2D graphics with a pixel theme. Not only will this reflect the feel of the game, but it is also very simple for us to start out with as beginner developers.
- *Necessary Grind:* Finally, every game should have at least some element of a challenge to it. *Dark Souls* is considered one of the hardest games to play and it is hailed as a marvel because of it. But imagine that insane difficulty was taken away and replaced with much more simple mechanics. You would feel cheated based on how easy it was, as you want some challenge. In the case of our game, we will be utilizing different obstacles and enemies that the

Figure 2.3: Mock Gameplay

player will have to avoid. And as the player continues to run longer distances, the enemies will become harder to avoid. But as you continue to go farther, the rewards that you receive along the way will definitely make it worth your while.

3 Models

For my models, I utilize a tool called Mind Meister. This showcases the different stages that the game will go through as well as showcasing different components such as costumes and consumables for the player. There is also a section that holds links to sound websites that offer free sound effects and music that we maybe using as part of the game.

3.1 Database Model

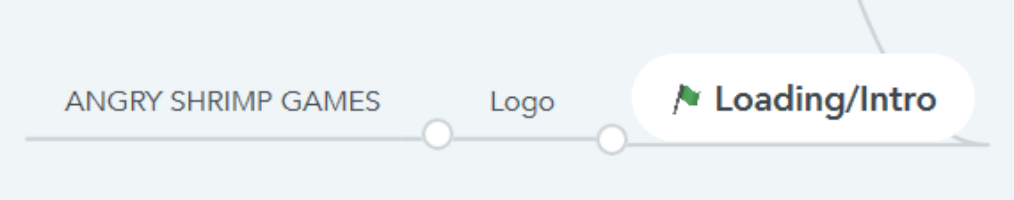

Figure 3.1: Loading Intro

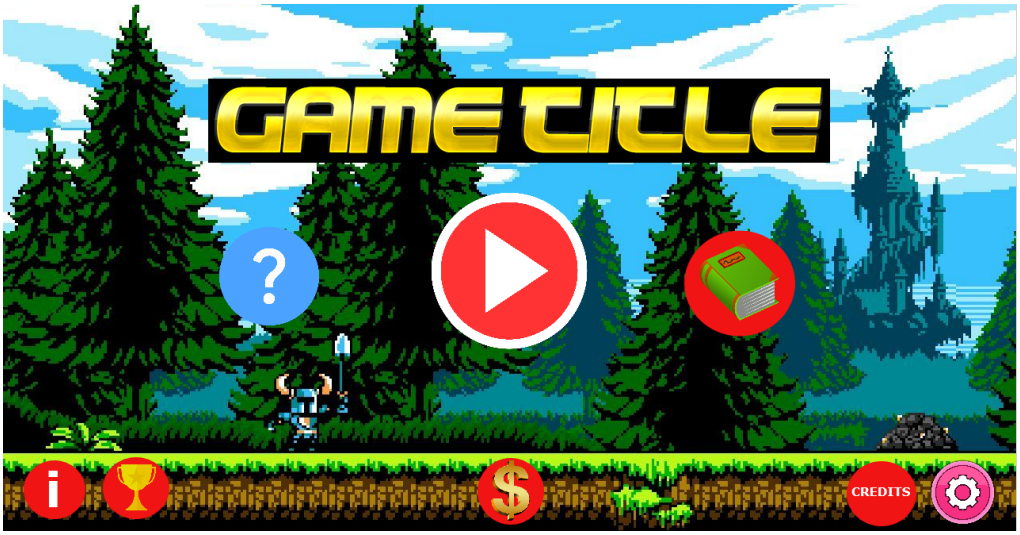

Figure 3.2: Title Screen

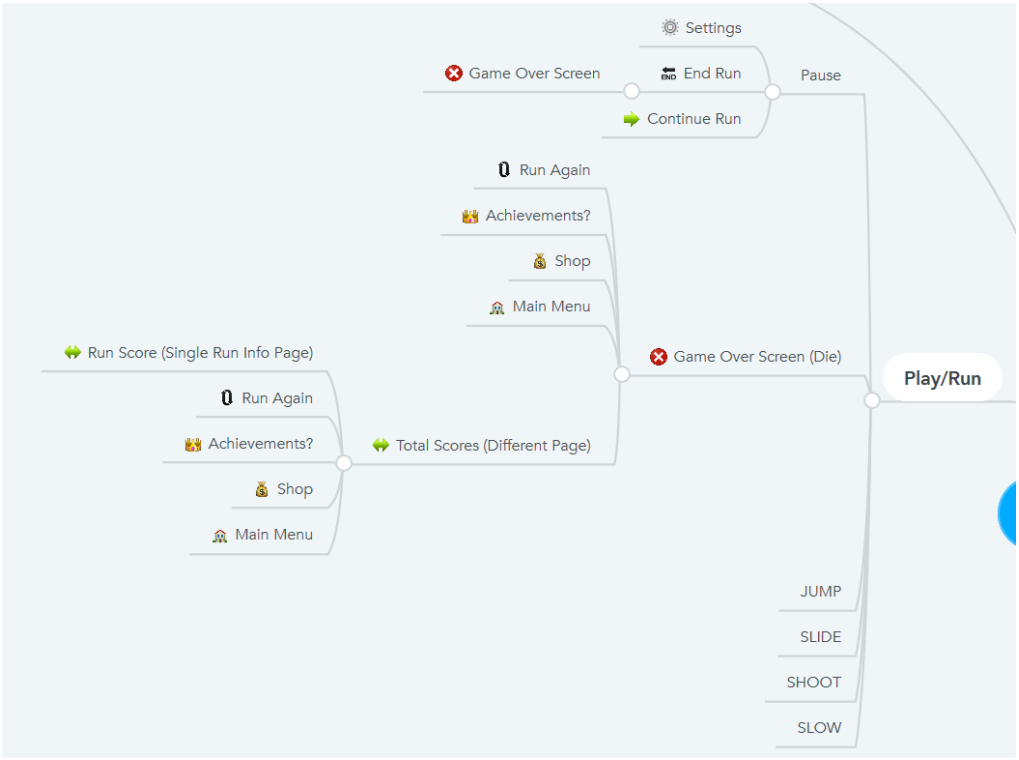

Figure 3.3: Playing/Running

Figure 3.4: Gameplay

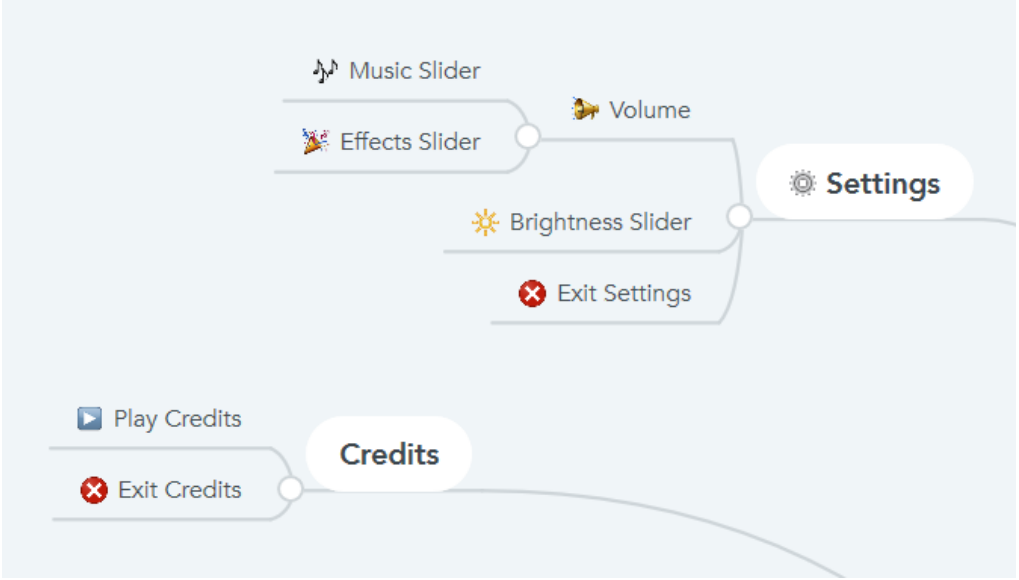

Figure 3.5: The Credits and Settings

Figure 3.6: Storyboard and How to Play

