

Project : AirAware Smart Air Quality Prediction System

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Group: 1

A wide-angle photograph of a serene landscape. In the foreground, a calm lake reflects the surrounding environment. On either side of the lake, there are dense forests of evergreen trees. In the background, several layers of mountains are visible, their peaks obscured by a light mist or fog. The overall color palette is cool, dominated by blues, greens, and grays.

MILESTONE 3

Problem Statement

- Air pollution levels are rising and need continuous monitoring.
- Manual monitoring is slow and not easily accessible to the public.
- Users need a **simple web interface** to view real-time/processed air quality status.
- This project provides a clean solution using modern web technologies.

Objectives

- Collect and store air quality data securely.
- Display pollutant levels in a clean, user-friendly dashboard.
- Provide visual indicators of air quality (good, moderate, hazardous).
- Enable easy expansion for future prediction models.

Technologies Used

1. React.js: Used to build the user interface with reusable components for dynamic pages.
2. TypeScript: Adds type safety and makes the frontend code more reliable and structured.
3. HTML & CSS: Used to structure the pages and style the overall layout and design.
4. Tailwind CSS: Provides utility classes to quickly create responsive and consistent UI styling.
5. React Hooks: Used to manage component state and lifecycle logic within the UI.

Dashboard Features

- **Real-time Air Quality Display** – Shows the current AQI value clearly on the main dashboard.
- **Pollutant Breakdown** – Displays individual pollutant levels like PM2.5, PM10, CO, etc.
- **Color-Coded Status Indicator** – Uses colors like green/yellow/red to indicate air quality levels.
- **Clean and Responsive UI** – Automatically adapts to different screen sizes and devices.
- **Interactive Cards/Sections** – Shows different data blocks in well-structured, clickable UI components.
- **User-Friendly Layout** – Simple and intuitive design for easy navigation and quick understanding.

My Contributions

- Redesigned Navigation Bar: Improved the placement and style of icons to enhance overall UI/UX and give the website a cleaner, more modern look.
- Enhanced Health Recommendation Card: Added **activity guidance** to provide users with more actionable and personalized health suggestions.
- Improved Login System: Integrated Google Authentication and enhanced the login page UI for a faster, secure, and smoother user experience
- Interactive Chatbot: Implemented an interactive floating chatbot with expand and collapse functionality for a clutter-free interface
- User Avatar & Profile Management: Added a user avatar in the navigation bar with a dropdown menu for profile view, account settings, and logout

OUTPUT SCREENS

 **AirAware Delhi**
Delhi Air Quality Monitoring

Offline  

[Dashboard](#) [About](#)  **North Delhi**

Current Air Quality

Last updated: 2 minutes ago • North Delhi

365 
AQI Index

 **What this means**
Health warnings of emergency conditions. Sensitive groups should consider reducing prolonged outdoor activities.

Hazardous

Quick Stats

Current AQI	365
Category	Hazardous
Last Updated	2:58:36 pm
7-Day Avg	140 AQI

 **Real-time Updates**
Manual refresh only

Weather
Temp: 17.5°C
Wind: 2.5 km/h

[Download AQI Report](#)

