

공개SW프로젝트 180622 최종발표

오픈케첩

2016113511 정현주
2016113510 김유진
2016113514 이호재
2016113515 박형모



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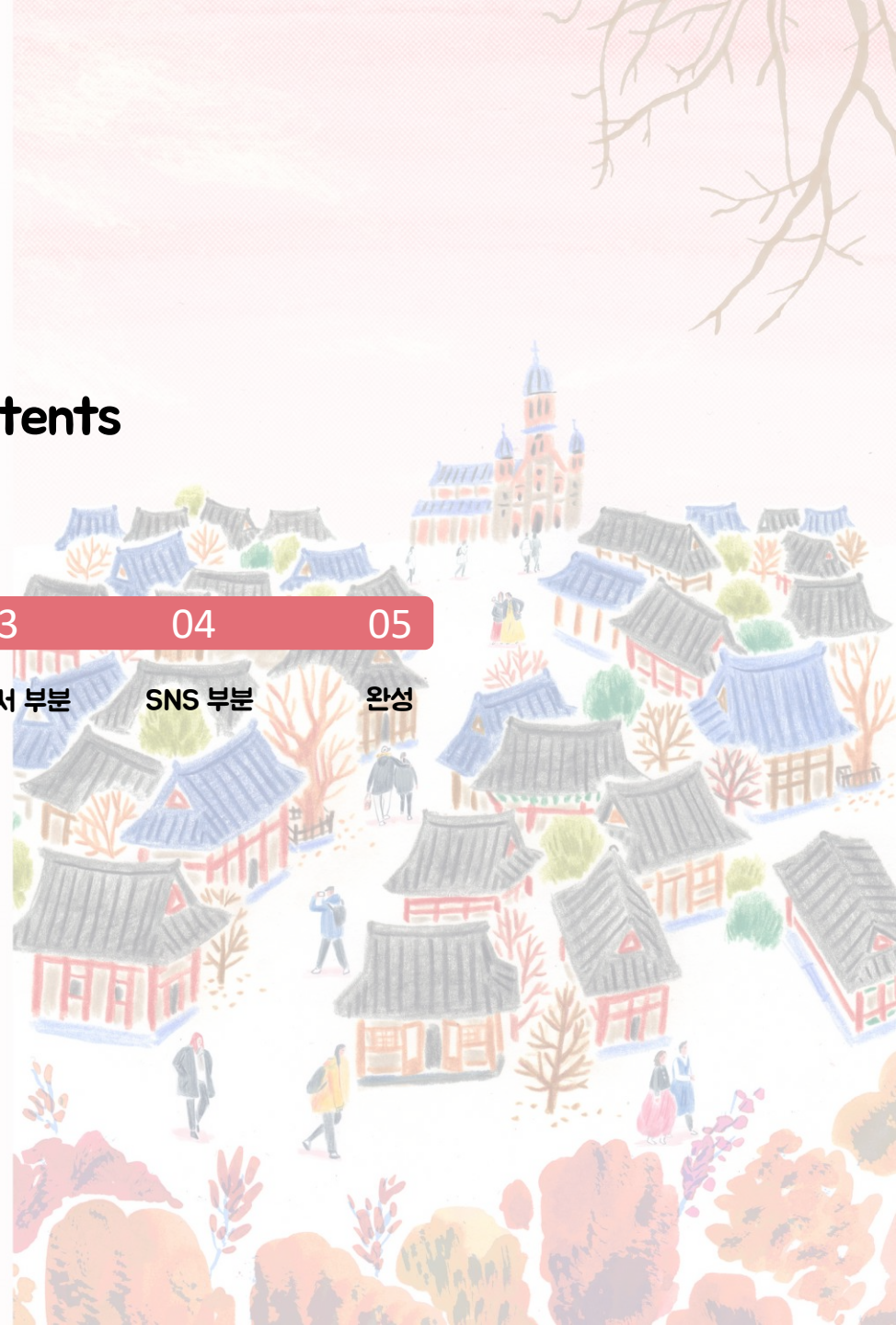
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04

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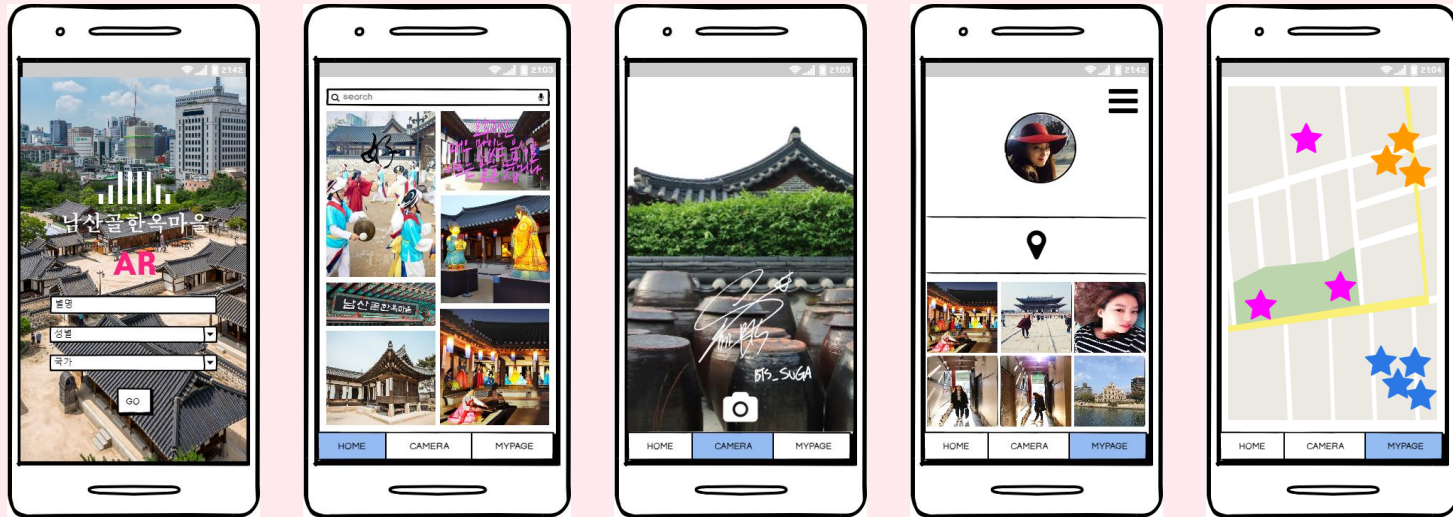
05

완성



GOAL

팀 목표



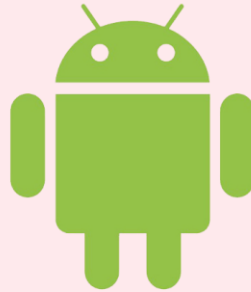
남산골한옥마을을 타겟으로 한 문화재 애플리케이션.

