

Team PYCO:
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PYCO

Your Personal Fashion Companion

PYCO Overview

Fashion Accessibility

Aims to make fashion advice accessible to everyone

Community Building

Connects individuals looking for fashion inspiration with those who have styling expertise

Creative Platform

Serves as a stage for aspiring designers to build a portfolio and gain recognition

Long-Term Vision

Potential to evolve into something recognizable for people passionate in fashion.

Tech Stack

CameraX

Image Capture

Remove.bg

Background Removal

Firebase Firestore

Database

Firebase Authentication

Authentication

Jetpack Compose

UI Development

Navigation

State Management

Challenges

Debugging & Logging

Hard to debug and keep track of data when there are so many asynchronous operations like Firestore, CameraX, and background threads. Especially when the View Models are interacting with each other so much.

Databases and Viewmodels

Database Schema changes throughout the development process, a lot trial and error.

Handling Uri and CameraX

Cache management, and URi handling was complicated and took a long time to figure out how to store and fetch the images

Push Notifications

The notifications was hard because we were unsure at first where to place some functions given authentication was not guaranteed at MainActivity.kt

Lessons Learned

API Integration

Learned to handle APIs and manage operations with callbacks

Databases

Understanding Firestore structure and authentication workflows.

Collaboration

git – a lot of conflicting merges, we improved our communication and planning skills

Debugging


Had to get comfortable with understanding gradle file errors, and LogCat for debugging. Many Logs were written.

We mainly utilized Androids LogCat to debug and ensure everything was fetched or uploaded correctly, but towards the end we got Crashlytics up and running and tested it with a crash button (no longer available we vaulted it).

```
2024-12-17 17:54:43.693 9106-9106 PlayCore com.pyco.app
2024-12-17 17:54:43.693 9106-9106 PlayCore com.pyco.app
2024-12-17 17:54:43.717 9106-9106 OutfitsViewModel com.pyco.app
2024-12-17 17:54:43.785 9106-9106 OutfitsViewModel com.pyco.app
2024-12-17 17:54:43.846 9106-9106 OutfitsViewModel com.pyco.app
2024-12-17 17:54:43.917 9106-9106 OutfitsViewModel com.pyco.app
2024-12-17 17:54:43.917 9106-9106 OutfitsViewModel com.pyco.app
2024-12-17 17:54:43.985 9106-9106 OutfitsViewModel com.pyco.app
2024-12-17 17:54:44.549 9106-9140 EGL_emulation com.pyco.app
2024-12-17 17:54:46.554 9106-9140 EGL_emulation com.pyco.app
2024-12-17 17:54:47.631 9106-9140 EGL_emulation com.pyco.app
2024-12-17 17:55:27.687 9106-9140 EGL_emulation com.pyco.app
2024-12-17 17:55:29.274 9106-9140 EGL_emulation com.pyco.app
2024-12-17 17:55:29.442 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:29.442 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:29.442 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:29.442 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:31.016 9106-9140 EGL_emulation com.pyco.app
2024-12-17 17:55:32.032 9106-9140 EGL_emulation com.pyco.app
2024-12-17 17:55:32.168 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:32.168 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:32.169 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:32.169 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:32.169 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:32.169 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:32.169 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:32.169 9106-9106 Firestore com.pyco.app
2024-12-17 17:55:32.169 9106-9106 Firestore com.pyco.app
2024-12-17 18:00:32.243 9106-9308 TrafficStats com.pyco.app
2024-12-17 18:04:32.302 9106-9322 TrafficStats com.pyco.app
```

```
I UID: [10206] PID: [9106] IntegrityService : Initiate binding
I UID: [10206] PID: [9106] IntegrityService : Failed to bind t
D Wardrobe items fetched for tops: 4 items
D Wardrobe items fetched for bottoms: 4 items
D Wardrobe items fetched for shoes: 3 items
D Wardrobe items fetched for accessories: 3 items
D Fetching outfits for user: zBxLXRenVPUVoIQQ49rI2uR0fUB2
D Fetched 8 outfits for user: zBxLXRenVPUVoIQQ49rI2uR0fUB2
D app_time_stats: avg=19.63ms min=13.08ms max=36.75ms count=51
D app_time_stats: avg=66.83ms min=14.80ms max=1522.93ms count=3
D app_time_stats: avg=21.51ms min=10.96ms max=219.00ms count=50
D app_time_stats: avg=801.10ms min=13.59ms max=39191.16ms count
D app_time_stats: avg=33.42ms min=5.88ms max=787.23ms count=47
W (25.1.1) [CustomClassMapper]: No setter/field for originalOut
W (25.1.1) [CustomClassMapper]: No setter/field for isPublic fo
W (25.1.1) [CustomClassMapper]: No setter/field for originalOut
W (25.1.1) [CustomClassMapper]: No setter/field for isPublic fo
D app_time_stats: avg=40.52ms min=8.95ms max=1015.28ms count=43
D app_time_stats: avg=18.45ms min=12.92ms max=34.36ms count=55
W (25.1.1) [CustomClassMapper]: No setter/field for originalOut
W (25.1.1) [CustomClassMapper]: No setter/field for isPublic fo
W (25.1.1) [CustomClassMapper]: No setter/field for originalOut
W (25.1.1) [CustomClassMapper]: No setter/field for isPublic fo
W (25.1.1) [CustomClassMapper]: No setter/field for originalOut
W (25.1.1) [CustomClassMapper]: No setter/field for isPublic fo
W (25.1.1) [CustomClassMapper]: No setter/field for originalOut
W (25.1.1) [CustomClassMapper]: No setter/field for isPublic fo
W (25.1.1) [CustomClassMapper]: No setter/field for originalOut
W (25.1.1) [CustomClassMapper]: No setter/field for isPublic fo
D tagSocket(115) with statsTag=0xffffffff, statsUid=-1
D tagSocket(5) with statsTag=0xffffffff, statsUid=-1
```





