Assignment:

DailyWeather - Weather app

PROJECT OVERVIEW :

"**DailyWeather**" is a Weather App, Built as an 'Progressive Web App' . This Application is deployed in Netlify and can be installed as an app by going through the link. The app is fully designed/tested for Web & Mobile responsive.

This Web-App comprises of the following functionalities: -
- ➢ Consumes WeatherAPI to give weather related information.
- ➢ Fully responsive for various screen sizes (desktop, iPad Mini, iPhone SE).
- ➢ Allows users to search for weather forecasts by city name.
- ➢ Allow users to search weather forecasts for their current location.
- ➢ Added user interaction features such as buttons and input fields for selecting locations and viewing different weather data.
- ➢ Implemented a dropdown menu for recently searched cities using Local Storage.
- ➢ Implement event listeners to handle user interactions and update the UI accordingly.
- ➢ Validation of user inputs to prevent errors.
- ➢ Fetching and displaying location-specific weather forecasts (e.g., temperature, humidity, wind speed, etc) for a user's location.
- ➢ Implemented temperature unit toggle (°C/°F).
- ➢ Implemented custom weather alerts for extreme temperatures.
- ➢ Used appropriate icons or graphics to represent weather conditions (e.g., sunny, cloudy, rainy. If the weather condition is rainy, then it turns into a rainy background dynamically.
- ➢ Implemented functionality to display extended weather forecasts for multiple days (e.g., 6-day forecast).
- ➢ Organized forecast data into a visually appealing and easy-to-read format. (date, precipitation, wind, and humidity information with relevant icons for temp, wind, and humidity in each card).
- ➢ Handled API errors gracefully by displaying appropriate error messages to users.
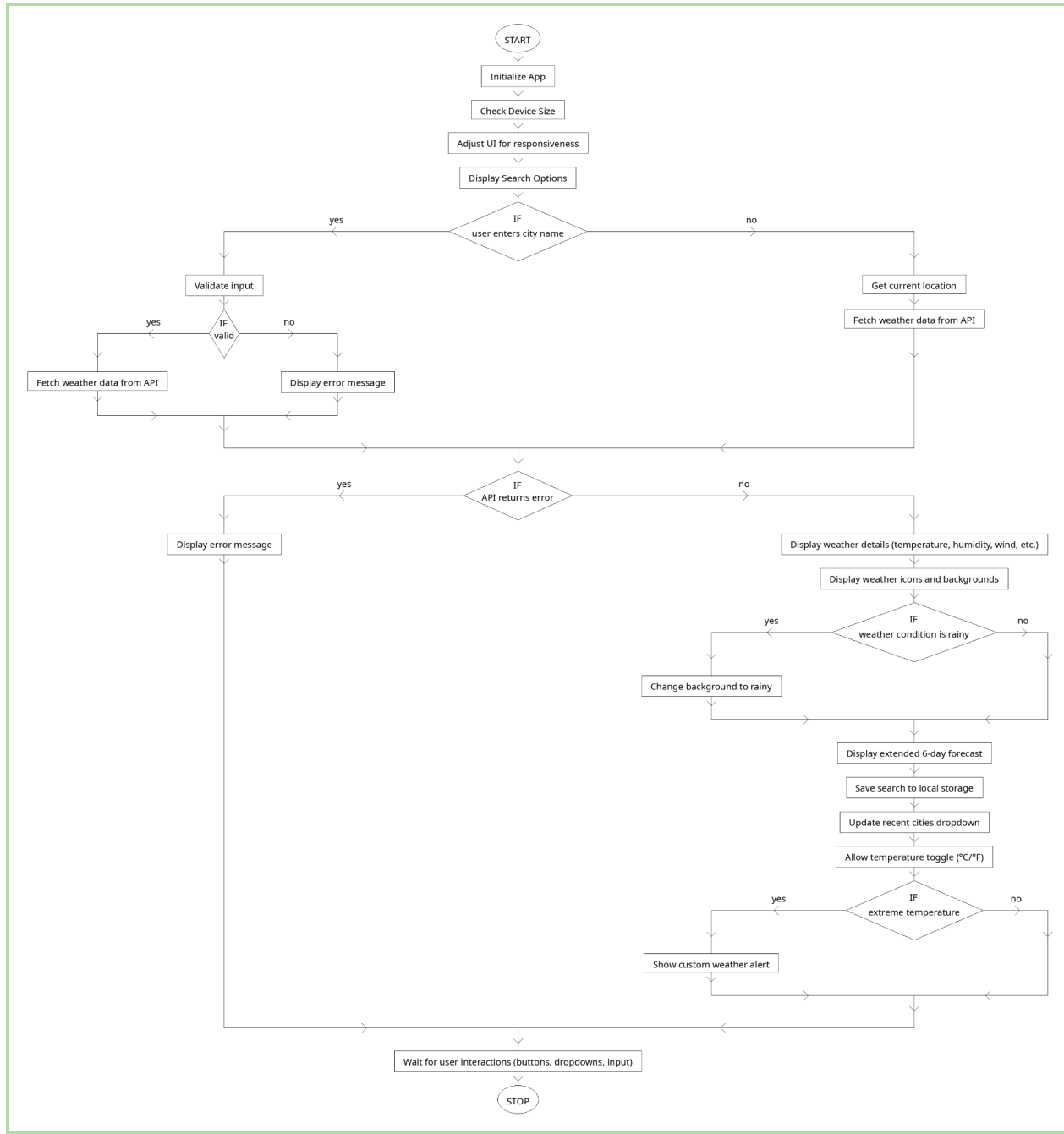
Github open source : https://github.com/chaitali9497/daily-weather
Netlify deployment : https://daily-weather-pwa.netlify.app/
Design inspiration : https://dribbble.com/shots/25341218-WeatherJ
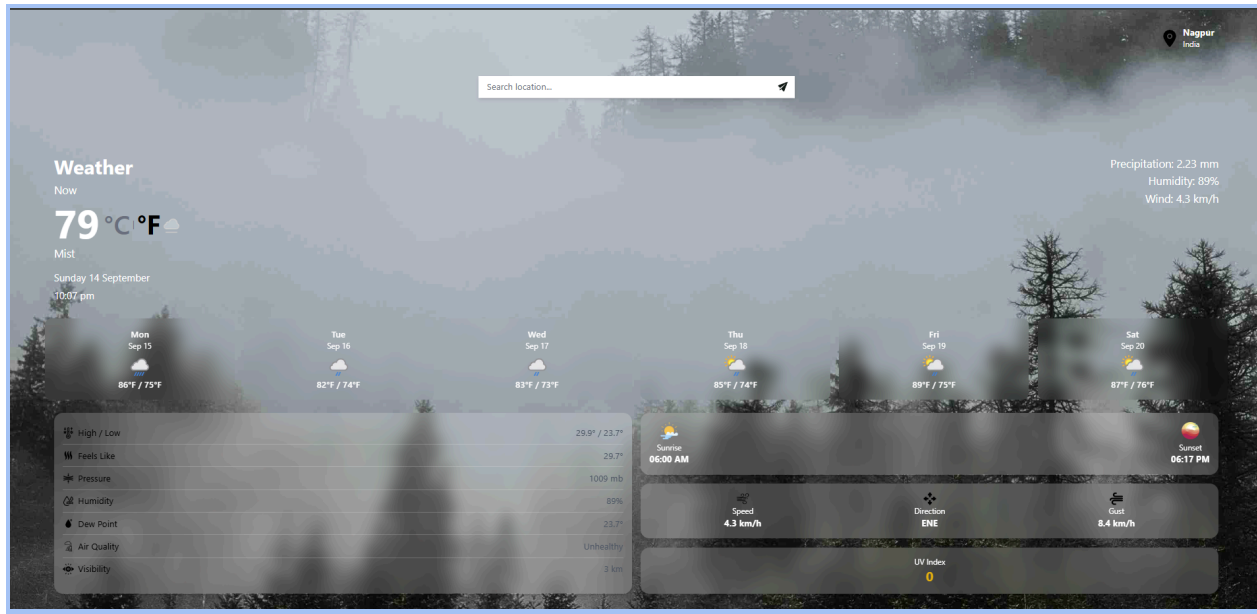
PROJECT STRUCTURE :

```
DAILY-WEATHER-APP/
├── node_modules/
├── src/
│   ├── icons/          (weather icons)
│   ├── images/      (backgroud images)
│   │   ├── cloudy.jpg
│   │   ├── fog.jpg
│   │   ├── rain.png
│   │   ├── snow.jpg
│   │   ├── sunny.jpg
│   │   └── thunder.jpg
│   ├── JS/
│   │   └── index.js
│   ├── # input.css
│   ├── # output.css
│   ├── service-worker.js
│   └── .gitignore
├── index.html
├── manifest.json
├── package-lock.json
├── package.json
├── postcss.config.mjs
└── README.md
```

