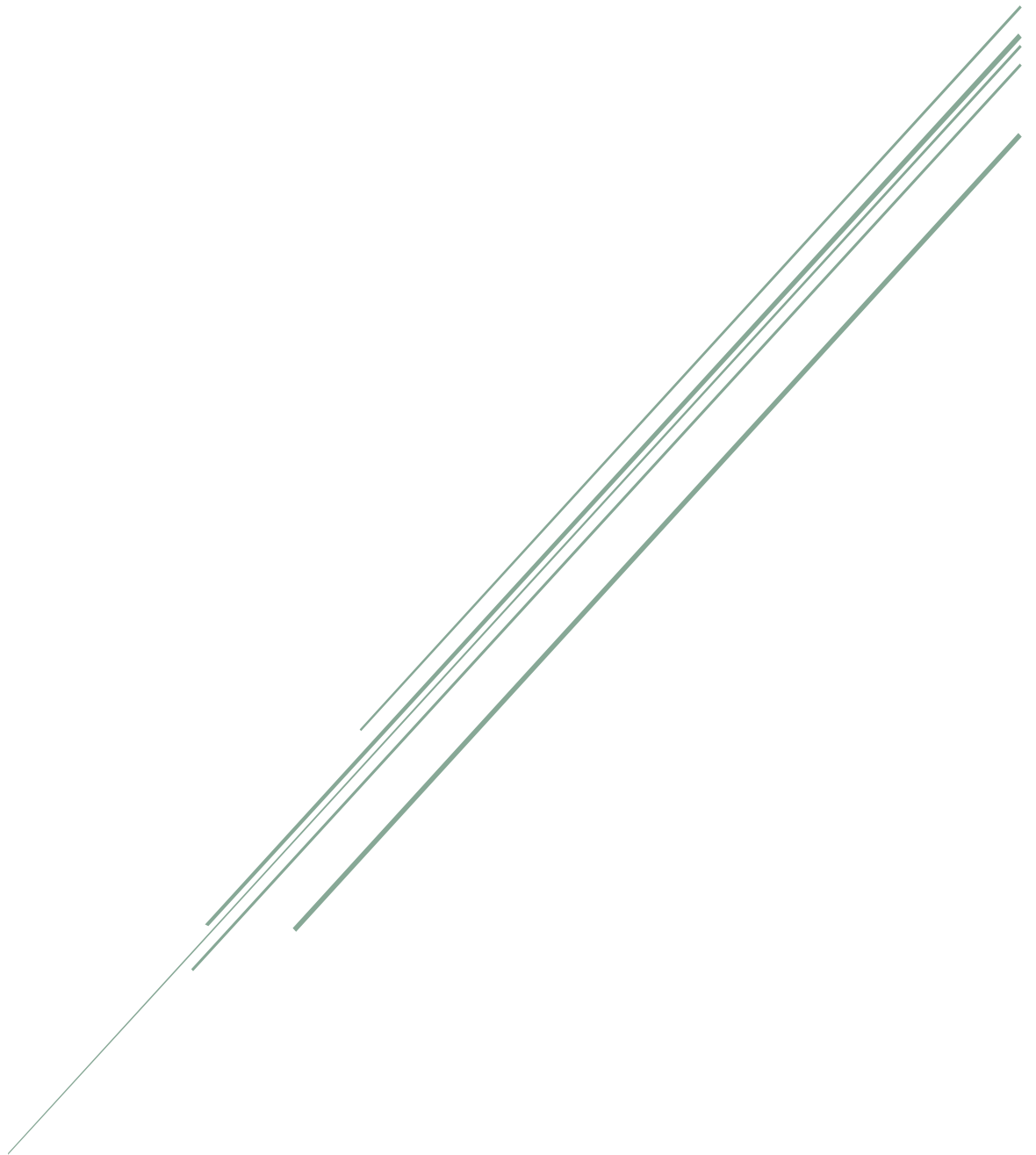


UNLIKELY HERO

Game Design Document



City of Glasgow College
Software development & Creative Project

1 CONTENTS

2	Narrative/Objective	2
2.1	Story	2
3	Characters	2
3.1	Look	2
3.2	Animations	4
3.3	Personality	5
4	Levels and environments	6
4.1	Backgrounds	6
4.2	Game world objects	6
4.3	Maps	8
4.4	Walkthroughs	10
4.5	Objectives and winning conditions	10
5	Gameplay Mechanics	10
5.1	The game loop overview	10
5.2	Movement	10
5.3	Combat	11
5.4	Game over conditions	11
5.5	Scoring	11
5.6	AI	11
5.7	Physics	12
5.8	Boundaries	12
5.9	Random chance numbers	12
5.10	Score Limits	12
6	User interface	12
6.1	Main menu	12
6.2	HUD	14
6.3	End game screen	14
6.4	Screen navigation diagram	15
7	Sound design	15
7.1	Music	15
7.2	SFX	15

2 NARRATIVE/OBJECTIVE

2.1 STORY

The narrative of Unlikely Hero focuses on our protagonist Goblin Knight, as he traverses through a mysterious, and dangerous cave, filled with slimes that are as evil as they are cute! The goal of our Goblin Knight is to traverse through the caves, defeat the slimes that stand in his way, defeat the Slime Queen, and take her crown as victory!

3 CHARACTERS

3.1 LOOK

The look of the characters in Unlikely Hero are heavily inspired by pixel art games of both old, and new. Inspired by the likes of Mega Man and Shovel Knight, the game uses simplistic pixel art to create a friendly, cartoon-y style that is both appealing and easily recognizable.