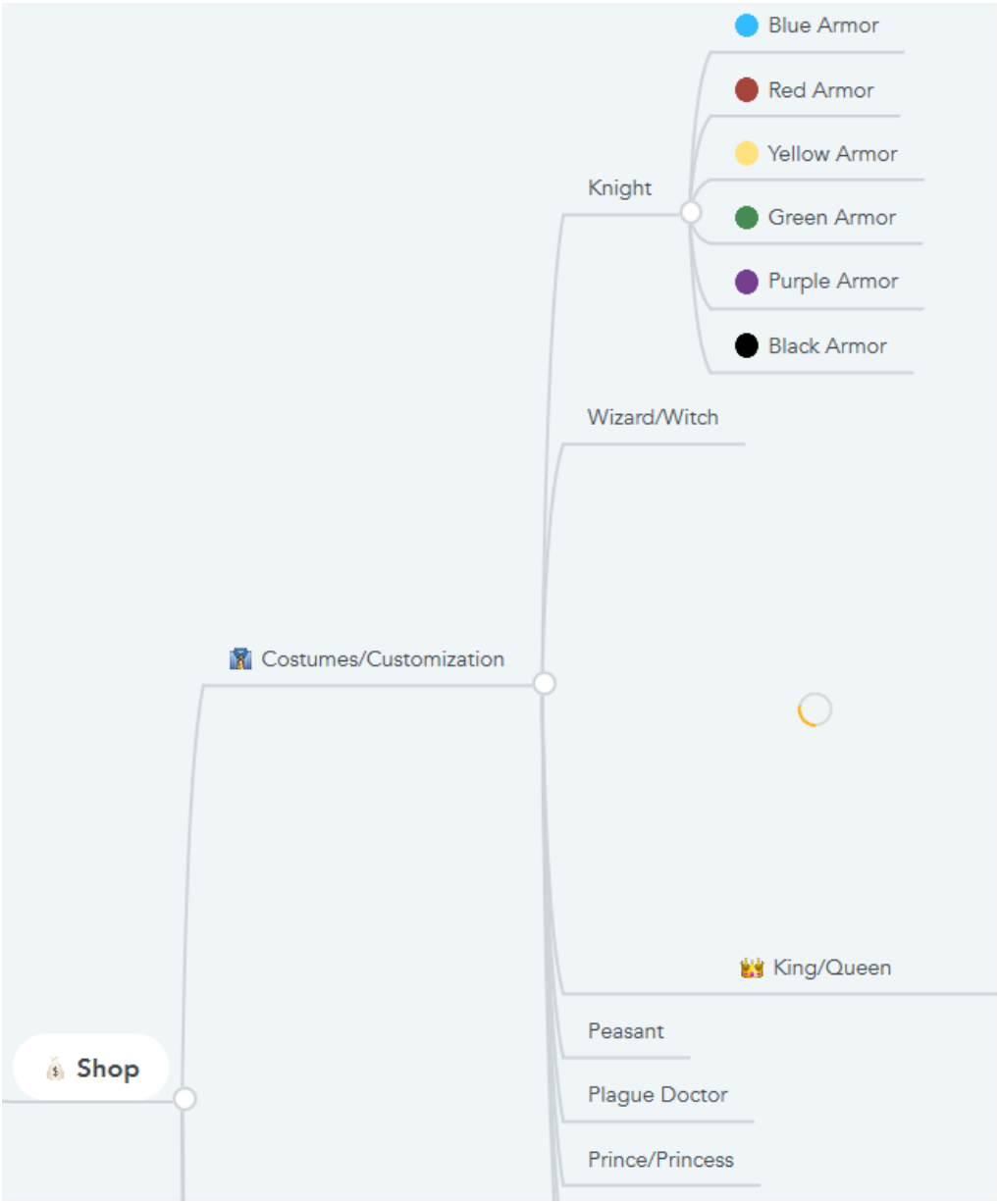

Figure 3.7: Shop: Costumes

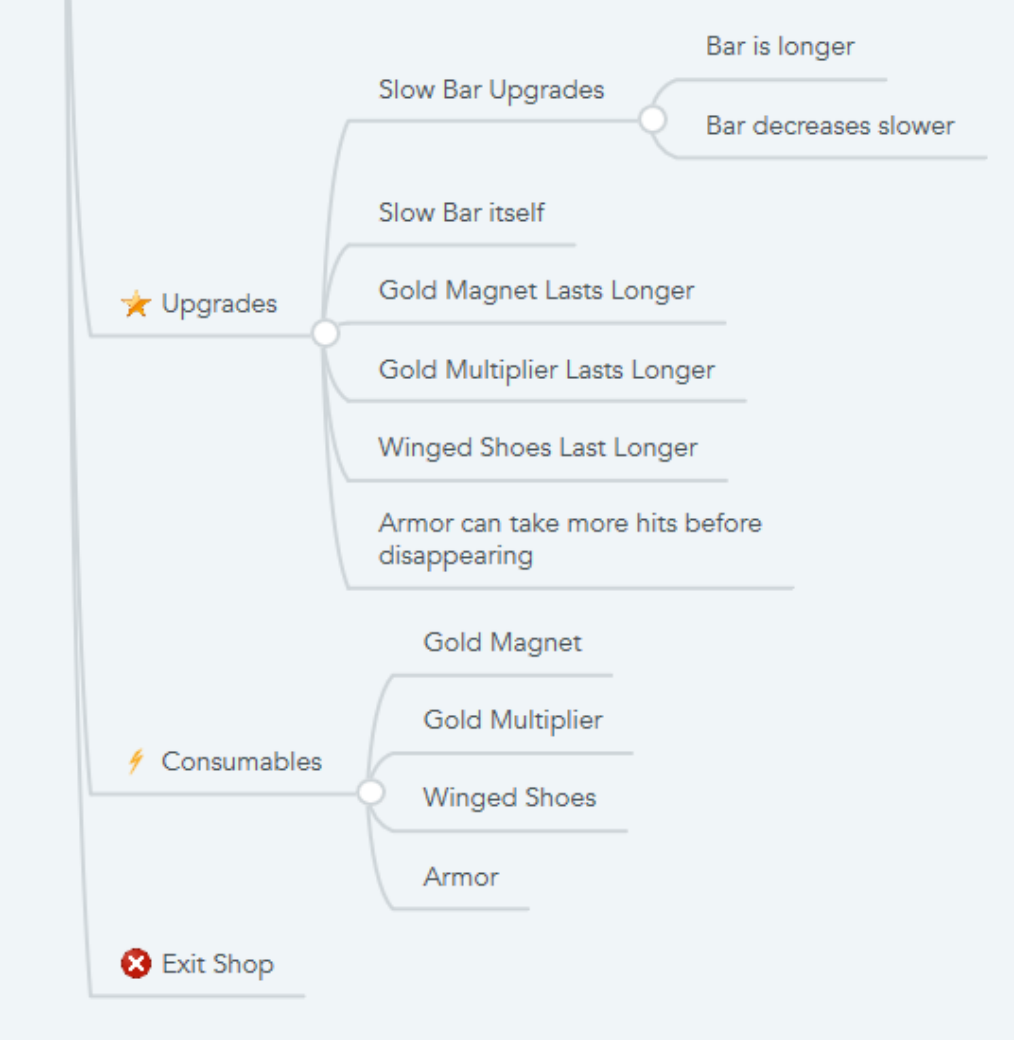

Figure 3.8: Shop: Upgrades and Consumables

4 Testing

For this particular project, because it is a video game that requires no forms to fill out, but rather will be served as a consumer item, several stages of testing will be required.

4.1 Forms of Testing

4.1.1 Developer Testing

This form of testing will take place as we develop the game itself. It will go through numerous changes that we see fit as this continues to grow and evolve. Once the core mechanics are set in stone, we will input those mechanics into the game and test them to see if they meet up to the expectations that we had seen. If we see that a mechanic doesn't fit, it will get removed or reworked to save time. As we continue development on this and get toward the finishing touches, we might not send this product out for beta testing as we are a very small team and don't have the resources to do such testing, although it might be possible.

4.1.2 Beta Testing

We might be able to do this form of testing but as the game is of right now, we have yet to decide on that. If we decide to go forward with Beta Testing, then we will have people play our game and ask for feedback based on what the testers felt were good, bad, needed to be tweaked, or removed completely. A form for questions will be provided at a later date.

5 Patterns

The patterns that i will be using in this game focus on the enemies that are generated and the hero's attributes that coexist with the different characters.
NOTE: Enemies and obstacles are used interchangeably.

