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# Project Report

## Project Overview

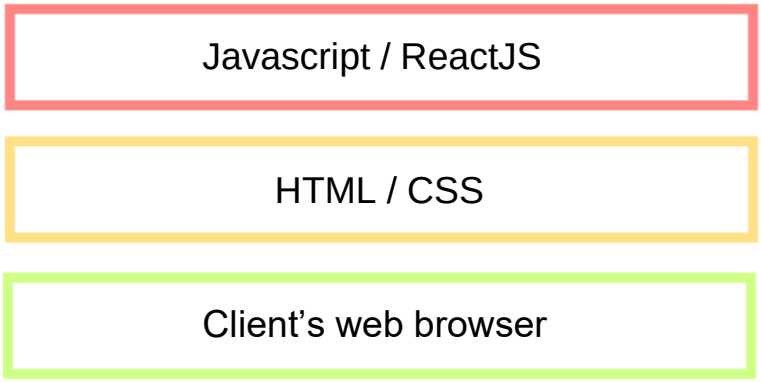
A web application that tells a city's weather in 3 ways: Minute, hourly and daily. It will also include a media section that shows weather related news and a map displaying the city and its surrounding weather information that is color coded for air temperature.

## SDLC

Model: Prototyping

We chose to use the prototyping model because our research deemed it very beginner friendly. We prefer having a clear representation of our project before starting the development so that we can discuss any features we may want to add/remove prior.

## Technology Stack




Client's Side

## APIs

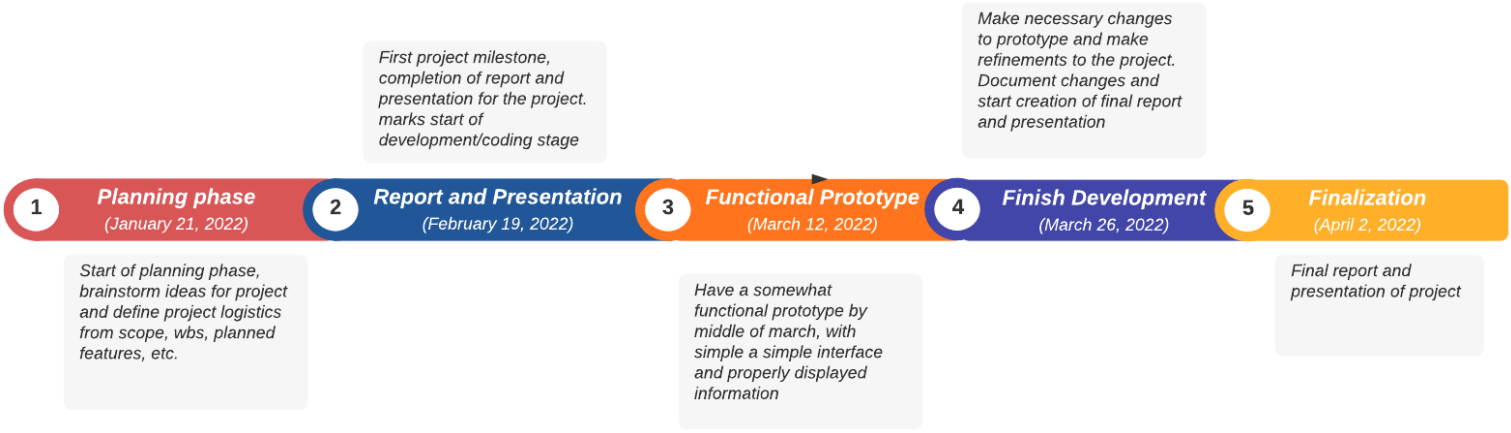
1. One Call: retrieves minute, hourly, and daily weather forecasts. Also included are national weather alerts and historical data from up to 5 days prior.
    - As Max, I want to play outdoor basketball so we don't have to reserve an indoor court.

- As Julia, I want to invite my friends so we can enjoy brunch in our backyard.

