**Freedom TDD**

Studio Project 4

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# Game Development Team

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# **Executive Summary**

## **Game Overview**

Free the Gladiator’s Pits is a roguelike enclosed arena fighter where the player has to fight for their survival and eventually freedom by killing other fighters. The player will fight in a small, gruesome colosseum known as “The Pit”, with only a sword to their name, can the player overcome and use the environment against whatever odds they face?

## **Technical Summary**

Free the Gladiator’s Pits will be developed in approximately 2 weeks by 4 people using C# via the Unity3D engine. For 2D/3D asset creation, Unity’s Asset Store will be used.

The game will be deployed for PC only. The minimum requirements include:

PC STANDALONE

OS: Windows XP SP2+,

Graphics card: OpenGL 3.0 onwards (Shader Model 2 .0) capabilities.

# **Equipment**

## **Hardware**

Members of the team already have their own devices to run Unity3D and develop on it. There is also currently no other hardware that we need.

**Software**

All the software used for the development of the game will be able to produce high end visuals, while still being able to deploy across different platforms . Not all team members will utilize all software tools. Software requirements and selections will vary based on team member roles and responsibilities.

| PRODUCT | TASK | COST\* | QUANTITY | TOTAL |
| --- | --- | --- | --- | --- |
| Visual Studio 2019 | C# programming scripts | - | 4 | - |
| Unity3D | Game making | - | 4 | - |
| Unity Asset Store | Grabbing assets for the game | - | 4 | - |
| *\*values listed are general approximations in SGD* | | | TOTAL | - |

# **Evaluation**

## **Game Engine**

The game engine utilized for the development of the game will be using Unity3D version 2021.3.16f1

## **Target Platform**

PC, several inputs required makes it uncomfortable to play on other platforms

# **Scheduling**

## **Development Plan**

| PRODUCT | Week 1 – Mon to Wed | Week 1 – Thu to Fri | Week 2 – Mon to Wed | Week 2 – Thu to Fri |
| --- | --- | --- | --- | --- |
| 2D Art | Characters Concept designs  Props references  Sketching Level design | Character texturing  Props and environment textures  HUD prototype | Improving HUD layout  Adding camera effects  Adding particles | Final HUD design for PC  Improving particles  Settings page to control particles |
| Coding | Character control PC | Developing Framework  Navigation and enemy agents | Adding extra features onto Framework | Refinement, polish |
| Audio | Weapon hit audios | Environment Sounds |  |  |
| Misc | Planning Asset Gathering |  | Prepare beta testing reports  Beta testing | Trailer and images for publishing  QA |

## **Milestones**

| Week 1 – Mon to Fri | Combat, Character Movement and Environment |
| --- | --- |
| Week 2 – Mon to Wed | Different AI enemies, interactables |
| Week 2 – Thu to Fri | Polishing |
| Week 3 – Mon | Presentation |

# **Work Environment**

## **Collaboration**

The team will work in the Labs. They will use Trello to do project management, and google docs to check the GDD.

# **File Formats & Naming Convention**

| ASSET TYPE | SUBTYPE | NAMING CONVENTION | FILE FORMAT | ANNOTATIONS |
| --- | --- | --- | --- | --- |
|  | Props | PropName | .fbx |  |
| 2D Assets |  | UI\_filename  3DImage\_filename | .png |  |
| Codes | Scripts | Script\_Scriptname | CS |  |

# **Levels**

The game will consist of two levels. First level will be the “Hub” level where the player will spawn. Second level will be the “Arena” level where the player will be fighting enemies for a period of time.

## **Hub**

There will be only 1 spawn point for the player and they will be testing damage values of different weapons, equipping different gear and looking at the leaderboard

## **Arena**

There will be only 1 spawn point for the player and they will be fighting enemies in this area. The enemies will spawn on the spectator stands and jump down to the arena to fight the player. There will be different variations to the arena, such as extra archer towers to spawn archers.

## **Asset List**

| Players | Capsule with controller |
| --- | --- |
| Enemies | * Low poly human models |
| Props | Medieval themed houses and items, weapons, Colosseum props (E.g. Towers, blocks, walls) |