


# Vista Golf

A stylized graphic of a mountain range. It features several green triangular peaks in the foreground. Behind them are larger, more complex shapes in shades of gray and white, representing distant mountains or hills. The overall style is minimalist and geometric.

## Vista Golf Remake - Technical Design Document

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### Release link

//RELEASE LINK HERE

# Section 1 - Introduction

This is the Technical Design Document for the project of a remake of the mobile golfing game named "Vista Golf". Inside this document you can find the features, the diagrams and the logic of this game.

## Section 2 - Features

- Player
  - Movement
  - Interactions
- Interaction System
  - Interact with obstacles
  - Interaction with the hole
  - Play audio related to the event

## Section 3 - Choice of Game Engine

The game engine that has been chosen is Unity.

This engine possesses different interesting features like:

- A useful system for terrain
- An intuitive editor
- Data Management
- interesting plug-in's

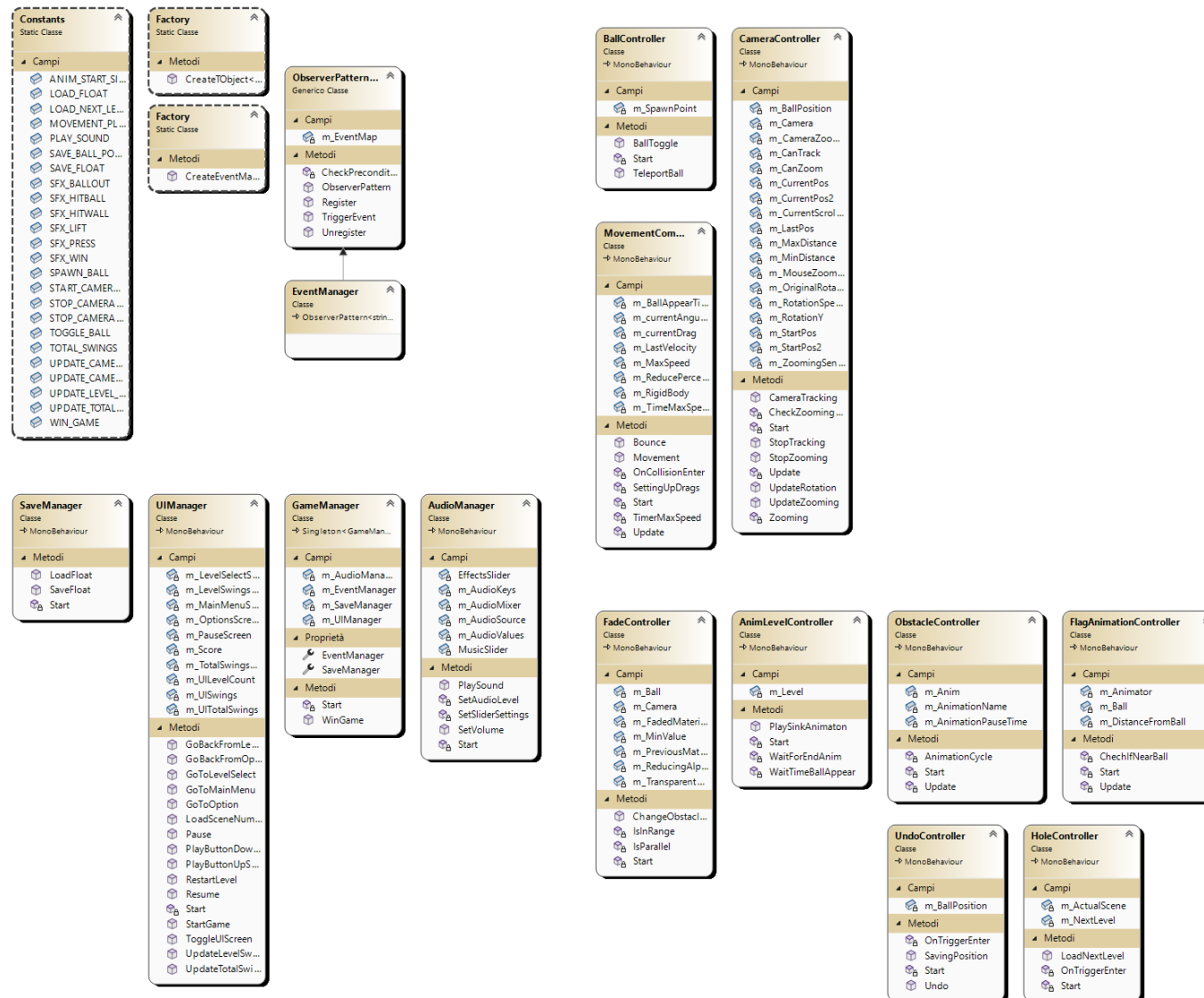
The reason is to improve the team's skills in this specific engine but also due to a lack of additional skills. We had chosen the 2022.3.10f version because this is the standard version adopted by the company.

