Weather App

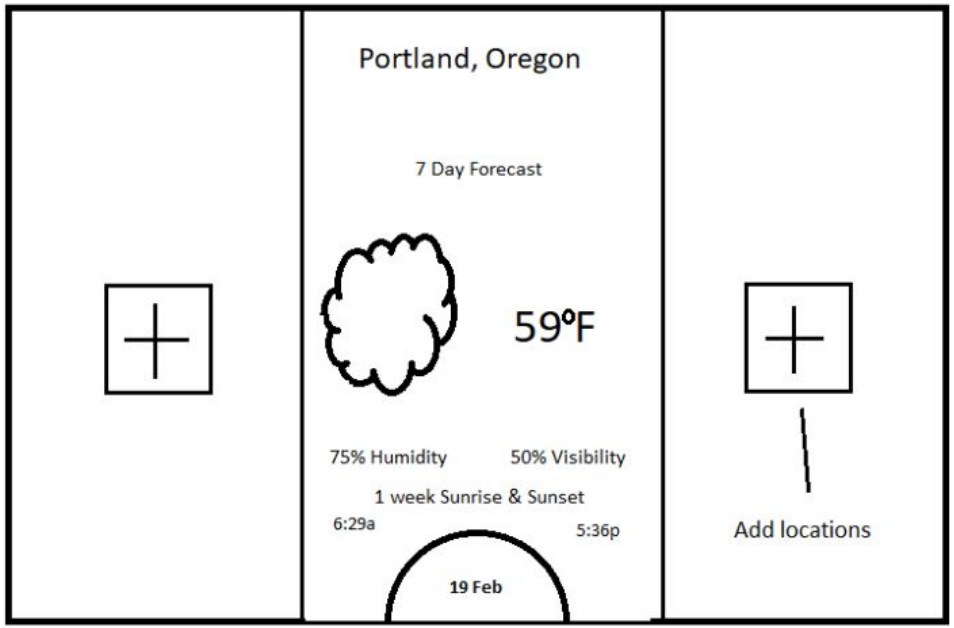
David | Joshua

The plan

We wanted to create a weather app that allows the user to see three different locations simultaneously, while also being able to see:

- **sunrise and sunset**
- **sky conditions**
- **7 day forecast** (later changed to 5 days)

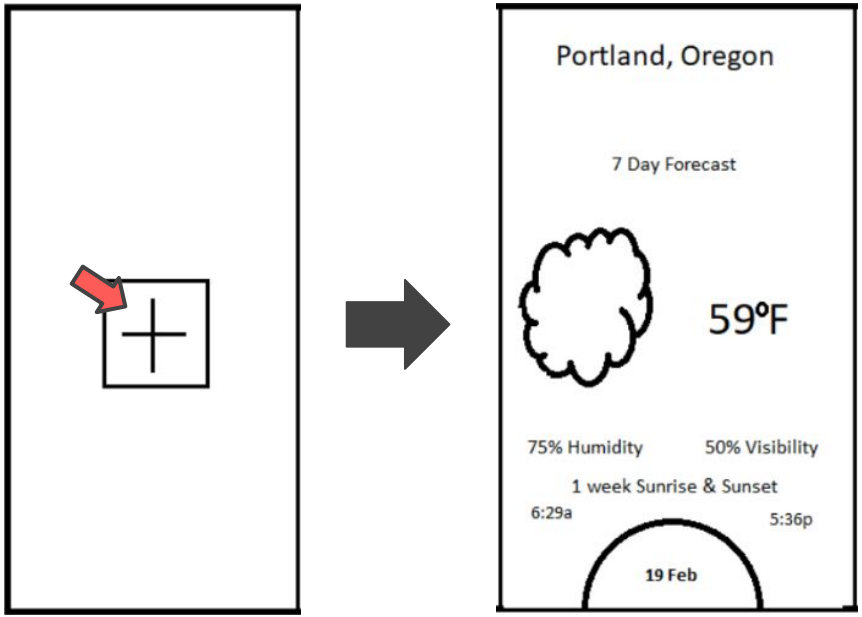
This all was done using the **OpenWeatherMap API**