The exaggerated features of the hero create a very top-heavy silhouette that is meant to be funny, and charming, with a large sword that seems out of place against the little knightly design.

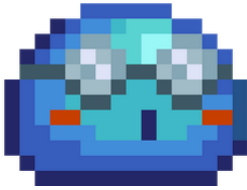
With no facial features on the helmet itself, but with large, emotive ears, the knight has a fun, interesting design that is easy to see on the screen and has a retro-inspired charm.



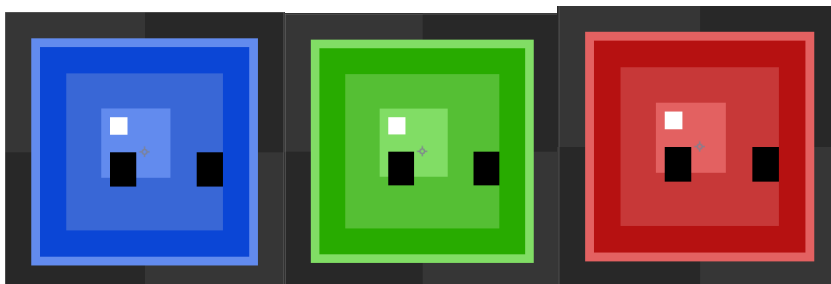
The enemies on the other hand have a distinctly different inspiration, but within the same genre of pixel-art platformer. Terraria has an enemy called a Slime, with a variety of different colours. The slimes within Terraria are rounder, and soft, but equally as cute, despite leaping at the player and attacking them.



However, slimes that were mostly a flat colour didn't entirely appeal to the game we wanted to create, nor did the harsh black outline of Terraria's slimes. That was when we had the idea of instead, drawing inspiration from the Town Slimes from Terraria!



The Town Slimes of Terraria had small expressions on their faces, mixed with accessories and the like to make their appearance more friendly, and approachable. Of course, we wanted our slimes to be the enemies, and thus, we went for a squarer shape, that squished as they moved, creating a sharper design, while also giving them little eyes that conveyed some sense of cuteness.



