

Weather and Air Quality Checking Application

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Abstract: In our "Weather & Air Quality Application" project, The increasing unpredictability of weather patterns necessitates reliable, real-time weather & Air Quality 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 an Air Quality Index in which we can check Air Quality of Specific Location Which Will Be Searched By User. It also comes with an air quality graph that shows the amount of specific chemicals & molecules present in the air. It rates the air quality by ratings such as good, bad, perfect, moderate, poor....etc

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, Sunrise, Sunset