Main Features

Add Location

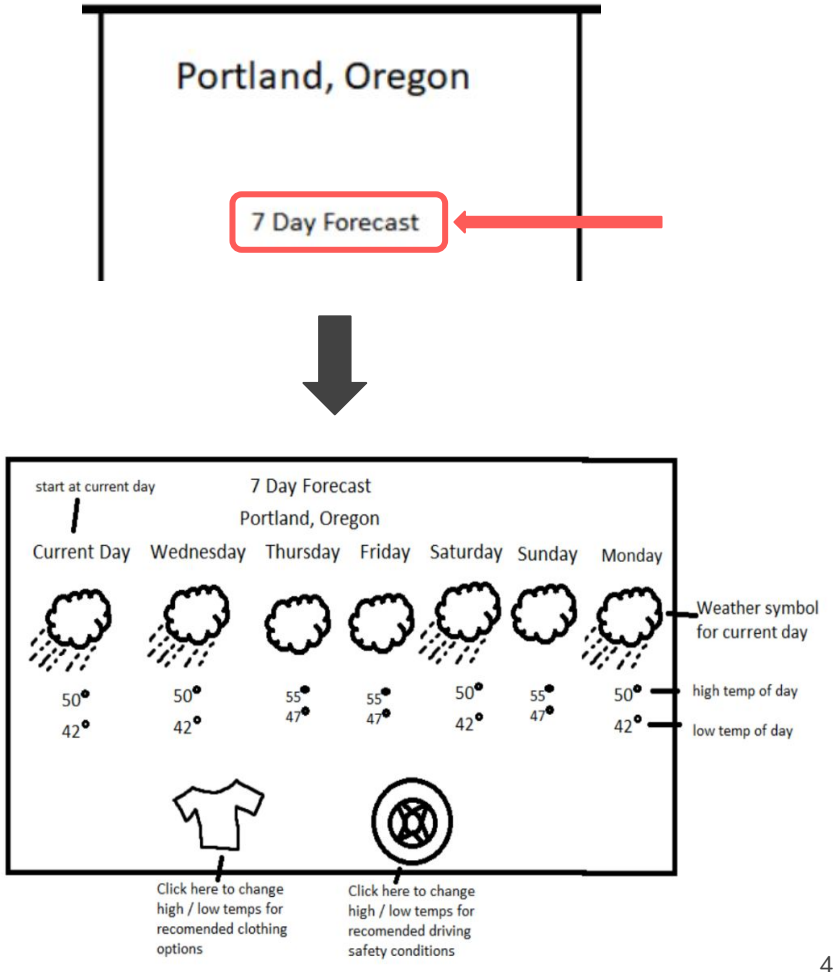
The first main feature was to select and add a location for the app to track. The user would press the plus button, type in a location, and would then be taken back to the main screen of the app to see the conditions for their entered location.



Main Features

Seven Day Forecast

The next feature was the seven day forecast. Clicking the **7 day forecast** button allows the user to view the weather conditions for next seven days.



