Software Requirements Document

Aquarium Game

CS114 Introduction to Software Engineering

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# Revision History

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| --- | --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Responsible Person** | **Version** |
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# 1 Introduction

## 1.1 Project Scope and Purpose

This project aims to provide the user with a fun game that is satisfying and complete. There will be two sides and an aquarium in the game. You can earn coins to use on fish and decorations for the aquarium in the game. The goal is to collect all the fish.

## 1.2 Intended Audience

The intended audience is anyone looking to enjoy a fun game.

# 2 Description

## 2.1 Product Description

This project will be an application split in half. There are different games on one side of the screen to earn coins. On the other side of the screen is an aquarium where you can buy fish and other decorations with the cash you get from the games. There will also be a collection book that shows all the fish in the game. As you collect more fish, you will fill the collection book until you get every fish in the game. Lastly, you will sell fish or give them up for adoption because you can only have a certain number of fish in the aquarium at one time.

## 2.2 Operating Environment

We are going to be using Unity for the game. Unity will allow the game to be aesthetically pleasing while ensuring the game is functional.

## 2.3 User Classes

### 2.3.1 Class 1

We will implement a fish class that holds attributes of the fish, such as name and image.

### 2.3.2 Class 2

We will implement a class for each mini-game. We have four mini-games planned, but the amount might be iterated. The lessons should hold data that is important for the game. For example, there would be questions and answers for the trivia games.

### 2.3.3 Class 3

# 3 Features

This game will have a bunch of features. First, there will be multiple games to play. There will also be an economy where you can buy and sell fish, as well as decorations. There will also be a collection book. This book will track every fish you have caught.

## 3.1 Feature 1

Display fish and show them swimming around in the aquarium.

## 3.2 Feature 2

Play mini-games (trivia game, guessing game, shooting game, flappy fish) and collect coins by winning the game.

## 3.3 Feature 3

Collection book that shows which fish have been collected. The collection book includes a picture of the fish, the name, the size, and a fun fact that can be helpful for the trivia game.

3.4 Feature 4

Mystery fish gives the player a random fish, just like a mystery box—the rarer the fish, the lower the possibility of obtaining it.

# 4 Interface

## 4.1 User Interface

Windows forms with buttons

## 4.2 Hardware Interface

Computer, keyboard, mouse

## 4.3 Software Interface

Visual Studio, GitHub, and maybe unity

# 5 Other Requirements

We might use SQL to let the users save their progress allow more than one user to play.