pyco ▾

Crashlytics

Pyco ▾

New in Crashlytics

Last 24 hours
Dec 16 – Dec 17

Filter

Latest release 1.0 (1)

3 active users in the past hour


Filter crashes

Monitor release →

Crash-free users
66.67%

Crash-free sessions
98.46%

Crash-free users in last 24 hours ?



Trends

Crashes
1

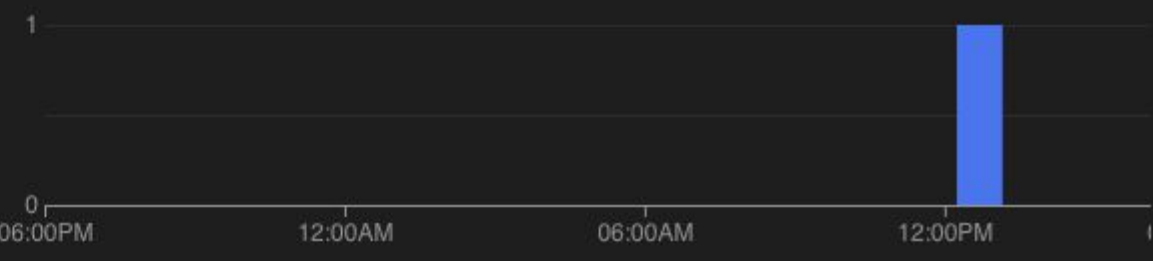
Users
1