The Slime Queen on the other hand, takes the design conventions of the original slime minions and tosses it on its head. Taking the added eyes that offered the minions cuteness and bringing that into the design as a sort of corruption, giving an extra eye while also making them appear somewhat unnatural, to visually convey a sense of superiority in the Queen. She is a far bigger enemy, with a stark pink colour scheme to contrast against the crown she wears. The three among the pink slime being centred with white dots that all look in different directions are intended to make the eyes seem independent from one another, added to that superior concept.

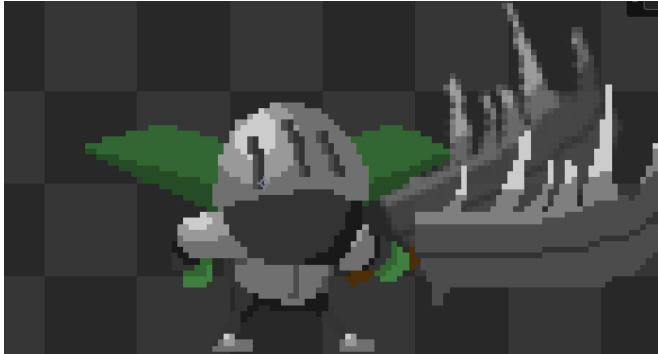


3.2 ANIMATIONS

The Goblin Knight has the most number of animations within the game, with each animation consisting of at least two frames. This incredibly simplistic animation style was intentionally used in tandem with the pixel art style to make the game feel more stylized while also saving time on the development of Unlikely Hero.

For the Goblin Knight, there is:

An Attack animation consisting of one frame.



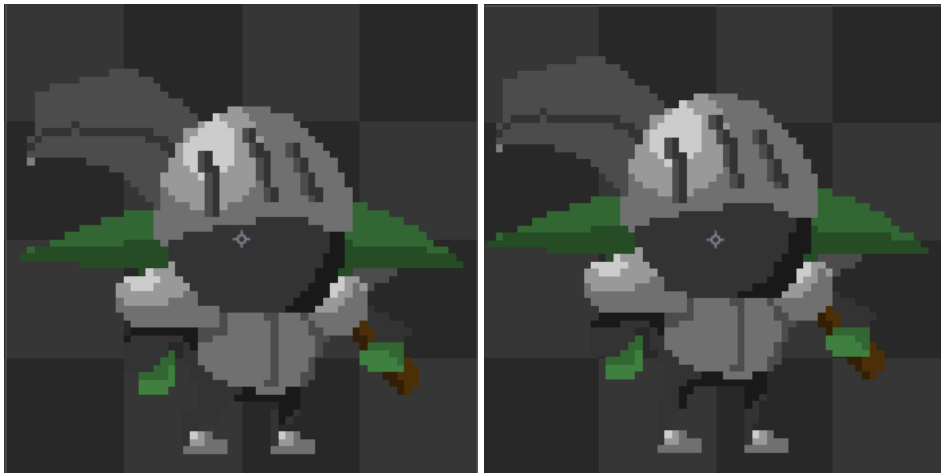
A Walk animation consisting of two frames.



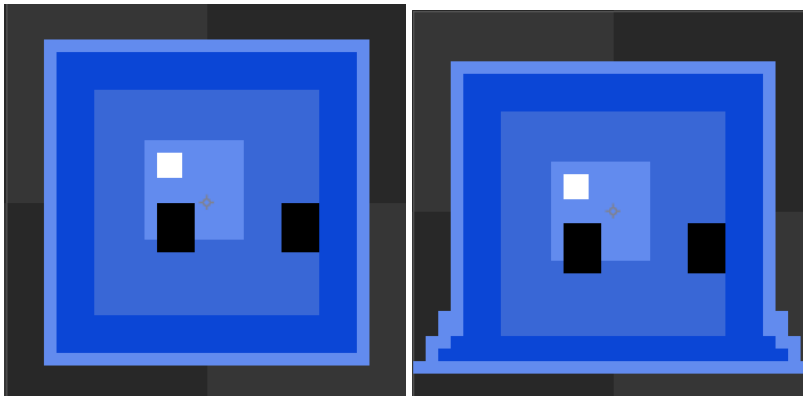
A Jump animation consisting of one frame.