PROJECT FLOW :

```
                              START
                                │
                          Initialize App
                                │
                          Check Device Size
                                │
                       Adjust UI for responsiveness
                                │
                         Display Search Options
                                │
        yes                    IF                      no
   ┌─────────────────── user enters city name ───────────────────┐
   │                                                              │
Validate input                                              Get current location
   │                                                              │
yes    IF    no                                          Fetch weather data from API
 ┌─── valid ───┐
 │             │
Fetch weather   Display error message
data from API
 │             │
 └─────┬───────┘
       │
       └──────────────────┬───────────────────────────────────────┘
                          │
        yes              IF                    no
   ┌────────────── API returns error ──────────────┐
   │                                                │
Display error message            Display weather details (temperature, humidity, wind, etc.)
   │                                                │
   │                             Display weather icons and backgrounds
   │                                                │
   │                     yes              IF                    no
   │                ┌───────── weather condition is rainy ─────────┐
   │                │                                              │
   │          Change background to rainy                           │
   │                │                                              │
   │                └──────────────────┬───────────────────────────┘
   │                                   │
   │                        Display extended 6-day forecast
   │                                   │
   │                         Save search to local storage
   │                                   │
   │                         Update recent cities dropdown
   │                                   │
   │                         Allow temperature toggle (°C/°F)
   │                                   │
   │                     yes          IF              no
   │                ┌──────── extreme temperature ────────┐
   │                │                                     │
   │          Show custom weather alert                   │
   │                │                                     │
   │                └─────────────┬───────────────────────┘
   │                              │
   └──────────────────────────────┬──────────────────────────────┘
                                  │
              Wait for user interactions (buttons, dropdowns, input)
                                  │
                                STOP
```

APP USER INTERFACE :

Weather

Now

3 °C|°F ☁

Overcast

Sunday 14 September

03:45 pm

Extreme Cold Alert! Dress warmly and stay safe.

Mon Sep 15	Tue Sep 16	Wed Sep 17	Thu Sep 18	Fri Sep 19	Sat Sep 20
☁	☀	☀	⛅	🌧	🌧
4°C / 3°C	8°C / 3°C	6°C / 5°C	6°C / 4°C	6°C / 5°C	6°C / 5°C

Tue Sep 16	Wed Sep 17	Thu Sep 18
🌧	🌧	⛅
28°C / 24°C	29°C / 23°C	30°C / 23°C

❄️🌡️ High / Low		3.4° / 2.8°
〰️ Feels Like		0.7°
🌫️ Pressure		1012 mb
💧 Humidity		87%
💧 Dew Point		1.6°
⛽ Air Quality		Good
👁️ Visibility		10 km

Sunrise		Sunset
06:48 AM		07:55 PM

Speed	Direction	Gust
9.7 km/h	W	14.3 km/h

UV Index

1.4