Parshvanath Charitable Trust's
A. P. SHAH INSTITUTE OF TECHNOLOGY, THANE
(All Programs Accredited by NBA)
Department of Information Technology

WEATHER APP

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Project Guide
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Contents

1. Introduction

- Weather forecasting is the application of science and technology to predict the state of the atmosphere for a given location.
- Weather apps are your ideal companion when it comes to having an estimate of the weather.
- This Weather Monitor App provides the user with real time weather information.
- This system is dynamic and updated on an hourly basis thus allowing to keep up with the ever-changing weather.

2. Objectives

- The prime objective of weather app is the ability to display the weather minute basis accurately, hourly, daily & weekly.
- The user will be checking all the weather information inside on app itself.
- To help people prepare if they need to take extra gear to prepare for the weather(i.e.umbrella, raincoat, sun-screen, cap, sweater, etc).
- To help people know how the local air quality impacts their health.

3. Scope

- Can be useful for user to know the climate behaviour all over the world with a single click.
- Can be useful for user to easily figure out the conditions of the environment.
- Can check for every location on planet.
- Can check Air Quality for entered location.

4. Literature Survey

Study found out on Weather Application:

- B.K.Agrawal (1980) explained the phenomena for time series regression models for cultivation of rice in Raipur district.

- Kuo Sunn (1993) used such application used for intervention model for average 10 days forecast.

- Present day scientists use this to predict and warn about how natural disasters caused by abrupt climatic conditions.

4. Literature Survey

Study found out on Weather Application:

- **Dark Sky Weather App:** Dark Sky was a popular iOS-only app for a long time, but it’s available on Android now too.

- **AccuWeather Weather App:** AccuWeather is one of the most well-known names in the weather game. The app has more features than you can shake a stick at.

- **Google Weather App:** Google has provided this free application to predict weather.

5. Proposed System

- The system comprises of 1 major module with their sub-modules as follows:
- User :

1. Real Time Weather :
Show current weather for current location with appropriate information & graphic.

2. Change Location :
Search weather for different country/cities/choosing search.

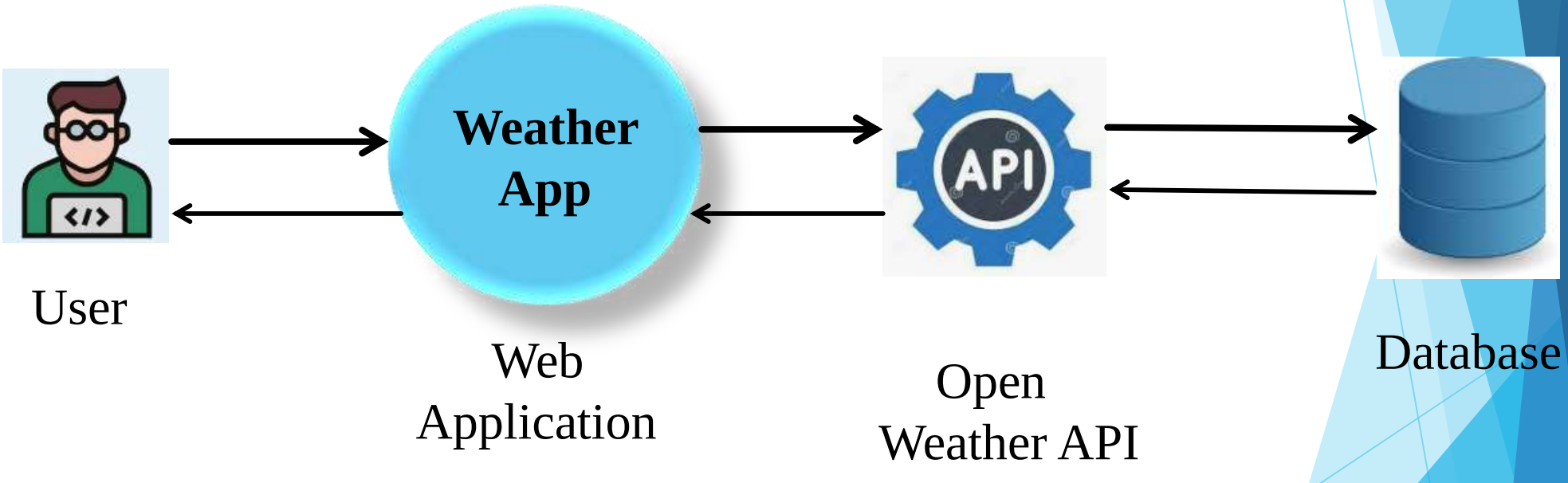
3. Hourly Weather Information :
Hourly weather information for today & daily for a week.