And an idle animation that we then repurposed for the final screen as a dance by making him turn left and right between his bobbing up and down, consisting of two frames.



As for the slimes within Unlikely Hero, there is only one piece of animation per slime, and that is the movement animation of the slimes. The slime movement is conveyed via squishing the sprite up and down as they move left or right.



3.3 PERSONALITY

The personality of the characters are not entirely in-depth, or thought provoking. From the simple assumption that our protagonist is willing to traverse through a slime-infested cave, with a queen at the end of it, in an attempt to attain the crown she wears, it's easy to say that the Goblin Knight is not very smart, headstrong, and naïve. You could also infer that, with his current situation, he is brash, and overachieving, trying to prove something to someone. His knight's armor also lends to the idea of this overachieving nature, wanting to be a knight and desiring the glory that comes with such a status.

The common slimes don't actually have personalities of their own, whether that is due to them being cubes of slime or have boring personalities isn't entirely clear. Blank eyes would suggest the former however, not a single thought behind them.

On the opposite end of the spectrum however, is the Queen Slime. Her tall, sharp design, with three eyes and massive size immediately suggest malevolence, an active aggression for the player, a

constant bombardment of ranged attacks while she comes closer is a clear indication that she is in fact hostile, and malicious.

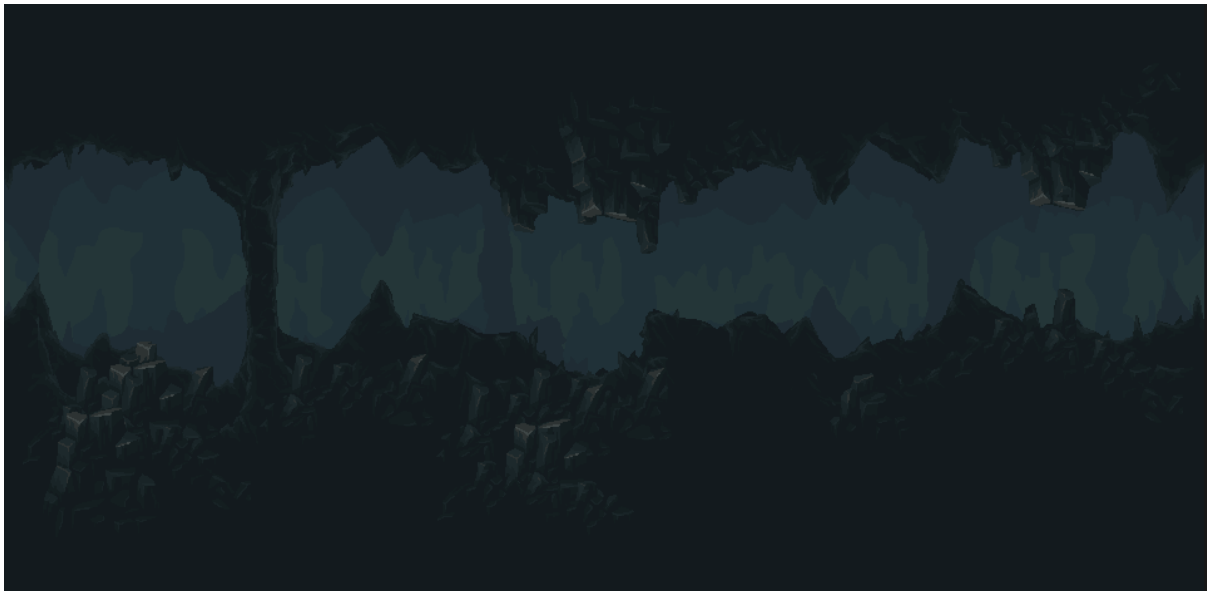
4 LEVELS AND ENVIRONMENTS

4.1 BACKGROUNDS

The backgrounds in Unlikely Hero utilize a wonderful technique called Parallax Scrolling, creating the illusion of depth via the layers of the background scrolling at different speeds, artificially making it seem like the lower layers of the background are moving slower due to being further away from the foreground.