TOOLS

사용한 개발환경



Firebase



ANDROID



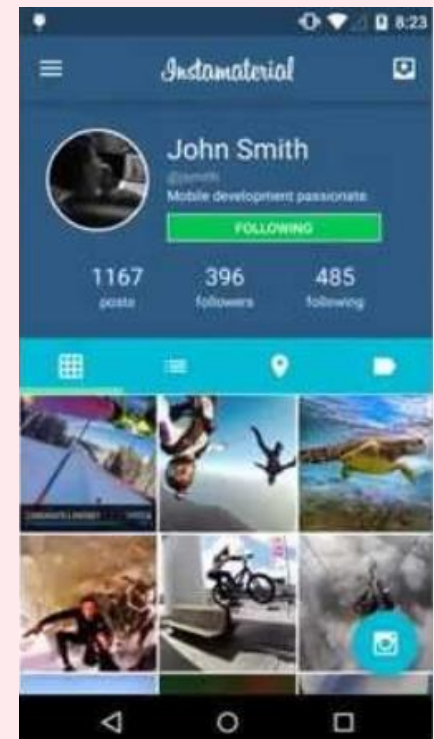
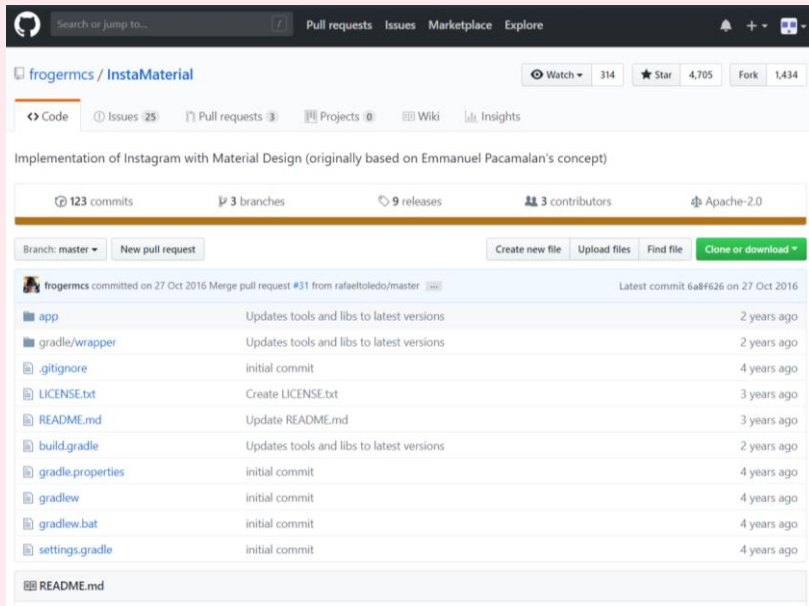
unity

안드로이드 기반 AR SNS 애플리케이션.

GITHUB

오픈소스

GITHUB : frogermcs/InstaMaterial



<https://github.com/frogermcs/InstaMaterial>

LICENSE

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Branch: master ▼

[InstaMaterial](#) / LICENSE.txt

Find file

Copy path



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- ⓘ State changes

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The top photograph shows a group of students in a classroom. In the foreground, a student with long dark hair and glasses is partially visible on the left. In the background, a student is working on a laptop, another is looking at a book titled 'THE POWER OF NOW', and a third is looking at a laptop screen. The bottom photograph shows a group of students posing for a selfie. A student in the foreground is wearing glasses and has their hand near their face. Behind them, two male students are making peace signs. A laptop is open on the desk in front of them, displaying a website. In the background, there are rows of wooden lockers.

**유니티, 안드로이드 스터디 후 개발.
매주 모여 DO DREAM 학습 동아리도 함께 함.**

ANDROID



오픈소스 분석 및 추가

EXTENDED

ANDROID-기존 오픈소스 분석

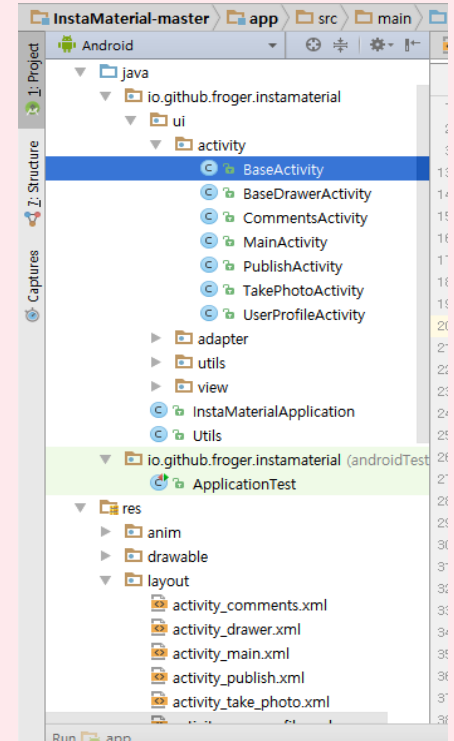
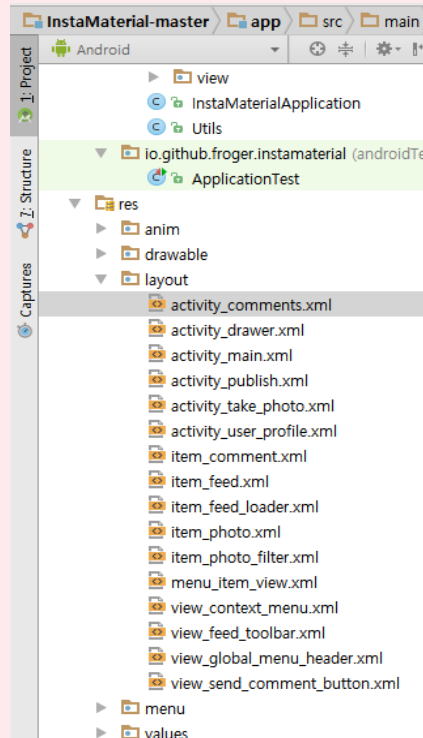


사진 캡처 & 공유 / 마이 피드에 사진 업로드 / DB는 없음

EXTENDED

ANDROID-기존 오픈소스 확장

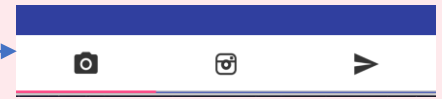
유니티를 이용한 AR기능

Map 추가

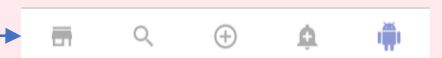
메시지 기능

일정 추가

Firebase 이용한 DB



기능 추가하면서 레이아웃 구성 변경



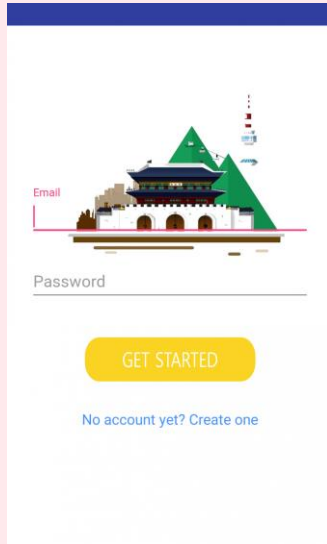
기존 오픈소스에 기능을 추가하여 애플리케이션 구성.

