

Weather Forecast Application

Ms. Sejal Baviskar¹, Mr. Shreyash Gaikwad², Ms. Vaishnavi Garje³, Mr. Mohan Mali⁴

Students, Department of Computer Technology^{1,2,3}

Lecturer, Department of Computer Technology⁴

Bharati Vidyapeeth Institute of Technology, Navi Mumbai, Maharashtra, India

Abstract: *In our "Weather Forecast Application" project, The increasing unpredictability of weather patterns necessitates reliable, real-time weather forecasting tools. This project presents a mobile weather forecast application designed to provide users with accurate and timely weather information tailored to their specific locations. Utilizing advanced APIs for weather data retrieval, the application features an intuitive user interface that presents current conditions, hourly forecasts, and extended outlooks, all presented in a visually appealing and easily navigable format.*

To improve forecast accuracy, the application employs machine learning algorithms that analyze historical weather data and trends, enabling it to provide more reliable predictions. The app also features a community-driven feedback system, allowing users to report local weather conditions, which helps refine and enhance the data provided.

Key functionalities of the application include customizable notifications for severe weather alerts, enabling users to stay informed about critical weather events in real time.. Users can also personalize their experience by saving favorite locations, allowing for quick access to weather updates in multiple areas.

Keywords: Weather, Forecast, Climate, Temperature, Rainfall, Humidity, Wind Speed