Technical Document

Contents

[**Section 1 – Lists of features** 1](#_Toc90396403)

[**1a. List of features** 1](#_Toc90396404)

[**1b. Focus areas:** 1](#_Toc90396405)

[**Section 2- Choice of Game Engine** 2](#_Toc90396406)

[**Section 3- Plan Schedule** 2](#_Toc90396407)

[**Section 4- Diagrams illustrating software design** 3](#_Toc90396408)

[**4b. Design diagram (people involved)** 3](#_Toc90396409)

[**4c. Implementation design** 4](#_Toc90396410)

[**4d. Gameplay Diagram** 5](#_Toc90396411)

[**Section 5 – Art Tools** 6](#_Toc90396412)

[**Section 6 – 3D Objects, Terrain, & Scene Management** 6](#_Toc90396413)

[**6a. 3D Objects:** 6](#_Toc90396414)

[**Section 7- Collision Detection** 6](#_Toc90396415)

[**Section 8- Game Logic, AI** 7](#_Toc90396416)

[**Section 9- Audio & Visual Effects** 7](#_Toc90396417)

[**Section 10- Delivery Platform & Hardware/Software Requirements** 7](#_Toc90396418)

[**10.a Hardware requirements** 7](#_Toc90396419)

# **Section 1 – Lists of features**

## **1a. List of features**

* + First-Person
  + Windows Platform
  + Opening scene and Background scene
  + Different levels: Different difficulties and objectives, Progression of using weapons evolves the power of the weapon.
  + Audio and sound effects
  + Demon enemies: Small mob demons, mini bosses and one final boss.
  + Interactive objects
  + Varying weapons
  + Weapon Levels
  + Game world: Characters, Weapons, clouds heaven architecture

## **1b. Focus areas:**

The technical focus for our game is **artificial intelligence** since our game will have NPC (teammates) and our enemies having an AI behaviour to attack us.

The design focus is **3D Modelling**, our team want to have impressive visuals of the objects and characters so that the player can feel immersed in the experience of our game.

The art style will have a mixture of realistic features but with cartoonish shaders which is a popular mix for game visuals and is suitable for our target audience preferences.

# **Section 2- Choice of Game Engine**

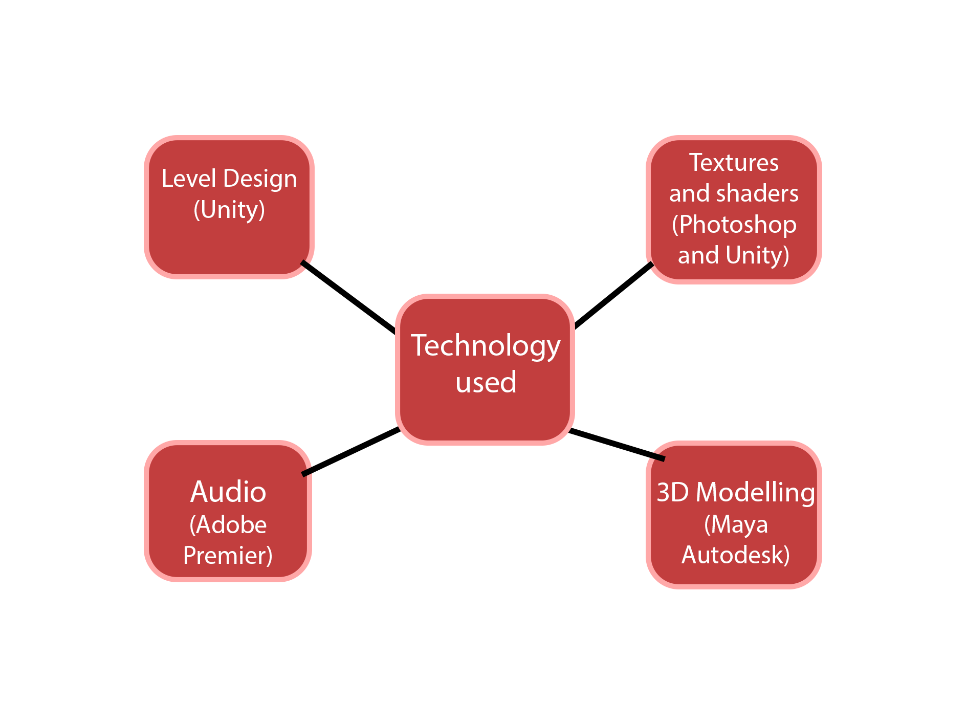
* The game engine we will be using is Unity because out of the accessibility for our developers with no budget and the ideal features Unity comes with such as their neat IDE, their interface is easy to learn and eliminates the hassle with applying codes to objects just by dragging them into the object. Great engine that supports making 2D and 3D games possible.