EXTENDED

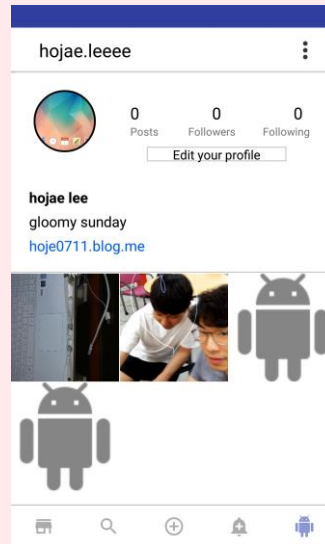
ANDROID-LAYOUT 변경



Loading page



Login page



My page



여러 행사 제시

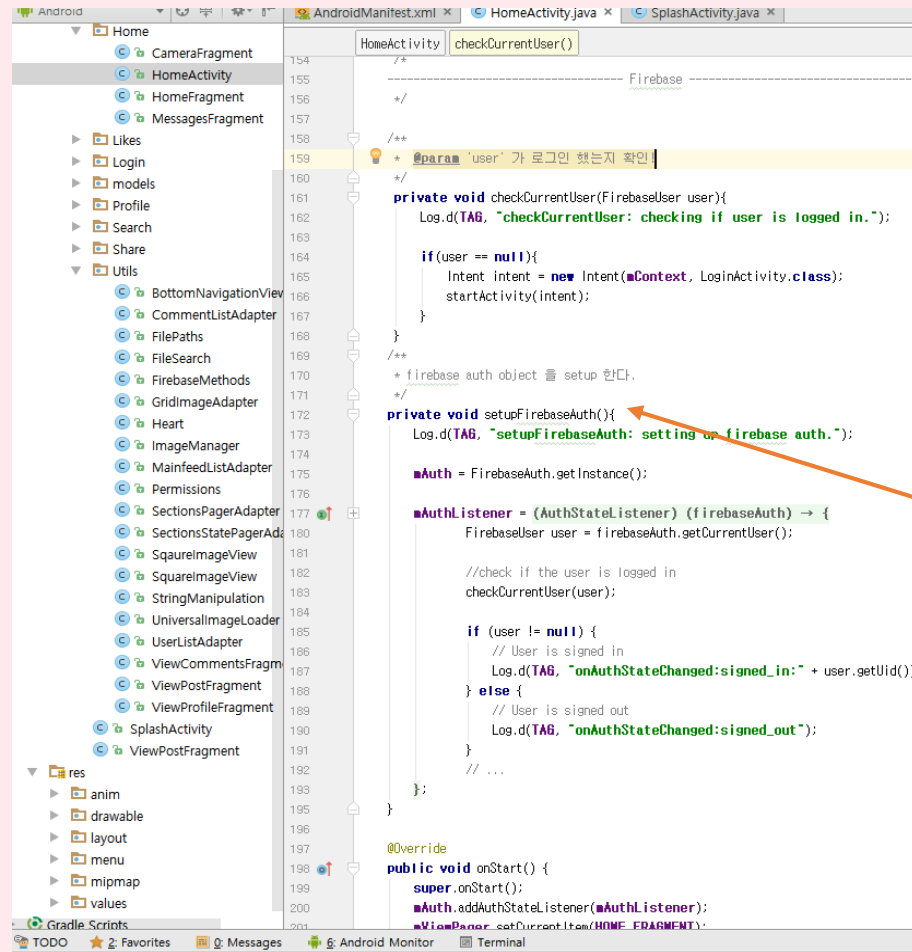


Map 추가

기존 오픈소스 레이아웃 및 디자인 변경.

EXTENDED

ANDROID-DB 연동



Firebase 추가

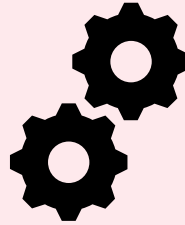
기존 오픈소스에 기능을 추가하여 애플리케이션 구성.

EXTENDED

어려웠던 점



기존 오픈소스 에러 발생



버전 문제



백업

긍정적인 생각을 통해 협업하여 끊임없이 목표를 향해 나아감.

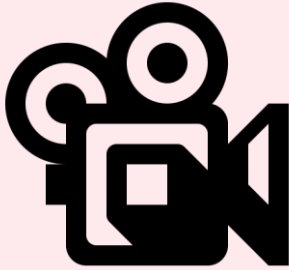
UNITY



기능 구현 및 디자인

EXTENDED

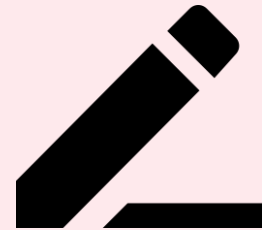
AR-UNITY 여러가지 기능 추가



동영상



사진



낙서

기능들을 추가하여 문화재 탐방 애플리케이션 형태로 구성.

EXTENDED

AR 구현 - Vuforia

App Key

License Key

Usage

Please copy the license key below into your app

```
ATCJmpb/////AAABGwoIxTdi0y5gvCxnAYH3QdyOYsfcSn1QzYq  
i7k5/0GGWfc15I2qOot7T1CbmBDEo5O5y34w2KZB2ZqSKIaZqF1D  
bcn1cgL8Hwt01o509SKuyjgDBFwzNKN/FPv1EqFS5DHROAC4uVA+  
oUFB1VYF8aeFsLTPgc2YhM0arEG6wdeVTK0ZdCsvESI+TB4JURiE  
o+G8bQrQt1MTN1CPGXN9XZU0N481JXG4WKazWudwJaytuPGqtzXw  
xGaIjj3zkRBjLsHC42p60QiurIbBm9cSu7nxW+D0n7ONBdO7VL9w  
GE/291ZqJJBWkX7biNa032bn/t5HfhqIw3uNivcHVDe4Dvj32gg  
BV4hxsB/cppw1cA7
```

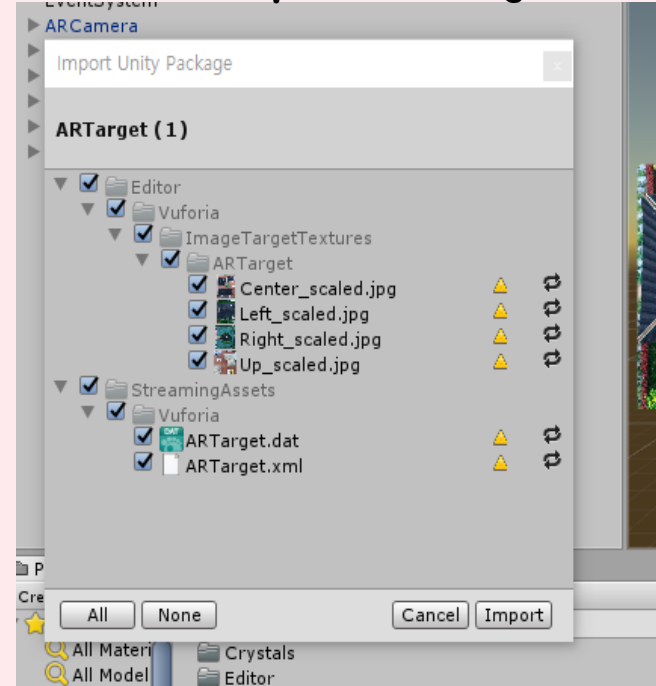
Target DB

Add Target

Download Database (All)

