ESKİŞEHİR TECHNICAL UNIVERSITY

ENGINEERING FACULTY

Department of Computer Engineering

BIM437 – Computer Engineering Design

Senior Project Report

PoolEveryWhere

Students

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1. INTRODUCTION

In this section, brief information about the project title, project motivation, problem definition, project scope and goal are included. The sections are listed below:

1.1. Project Title

The subject of our project is “VR-Gaming” and the title for this project is “PoolEveryWhere”.

1.2. Project Motivation

1.3. Project Definition

We are developing a mobile pool game that can be played with VR-technology.

1.4. Project Scope & Goal

At the end of the project deadline, we are planning to provide a system – a VR-billiard game – that can be played on the mobile phones with additional features.

This project aims to achieve success in the following features:

- VR-gaming
- Recommender System
- 3 Dimension

2. RELATED WORK

Most of the VR-billiard games that can be played are available as desktop applications. Most of the ones that were mobile have stopped developing. Our difference from them is that our game is going to be mobile and highly playable, and also will have 3-dimensions and a suggestion system.

3. TECHNOLOGIES TO BE USED

We will use the proven Unity that is used in many games. The coding language of the Unity will be mostly C#.

4. SYSTEM REQUIREMENTS

In this section of the report, system requirements are described as functional requirements and non-functional requirements.

4.1. Functional Requirements

- Support Mobile
- Support VR
- Support Bluetooth

4.2. Non-functional Requirements

- Easy Deployment
- Extensible

4.3. Use Case Analysis

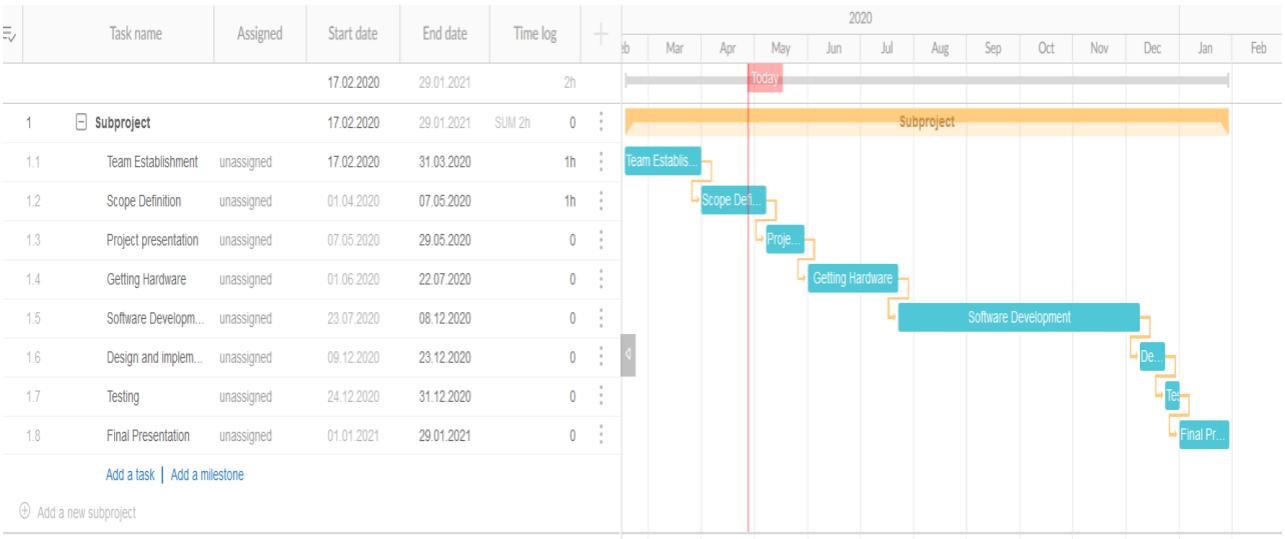
- User connects controller Bluetooth
- User opens games
- Controller optimize with game
- Put the phone into headset
- Put on headset
- Control the game with controller
- Click new game on game
- Movement
    - Movement with controller button
    - Movement with walking (not recommended)
- The cue is moved by moving the controller
- Win the game
    - When your own balls finished, you win
    - When black ball go into the hole before the opponents whole balls, you win
    - While playing 3 balls, if you reach 20 point, you win
- Game over

5. HIGH LEVEL PROJECT PLAN

5.1. Process Model

- Agile scrum

5.2. Project Schedule



5.3. Team Organization

	Umut Ketenci	Burak Eraslan
Project Management	+	+
C#	+	+
VR		+
Math	+	
HardWare	+	+
Data	+	
Statistics	+	
Unity		+

6. MEASURE OF SUCCESS & B PLAN

6.1. Measure of Success

If we can properly optimize the game and movements with VR, and save and present the data properly, we can count it completely successful.

6.2. B Plan

In the worst case, there would be a game of pool that could be played with or without VR.

7. CONCLUSIONS

Due to the recent increase in mobile phones, we considered developing mobile games and integrating them with VR. In addition, we have added data collection technology, taking into account the recent unstoppable increase of data collection technology. We think this project will add a lot to us.