The background itself within the game is that of a large cavern, the Slime Caverns, sourced via Itch.io, and created by [Szadi Art](#).

The background fit extremely well for the atmosphere we wanted to create for the game, having a gloomy, yet not overly dark aesthetic, with blues replacing blacks to make the scene look darker, while not having stark black making the scene feel flat.



4.2 GAME WORLD OBJECTS

Within the game, there are several objects to interact with, each serving a different purpose than the last.

The first object you will interact with inside of the game world is the Sign. A warped, old, yet still legible wooden plank strapped to a stick that the player can read. Pressing 'W' will let the player read the text on the sign.



The second object a player would interact with are the Slime Drops, a small Gum Drop looking item that awards the players points when picking them up. There are three different types of Slime Drops:

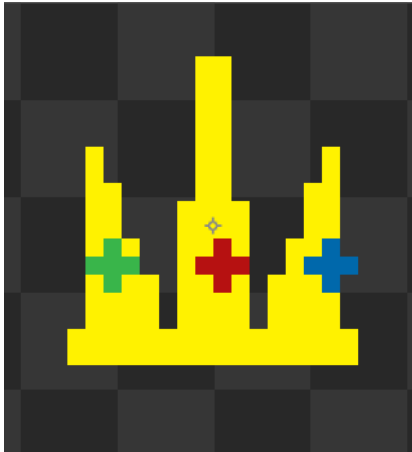


Each Slime Drop will correspond to the color of slime you defeat.

The third object the player will be able to interact with is Ammo, an item that has a random chance of being dropped by an enemy after defeating them. Your ammo is used by firing your crossbow for as many times as you have ammo, being unable to fire with no ammo left. Each drop will add 2 arrows to your ammo counter.



The last object the player is able to interact with is the Crown of the Slime Queen, awarding a large sum of points in contrast to the Slime Drops. The Crown is the trophy to show the player has defeated the Slime Queen, and is reflected in the awarded points.



