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# RealWeather

## Description

A weather app that allows the user to set a location and has a widget
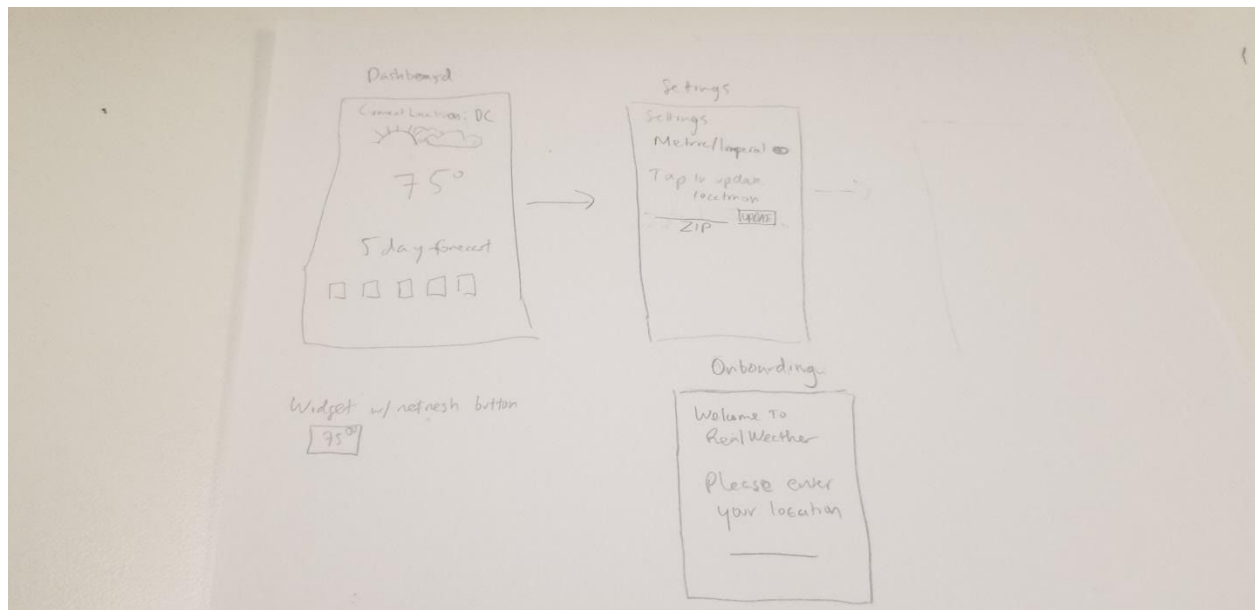
## Intended User

Everyone

# Features

List the main features of your app. For example:
- Saves location
- Updates weather
- Allows location to be updated
- Has widget

# User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Google Drawings, www.ninjamock.com, Paper by 53, Photoshop or Balsamiq.

## Screen 1



# Key Considerations

**How will your app handle data persistence?**

SharedPreferences - for temperature unit preferences
Room - for weather data

**Describe any edge or corner cases in the UX.**

Rotation – weather data will be persisted.

**Describe any libraries you'll be using and share your reasoning for including them.**

**App will be written solely in the Java Programming language.

Versions:

Android Studio: 3.5.3
Gradle: 5.6.2

Picasso: 2.5.2
Retrofit:2.6.0
Gson: 2.8.6
Room: 1.1.1

Picasso or to handle the loading and caching of images. Will have an imageset that will reflect various conditions of the weather.

Retrofit for API calls

Gson to deserialize network response

**Describe how you will implement Google Play Services or other external services.**

OpenWeatherAPI – to retrieve weather data via WorkManager
Location API - To retrieve user location if permission granted.
Admob - To display test ads

## Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and break them down into tangible technical tasks that you can complete one at a time until you have a finished app.

### Task 1: Project Setup

- Get OpenWeatherAPI key
- Configure libraries
- Implement UI designs
- Set up network calls
- Set up persistence model
- Set up WorkManager scheduled updates
- Observe network calls from UI using livedata

### Task 2: Implement UI for Each Activity and Fragment

- Build UI for MainActivity
- Build UI for MainFragment
- Build UI for PreferenceFragment (give option for Metric/Imperial, etc)
- Build UI for widget

### Task 3: Set up Free and Paid Flavors

- Create free flavor with ads
- Create paid flavor with no ads

### Task 4: Set up MVVM architecture

- Set up ViewModel scoped to a navigation graph
- Use single activity architecture
- Set up repositories with access to retrofit instance

## Task 5: Wire up data to UI

Communicate weather data results to UI via live data – ensure that weather data is updated. Ensure that widget is updated when refreshed.

## Task 5: Handle accessibility

Ensure that all imageviews have content descriptions.

If the system does not pass focus to the appropriate view when navigating in a given direction, specify which view should receive focus with the following attributes:

android:nextFocusUp
android:nextFocusDown
android:nextFocusLeft
android:nextFocusRight

Add as many tasks as you need to complete your app.

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