Pollutant Breakdown

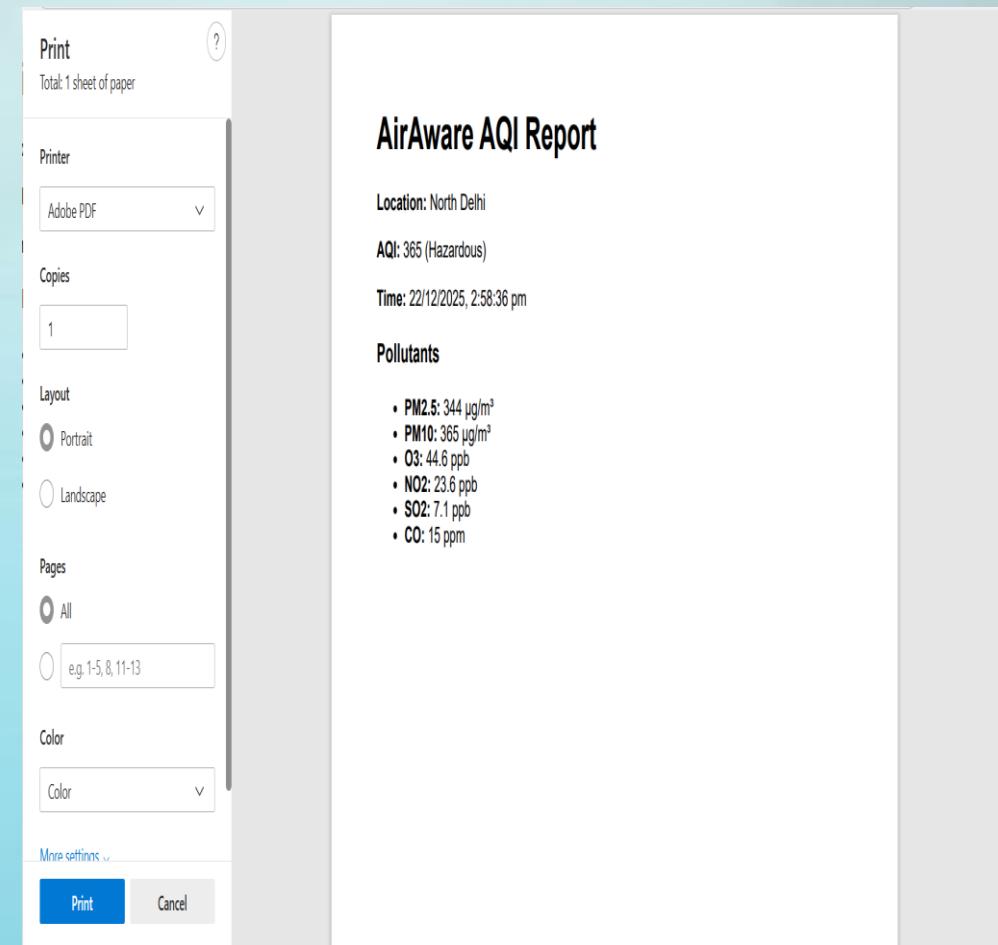
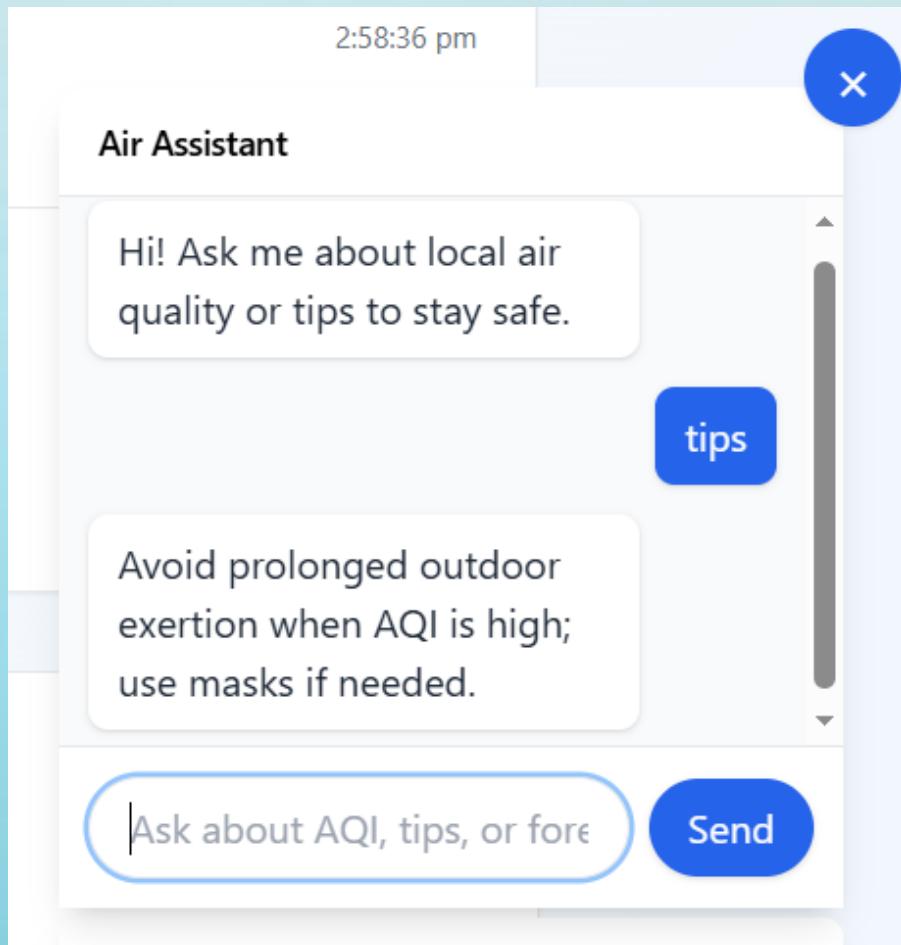
PM2.5	344 µg/m ³	 100%
PM10	365 µg/m ³	 100%