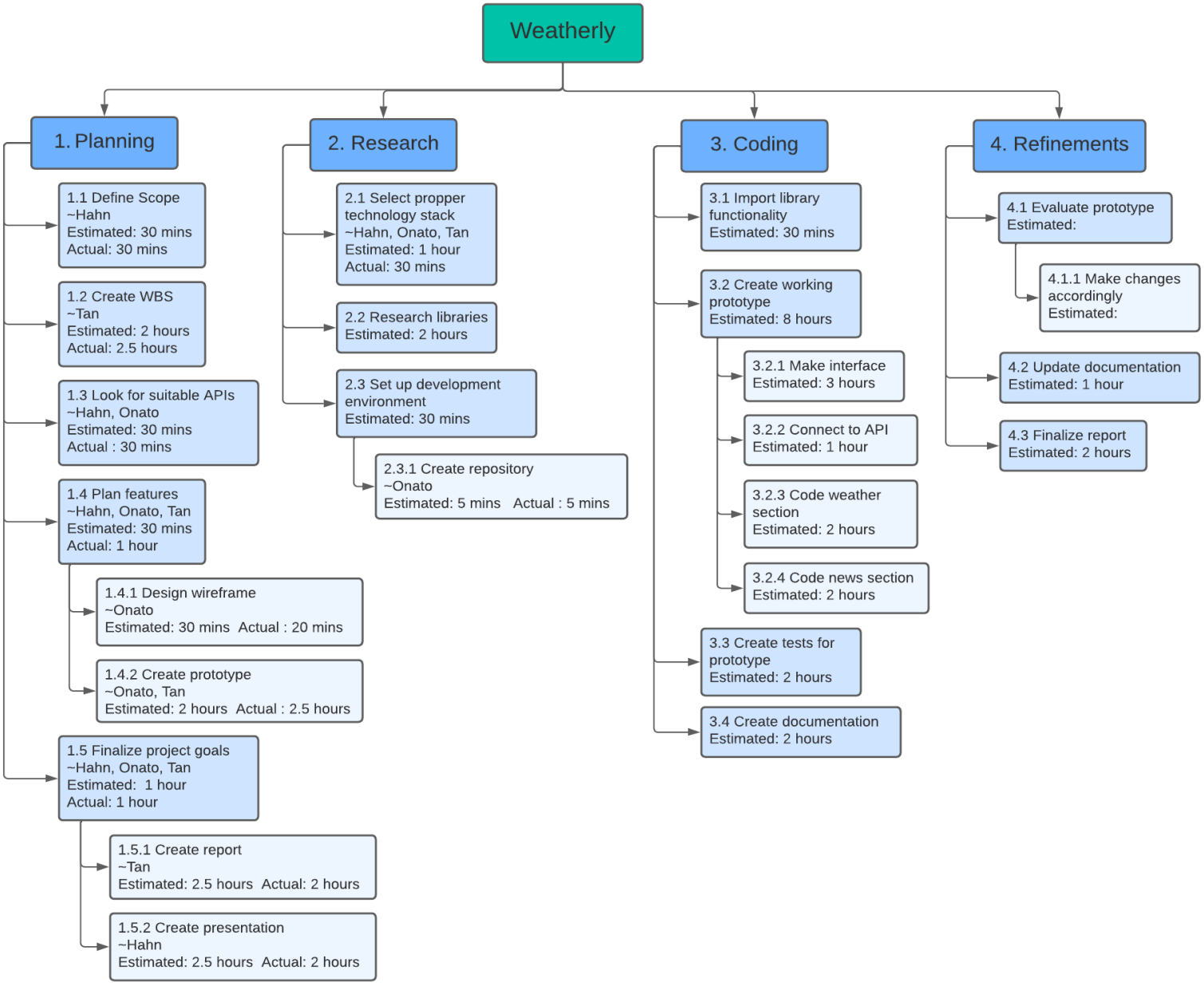
2. Weather Maps: allows integration of weather maps on our website that features precipitation, clouds, pressure, temperature, wind, and more.
3. Statistical Weather Data: Provides statistical data on main weather parameters for any day and month of the year based on historical weather data. The data is updated every hour.
4. News: Displays recent news that go as far back as 7 days. Searching of the news can be done through keywords.

    - As kevin, I want to know the most interesting news in the town, so I have something to say at the dinner table.
    - As Fred, I want to know more about the city, so I can write more in my travel diary.