Target Name	Type	Rating	Status	Date Modified
Left	Single Image	★★★★☆	Active	Jun 06, 2018 15:59
Right	Single Image	★★★★☆	Active	Jun 03, 2018 17:21
Up	Single Image	★★★★★	Active	Jun 03, 2018 17:21
Center	Single Image	★★★★★	Active	Jun 03, 2018 17:21

Import Package

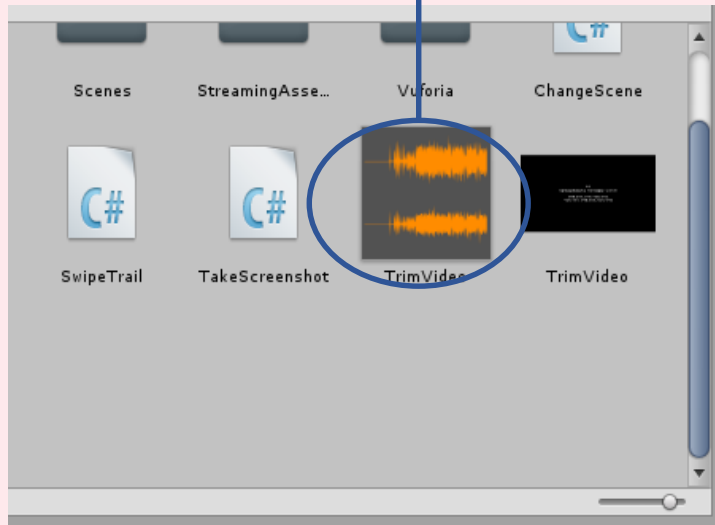


뷰포리아 활용하여 타겟 선정 및 AR 구현.

PROBLEMS

AR-UNITY 동영상 사운드 고안

동영상의 음성 부분
mp3 파일로 따로 추출

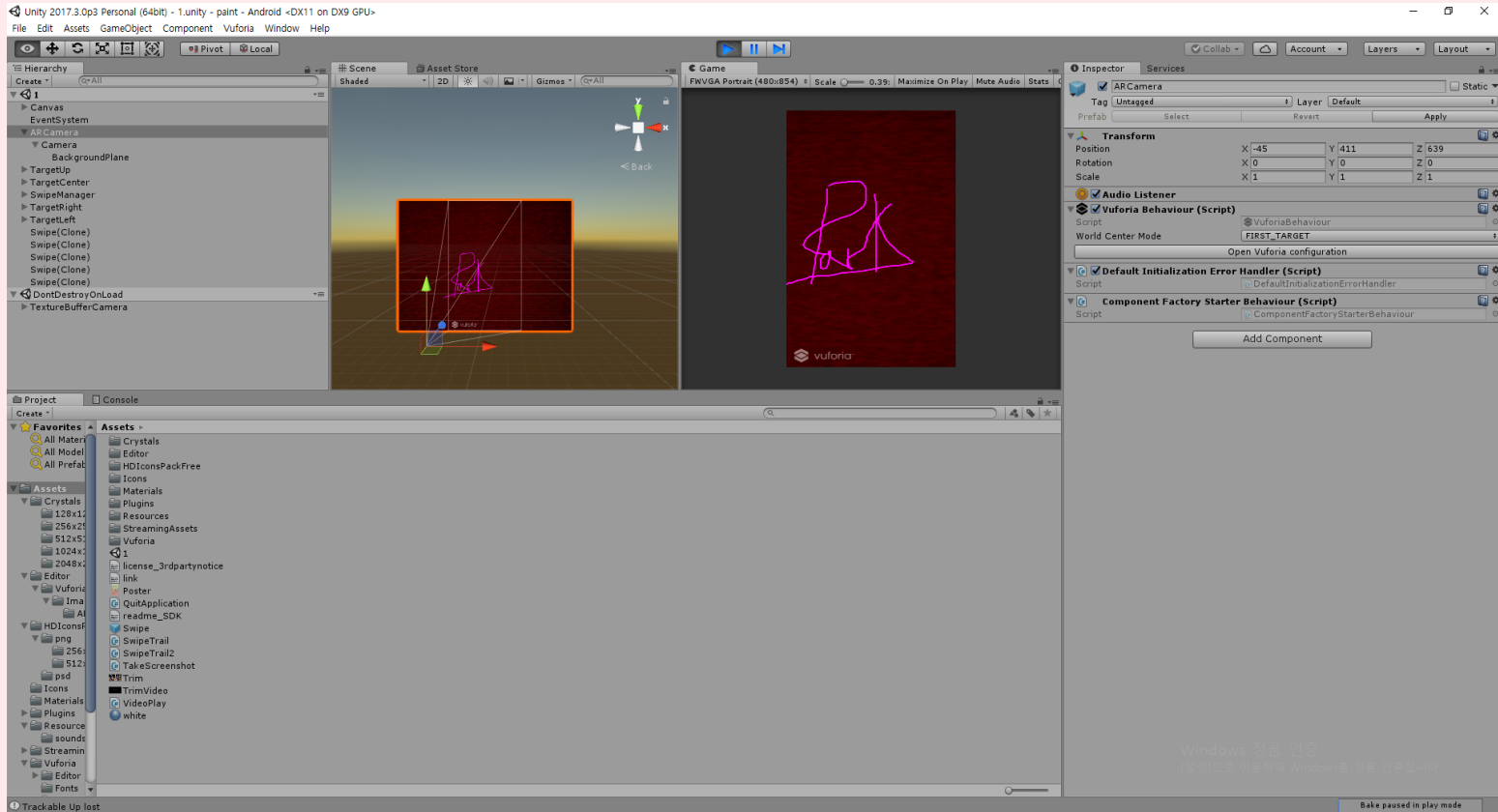


```
VideoPlay.cs  ChangeScene.cs
final
1 using UnityEngine;
2 using System.Collections;
3 using Vuforia;
4 using UnityEngine.Video;
5
6 [RequireComponent(typeof(VideoPlayer))]
7
8 [RequireComponent(typeof(AudioSource))]
9
10 public class VideoPlay : MonoBehaviour,
11     ITrackableEventHandler
12 {
13
14     private TrackableBehaviour mTrackableBehaviour;
15
16     private AudioSource sound;
17
18     private VideoPlayer videoPlayer;
19
20     void Start()
21     {
22
23         videoPlayer = GetComponent<VideoPlayer>();
24
25         sound = GetComponent<AudioSource>();
26
27         mTrackableBehaviour = GetComponent<TrackableBehaviour>();
28
29         if (mTrackableBehaviour)
30         {
31             mTrackableBehaviour.RegisterTrackableEventHandler(this);
32         }
33
34         videoPlayer.playOnAwake = false;
35
36     }
37
38     ..
```

동영상 음성 부분 분할, C# Script로 해결함.