4. Air Quality Index :
Predicting Air Quality based on city.

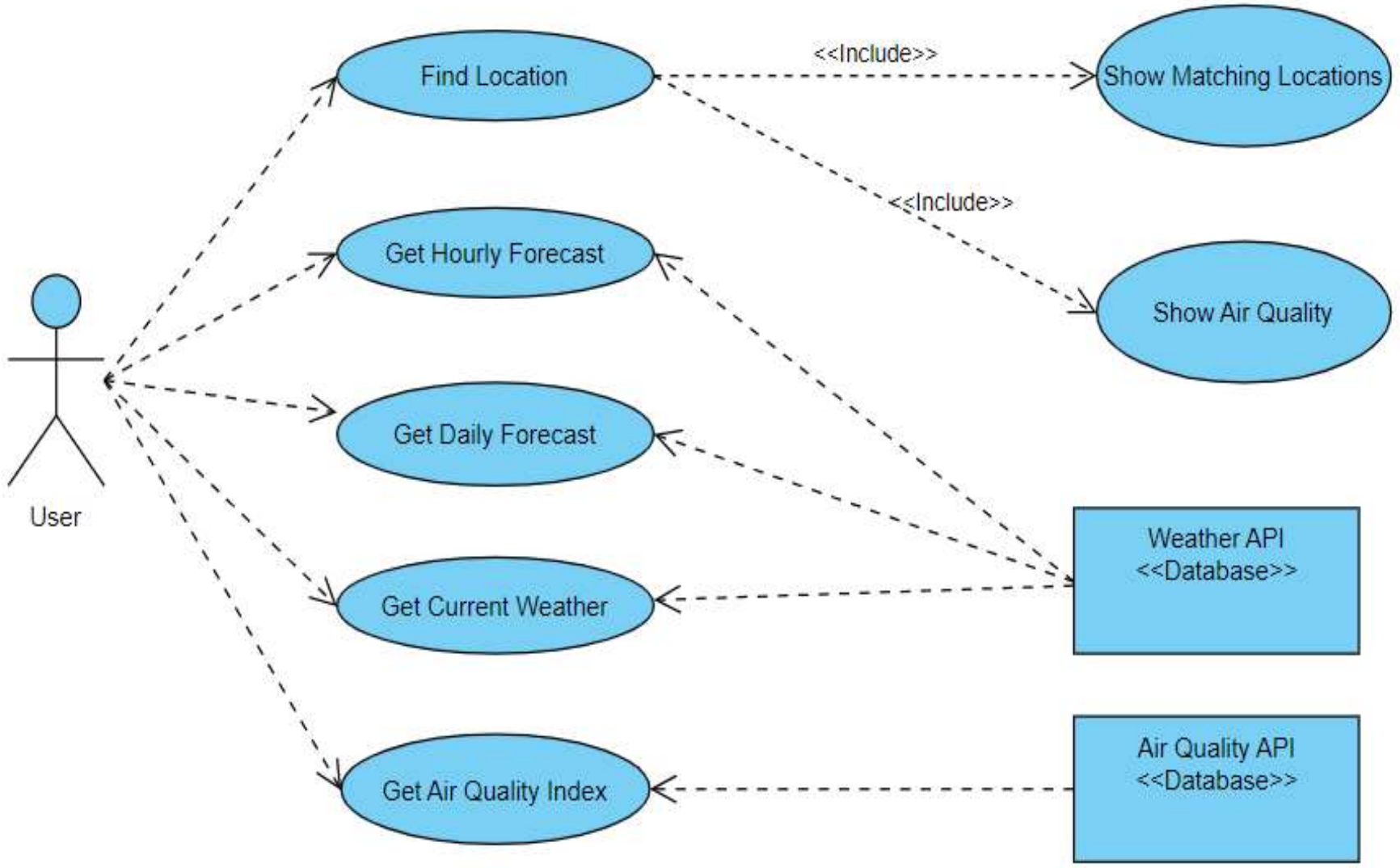
6. Outcome of Project

- User can view the current, future and as well as past weather conditions.
- Moreover, this system works globally thereby proving to be an extremely efficient tool for both tourists, as well as frequent travelers.
- Provide real time weather application.
- Provide accurate Air Quality Index

7. Block Diagram

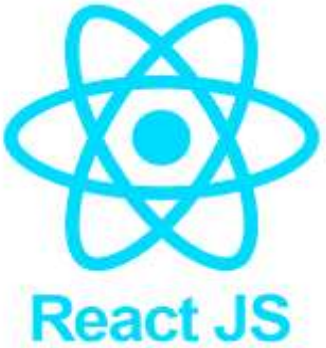


8. Use Case/Diagram



9. Technology Stack

- Frontend:
  React JS



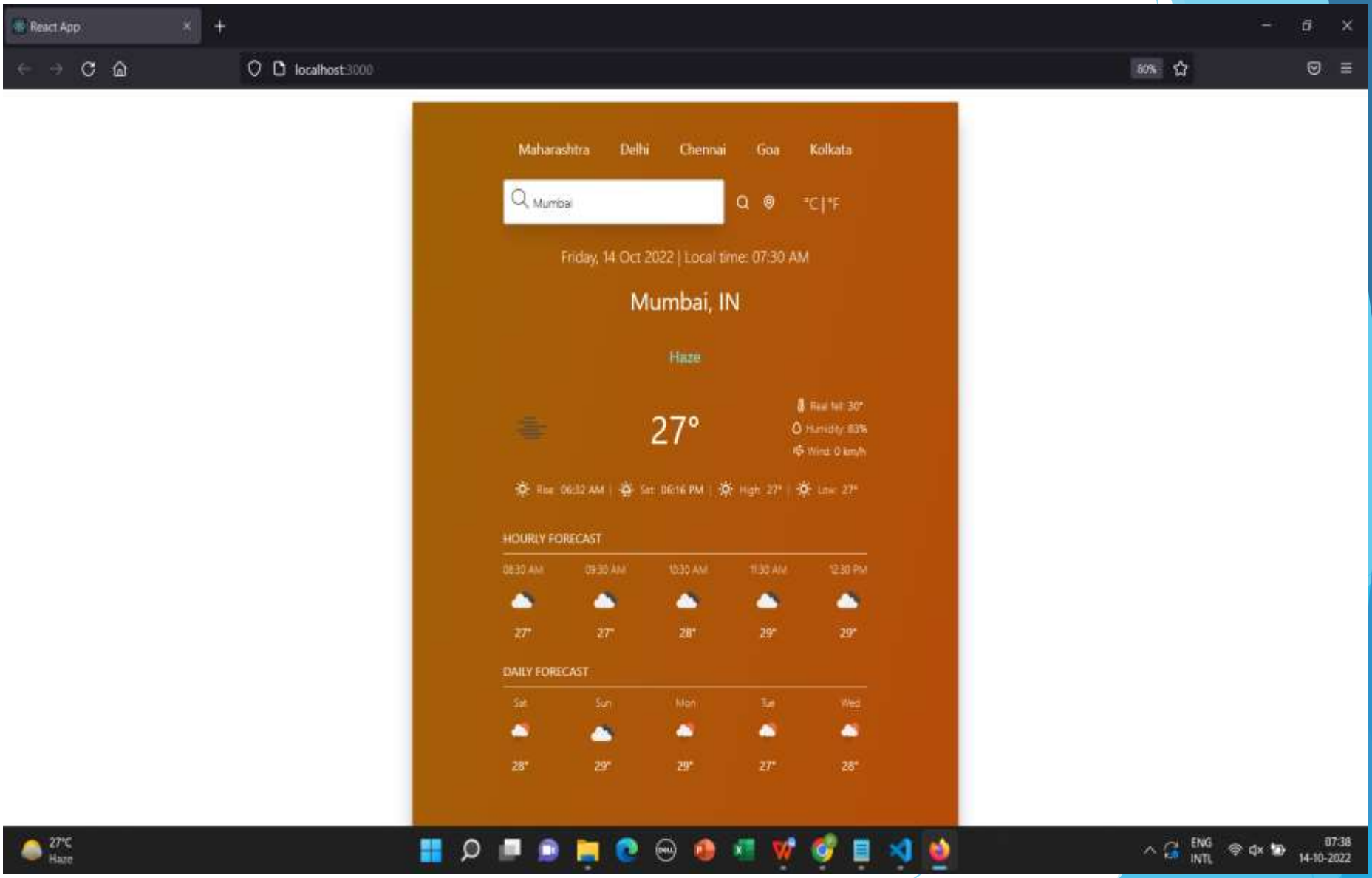
- Backend:
  API - OpenWeather

- Tools:
  VS Code (Visual Studio Code)