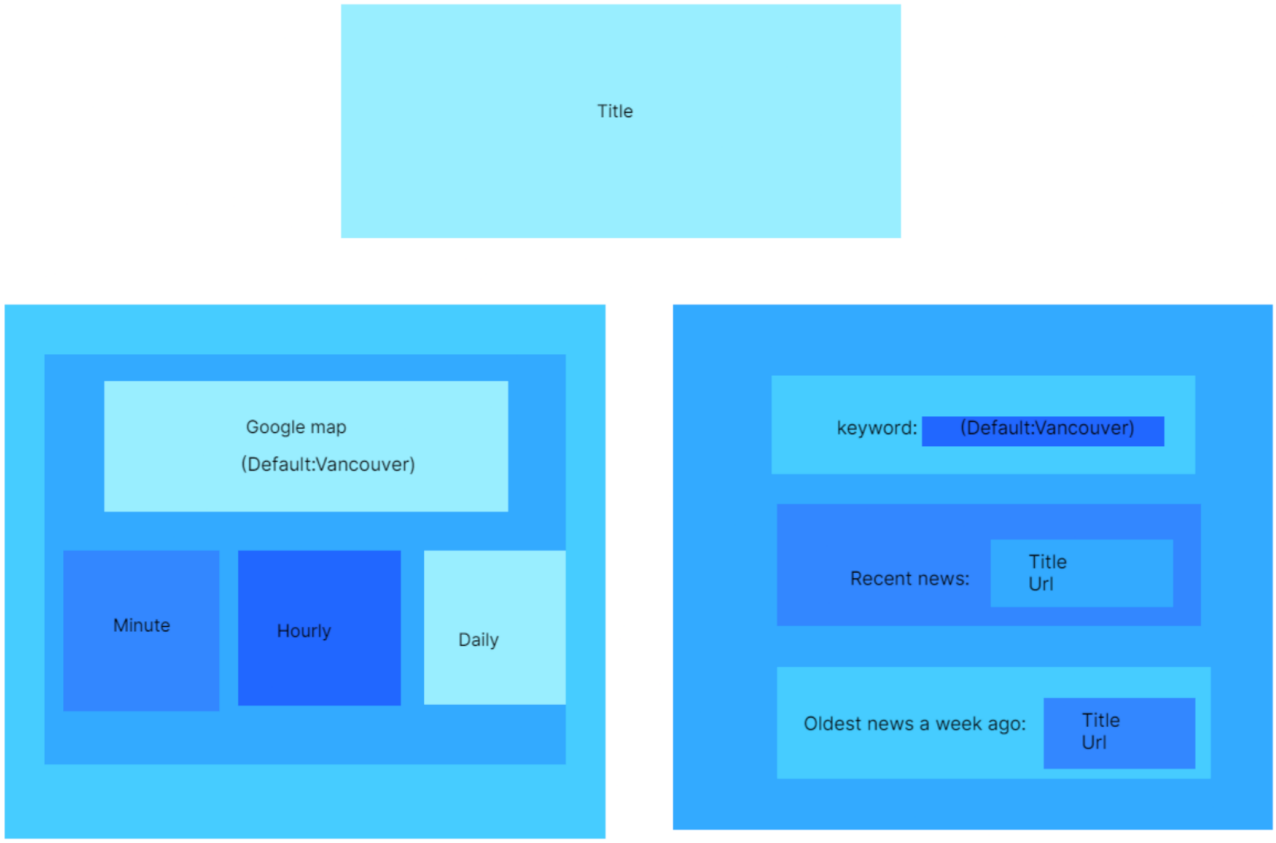
## Schedule



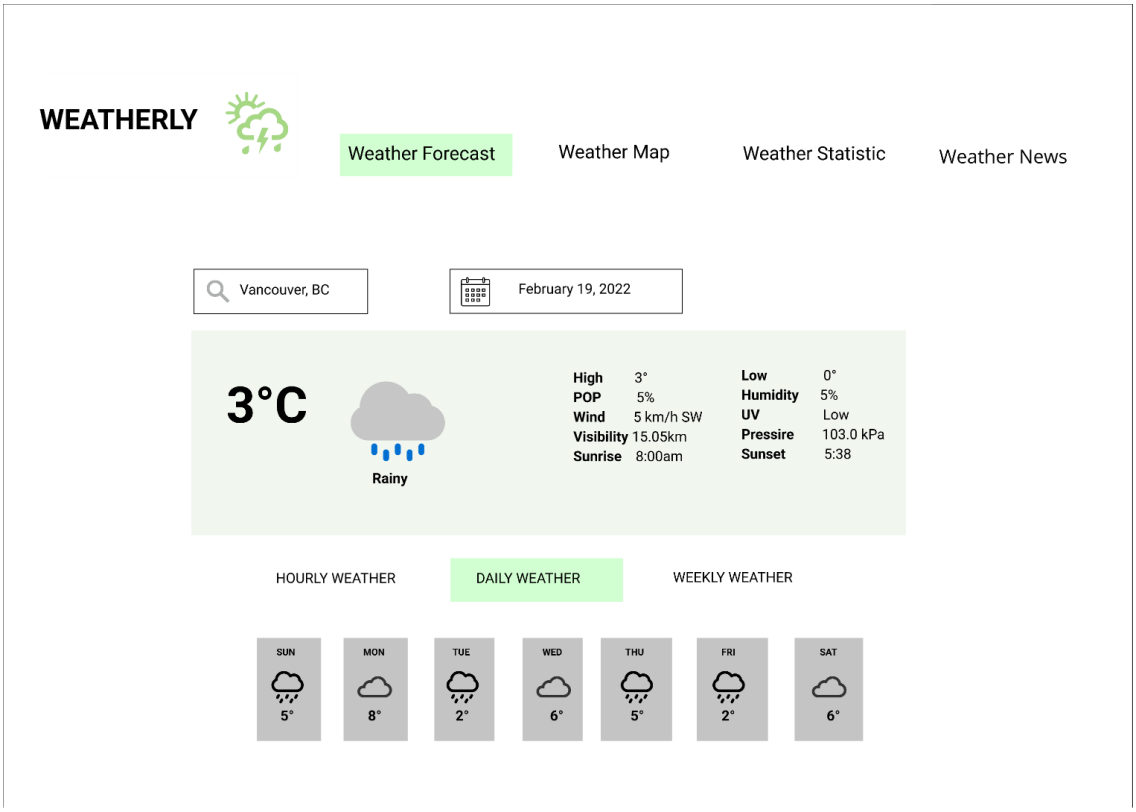
# WBS

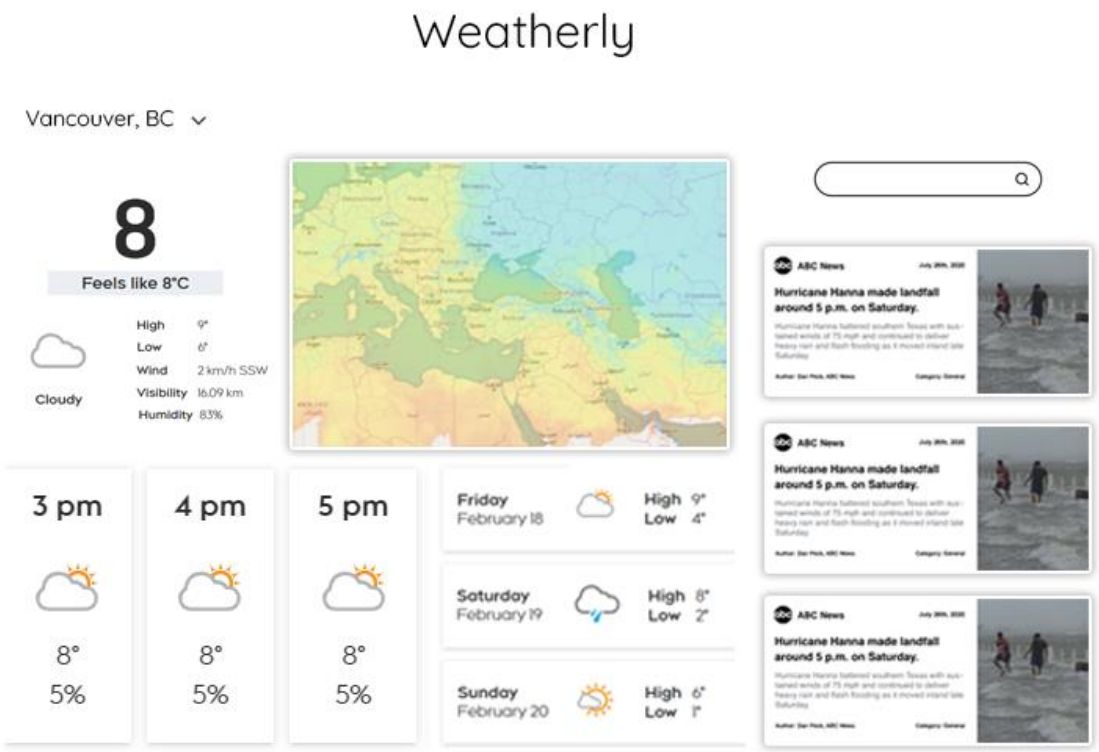

Weatherly
1. Planning
1.1 Define Scope
~Hahn
Estimated: 30 mins
Actual: 30 mins
1.2 Create WBS
~Tan
Estimated: 2 hours
Actual: 2.5 hours
1.3 Look for suitable APIs
~Hahn, Onato
Estimated: 30 mins
Actual : 30 mins
1.4 Plan features
~Hahn, Onato, Tan
Estimated: 30 mins
Actual: 1 hour
1.4.1 Design wireframe
~Onato
Estimated: 30 mins Actual : 20 mins
1.4.2 Create prototype
~Onato, Tan
Estimated: 2 hours Actual : 2.5 hours