Singleton Class

Forecast

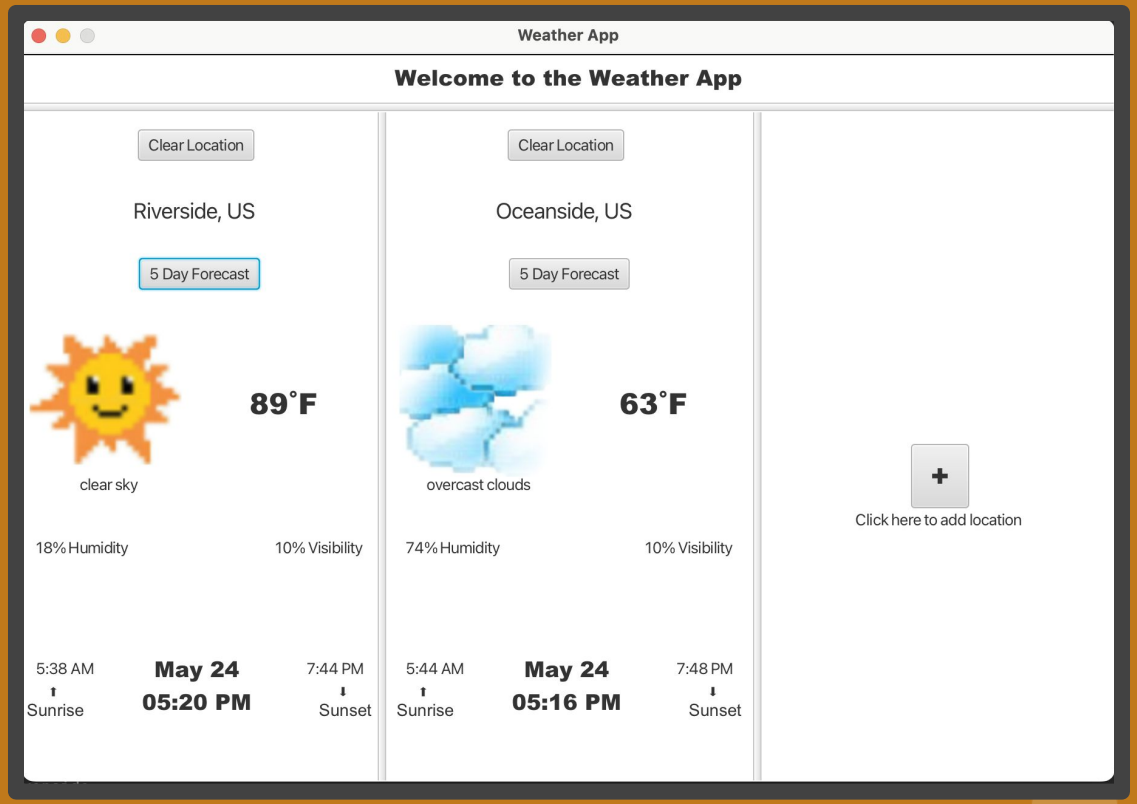
The **Forecast Singleton Class** generates the forecast for a given location. Since all three modules lead to a single forecast scene, this class allows us to easily set the values to be displayed in the forecast scene.

```
public static Forecast getInstance(){
    if(uniqueInstance == null){
        uniqueInstance = new Forecast();
    }
    return uniqueInstance;
}
4 usages  Josh Clemens
public Forecast(Weather weatherObj){
    this.lat = weatherObj.getLat();
    this.lon = weatherObj.getLon();
    this.timeZone = weatherObj.getTimezone();
}
```