5.1 Enemy Patterns

Enemies can be categorized into different sections based on their properties. Some of them can be broken down even further in their categories because of their unique way of how they interact with the hero. Here are a few types of enemies and their examples:

- Jumpable obstacles: These enemies have to be jumped over in order to get past. If the hero was to run into an enemy of this type, then the hero will die. Or if the hero has an extra life, will lose that life and continue to run. To defeat these enemies they must be jumped on to defeat them and get coins from them. Some of these enemies can be shot with arrows to easily get past them without jumping, but will not drop coins when defeated by so method. Some enemies can't be defeated by arrows and have to be jumped over, or they will die. Here are a few differentiation's.

5.1.1 Enemies that have to be Jumped Over/On

  - Unicorn
  - Fire
  - Goblins with or without Shields
  - Spike Pit

5.1.2 Enemies that can be Shot or Jumped Over

  - Basilisks

  - Goblins without Shields
  - Werewolves

- Slideable obstacles: These enemies have to be slid under in order to get past. If the hero was to run into an enemy of this type, then the hero will die. Or if the hero has a extra life, will lose that life and continue to run. These types of enemies can't be defeated by shooting them as they are high enough to avoid the arrow, but low enough to hit the hero. Here are a few examples:

5.1.3 Enemies that have to be Slid Under

  - Bats
  - Manticores
  - Ghosts
  - Will o Wisps

- Shootable obstacles: These enemies have to be shot in order to get past. These are different from the jumpable enemies listed above as they must be destroyed by shooting them to get past. Jumping or sliding will not help you get past them. If the hero comes into contact with any of these obstacles, then the hero will die or lose a life. Here are a few examples:

5.1.4 Enemies that have to be Shot

  - Screaming Skulls
  - Electric Barrier
  - Old Trees

5.2 Hero Patterns

The patterns that the hero has are the same among all the other characters. Every time the hero changes its costumes from a witch to a knight, or vice versa, the attributes of that character will not change as they will have the same properties for interacting with enemies, items, and other objects. Here are a few of these attributes for the hero:

- When hero touches an enemy/obstacle: The hero will either die or lose a life and continue to run in which it will become immortal for a few seconds so that the player can recover from being hit.
- When a hero touches coins: The hero will touch the border of the coin and the coin will disappear and the counter for the gold total will be incremented by however much that coin was worth. After the coin disappears, the player will continue to run.
- When the jump button is pressed: The hero will start jumping over an obstacle and clear it.
- When the Winged Shoes consumable is used: The hero will for a set amount of time run at an increased speed until the hero has gone a certain distance. The moment the consumable is pressed, the hero will change color into either a rainbow shade covering, or other color style. This represents the hero becoming invincible for as long as the coloring style remains on the character. As the hero is invincible during this time, the hero will just pass through all the enemies as if they were not there to begin with. As the hero is just about to leave the state of enhanced running, the color style will flicker on and off very quickly to signify that the ability is just about to wear off as well as the hero starting to slow down. After the ability has worn off, the character will continue to run as normal.
- When the Gold Magnet consumable is used: The hero will automatically draw coins near him that he either misses or are out of reach when he performs a certain action for a certain amount of time. What happens when the consumable is first clicked is that a wave will appear around the hero like giant parenthesis that vibrate toward and away from the hero. As the time limit for the consumable is ending, the golden parenthesis will start to fade away and then disappear, signifying the end of the consumable.

- When the Multiplier consumable is used: Every coin that the hero collects will have its amount doubled when it is collected for a certain time. What happens is that when the consumable is clicked, a golden 2X will appear above the hero as he runs. As time goes on, the 2X will start to flicker and eventually disappear, signifying the end of the consumable.

Figure 5.1: Winged Shoes Consumable Golden Magnet Consumable Multiplier Consumable

6 Future

The goal of the near future is that we are to have a game that is hopefully completely finished with all the content that we included in our projections. Of course we may be a little ambitious with all the content that we hope to implement but have strong developers that are working hard to achieve our goals. We plan to get this game into the hands of players at the end of the semester at least. A trailer may be presented before launch but that is farther down the line. We hope to get more to you soon and can't wait for you guys to get your hands on this. Welcome to the Order of the Runner.