1.5 Finalize project goals
~Hahn, Onato, Tan
Estimated: 1 hour
Actual: 1 hour
1.5.1 Create report
~Tan
Estimated: 2.5 hours Actual: 2 hours
1.5.2 Create presentation
~Hahn
Estimated: 2.5 hours Actual: 2 hours
2. Research
2.1 Select propper technology stack
~Hahn, Onato, Tan
Estimated: 1 hour
Actual: 30 mins
2.2 Research libraries
Estimated: 2 hours
2.3 Set up development environment
Estimated: 30 mins
2.3.1 Create repository
~Onato
Estimated: 5 mins Actual : 5 mins
3. Coding
3.1 Import library functionality
Estimated: 30 mins
3.2 Create working prototype
Estimated: 8 hours
3.2.1 Make interface
Estimated: 3 hours
3.2.2 Connect to API
Estimated: 1 hour
3.2.3 Code weather section
Estimated: 2 hours
3.2.4 Code news section
Estimated: 2 hours
3.3 Create tests for prototype
Estimated: 2 hours
3.4 Create documentation
Estimated: 2 hours
4. Refinements
4.1 Evaluate prototype
Estimated:
4.1.1 Make changes accordingly
Estimated:
4.2 Update documentation
Estimated: 1 hour
4.3 Finalize report
Estimated: 2 hours

# Wireframe


Title
Google map
(Default:Vancouver)
Minute
Hourly
Daily
keyword:
(Default:Vancouver)
Recent news:
Title
Url
Oldest news a week ago:
Title
Url

