
Software Design Specification

for

Fire Ball Game

Version 2.0 approved

Prepared by Team 5

24th March 2022

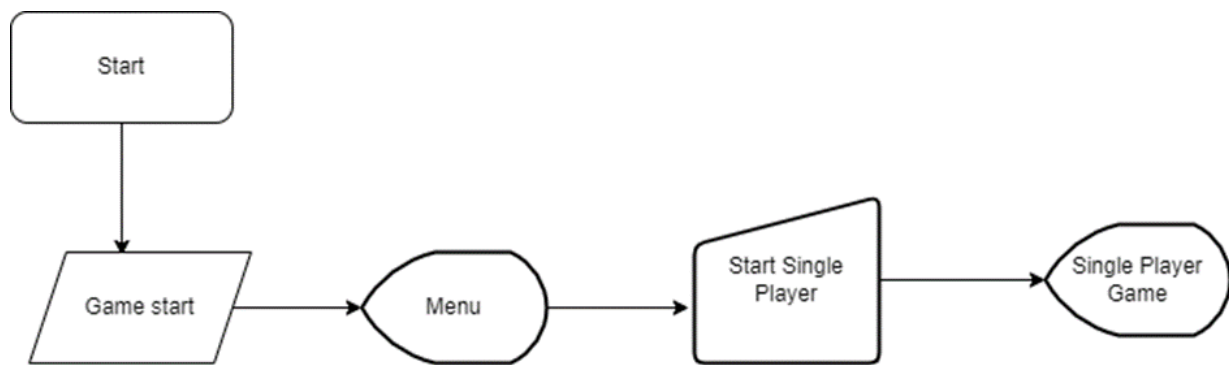
Table of Contents

Table of Contents	2
1. Single-player Mode.....	1
1.1 High-Level Design	1
1.2 Low-Level Design.....	1
1.3 Technical Specifications.....	2
2. Multi-player Mode	2
2.1 High-Level Design	2
2.2 Low-Level Design.....	3
2.3 Technical Specifications.....	3
3. Face Swap.....	4
3.1 High-Level Design.....	4
3.2 Low-Level Design.....	4

