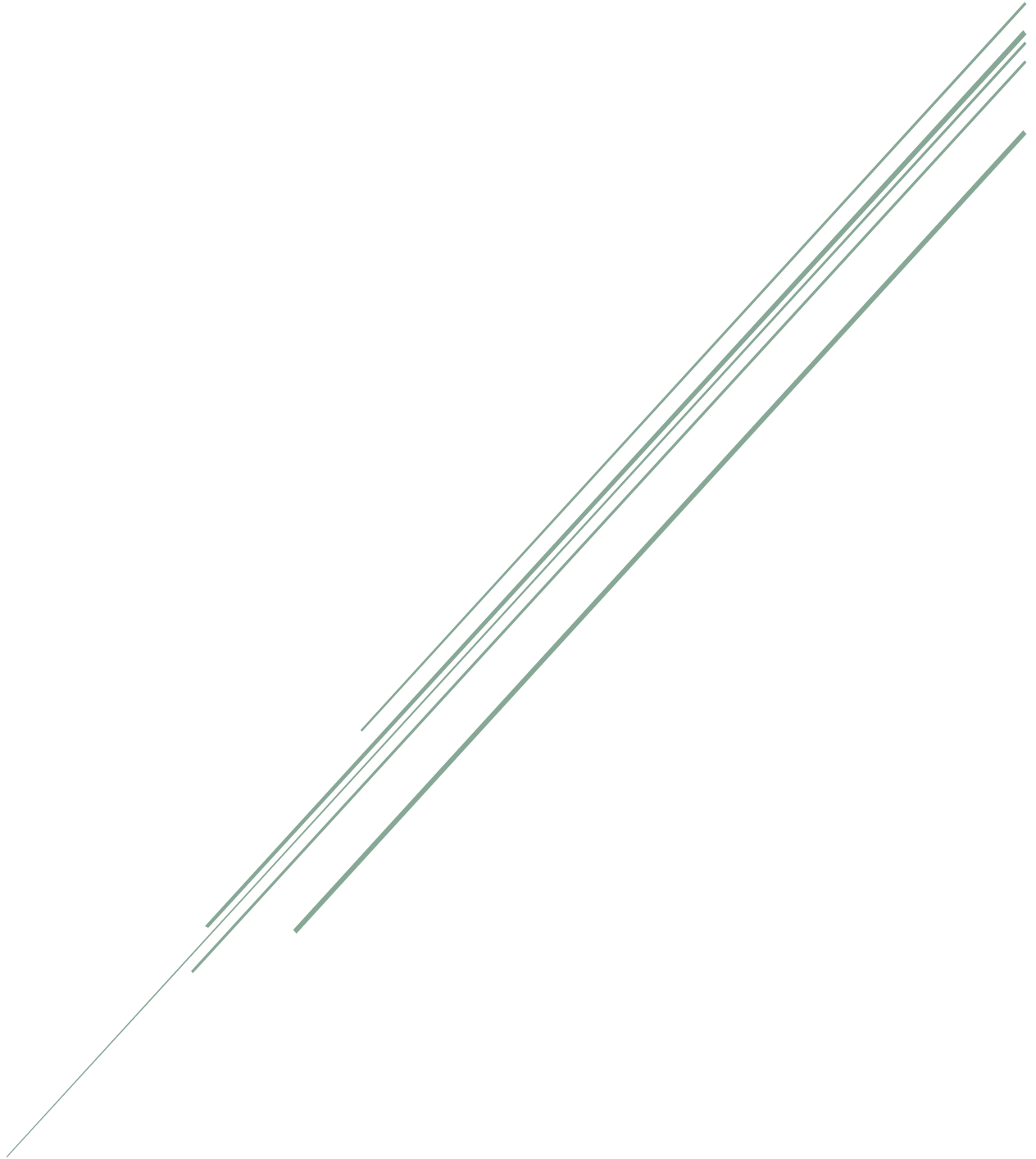


# UNLIKELY HERO

## Project Requirements Document



City of Glasgow College  
Software development & Creative project

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## 2 TEAM MEMBER ROLES

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Each member is doing a bit of everything for this project but will focus more on certain aspects which are being listed as the roles.

### 2.1 AARON FLEMING

Programmer.

### 2.2 BLUE THOMSON

Character artists.

### 2.3 LYNDSY MACDONALD

Level and environment designer.

## 3 FUNCTIONAL REQUIREMENTS

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### 3.1 GAMEPLAY

#### 3.1.1 Player

- Player can move in all direction in 2D environment with gravity affecting the Y axis.
- Player can walk on solid objects and collide with walls.
- Player can attack with melee weapon.
- Player can attack with ranged weapon.
- Player can switch between weapons.
- Player weapons will have a cooldown between attacks.
- Player can pick up items such as ammunition.
- Player can transition between levels.
- Player can interact with sign entities to show text.
- Player has health that will load death screen if zero.

#### 3.1.2 Enemies

- Enemies can be damaged by players attacks with weapons.
- Enemies can move.
- Enemies damage player on contact.
- Ranged enemies can aim and shoot and damage player with projectile.
- Enemies can be killed and drop items.

#### 3.1.3 HUD

- HUD will display ranged ammunition.
- HUD will display score/coins(jelly drops) collected.

## 3.2 MENU

### 3.2.1 Main Menu

- New game option (will load first level).
- Continue game option (will load last level that was played).
- How to play option (will take user to a how to play screen).
- Exit (will exit the game).

### 3.2.2 Death screen

- Restart level option.
- Return to menu option.

### 3.2.3 How to play screen

- Return to menu option.

## 4 NON-FUNCTIONAL REQUIREMENTS

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### 4.1 GAMEPLAY

#### 4.1.1 Player

- Player will face direction on mouse.
- Player will be animated when moving or jumping.
- Player will make subtle noises when landing or walking.
- Player will do idle animation when not moving.
- Player will play attack animation with sword when attacking.
- Player will make sound when attacking with sword.
- Player's Sword will cause screen shake when attacking.
- Player will equip crossbow sprite when using ranged weapon.
- Player's crossbow will always face towards mouse.
- Player's crossbow will knockback player slightly when firing.
- Player's crossbow will cause screen shake when firing.
- Player's crossbow will make a sound when firing.
- Crossbow bolts will stick into surfaces.
- Crossbow bolts will cause screen shake when contacting surface.
- A noise will play when player picks up items.

#### 4.1.2 Enemies

- Enemies will animate when moving.
- Enemies will make a sound upon death.

#### 4.1.3 Menu

- Options will make a noise and cause slight screen shake when selected.

## 5 CONSTRAINTS

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Working outside college remotely can make coordination as team work more difficult. But at the same time some of the days we have classes the college computers we have access too are not optimal for game development and struggle to run the necessary software required.

Version compatibility has been an issue with the college systems running a different version of game maker to the ones we are developing making cross compatibility difficult.

Some team members have had health problems that has limited their ability to contribute to the project.

Due to this the course being a January start course the time to make this project is more limited meaning scope has had to be compromised for time.

## 6 HARDWARE REQUIREMENTS

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Minimum requirements:

- Dual Core CPU
- 2GB RAM
- OpenGL 4-compliant onboard graphics
- HDD (at least 3GB+ space)

Recommended requirements:

- Quad Core CPU
- 8GB RAM
- Dedicated graphics card
- SSD

Additional hardware:

- Keyboard and mouse
- Audio device

## 7 SOFTWARE REQUIREMENTS

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- Windows 10 (or greater)
- Word
- Gamemaker Studio 2
- Github desktop

## 8 COMMUNICATIONS STRATEGY

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Communication is done mainly through team chats set up on discord, with the project itself being organised on GitHub using repositories and projects.

Within class hours we join the voice channel on the discord and work on the project. Outside of class hours communication is done through the text channels.