## Section 4 - Input

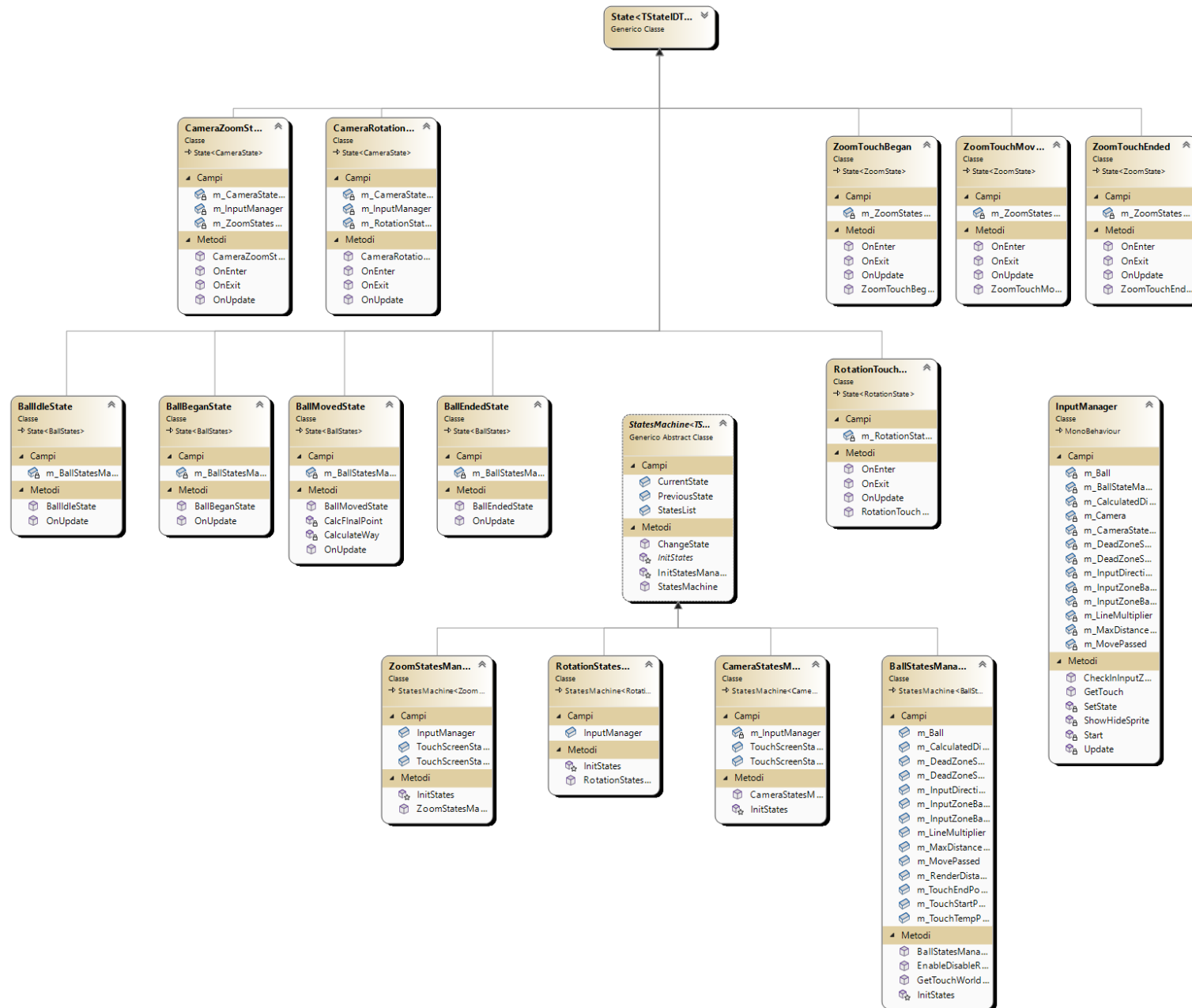
- Movement
  - [Finger Touch] in the InputZone: Stores the position on the plane of player's touch coherent with the screen
  - [Finger Drag] in the InputZone: Stores the new position on the plane of player's touch coherent with the screen continuously as long as it be dragged
- Camera
  - [Finger Drag] out of the InputZone: rotates the camera around the ball based on the delta of the finger movement on the x axis of the screen
  - [Double Finger Drag] out of the InputZone: zoom in or out the camera depending on how much the fingers get near or on how much they pull away
- Menu
  - [Touch] on the pause button: Show the pause menu
  - [Touch] on the restart button: Restarts the level
  - [Touch] on the undo button: Undo the last swing