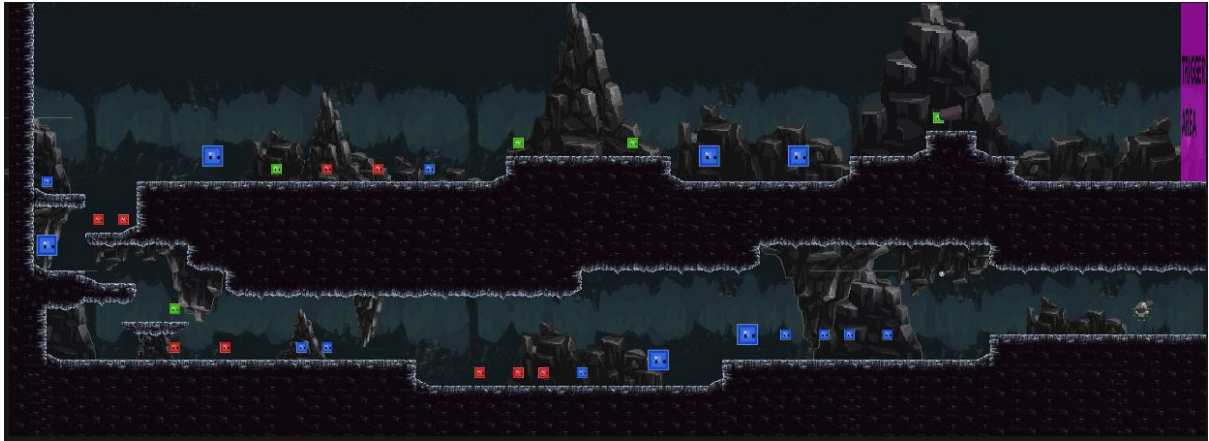
4.3 MAPS



Level One



Level Two



Level 3



Level 4

4.4 WALKTHROUGHS



4.5 OBJECTIVES AND WINNING CONDITIONS

The objective of Unlikely Hero is incredibly simplistic, with no real deviating paths or choices within the game. The objective is to progress through each level, traversing through platforming sections with a variety of enemies to look out for. At the end of each level, the player will transition from one room to the next, and finally, end up at the final level, where they will have passively accumulated ammo for their crossbow, and defeat the Queen Slime. A secondary goal for the game itself is to kill as many enemies as possible and pick up as many Slimes Drops as possible, which will award the player points. At the end of the game, the players points will be shown on screen.

5 GAMEPLAY MECHANICS

5.1 THE GAME LOOP OVERVIEW

The main loop of the game is very simplistic in that you spawn in a level and fight through it until reaching the end and progressing to the next level. As you progress through the level the player can fight and avoid enemies. The player will also have to avoid touch enemies or enemy projectiles to avoid losing health which will restart the level.

5.2 MOVEMENT

The movement in Unlikely Hero is incredibly simple, consisting of three buttons. The 'A' and 'D' keys on the keyboard will move the player left and right respectively. The 'Spacebar' key will make the player jump into the air. There are no other movement abilities within the game.

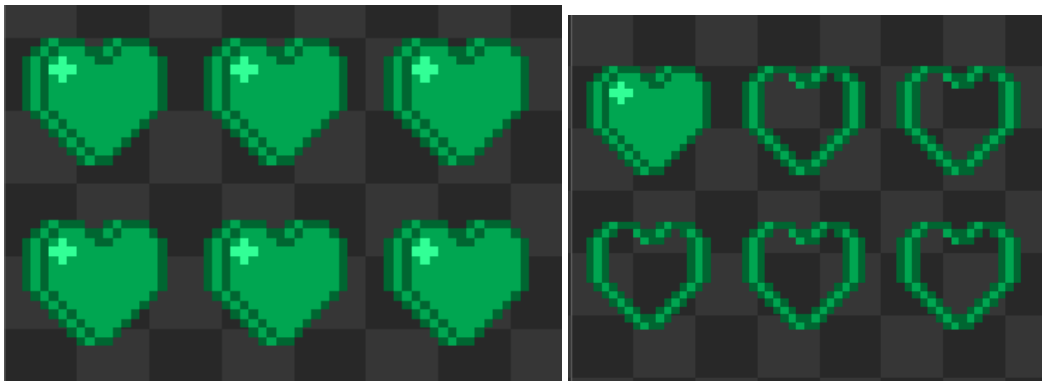
5.3 COMBAT

The combat in Unlikely Hero can be broken down into two categories. Melee and ranged. The melee combat within Unlikely Hero focuses primarily on juggling the opponent with consistent and well-timed attacks, ideally keeping the enemy or enemies in the air and unable to attack the player. Where the player has the cursor on their screen determines whether the player will swing left or right.

The ranged combat in the game is far simpler. With a limited amount of ammo, the player can do more damage from further away at the cost of ammo. The player will use their mouse cursor to aim where the arrow will go.

5.4 GAME OVER CONDITIONS

The only criteria for a Game Over within Unlikely Hero are for your health bar to reach Zero. After reaching zero the player will restart the current level they are on and be able to attempt that level again.



5.5 SCORING

The scoring system for the game is rather simple. Each enemy will drop a Slime Drop, giving the player a single point. The only slime that drops a different amount of Slime Drops is the Large Blue Slime, which drops two slime drops, giving the player two points to their score.

Upon defeating the Queen Slime, she will drop her crown, awarding the player one hundred points to their score.

5.6 AI

The enemies within the game have an incredibly simple AI, only able to move left and right to the end of the platform they are currently on. Each common enemy reacts the same, with the only way to change their pathing is to attack them. Upon receiving damage, the slimes will turn the opposite direction and begin moving that way.