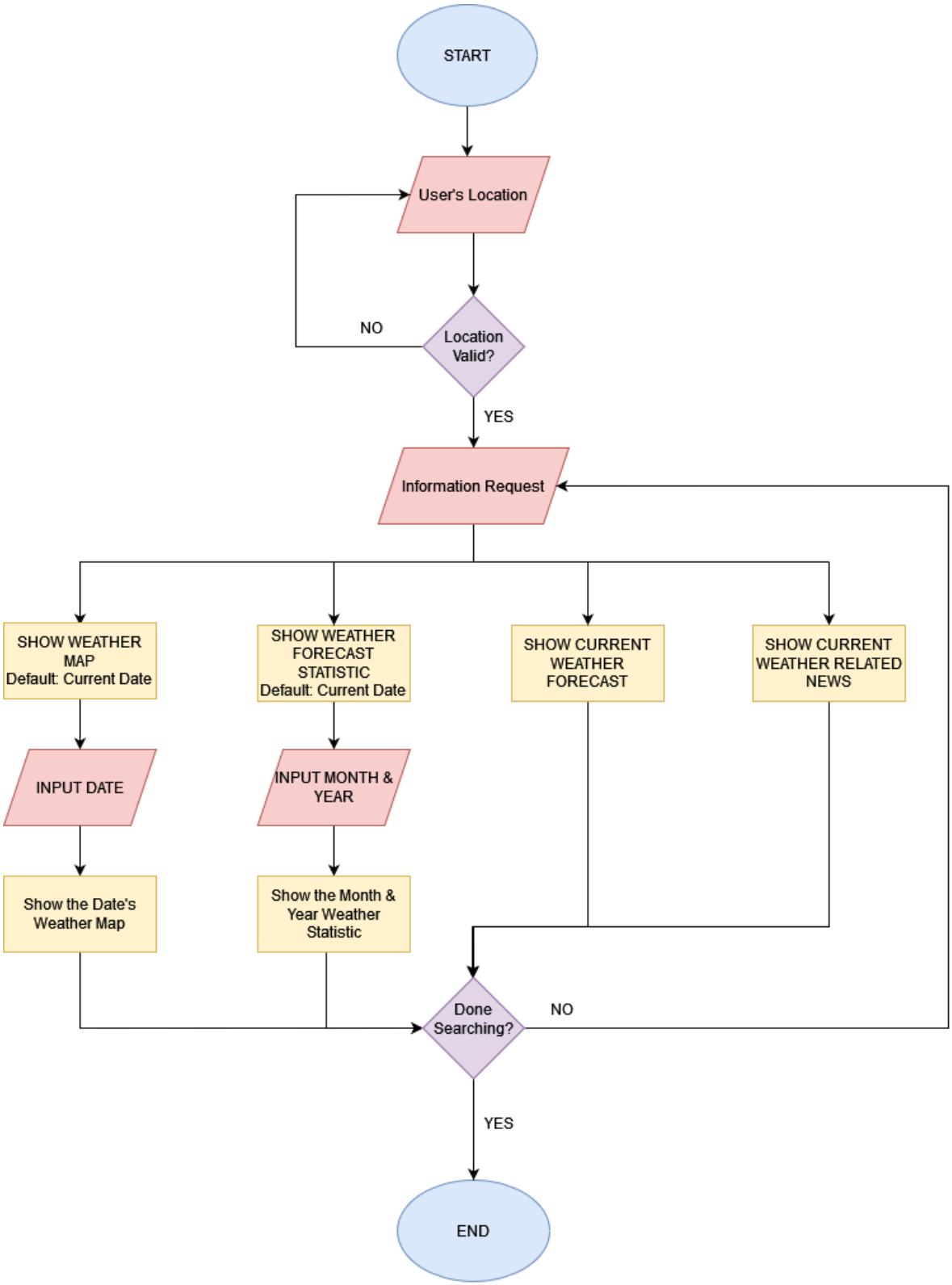
## Prototype


WEATHERLY
Weather Forecast
Weather Map
Weather Statistic
Weather News
Vancouver, BC
February 19, 2022
3°C
Rainy
High 3°
POP 5%
Wind 5 km/h SW
Visibility 15.05km
Sunrise 8:00am
Low 0°
Humidity 5%
UV Low
Pressire 103.0 kPa
Sunset 5:38
HOURLY WEATHER
DAILY WEATHER
WEEKLY WEATHER
SUN 5°
MON 8°
TUE 2°
WED 6°
THU 5°
FRI 2°
SAT 6°


Weatherly
Vancouver, BC
8
Feels like 8°C
Cloudy
High 9°
Low 6°
Wind 2 km/h SSW
Visibility 16.09 km
Humidity 83%
3 pm 8° 5%
4 pm 8° 5%
5 pm 8° 5%
Friday February 18 High 9° Low 4°
Saturday February 19 High 8° Low 2°
Sunday February 20 High 6° Low 1°
ABC News
Hurricane Hanna made landfall around 5 p.m. on Saturday.

## Data Flow Diagrams

- Low-level diagram



- Low-level diagram