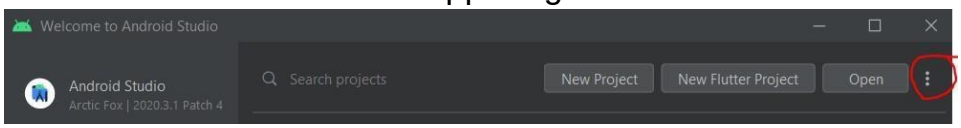
Environment Setup

- Install JDK 1.8 if you don't already have it installed on your system: https://www.oracle.com/java/technologies/javase/javase-jdk8-downloads.ht ml

- Download Android Studio: https://developer.android.com/studio

- Setup Flutter and Dart
- Download Flutter version 2.10.4 and Dart 2.16.2 (The proper version of Dart should install itself with installation of Flutter):
  https://docs.flutter.dev/development/tools/sdk/releases - Add Flutter to your PATH
- For Windows type in 'env' to your computer's search bar
- Select Environment Variables
- Highlight "Path" and then click "Edit"
- Select "New"
- Copy and paste the file location:
- C:\<*Your Flutter Location*>\flutter\bin
- Then Select "OK"
- In Android Studio on the welcome screen go to Plugins (or File -> Settings -> Plugins after)
- Install the Flutter plugin and Dart (Should ask for installing Dart as well)
- Select the three dots in the upper right corner

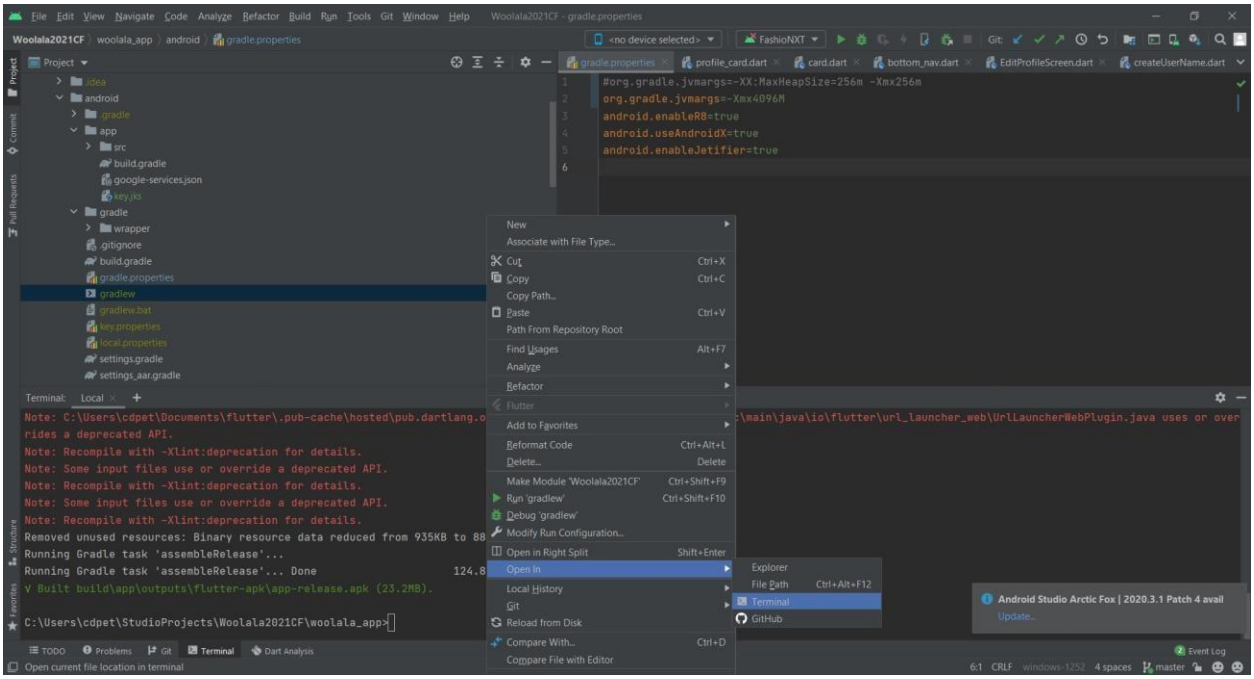


- Select "Get from Version Control"
- Clone the project from the github directory
  https://github.com/JStrick510/Woolala2022Spring
- Setup SDK
- Select SDK Manager in top right
- Select Android SDK
- Select Android 10.0, Android 9.0 and download the SDKs
- Go to File -> Project Structure -> SDKs
- Select Android API 28 under Build target

