Unity Project Requirements Document

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Draft 1

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*Unity Group*

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Table of Contents

[1 Introduction 3](#_Toc411086854)

[a. 1.1 Purpose 3](#_Toc411086855)

[b. 1.2 Problem Description 3](#_Toc411086856)

[c. 1.3 Project Scope 3](#_Toc411086857)

[d. 1.4 Glossary 3](#_Toc411086858)

[2 General Description 3](#_Toc411086859)

[a. 2.1 Product Perspective 3](#_Toc411086860)

[b. 2.2 Product Functions 4](#_Toc411086861)

[c. 2.3 Users/Perspectives 4](#_Toc411086862)

[d. 2.4 Constraints 4](#_Toc411086863)

[i. Business Constraints 4](#_Toc411086864)

[ii. Technical Constrains 4](#_Toc411086865)

[3 Functional Requirements 4](#_Toc411086866)

[a. Sub Heading 1 4](#_Toc411086867)

[4 References 4](#_Toc411086868)

[5 Document Revision History 4](#_Toc411086869)

[6 Appendix 4](#_Toc411086870)

1. Introduction

## 1.1 Purpose

The purpose of this requirements document is to offer a comprehensive description of the Unity Game Capstone Project. It will cover each intended feature as well as go over the client’s specifications for completion. The document’s envisioned use is to be a contract between the Capstone team and the client that acts as a reference for developing the finished product. This document will also cover software, hardware, and the user interface.

* 1. 1.2 Problem Description

The problem which gives rise to this project is that there exists a team of students from the College of Creative Studies whom are really great designers, but lack solid programming skills and experience. The Unity project is the collaboration between the artists of the College of Creative Studies and the software engineers of Wayne State University.

* 1. 1.3 Project Scope

The goal of the project is to create a small, fully playable video game known as a demo that is playable on personal computers with the Windows operating system. This demo will exhibit the various gameplay elements that the full-fledged game will contain. Required game elements include: One island environment designed to be an introduction tutorial, a user-controlled camera, appropriate and correctly assigned character animations and sounds, a combat system, and a functional user interface.

* 1. 1.4 Glossary

**Example Term or Acronym** – Example Description

**Demo** - Playable demonstration of core gameplay mechanics

**PC** – Personal computer

**UI** – User interface

# General Description

* 1. 2.1 Product Perspective

The

* 1. 2.2 Product Functions

The following list of functions gives a short overview of the essential functions and features of the Unity Capstone game demonstration. These features are critical to the flow of gameplay. The Main features are what make up the heart of the game’s play system while all additional features exist to add new functionality to the game and will only be added if the schedule allows.

* 1. Main Features
     1. Start/Main Menu
        1. Allows player to enter or exit game
        2. Accessible at start of game or while playing
        3. Gives user ability to stop gameplay if needed
     2. Player-Controlled Camera
        1. Robust camera to give user ability to view the world around them
        2. Able to be moved around based on preference or requirement
        3. Can toggle between 1st and 3rd person camera angle
     3. Player-Controlled Character
        1. On-screen representation of user
        2. Gives the player an avatar to interact with the game world
        3. Player has full control of character’s actions
        4. Able to use character to attack or block enemy attacks
     4. Heads-Up-Display
        1. On-screen, always visible, representation of player information
        2. Gives player ability to always know their character’s remaining health
     5. Enemy with Artificial Intelligence
        1. Natural enemy of main player character
        2. Built with robust artificial intelligence to challenge player
        3. Seeks to find and destroy the player character
     6. Non-Playable Character
        1. Exists in game to give player guidance and knowledge of surrounding world
        2. Player can find these characters and “talk” to them
        3. Serve a multitude of purposes such as progressing game, or just to add to environment
     7. Living Environment
        1. The island that the play can explore is a living, breathing place
        2. Contains a day/night cycle to add realism to game world
        3. Player can explore environment to find new areas and learn about the game world
     8. Player Inventory
        1. In-game inventory system to manage items the player has received
        2. Able to open this menu anytime in game to fit player’s needs
        3. Visual representation of actual in-game items

* 1. 2.3 Users/Perspectives

Users of this demo are not limited by age, race, gender, or locality. The game can be used by anyone with basic hand-eye coordination. The game may be utilized differently by some users. For example, for some it may act as a hobby, entertainment, or a stress reliever while others may dive deeper into the game to try and set the highest score or beat a personal record in play time.

* 1. 2.4 Constraints
     1. Business Constraints

Budget,

* + 1. Technical Constrains

Unity, C#, JavaScript, MonoDevelop

# Functional Requirements

The finished product will be a playable demo demonstrating coordinated events, scripts, and textures running within the Unity engine. The game demo will be robust enough to not crash during regular play(except for unforeseen circumstances). The game itself will be able to handle user input and react accordingly on-screen via a keyboard and mouse.

Write all verbs in full. Do not use contracted forms like don’t or can’t. Do not use abbreviations such as info (for information) and asap (for as soon as possible). Limit the use of passive voice. However, there are some situations where passive verb forms are preferred to active forms. For example, active verb forms used with the first person singular are not considered appropriate in formal or academic writing.

## Sub Heading 1

Example text for sub heading.

# References

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| Doc Number |  | Doc Version | Doc Name & Location |
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# Document Revision History

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| --- | --- | --- | --- |
| Revision | Date | Author | Changes |
|  |  |  |  |
|  |  |  |  |

# Appendix

Material including referenced documentation the web or elsewhere, as well as alternative designs or items/ideas for future improvements.

Notes:

Change occurrences of “the client” with “Aigbe” ?