# **Section 3- Plan Schedule**

* This schedule will be for our developers and designers to be able to work effectively towards our deadline.

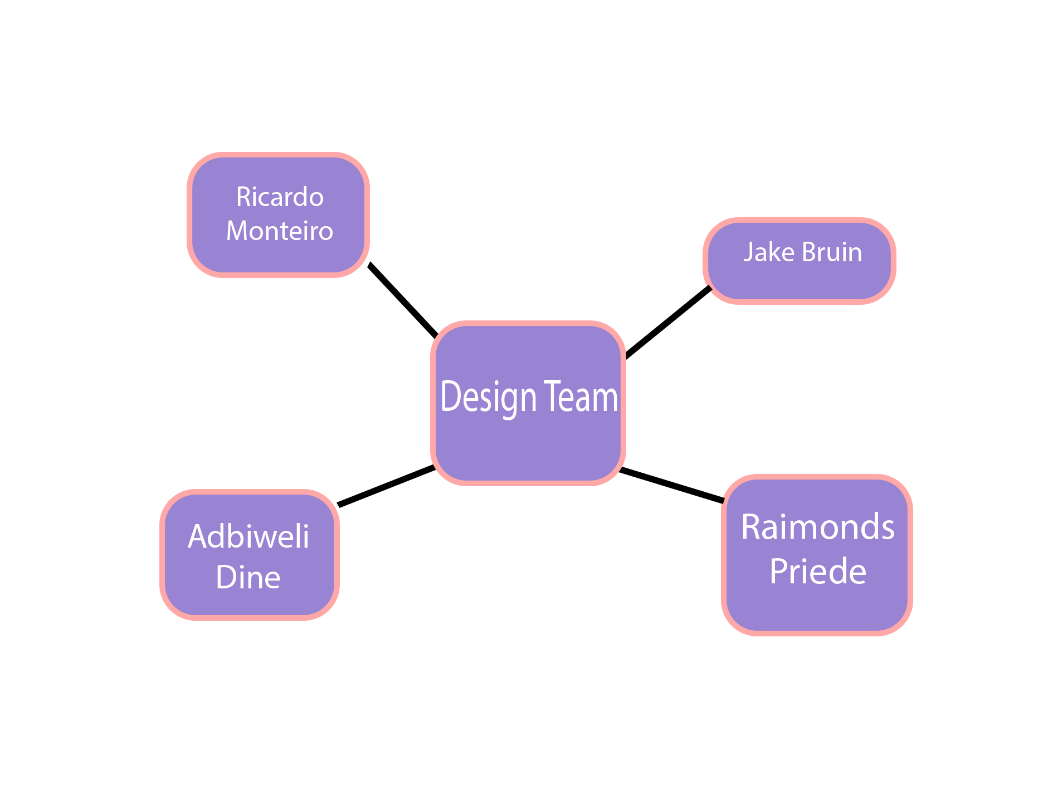
# **Section 4- Diagrams illustrating software design**