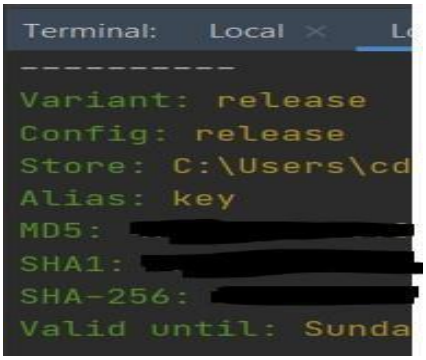
- Set Java SDK to JDK 1.8
- Select OK and exit
- Open Project
- On the left select “Project”
- Navigate to “Project Files”
- Select the dropdown of your project file location to view the structure - Keystore Setup
- cd *C:*\<*Java Folder*>*bin*
- Run the following command as administrator: ***keytool -genkey -v -keystore key.jks -keyalg RSA -keysize 2048 -validity 10000 -alias key***
- Follow the steps on the screen and remember your passwords
- After successful key generation, there will be a *key.jks* file created in *C:*\<*Java Folder*>*bin*
- Cut this file and paste it in the *Woolala2022Spring/woolala_app/android/app/* directory.
- Create a ***key.properties*** file in *Woolala2022Spring /woolala_app/android/*
- Note: You must create a properties file for this step, not a text file with .properties extension
- Recommended: Take an existing .properties file such as gradle.properties, copy it, rename it, and delete its content
- Put the following information in the key.properties file storePassword=<password you choose in step1> keyPassword=<password you choose in step1> keyAlias=key storeFile=key.jks

Firebase Login

- Generate Release Version Keys - In Android Studio
- Right click on ***gradlew*** and open in terminal - if gradlew does not exist (should be in Woolala2022Spring\woolala_app\android\gradlew)
- run flutter clean
- run flutter build apk
- The project should build and the gradlew should be created in your directory



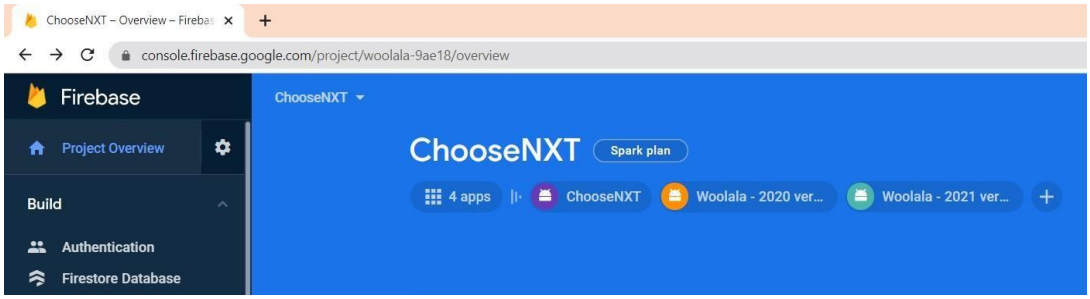
- In the terminal type in ***gradlew signingReport***
- If this does not work type in ***./gradlew signingReport***
- This should print out your SHA keys
- Find the keys with Variant and Config as “release” and save the SHA1 and SHA-256 keys



- Add Release Keys into Firebase
- Go to firebase.google.com
- Login to google account

  Check Sensitive.tar (get passphrase from Dr. Ritchey or applicable) or ask Tito for log-in information

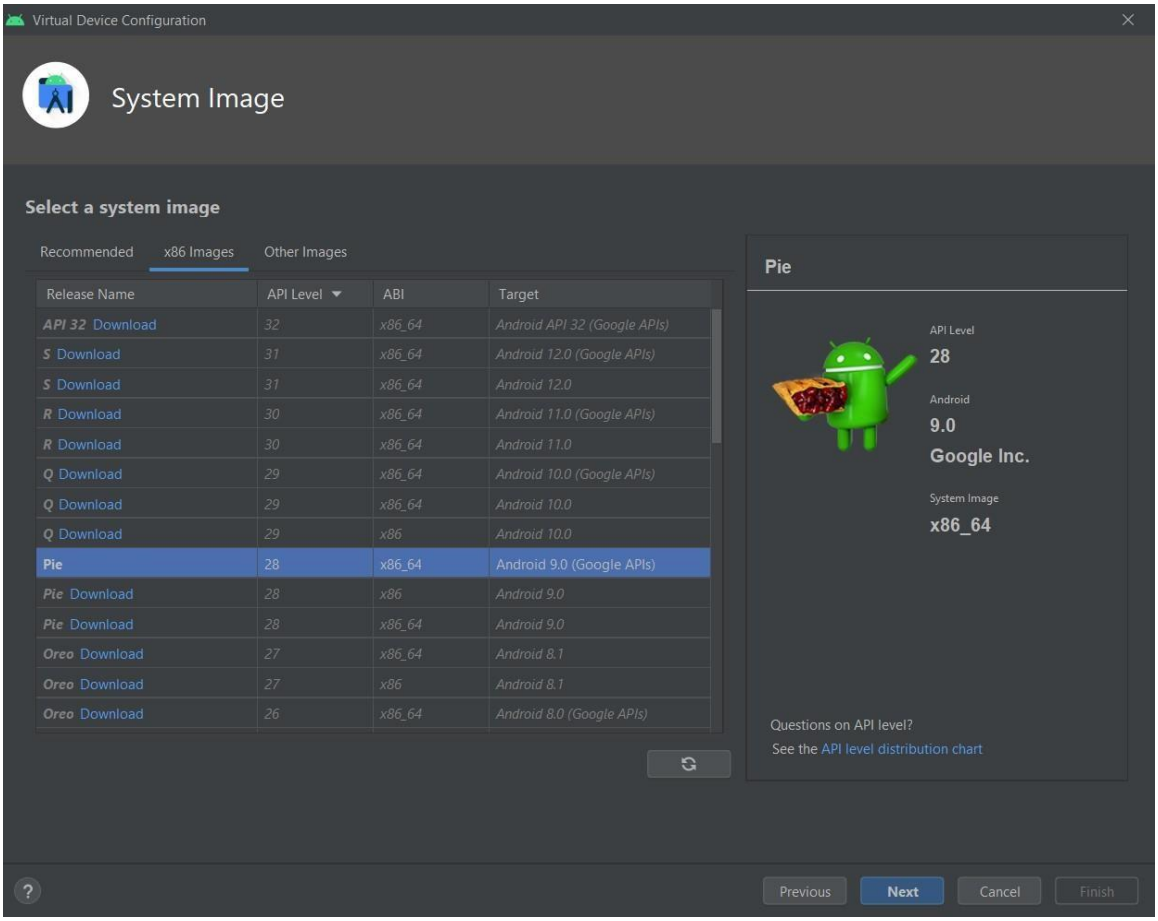
- Verify this account with Tito
- Select “Go To Console” in the top right corner
- Select ChooseNXT