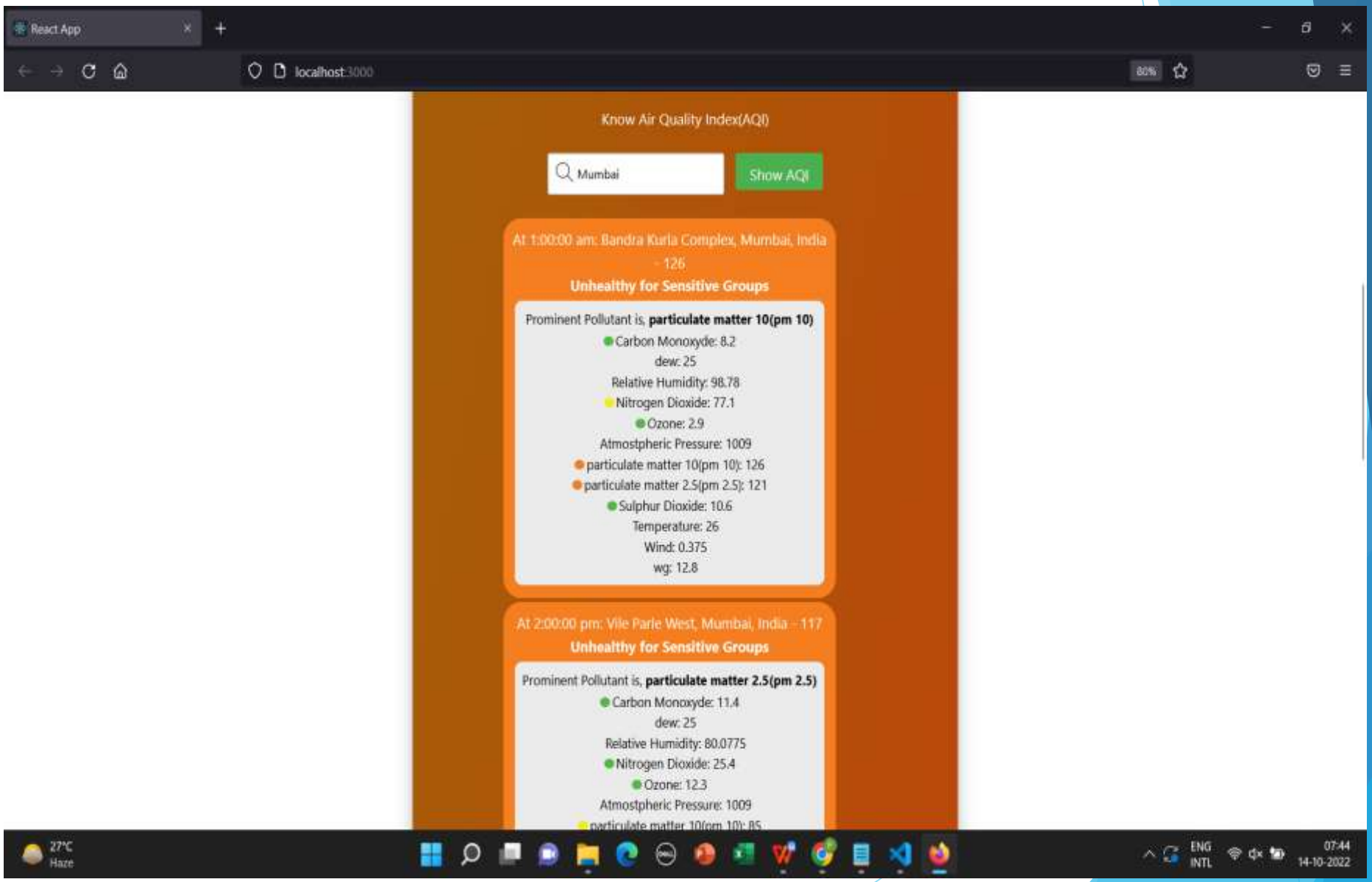
Suggestions in Review-1

- To add Air Quality Index for report generation.
- To add Fahrenheit with Celsius.