Health Recommendations

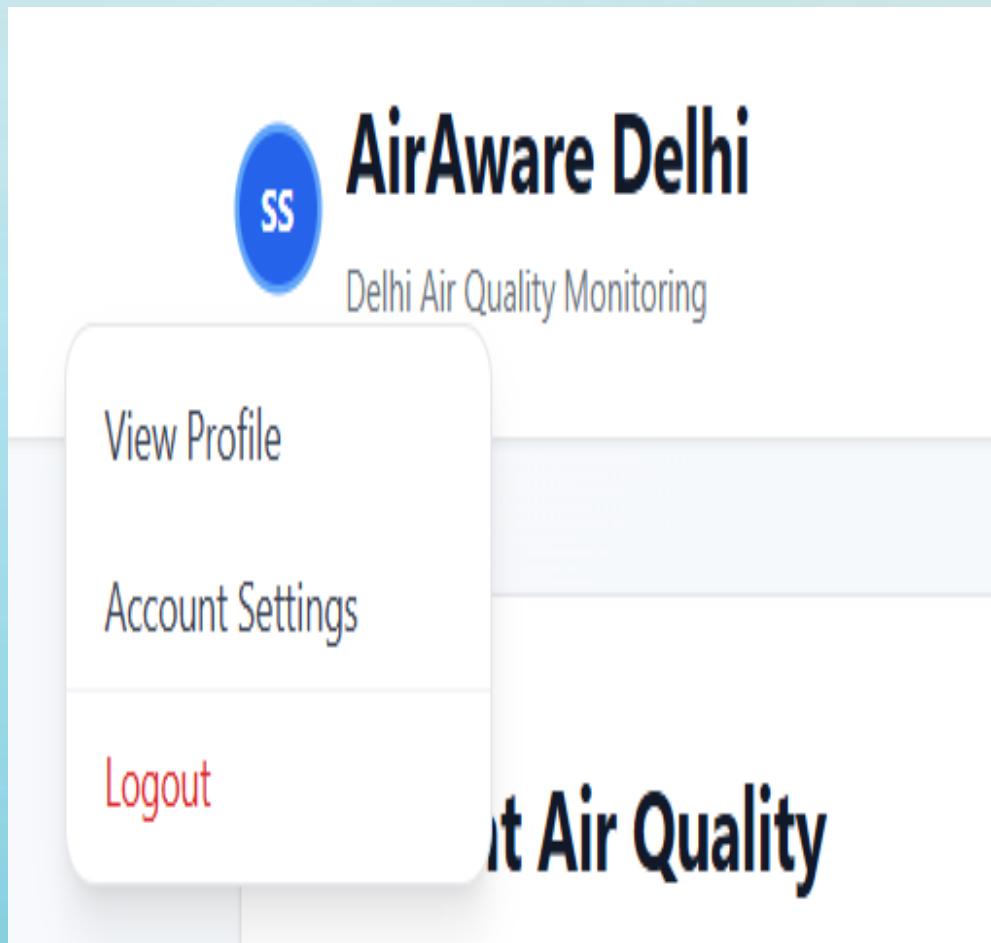
-  Limit outdoor activities
-  Everyone should avoid prolonged outdoor exertion
-  Keep windows closed and use air purifiers