**4a. Technology diagram (software used)**

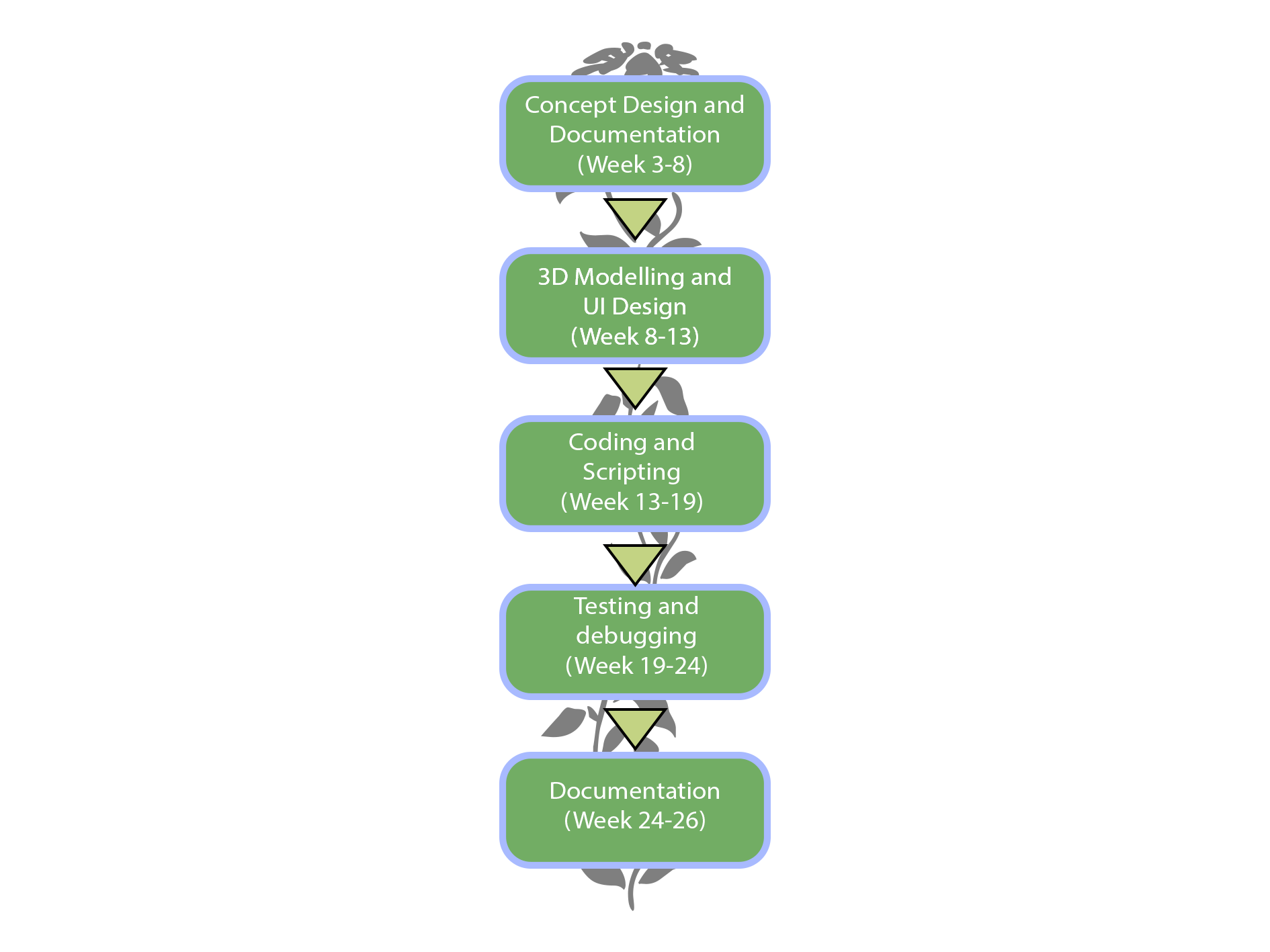


* These are the different software’s we will be using to make parts of the game.