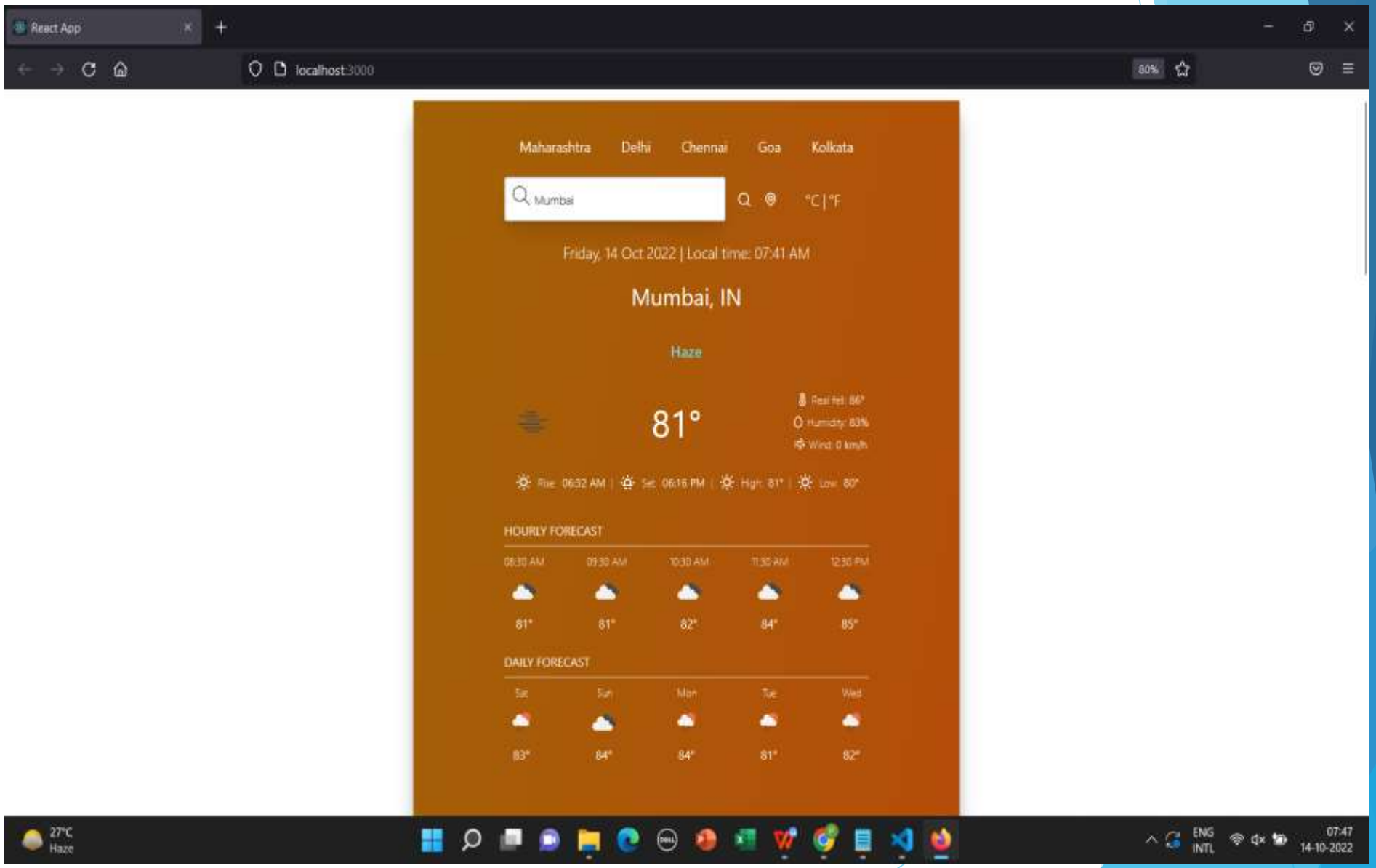
Result and Discussion



Result and Discussion



Result and Discussion



Conclusion and Future Scope

- Providing realtime wind flow through maps.
- Developing of advanced systems for severe weather events is ongoing in several countries.
- Weather predictions in smart farming.

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Thank You...!!