Non-fatals
--

Users
--

ANRs ?
--

Users
--



Issues

Search by user ID

Filter issues

Search issue title, subtitle or keys

Issues

Versions

Events ↓

Users

Crash

com.pyco.app.screens.authentication


LoginScreen.kt:267

Fresh issue

LoginScreenKt\$LoginScreen\$2\$1\$7\$2.invoke

java.lang.RuntimeException - Test Crash

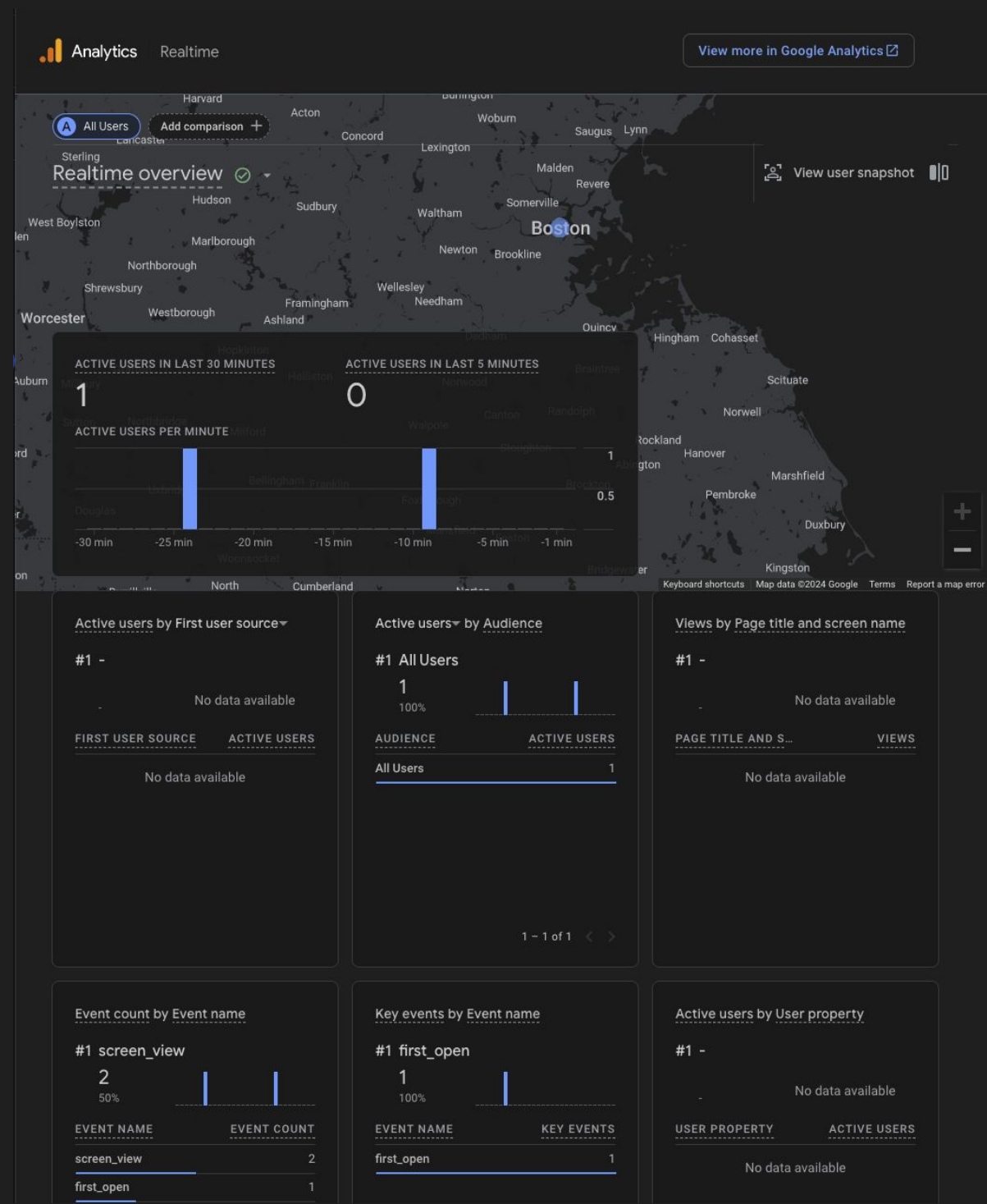
1.0 – 1.0



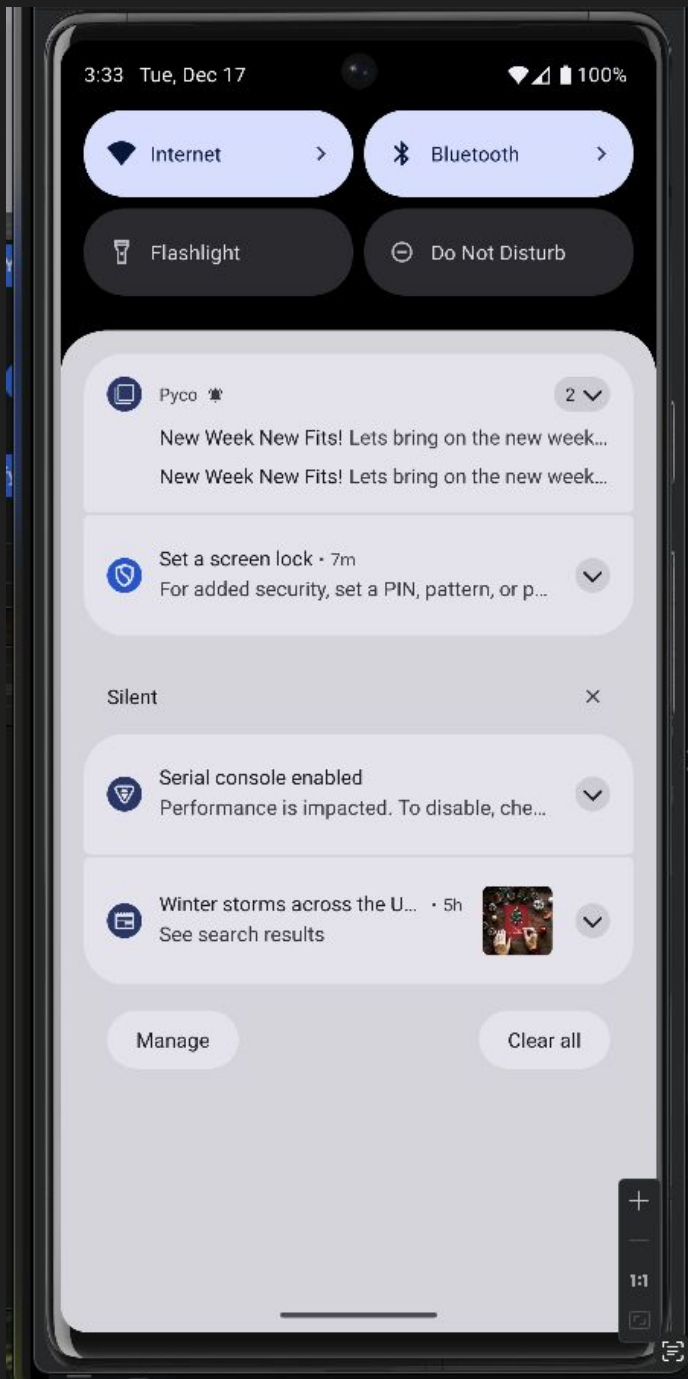
1

1

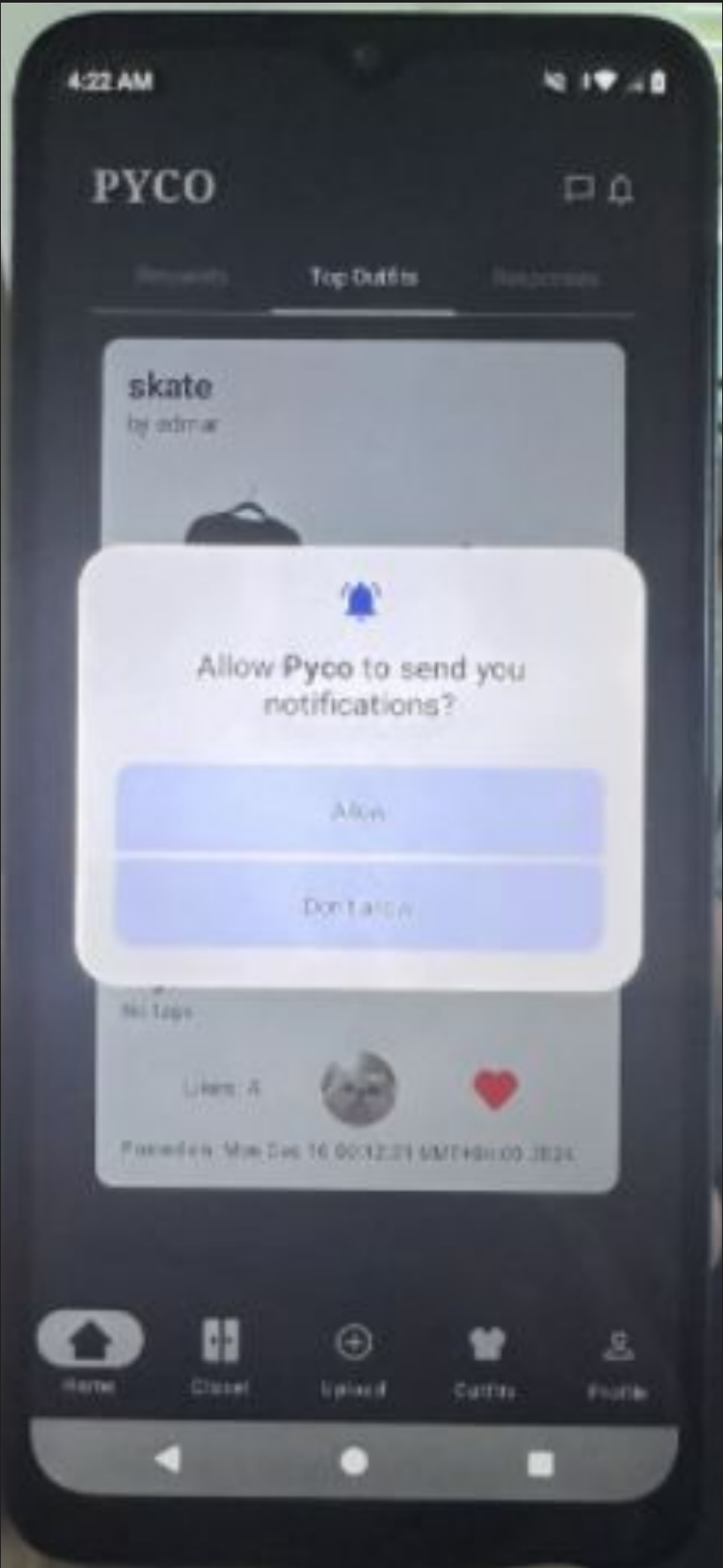
we also have Realtime Analytics to see the traffic our app received, given that it was just us two there was not much to look at.



we also bought a phone to test on in areas the emulator fell short. (only 30\$)