PROBLEMS

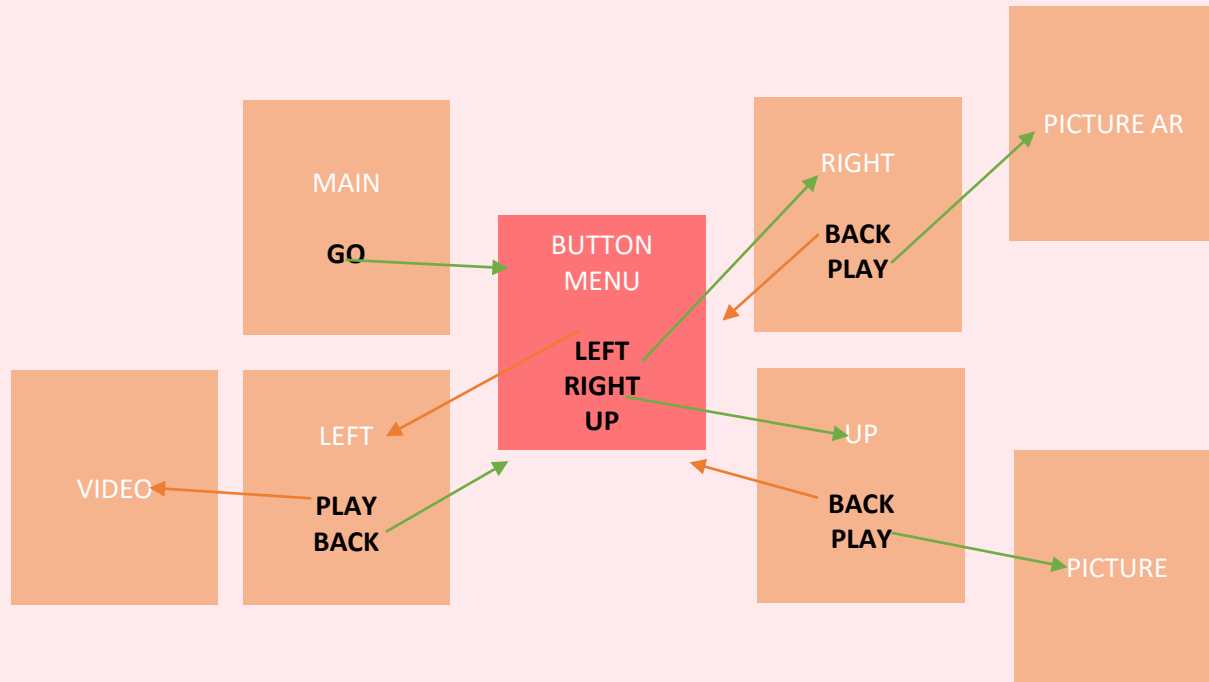
AR-UNITY 낙서 고안



낙서 부분의 구현을 위해 여러 방안을 고안.
손교수님의 아이디어 착안하여 카메라 앞에 **CANVAS-LAYOUT** 설치.
이후 그 위에 그려 캡처하는 방안으로 변경.

EXTENDED

AR-UNITY LAYOUT



남산골한옥마을 표지를 인식하게 되면
UNITY 시행 후 기능 사용 가능.

WHERE

기반 장소

남산골한옥마을 안내도



남산골한옥마을의 4곳을 선정.

모형도 제작



발표를 위하여 남산골한옥마을 모형도 제작.

APP

실행 화면

APP

SNS-ANDROID 가입 및 로그인



REGISTER A NEW ACCOUNT

Email

Full Name

Password

REGISTER

REGISTER A NEW ACCOUNT

Email

kelly@naver.com

Full Name

kellyjung

Password

....

Please wait. REGISTER

Email

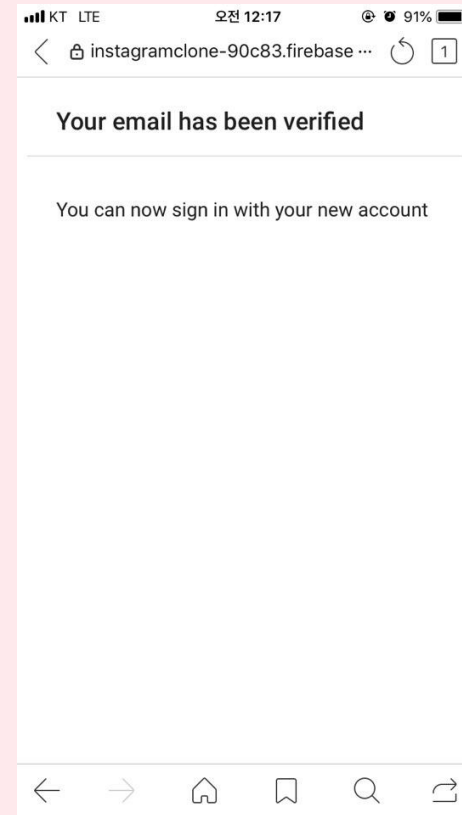
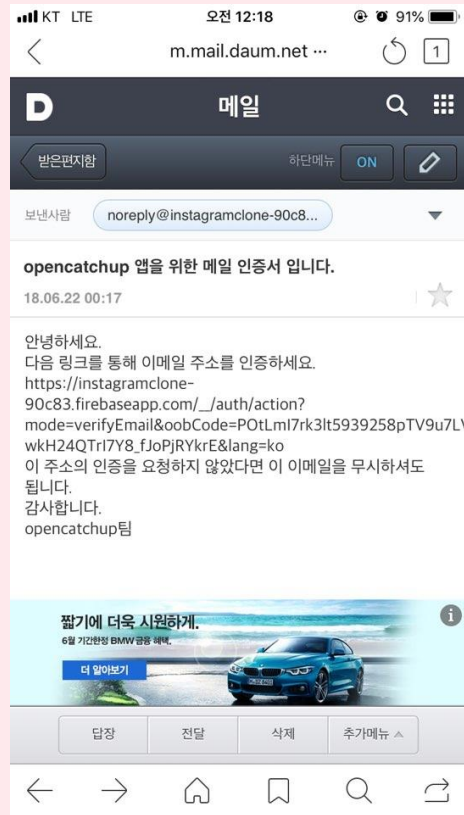
Password