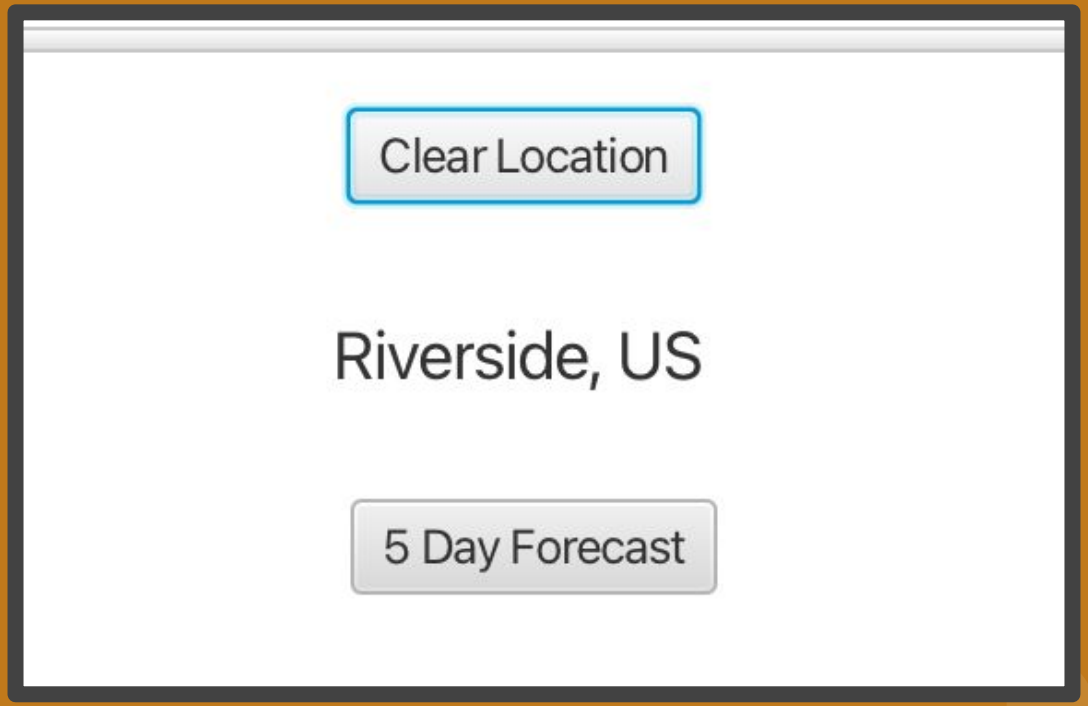
DEMO

(live)

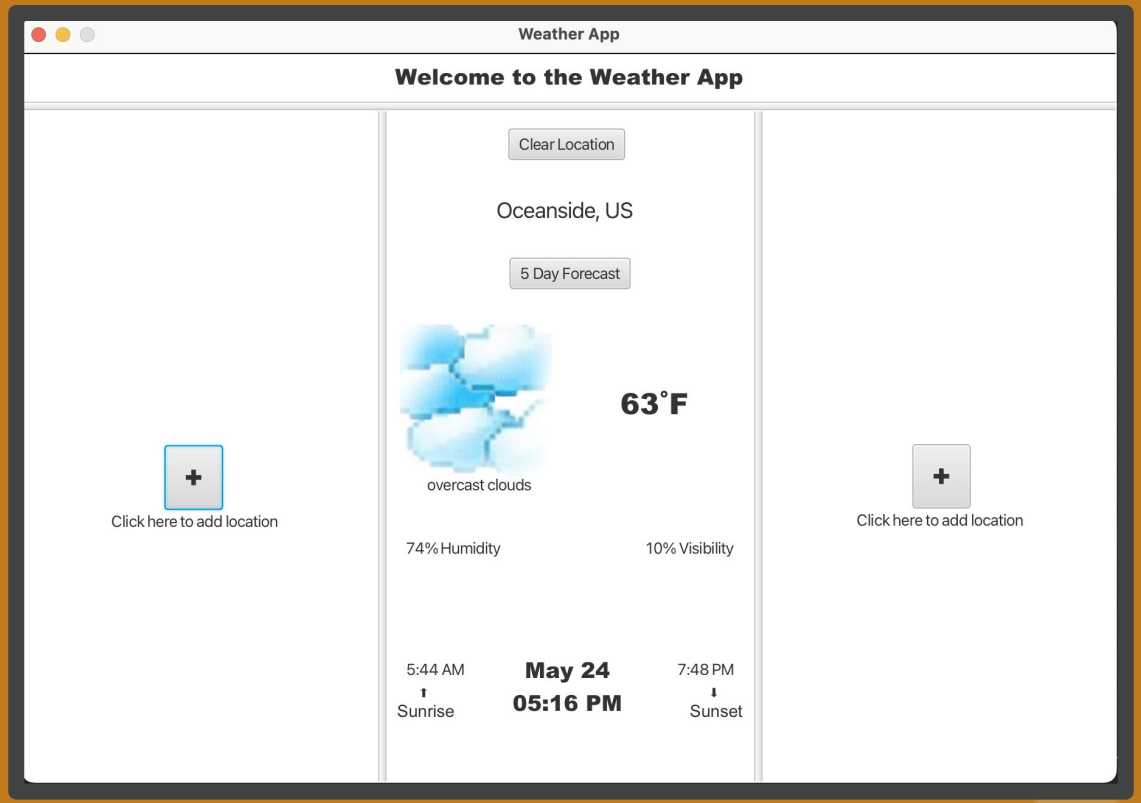
Clear Button



Clear Button



Clear Button



JUNIT TESTS

(live)

Challenges and Successes

- One struggle we went through was creating the 7-Day forecast. The API we used (OpenWeatherMap) only allowed api calls with a forecast of 5 days for free
- We wanted to include a clothing recommendation for each location based on the weather, but it didn't make it into the final project.
- Unable to add cities with spaces
- Using the API was easier than it seemed
- Our project creation process went by pretty smoothly.

Thank You