push notifications is also functioning on our app



Base features

Google / email authentication

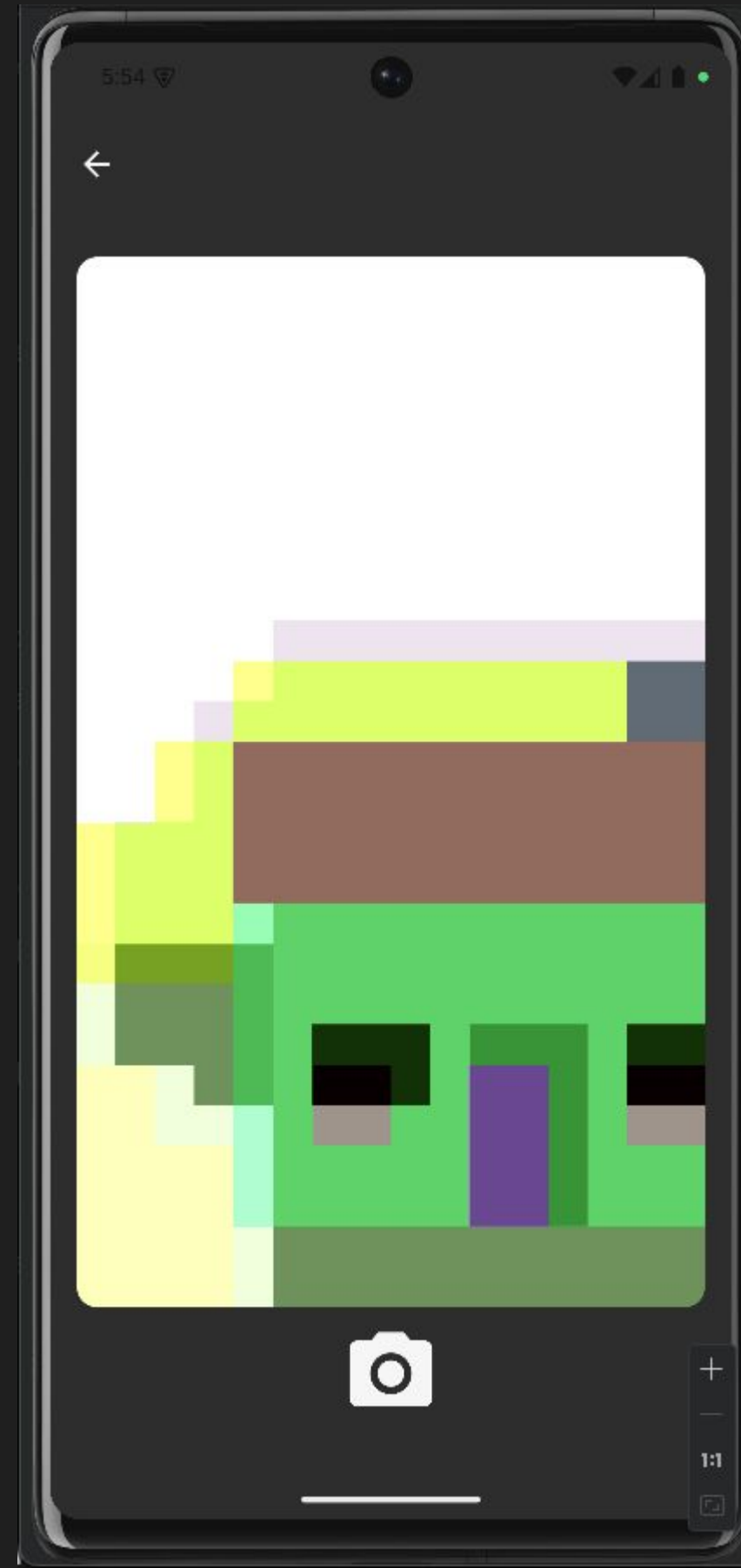
real time data sync with firestore

- also provides offline functionality

filtering through requests to access ones

relevant to your interests, or friends!

Clickable items interactive tabs and input fields allow you to really begin to immerse yourself into the app. and there are nice loading spinner animations. and a camera



say cheese

we used many api's some of which were for mainly ui such as coil to load images or pagers to slide screens.

we also had apis that did work. Like most if not all of you, we used firebase firestore auth, and we used some of their other services like crashlytics and messaging for notifications.

```
// firebase
implementation(platform(libs.firebase.bom))
implementation(libs.firebase.auth)
implementation(libs.google.firebase.auth)
implementation(libs.play.services.auth)
implementation(libs.play.services.auth.v2070)
//firestore
implementation(libs.firebase.firestore)
// crashlytics
implementation(libs.firebase.crashlytics)
implementation(libs.firebase.analytics)
// messaging
implementation(libs.firebase.messaging)

// camerax
// CameraX core library using the camera2 implementation
implementation(libs.androidx.camera.core.v150alpha03)
implementation(libs.androidx.camera.camera2.v150alpha03)
// If you want to additionally use the CameraX Lifecycle library
implementation(libs.androidx.camera.lifecycle.v150alpha03)
// If you want to additionally use the CameraX View class
implementation(libs.androidx.camera.view.v150alpha03)
// If you want to additionally add CameraX ML Kit Vision Integration
implementation(libs.androidx.camera.mlkit.vision)
// If you want to additionally use the CameraX Extensions library
implementation(libs.androidx.camera.extensions.v150alpha03)

// coil for image loading
implementation(libs.coil.compose)
// some icons for ui
implementation(libs.androidx.material.icons.extended)

// accompanist pager library for the horizontal pager on outfit feeds // among other screen like followers etc
implementation(libs.androidx.foundation)

// guava
implementation(libs.guava)

// Firebase App Check
implementation(libs.firebase.appcheck.playintegrity)
```

There were a few features we didn't get to complete, auth with other services besides google

the outfit creation screen is underwhelming in terms of ui, and the account screen has also seen better days, but functionality wise we hit many of our markers.

We did not include local messaging and notifications like we initially planned as well.

time for a demo?