GET STARTED

No account yet? Create one

시작화면 / 가입화면 / 가입 장면 / 로그인 화면

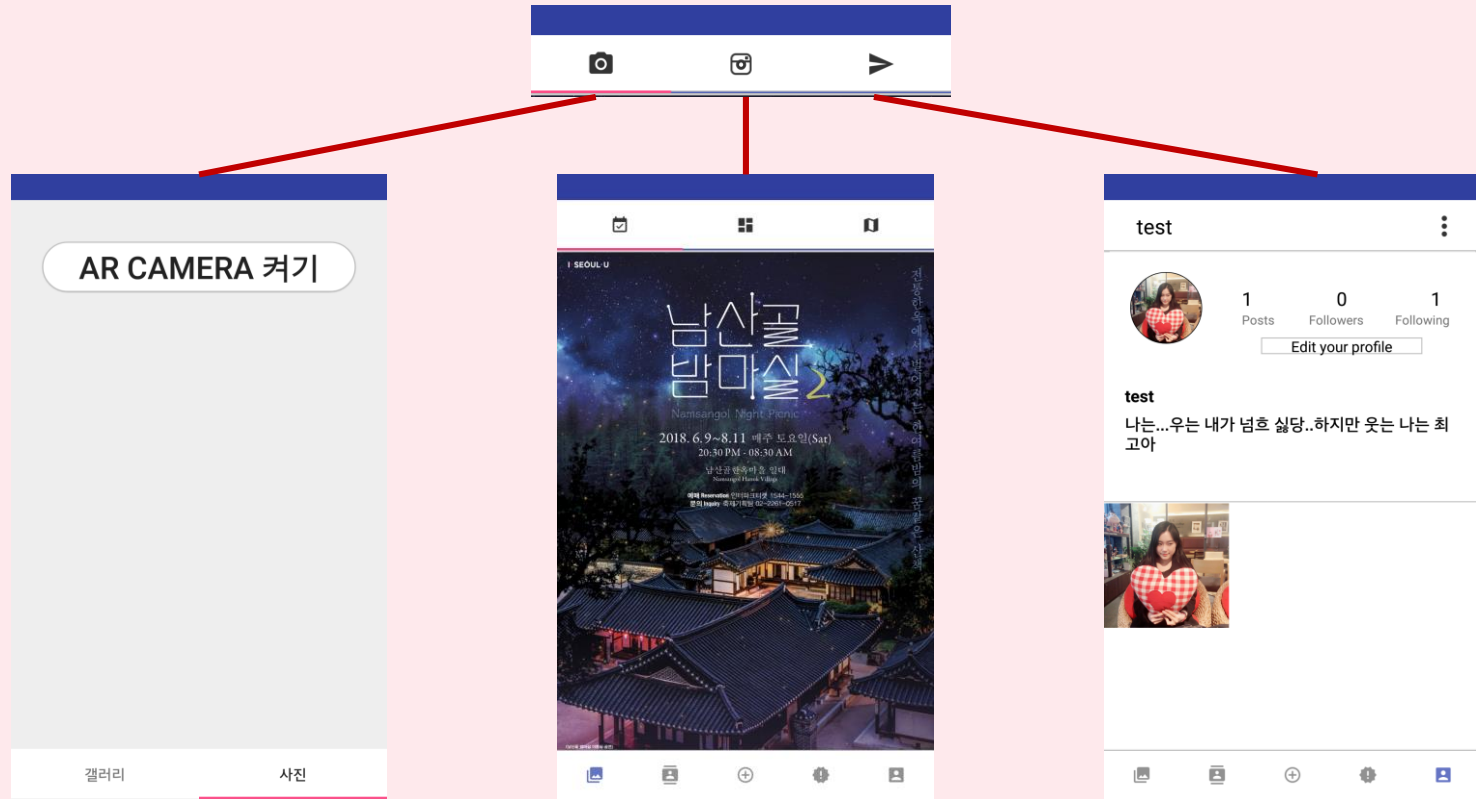
SNS-ANDROID 메일 인증서



가입 시 썼던 이메일로 인증서 발송 / 검증 과정 첨부.

APP

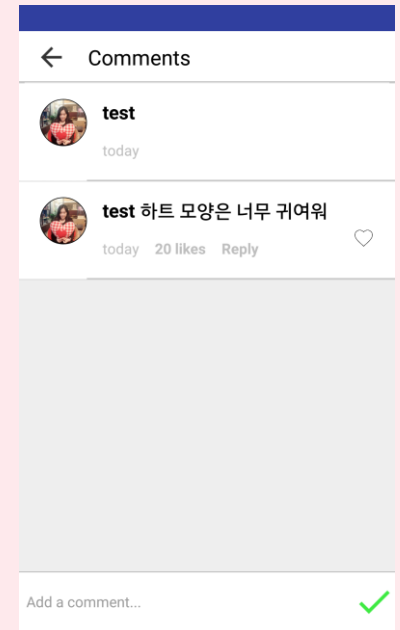
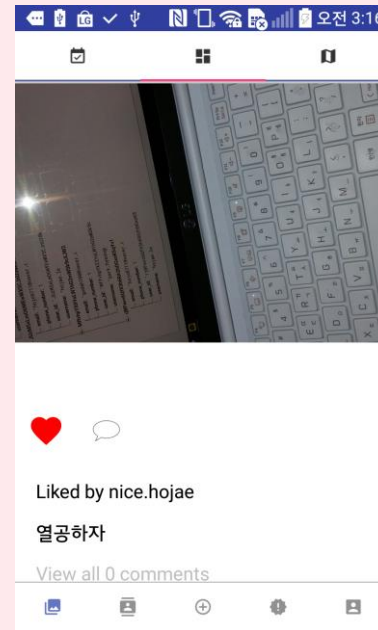
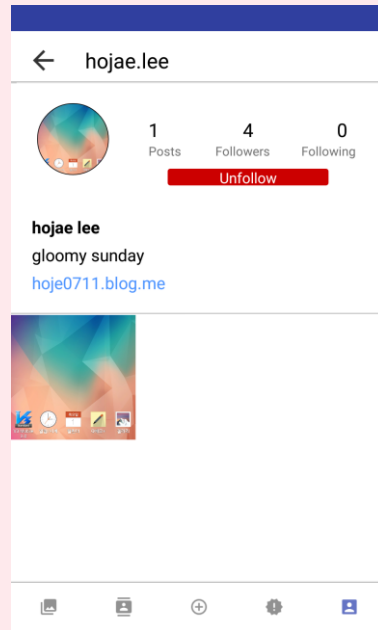
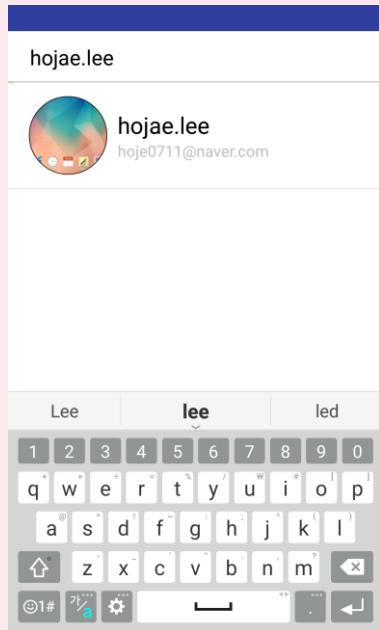
SNS-ANDROID 주요기능 3 TABS