Green Slimes will aim for the players current location if that slime has a clear line of sight between itself and the player.

The Queen Slime will also aim for where the player currently is, firing multiple ranged attacks at their direction from different locations on the Slime Queen's hitbox, adding a random element to where the player must dodge.

5.7 PHYSICS

The physics are incredibly simple with gravity and collisions being baked into individual objects. The physics system determines whether the player is touching a solid object and will slow and stop the player if the player's hitbox is touching said object.

Gravity only affects 3 objects. The player, enemies and drops.

5.8 BOUNDARIES

Boundaries are determined by invisible solid objects that make up the levels of the game. These solid objects stop the player and enemies from falling out the world. And allow for arrows to stick into walls and ceilings.

5.9 RANDOM CHANCE NUMBERS

There are only a few places random numbers are used in this game. The first being in drops as all enemies except for the boss have a 50% chance of dropping arrows. The second being when projectiles shoot as a random range of 10 degrees is used to make projectiles fire at slightly different angles. The last place it is used is with sounds. With player hurt sounds being chosen from 3 different options randomly and enemy death sounds being pitched up and down randomly.

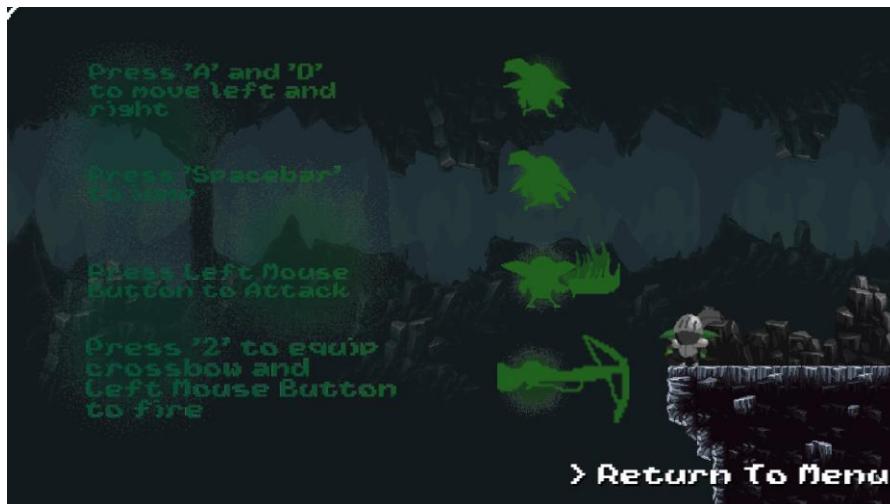
5.10 SCORE LIMITS

There are 145 points total to collect in Unlikely Hero, as there are only a select number of enemies to defeat.

6 USER INTERFACE

6.1 MAIN MENU





The main menu screen for the game consists of three main screens, with the first screen having five options to choose from.

Continue will continue the game from the last level you played, allowing you to continue playing without making the player start all the way from the beginning level.

New Game will take you to the first level, allowing you to replay the game from the very beginning.

How To Play will take you to the second screen of the Main Menu, where you will be shown how to play the game from instructions. There is an option to return to the menu.

Credits will take you to the third screen of the Main Menu, showing who worked on what aspects of the game. There is an option to return to the menu.

And lastly, an Exit Game option that will exit you out of the game.

6.2 HUD



The first thing the player will see when introduced to the game's HUD is Health Bar in the top right corner of the screen. This health bar will deplete one heart at a time as the player is hurt.