# Section 5 Diagrams

## Section 5.1 Generic Diagrams



## Section 5.2 Input System Diagrams



## Section 6 - Game Logic

### 6.1 Movement System

- Finger drag rendering: a line renderer based on two points is generated:
  - a near position to the initial player's touch with an offset based on the deadzone's radius
  - the actual position on the player's touch
- Prediction line rendering: a line renderer based on  $n+2$  points is generated:
  - the actual position of the ball
  - the position at a maximum distance based on the length of the renderer setted
  - $n$  positions of the pre-calculated collision that the ball will do

### 6.2 Interaction System

- Playing Audio: When you interact with a button or when the ball is being swung or bounce on an object, is triggered an event that start an audio clip contained in the AudioManager

### 6.2 Game System

- Winning System: When the ball triggers with the hole trigger is evoked the event that start the sink animation and after is changed the scene to the next
- Reset System: When the ball falls off the path triggers the trigger that reset it at the last idle position

# Section 8 - Art Tools

## 8.1 2D Art

### 8.1.1 Photoshop

- Versions: CC 2023
- Field of using:
  - Texture
  - Walls
  - Interface
- About: Graphics Editing Program
- Reason of using:
  - Standard in the industry because its versatility in using by other tools
  - Supporting by the producter
  - Interesting plug-in's

### 8.1.2 Procreate

- Versions: 5.3.3
- Field of using:
  - Texturing
  - Coloring
- About: Graphics Editing Program
- Reason of using:
  - Always at hand
  - Easy to use

## 8.2 3D Art

### 8.2.1 Maya

- Versions: 2023
- Field of using:
  - Rigging and animation
  - Hard surface modeling
- About: Graphics Editing Program
- Reason of using:
  - It's an extremely powerful 3D modeling software with a lot of professional tools, especially for animating. It's often used in conjunction with other softwares such as Substance Painter or Zbrush

### 8.2.2 Adobe Substance 3d Painter

- Versions: 2023
- Field of using:
  - Texturing
  - Baking
- About: Graphics Editing Program
- Reason of using:
  - While still being very user friendly, it allows you to rapidly create high quality textures for a 3D asset.
  - There is a large number of premade materials that speed up the workflow