카메라 / 피드 / 마이페이지

APP

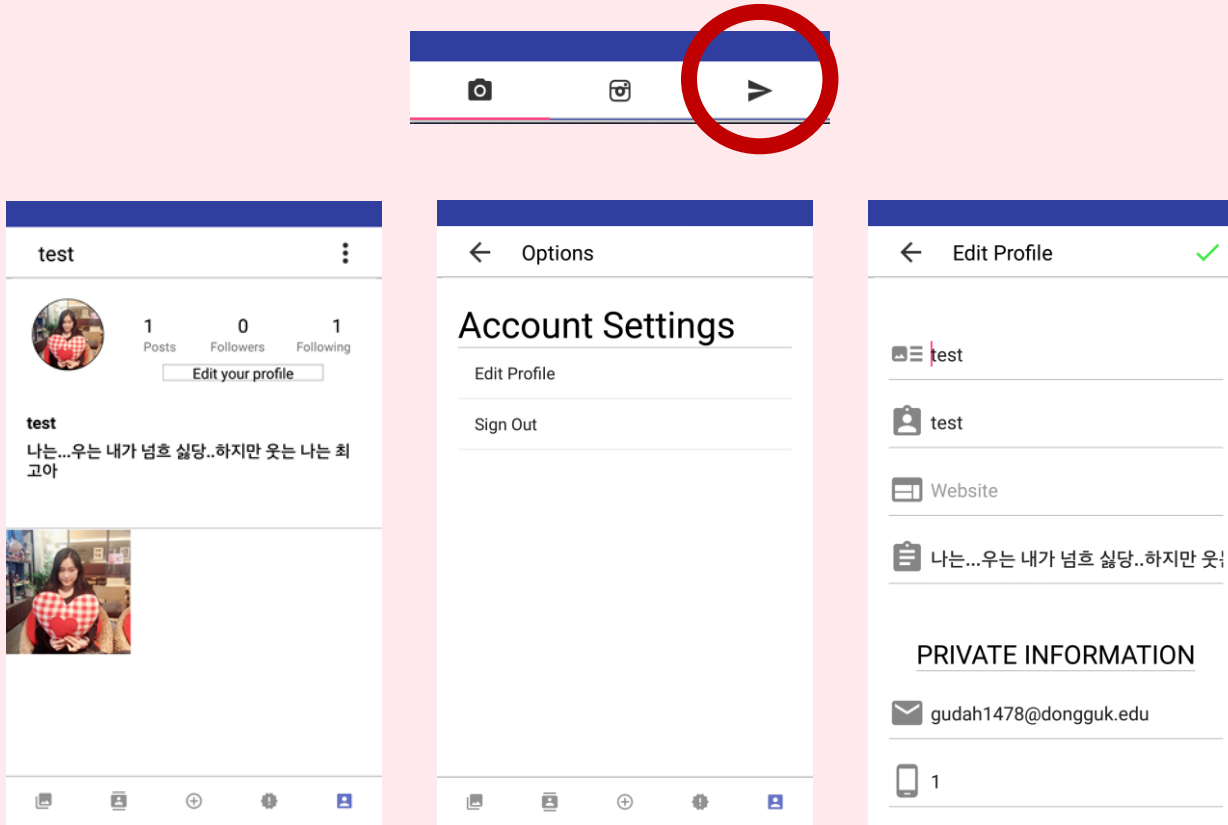
SNS-ANDROID 부가 기능



친구 찾기 / 친구 추가 / 좋아요 / 댓글 기능

APP

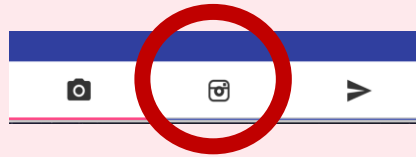
SNS-ANDROID 마이페이지



마이페이지에서 프로필 변경.

APP

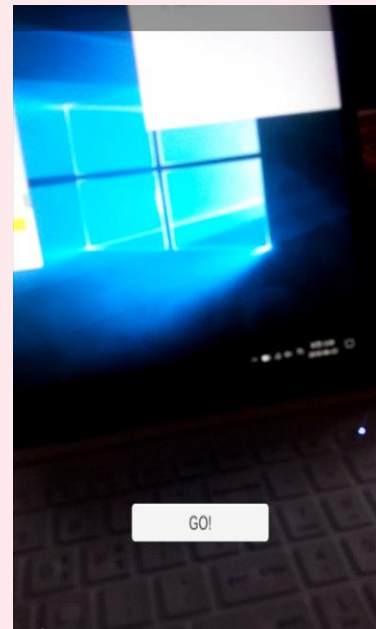
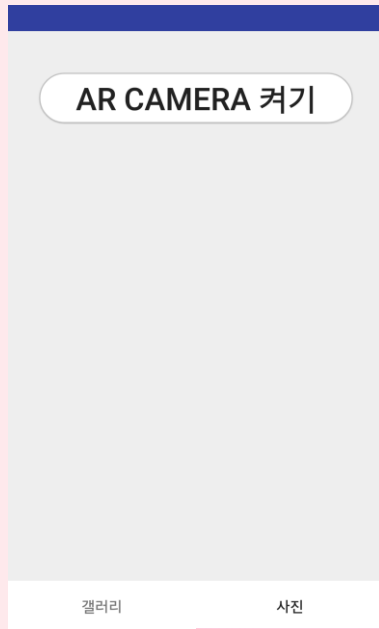
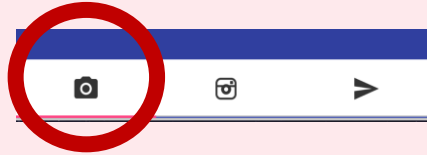
SNS-ANDROID 피드



공유피드 / 마이피드 / 맵

APP

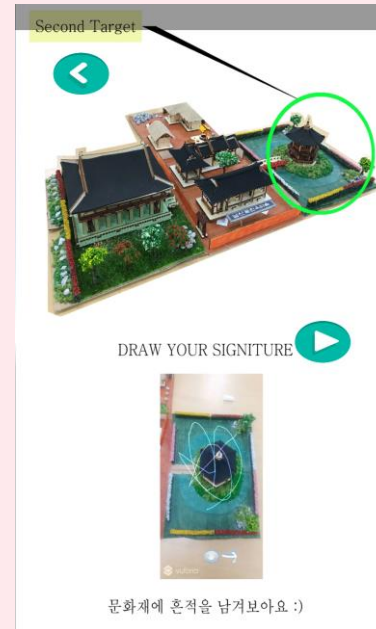
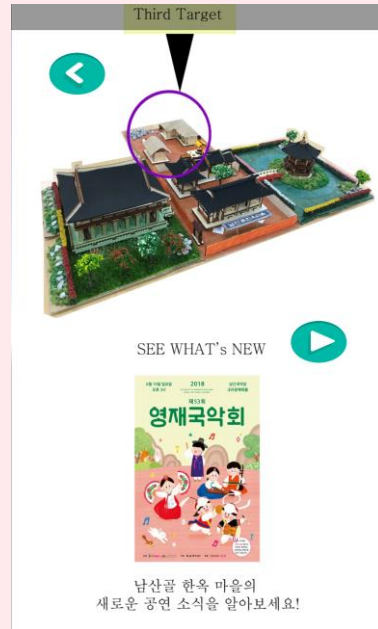
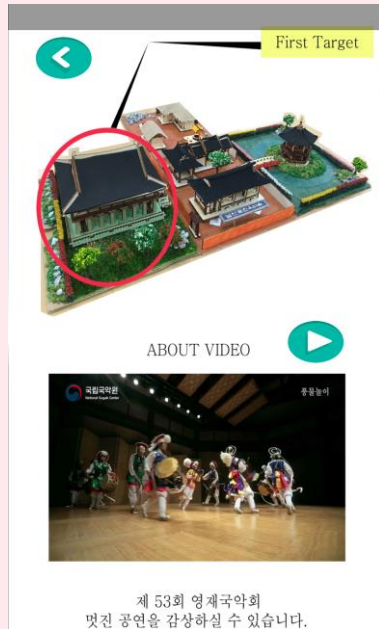
AR-UNITY 도입부