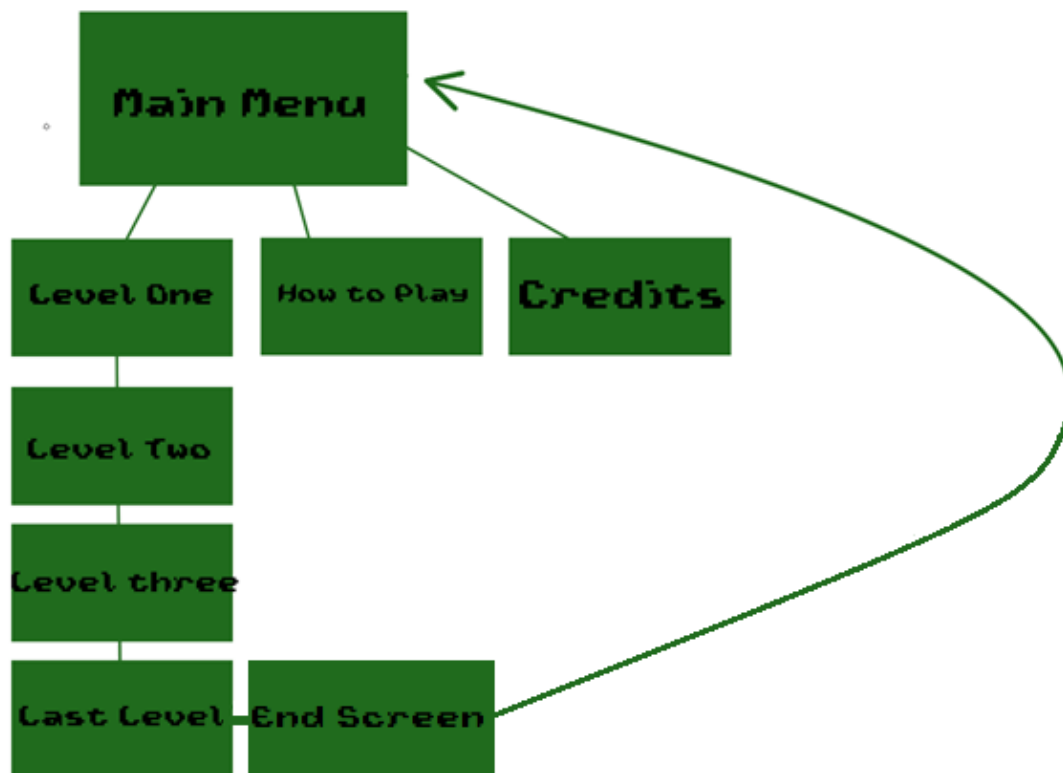
The second HUD element the player will see beneath the Health Bar is the Points and Ammo counters. The points will keep track of the amount of Slime Drops the player has collected, while the Ammo will keep track of the number of arrows the player has collected.

6.3 END GAME SCREEN



The End Game screen of the final level is a simple little animation showing the Goblin Knight doing a small dance, with the text 'You defeated the evil slime! And you scored [Number of Points] points!'. There is an option to return to menu.

6.4 SCREEN NAVIGATION DIAGRAM



7 SOUND DESIGN

7.1 MUSIC

All music was provided by Dar Gollan, with a license for Commercial and Personal use while being credited for his work. There are two songs that we used from Dar Gollan, one for the first three levels of the game, with the second song being for the final boss of the game.

Each song is inspired by retro games from the original NES and Famicom era of gaming, with the first song being inspired by the likes of Castlevania, having a slower, more mysterious tone.

The second song however is far more inspired by the likes of Street Fighter, with a more upbeat tune, and more energy to match the stakes of taking on the final boss.

Song 1: Video Game Music 3 – Dar Gollan

Song 2: Video Game Music 8 – Dar Gollan

7.2 SFX

Player Attack (1, 2 & 3) – Created by Blue Thomson using Audacity.

Player Death – Created by Blue Thomson using Audacity.

Enemy Death – Created by Blue Thomson using Audacity.

Crossbow Shoot – Sourced from Zapsplat and Edited with Audacity.

Pickup – Sourced from Zapsplat and Edited with Audacity.

Enemy Hurt – Created by Blue Thomson using Audacity.

Player Hurt (1, 2, & 3) – Created by Blue Thomson using Audacity.