WEATHER FORECASTING AGGREGATOR APP

PROJECT REPORT

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ABSTRACT

This project presents the development of a Weather Forecast Aggregator application utilizing the MERN stack (MongoDB, Express.js, React.js, and Node.js). The primary goal of this application is to provide users with an intuitive and user-friendly interface to access current weather details such as temperature, humidity, and wind speed for any city worldwide. By aggregating data from multiple sources, including OpenWeatherMap, AccuWeather, and The Weather Channel, the application aims to enhance the accuracy and usability of weather forecasts.

The application employs TailwindCSS for styling and layout, ensuring a visually appealing user experience. The app features responsive design, user authentication, and the ability to store and display weather data for up to a week. can add location functionality and delete functionality to the project. This project showcases the practical application of modern web technologies to address real-world challenges in weather forecasting and information aggregation, offering a seamless platform for users to access and compare weather forecasts from multiple sources.

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INTRODUCTION

The weather forecasting aggregator app is a web application where users can find the current weather details [like temperature , humidity,wind speed] of any city on the globe.

In this project, we present the development of a Weather Forecast Aggregator using MERN STACK . The aim of this application is to provide users with a unified interface to access and compare weather forecasts from multiple sources, enhancing accuracy and usability.

PURPOSE

- ❖ TRAVELERS
- ❖ RESIDENTS
- ❖ STUDENTS WHO INTERESTED IN METEOROLOGY
- ❖ RESEARCHERS

OBJECTIVE

The application utilizes TailwindcssCSS for styling and layout, ensuring an intuitive and visually appealing user experience. Leveraging JavaScript, the application fetches weather forecast data from various API, including OpenWeatherMap.Through asynchronous HTTP requests, the application collects real-time forecast information from these sources.

The Weather Forecast Aggregator offers users a seamless and feature-rich platform for accessing and comparing weather forecasts from multiple sources. This project demonstrates the practical application of web technologies to address real-world challenges in weather forecasting and information aggregation.

PRODUCT FEATURES

- ❖ Weather temperature {shown in screen}
- ❖ Humidity{shown in screen}
- ❖ Wind speed{shown in screen}
- ❖ responsive design

- ❖ Signin and Login page for user
- ❖ Store a week data and shown in the display
- ❖ Save location
- ❖ Delete location

WORKFLOW
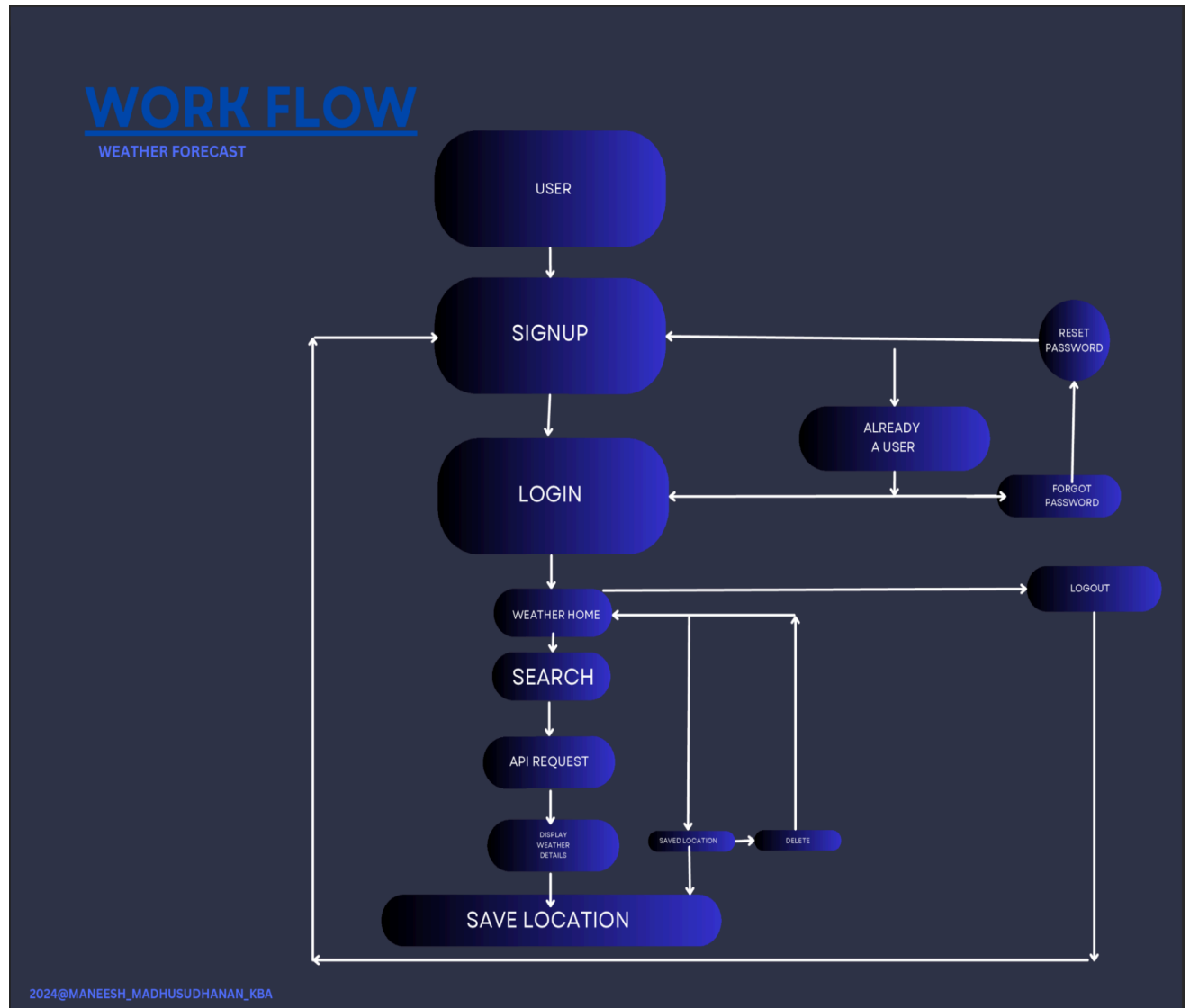
TECHNOLOGIES USED

FRONT END : REACTJS,HTML,CSS, TAILWINDCSS, JAVASCRIPT

BACKEND: NODEJS, EXPRESS

DATABASE: MONGODB

AUTHENTICATION: JWT

HOSTING: DOCKER

CONCLUSION

By following these steps,I create a functional weather DApp using REACTJS ,TAILWIND CSS,MONGODB,NODE JS,EXPRESS JS,DOCKER . It's a great way to implement web development skills while providing a useful tool for users to check the weather details.