Android에서 AR CAMERA OPEN 후 UNITY 시행.

APP

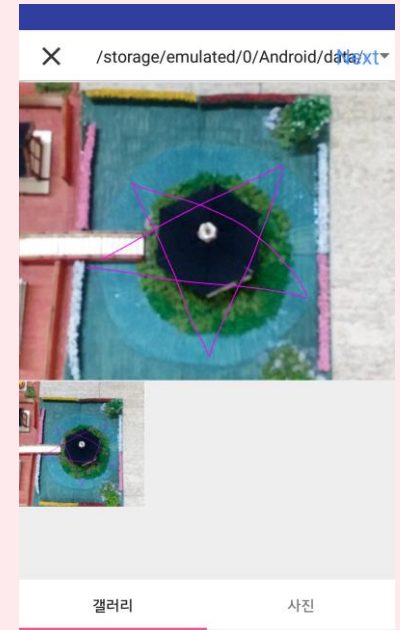
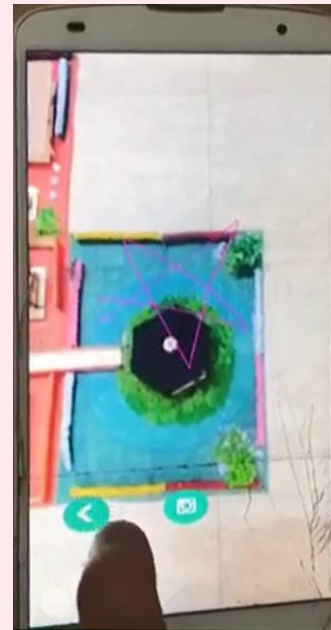
AR-UNITY 설명 화면



LEFT / UP / RIGHT 시행 전 설명.

APP

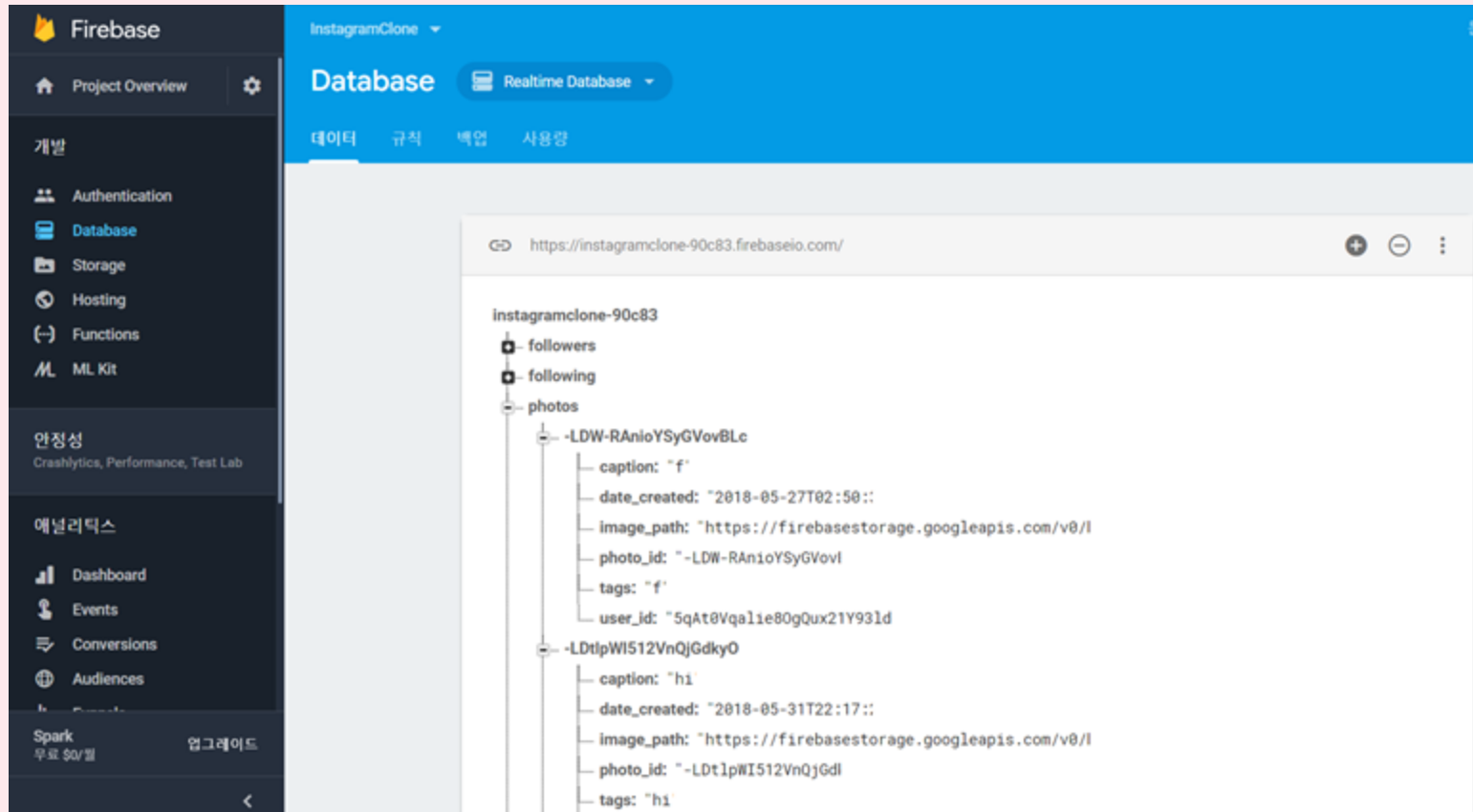
AR-UNITY 실행 및 업로드



동영상 / 사진 / 낙서 기능 후 스크린샷 사진 올리기 장면.

APP

FIREBASE DB



실시간 DB 캡처.

VIDEO

실행 동영상



공개 SW 프로젝트 - 오픈케첩

APP 완성 동영상.

오픈케첩

Q&A

감사합니다.

공개SW프로젝트