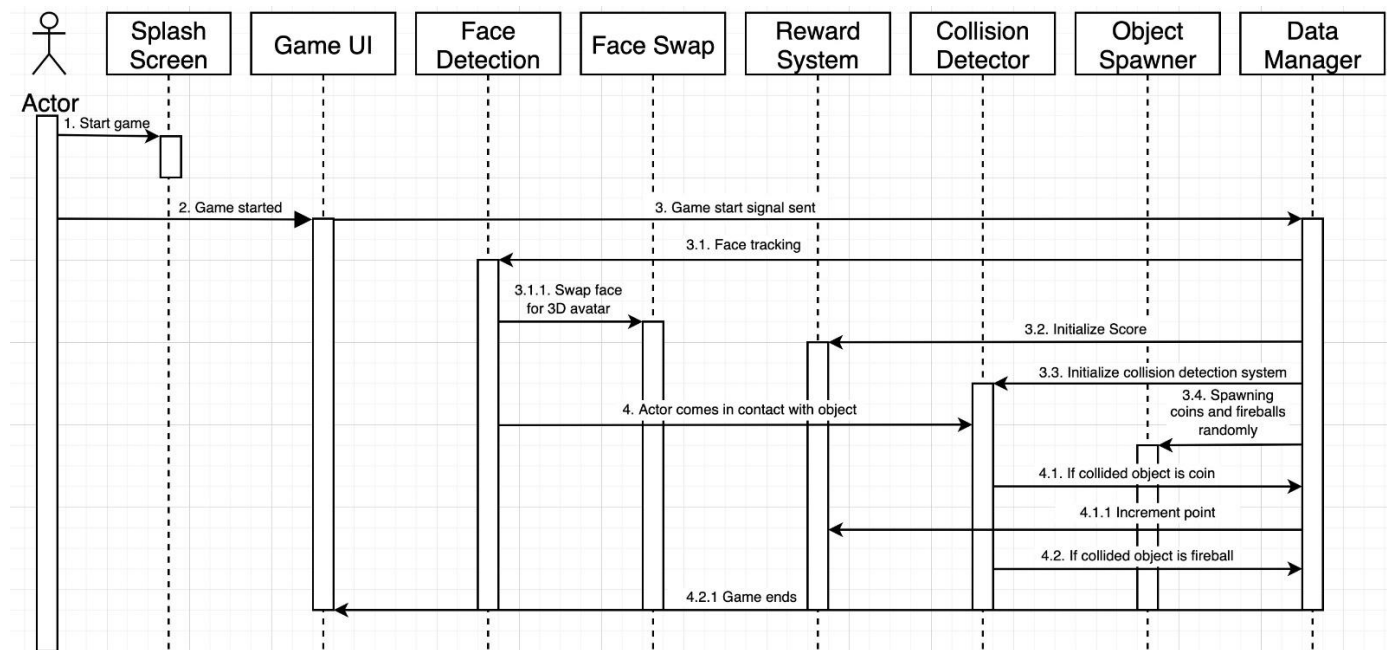
Single Player Mode

When the user clicks on the game application, It provides a menu where the user can choose to play in a single-player mode. On clicking the single-player mode, a game screen with single-player mode should start. In this document, we will see the design of the Single Player Mode of the fireball game project. This document contains the high-level technical design and the low-level technical design for implementing the user story of Single Player Mode. The objective of this feature is to implement the fireball game in a single-player mode.

High-Level Design:



Low Level Design:



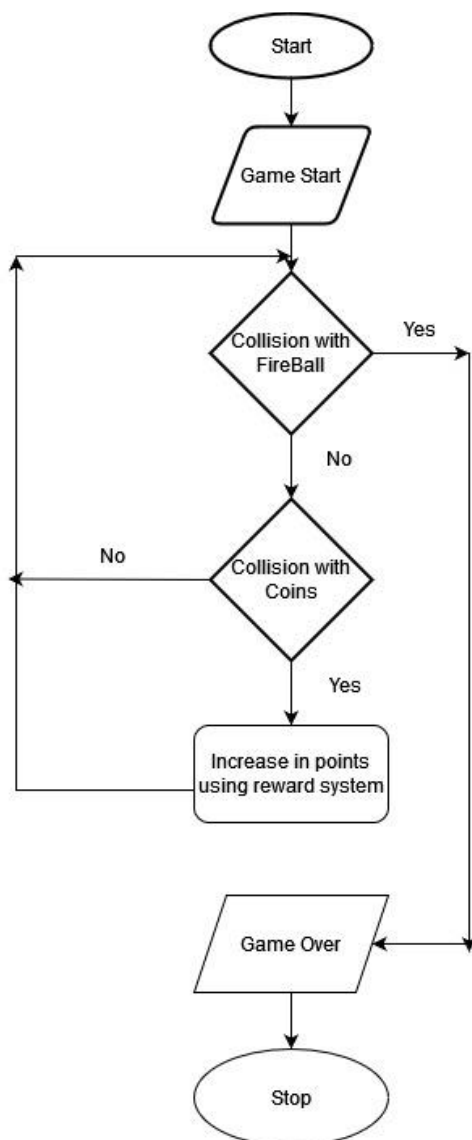
Technical Specifications:

1. Requires Object detection AR Foundation framework for detecting the face.
2. A Unity game where the single-player mode can be played manually.
3. The face detection object mounts in place of the unity game object.

