Petfriendr

Group 3
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INTRODUCTION

Social media platforms have amassed over 5 billion users worldwide since their introduction in the 1980s. Mobile application development has exploded as society becomes ever more dependent upon mobile technologies such as smartphones and tablets. Now, users have access to applications like Instagram, Facebook, and Twitter at their fingertips at any time of day. Thus, one would think it has never been easier to stay in touch with friends and family, share thoughts, photos, and videos, or kill time with mindless scrolling. However, social media platforms seem to be drifting away from their original intent, to connect people, to being used for other reasons. Lately, social media seems to be a significant source of frustration, anxiety, and fear instead. While it seems there is an app for everything - productivity, fitness, cooking, dating - there isn't an app out there to connect and develop friendships with people who have pets or people who simply love pets. Insert Petfriendr. Petfriendr is an Android application created to bring the focus back to connecting like-minded people with others interested in the same things - in our case, pets. We have eliminated time wasted sifting and searching through Instagram or Facebook groups for cat lovers, for instance, to connect all pet lovers. Our app is for any user that wants to post their new cute corgi puppy, escape anxiety-inducing news feeds on Twitter, or mindlessly scroll and comment on cute cat photos.

APPLICATION FEATURES
- User Account Sign-Up
  - accounts stored in Firebase.
- User Account Login
- Ability to Edit Profile
  - profile details including image stored in Firebase
- Ability to view a feed of other profiles
  - Profiles are displayed in a small card with each profile populating within the scroll view.
- Ability to select a profile for more detailed view
  - Ability to comment on said profile in this profile view
  - Comments stored in Firebase.

MISSED FEATURES/BUGS

There were several planned features that were missed or modified due to the difficulties this team encountered during the development process. Creating an Android application was an unfamiliar process for 3 of 4 group members, and the experienced group member did not provide much support during the development of the majority of the application. As a result of this large learning curve, many features that were planned had to be either scrapped or simplified in order to produce a minimum viable product.

A complete list of missed features:
- Swiping functionality

- This was to be the primary method of navigation through user profiles, however this was a significant hurdle that we scrapped in favor of displaying a static feed of all users, more similar to how one might see an Instagram feed as opposed to swiping through profiles like one does on apps like Tinder. The initial code written for this can be found in the phase3RejectedCode folder at the top level of this project.
  - Location Features
    - Google Maps was implemented however once the primary features of this application were determined, it no longer made sense to include. The code for this is also located in phase3RejectedCode. The end goal was to still implement this and allow users to see each other's locations, but unfortunately we ran out of time.
  - Profiles Searchable
    - Unfortunately there was not enough time to implement any type of profile search.

TEST CASE RESULTS

Results: To test our android application, we performed several manual tests, and leveraged Android's Espresso UI testing tool to ensure all UI interactions were successful and if not where we needed to apply a fix. .

Espresso UI Test Recorder results were all successful for the login and sign-up functionalities.

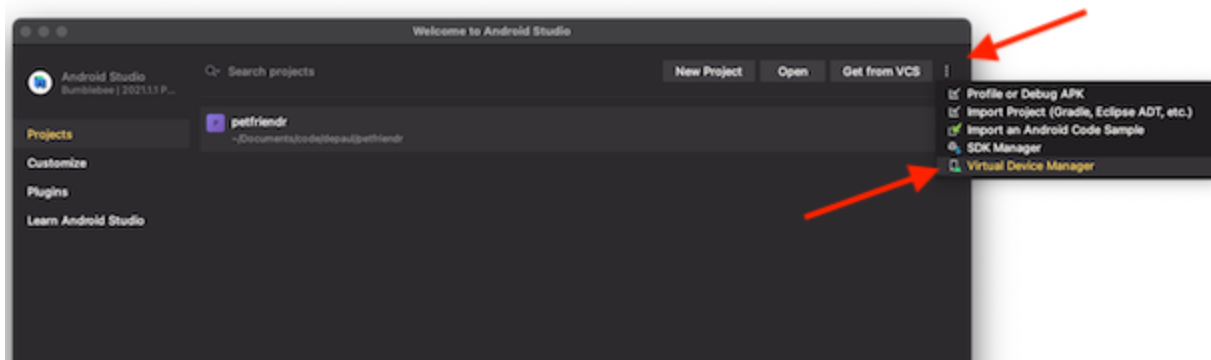The rest of the features were tested manually.

Link to manual tests here:
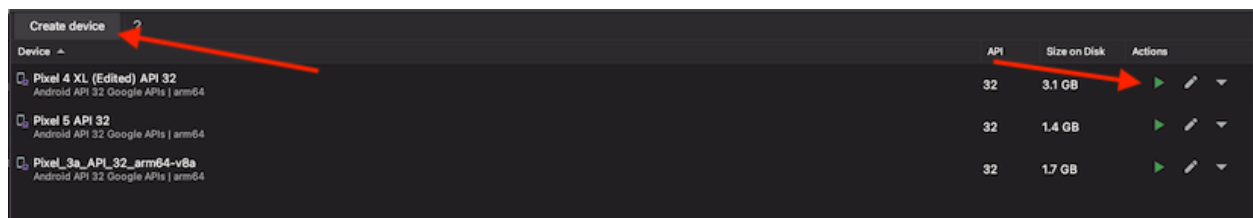https://docs.google.com/spreadsheets/d/14RB1EiR8REHAGis-Hol-il7hZtgYnIsnsLTwjK8Pm5c/edit?usp=sharing

HOW TO EXECUTE OUR APP

There are 2 ways in which our application can be executed. Because the application depends on AndroidOS, it must be run either on an Android device or within an AndroidOS emulator.
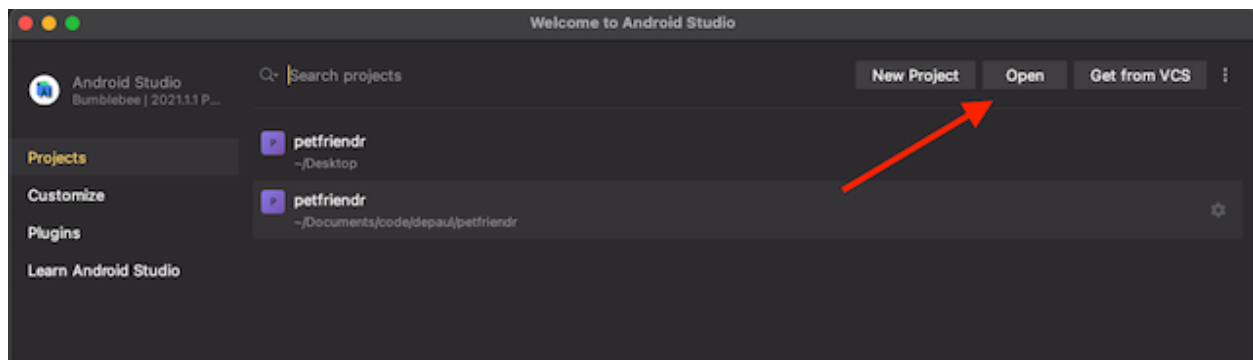
1. For PC or MacOS:
   a. Download Android Studio : https://developer.android.com/studio
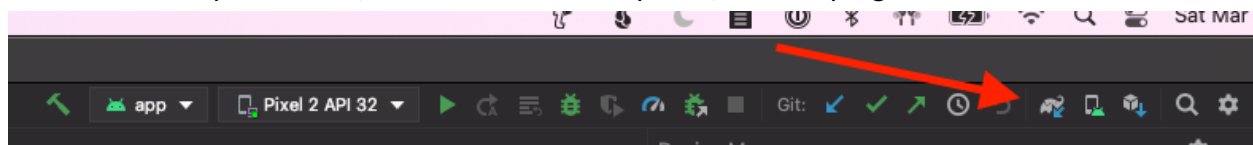   b. Select the three dots, and then choose Virtual Device Manager.

c. Select Create Device and create a device to run. We recommend a Pixel 4 XL and API 32. Once created, click the green Play button and this will select this device as the emulator to run within Android studio.
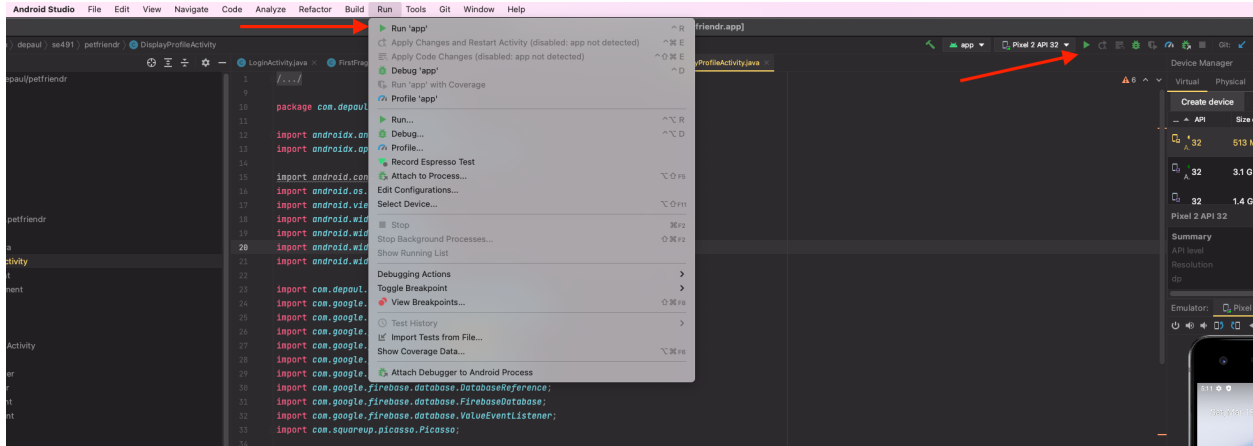

d. You can now select Open and open the Petfriendr directory as the project. This should now load everything into Android Studio.

e. Gradle sync should start automatically, but in case it does not, select the Gradle Sync button (it looks like a little elephant) in the top right corner.

f. Once it syncs you can now build/run the application by either clicking the green play button to the right of the emulator information (same bar as the Gradle Sync button), or by selecting Run, then Run app from the menu.

The application should now be running in the Android OS emulator.

Alternative Method:

2. This method requires a device already running Android OS, such as an Android phone or tablet.

   a. Transfer the apk included in the zip file to the Android phone/tablet.
   b. Navigate to the location where the APK was transferred to and tap it. It may request permission before installing, in which case permission will need to be granted.
   c. Tap **Install** and the application will install on the device. It can now be launched like any other app. If your Android device is running on Nougat or an older version, you'll first have to enable Installation from Unknown Sources by going to Settings > Security, after which you'll be able to install the APK. Sideloading support is available on all Android versions, and you don't need root access or any other special privileges.