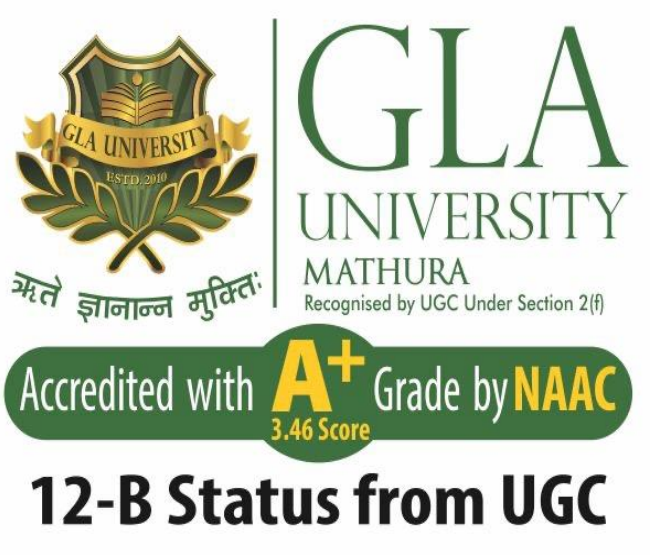

SYNOPSIS

ON

Weather App

Submitted By:

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Submitted To:

Mr. Vinay Agrawal,

Assistant Professor,

CEA

Weather App Using MERN Stack:

Objective:

The main objective of this project is to develop a web-based Weather App that allows users to input a location and retrieve real-time weather information. This app aims to provide a user-friendly and visually appealing interface with accurate and up-to-date weather data, helping them plan their activities and make informed decisions based on weather conditions

Scope:

Our project will cover the development of a web-based weather application that allows users to input a location and retrieve detailed weather information. It will display current weather conditions and provide a 5-day forecast. The project encompasses user registration, authentication, and the integration of third-party weather data APIs. It will not include advanced features such as historical data or extensive location-based services.

Methodology:

The project will employ the MERN stack (MongoDB, Express.js, React, Node.js) for development. MongoDB will be used for user data storage, and Express.js and Node.js will handle the server-side logic. React will create the user interface. Interaction with a weather data API (e.g., Open Weather Map) is vital for retrieving weather data.

Proposed System:

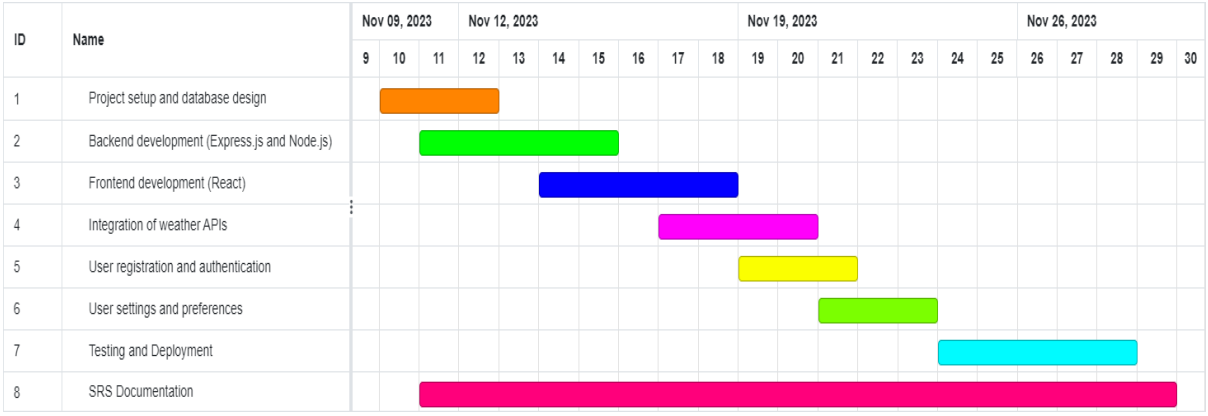
The proposed system is a web-based Weather App that allows users to register, log in, and authenticate. It retrieves weather data from a third-party API, displays current weather conditions, and provides a 5-day forecast. It will not cover in-depth climate analysis, long-term weather forecasts, or advanced meteorological data processing.

Features:

- Location input and submission.
- Real-time weather data retrieval.
- Display of current weather conditions, temperature, humidity, wind speed, and more.
- Visual representation of weather data, such as icons and charts.
- User-friendly and responsive user interface.

Implementation Plan:

- Project kick-off and team formation.
- Project setup and database design (MongoDB).
- Server-side development (Node.js and Express).
- Front-end development (HTML, CSS, React).
- Integration with weather API.
- User interface design and implementation.
- Testing and debugging.
- Documentation and deployment preparation.



Team Members:

- Project Manager: Trashika Goyal
- Full-stack Developer: Tanu Singh
- Front-end Developer: Khushdil Baliyan
- Backend Developer: Pawan Panwar

Resources Required:

- Development environment (IDEs, text editors).
- MongoDB database.
- Node.js and Express framework.
- React library.
- Third-party weather API access.
- Web hosting and domain (if applicable).

References:

- Online resources and documentation for React, Express.js, Node.js.
- Documentation for the chosen weather data API.

Expected Outcomes:

The project aims to deliver a working web-based Weather App that provides a user-friendly interface for checking current weather conditions and a 5-day forecast. It will meet the performance and security requirements, ensuring user data is securely stored and encrypted.

Project Supervisor:

Mr. Vinay Agrawal, Assistant Professor, CEA.

Conclusion:

Our project aims to develop a Weather App using the MERN stack, providing users with a convenient and attractive way to access real-time weather data. We will focus on user experience, data accuracy, and a seamless interface. This project will help users stay informed about the weather conditions in their desired locations.