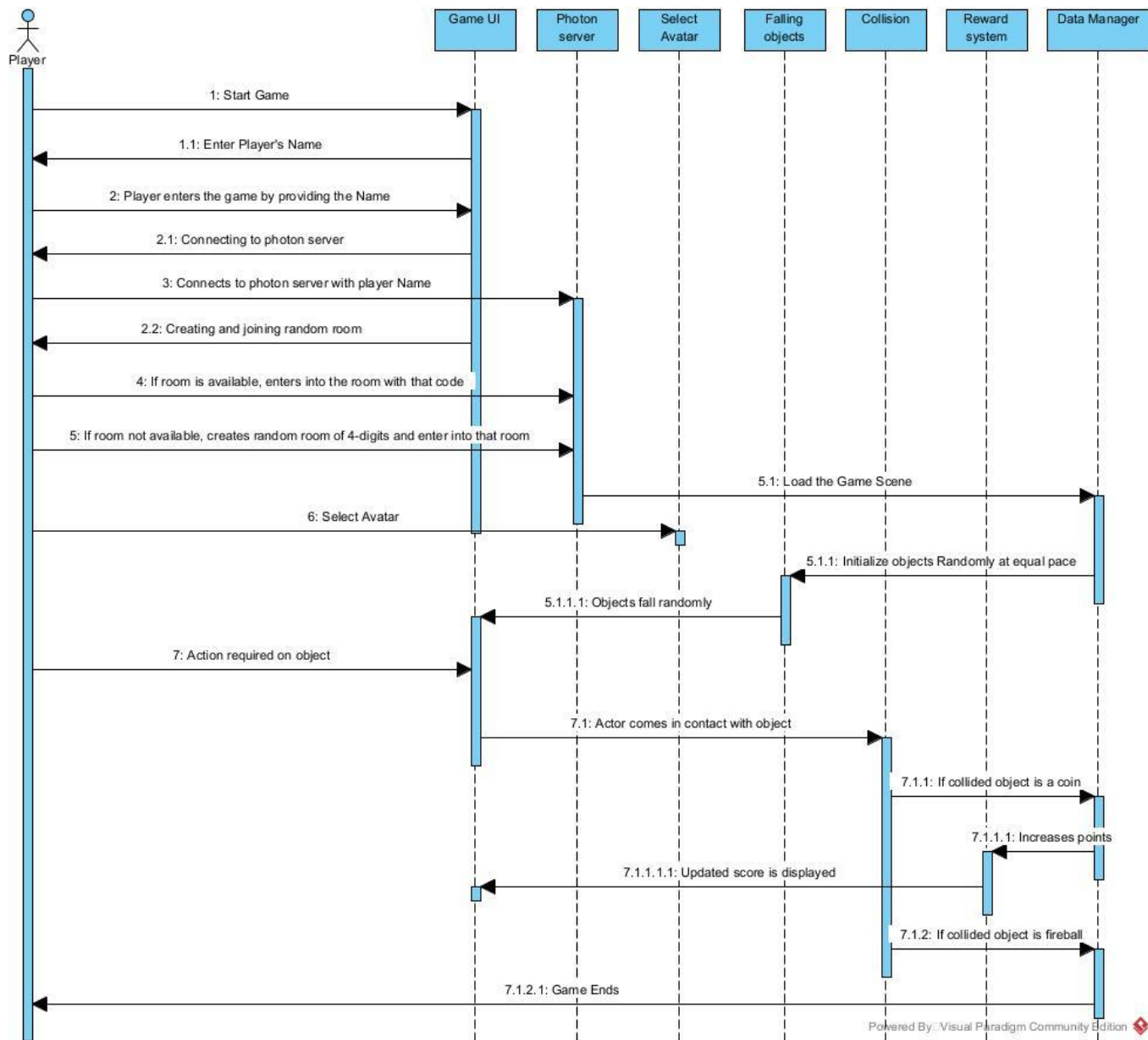
Multi-Player Mode

The player would be able to select which mode he wants to play. If the player selects multiplayer mode, then he will have two options, whether he wants to create a room or join a room, if the player selects create room then a 4-digit code will be generated, using which the other players will be able to join that room, but if the player selects join room then he will have to enter a 4-digit code to join that particular room. Collision detection is also made in which if the player has a collision with the fireball, then the game ends. If the player collides with the coin then the points will increase and get displayed accordingly using the reward system.

High-Level Design



Low-Level Design



Technical Specification

(I) Multiplayer Mode:

- (a) Player should be able to create the room.
- (b) Player should be able to get the created room 4-digit key.
- (c) Player should be able to join the room with a 4-digit key.
- (d) Player should be able to send messages when in the room.

(II) Collision System:

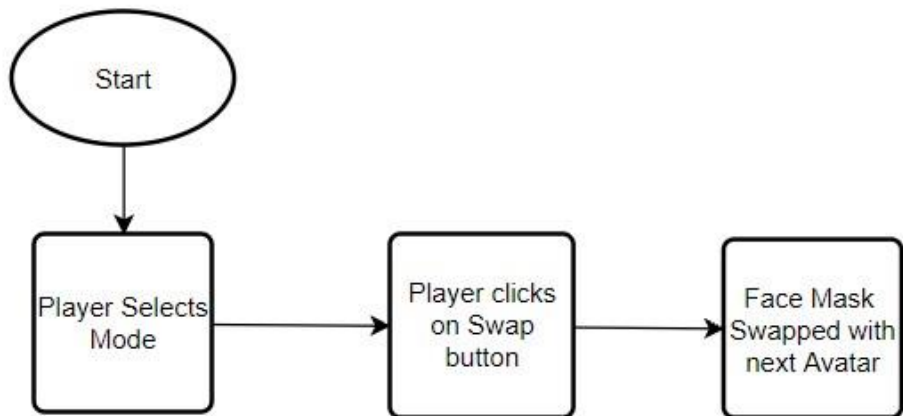
- (a) When fireball collides with the player the game should stop.
- (b) When the player collides with the coins the reward system should increase player points.
- (c) Increased player points should be shown on the screen concurrently.

Face Swap

Introduction:

The player can select the Avatar of their choice by clicking on a button present on the screen while playing the game.

High-Level Design:



Low-Level Design:

