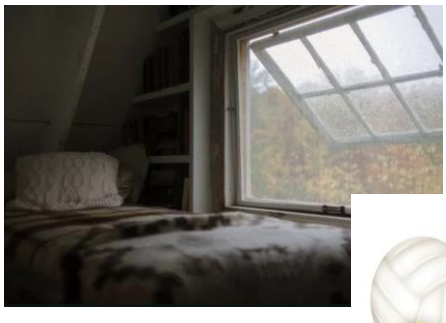
IMP AR Project

Team 4

1

AR App concept

We hope to give a joy to children who can't hang out because of the bad weather.



2

Background

[Playing Soccer]

[Playing Basketball]

[Playing Bowling]

3

Implement features

<Plane& Image Detection>

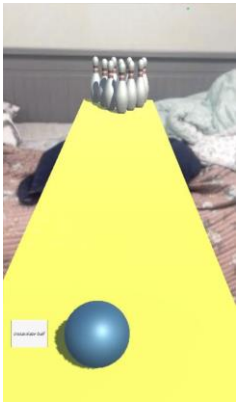
Create game field or Ball Object (for shooting)

<Touch>

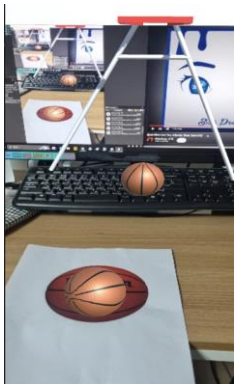
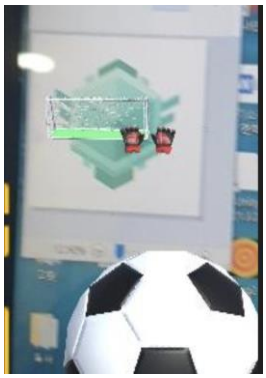
use touch and raycast function to implement shooting function

4

Implement features(Visual data)




Bowling(plane detection)

Basketball & Soccer(Image detection)

5

Why is AR needed in this App

Although I use my cell phone, I wanted to show you a similar experience.


6

Demonstration of your AR app

Video
Team4 - Playground
https://youtu.be/jgUBOeSww7o?si=cQHDjXIIVyd2afA4

Git link
https://github.com/SyingSHY/2301-IMP-AR

7

Work division

- Yang Sungho: Manage the Git project , Implement UI
- Lee Dongwon: Implement Soccer game
- Shin seungwoo: Implement Basketball game
- Kong Junhyeok: Implement Bowling ball

8

Lesson Learned(1)

▪**Yang Sungho**: UI implement and connecting to game mechanism was more complicate job than I thought before. Because of variety of device, it was hard to make show UI in reasonable size on screen. Although there was many difficulties but with this project, I could get more familliar with Unity and AR contents. Experience of Git managing in Unity project was very worthful too. I wish I could do better in next project base on these experiences.
▪ **Lee Dongwon:** I've had a little experience dealing with Unity before, but it wasn't as easy to create an app as I thought, especially dealing with AR in Unity. Even if I try to implement an app for a specific idea, I often don't implement it as it is in the AR environment due to technical and structural limitations, so I spent a lot of time solving it. For example, in soccer, it was difficult to actively control the distance between the goal and the goal post if the goal was created through image tracking. Also, I had a lot of difficulty dealing with Git and Github because I had little experience dealing with them, and especially merging what I implemented with what someone else implemented was the hardest because I had a lot of unexpected errors.

9

Lesson Learned(2)

▪Shin seungwoo: Before doing AR team project. Augmented Reality was sounded like far-advanced technology to me. But It was not hard as I thought, In fact, it was fun! I learned many things about Unity Engine and really glad to learned about AR functions in Unity.

▪Kong Junhyeok: When I first created a game that creates objects in real life, I felt that my knowledge was still too insufficient to apply what I learned well rather than feeling amazing. Also, the quality of the object was so different from the actual reality that I felt a lot of disappointment and lack. Do you really need a game using ar? As much as I thought, I think I worked on the project while thinking more about the reason and making a game where I can feel the need for ar. I had a lot of difficulties in producing scripts, but I think my ability to produce algorithms and read debugging errors gradually improved, so it was a hard but valuable time.

10

Thank you

11