CS 402 Homework 5: WindowPane

Dr. Henderson Fall 2024 *Version 1*

For this assignment you will be building an app, called *WindowPane*, that uses the camera, GPS, and a network API.

WindowPane lets users take photos that get automatically tagged with the time and date, the location, and the weather at the time the photo was taken. It allows the user to add a short description to each photo.

There are three main screens you must implement:

Home screen - this features a photo and shows all the relevant information for the photo. The home screen should allow the user to swipe left and right to browse through the photos. There should be a FAB (Floating Action Button) that allows the user to take a new photo.

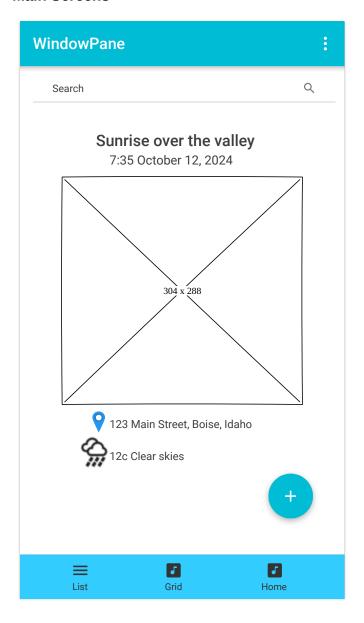
List view screen - this screen displays the entries as a scrollable list. The user should be able to swipe right on an entry to delete it (after confirming with an alert dialog). Clicking on a list entry should take the user back to the home page with that photo showing.

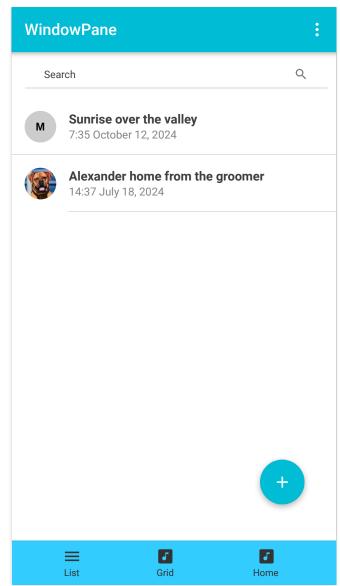
Grid view screen - this screen displays the entries in a grid. Each entry should be a card with the relevant information. Tapping on a card should take the user back to the home page with the photo selected.

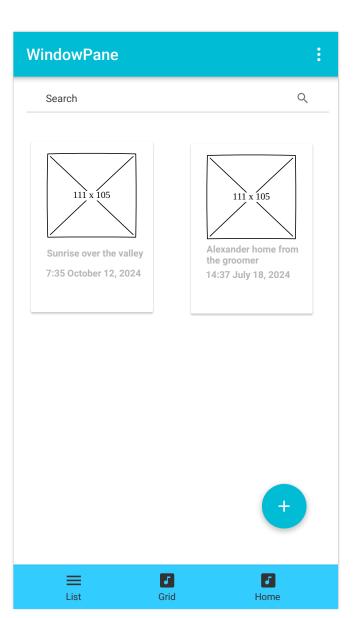
Each of the main screens should have a search bar that filters the images (searching the description field of the metadata).

There should be an app bar with a settings icon and a bottom nav bar with icons for each of the three screens.

Main Screens

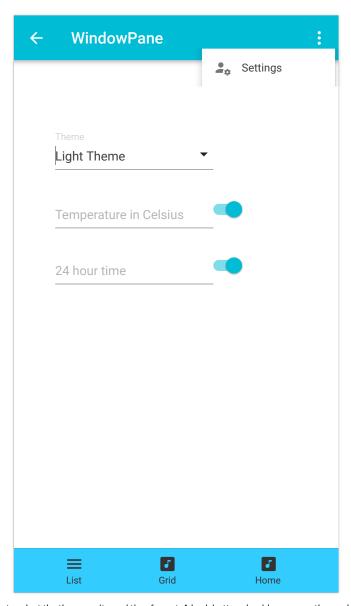






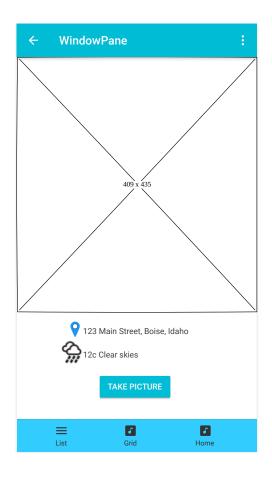
Menus

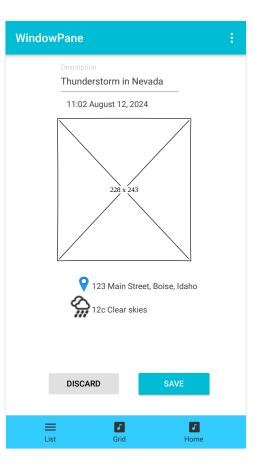




When the settings button is tapped it should bring up a settings page that allows the user to select the theme, units, and time format. A back button should appear on the app bar while in the settings screen

Add image





The add image screen should present the user with a live feed of the camera and a single button (preferably with a camera icon that will take a picture. Under the live feed should be a live display of the location and weather (updated periodically). Once a picture is snapped, the edit screen should appear and allow the user to enter a description. Two buttons should allow the user to save or discard the picture. A back button should appear on the add image screen.