High AQI: 365
Category: Hazardous

OUTPUT SCREENS



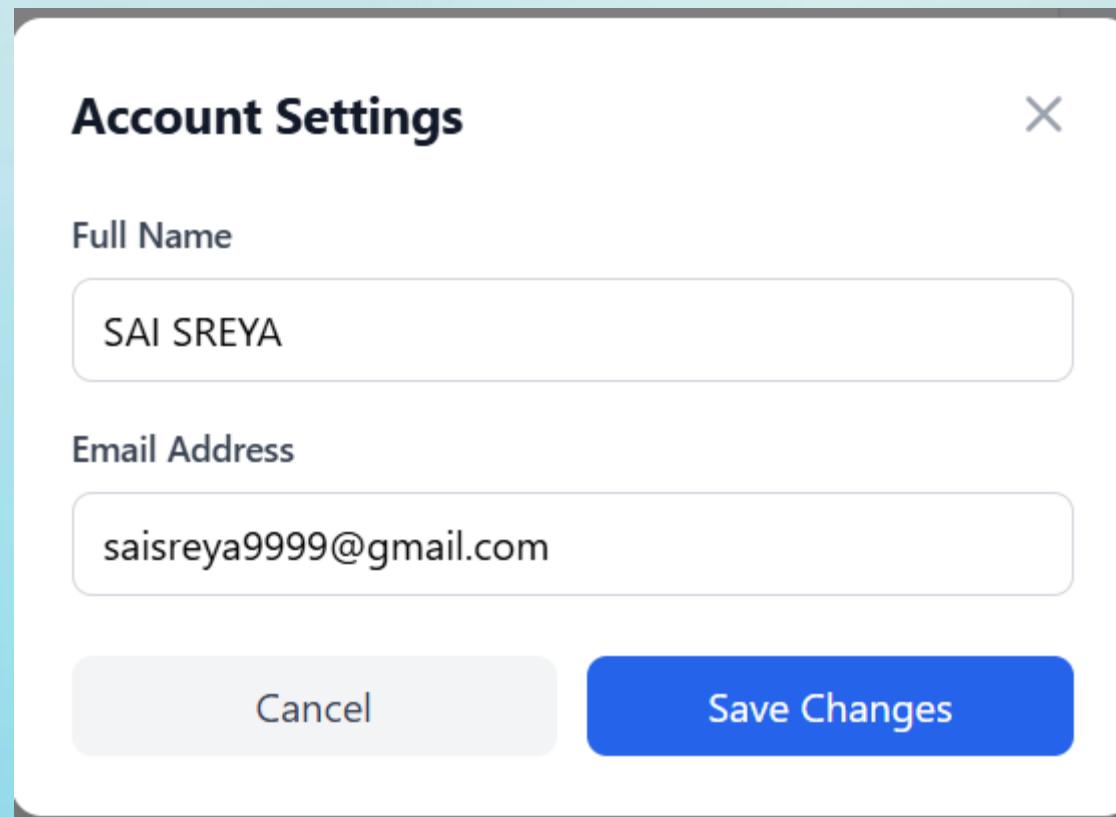
OUTPUT SCREENS



The image shows a dashboard for the user 'SAI SREYA'. At the top, there is a blue circular profile icon with the letters 'SS', the name 'SAI SREYA', the email 'saisreya9999@gmail.com', and a 'Logout' button. Below this, the text 'Last seen: just now' is displayed. The dashboard is divided into several sections:

- Account:** Shows 'SAI SREYA' and the email 'saisreya9999@gmail.com'. To the right, it shows 'Notification Threshold' set to '600 AQI'.
- Saved Locations:** Shows 'North Delhi' as a saved location.
- Preferences:** Shows 'Real-time updates' and 'Alert threshold (AQI)' set to '600'. There is a 'Save' button and a checkbox.
- AQI Snapshot:** Shows PM2.5: -- and PM10: --.
- Actions:** Contains buttons for 'Download AQI Report' (blue) and 'Clear Saved' (grey).
- Recent activity:** Shows 'Viewed AQI for North Delhi'.
- Downloaded AQI report:** Shows a small thumbnail of a downloaded report.

OUTPUT SCREENS



THANK YOU!