## **4b. Design diagram (people involved)**



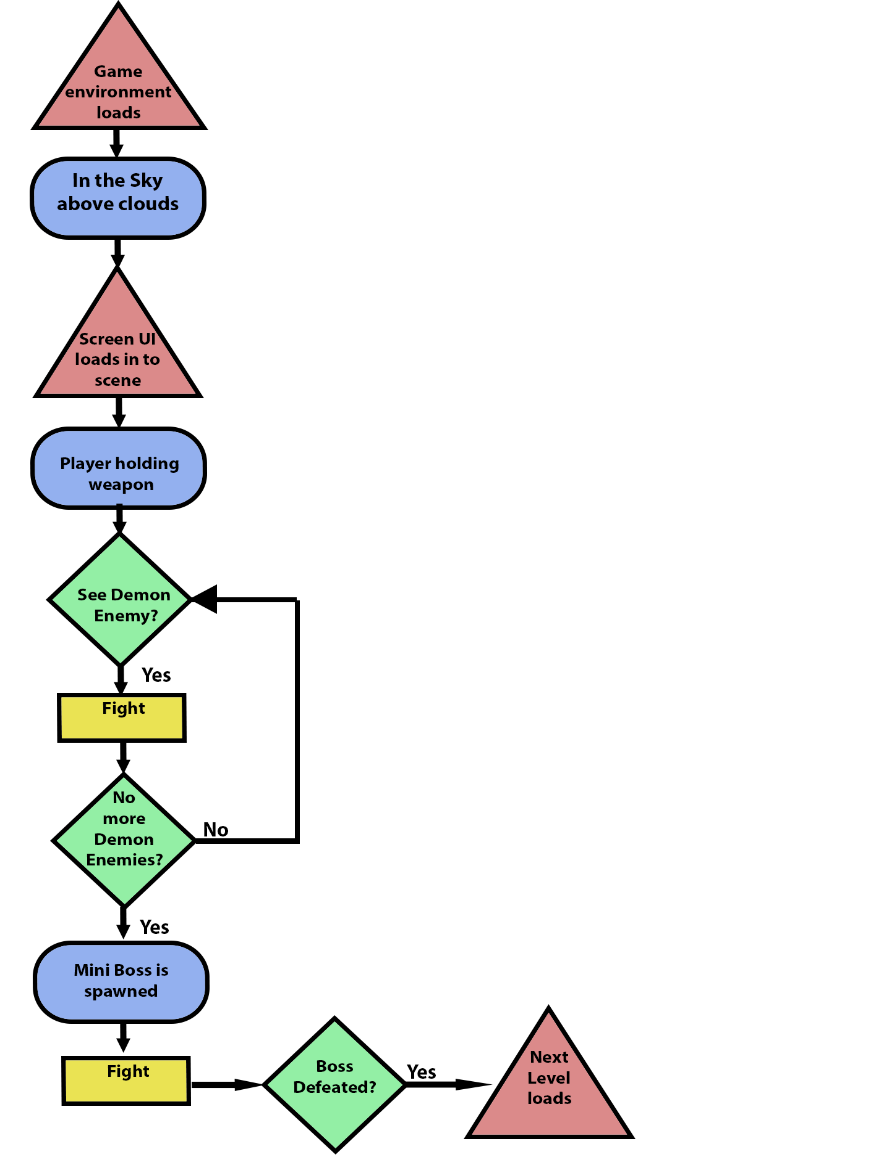
## **4c. Implementation design**

**Flow chart:**

* This flow chart demonstrates which stages we will be in our development of the game by the weeks.
* This chart is to direct the team to what focus and objectives we will need to be achieving to get to our deadline effectively.

## **4d. Gameplay Diagram**

**Flow Chart:**



* This chart will demonstrate how levels are designed in playthrough and some of the basic mechanics.

# **Section 5 – Art Tools**

* Photoshop (UI assets).
* Maya Autodesk (Character Modelling, rig and animation).
* Unity (Animation tool, Programming and level design with UI).

# **Section 6 – 3D Objects**

* This section is to show what 3D objects and other visual objects to expect in our game for production.

## **6a. 3D Objects:**

Heaven:

* 3D clouds
* Golden throne
* Floating stairway
* Floating building architecture

Weapons:

* Bow and arrow 3 versions according to the level of the weapon.
* Sword 3 versions with the level weapon.
* Pistol with 3 versions for the level of the weapon.
* Axes – for demons

# **Section 7- Collision Detection**

* Axes will need collision detection when attacking player.
* Pistol bullets with collision detection to hit enemies.
* Swords will have collision detection to hit enemies with.
* Arrows from bow will have collision detection.
* Clouds that block the level will have collision detection to make sure we don’t pass through to the next level without completing the level itself.
* Loots will have collision detections for us to pick up when we are in a certain proximity.

# **Section 8- Game Logic, AI**

**What aspects of the game will have AI?**

* The enemies will have AI to be able to chase us, aim at player and attack the player
* **[Insert AI algorithm}**
* **UML Diagram**

# **Section 9- Audio & Visual Effects**

* Sound design will consist of royalty free music and own produced dialogue from our team.
* We will be using animation in our UI using Unity’s animation tools.
* Unity particle system.
* Cinemachine for cutscene.

# **Section 10- Delivery Platform & Hardware/Software Requirements**

* PC Windows 10 will be our target operating system.
* We are also planning to publish the game to Steam.

## **10.a Hardware requirements**

* Mouse
* Keyboard
* Monitor
* Graphics
* Speakers

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