- For each of the 4 apps select the settings gear and scroll down
- Select “Add fingerprint”
- Add the SHA1 and SHA-256 keys to each of the projects

Android Studio Virtual Device Setup

- Select the AVD Manager in the top right corner - Select create a new virtual device
- Pick a device from the phone option and click next
- For the system image, navigate to x86 images
- Select and download Pie; API 28; ABI x86_64; Target Android 9.0 (Google APIs) and click next



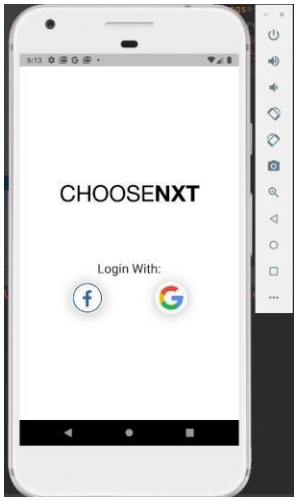
- Default settings are fine after this. Click finish.
- The created device should now appear in the AVD Manager
- Press  to run the virtual device

Building & Running ChooseNXT

- Building the Application
- In Android Studio
- Open a terminal and cd to *Woolala2022Spring/woolala_app/* directory
- Execute *flutter clean*
- Execute *flutter pub get*
- Execute *flutter build apk*
- If all the steps above were performed correctly, the build should output something like this

```
Removed unused resources: Binary resource data reduced from 935KB to 880KB: Removed 5%
Running Gradle task 'assembleRelease'...
Running Gradle task 'assembleRelease'... Done                    124.8s
√ Built build\app\outputs\flutter-apk\app-release.apk (23.2MB).
```

- After a successful build
- Open up the previously created virtual device
- In the terminal execute ***flutter run --release*** - On the virtual device this should run the app



- Select Google and Login/Create Account

Possible Errors (encountered by prior team)

Flutter/dart sdk not set in local.properties

You need to set the flutter sdk path in local.properties file.

- Go to Woolala2022Spring/woolala_app/android/ and open local.properties file.
- If you had downloaded flutter and dart before using previous step, open a terminal and do the following commands to know the sdk path:
- which flutter (linux/mac)
- where flutter (windows)
- which dart (linux/mac)
- where dart (windows)
- Paste the path under flutter.sdk or dart.sdk

Insecure http Request

If you are attempting to run a local node.js server on your computer and you are running into an error that is either not allowing for insecure http or spitting out an “Unrecognized character at 0 <Doctype HTML>,” do the following.

- For Android, see this link: https://github.com/flutter/flutter/issues/66275#issuecomment-710161329 - Add the code- android:usesCleartextTraffic="true"- to the path: under line 14 of android/app/src/main/AndroidManifest.xml

- For iOS, you must set some variables in your info.plist https://stackoverflow.com/questions/64197752/bad-state-insecurehttp-isno t-allowed-by-platform

MongoDB Login

You can login to view the database for ChooseNXT at:
https://account.mongodb.com/account/login

Note: Do not login through google account shortcut, enter the username and password into MongoDB directly

Check Sensitive.tar (get passphrase from Dr. Ritchey or applicable) or ask Tito for log-in information

Facebook Login Key Hash

The steps for this are laid out in the following link to acquire the SHA1 and SHA256 keys:

https://stackoverflow.com/questions/7506392/how-to-create-android-facebook-key-hash

Once these keys have been acquired they must be added to the project in facebook developer similar to google firebase. However, it is our belief that this has not yet been implemented.

If you follow the link to:
https://developers.facebook.com/ and login using the FashioNXT account

Check Sensitive.tar (get passphrase from Dr. Ritchey or applicable) or ask Tito for log-in information

You will find no associated project to add your keys. Since this is not technically necessary for viewing changes to the app (use the google login method), this was not implemented yet.