Grievance Web Application Documentation

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1. Project Overview

The Grievance Web Application is a powerful platform designed to enable users to submit, track, and resolve grievances seamlessly. This system ensures transparency and prompt action on issues reported by users, fostering a responsive environment where concerns are handled efficiently by the appropriate authorities.

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2. Technologies Used

Frontend:

- **React.js**: For building dynamic and interactive user interfaces.
- **React Router**: Manages navigation within the application, ensuring smooth user experience.
- **Axios**: Simplifies HTTP requests and handles communication between the frontend and backend.
- **React Icons**: Adds visually appealing icons to enhance user interaction.
- **CSS**: Custom styling to ensure a clean, user-friendly interface.

Backend:

- **Node.js**: Provides a robust runtime environment for server-side scripting.
- **Express.js**: Facilitates the creation of RESTful APIs and handling of HTTP requests.
- **MongoDB**: A NoSQL database for storing user data and grievances efficiently.
- **Mongoose**: An ODM library for MongoDB, simplifying data modeling.
- **JSON Web Tokens (JWT)**: Secures user authentication and session management.

Tools:

- **Visual Studio Code**: An efficient code editor with powerful extensions.
- **Git**: Version control system to manage codebase and track changes.
- **Postman**: Used for testing API endpoints and ensuring the backend functions correctly.

3. Pages and Features

3.1 Home Page

- **Description**: The landing page introduces users to the platform, highlighting its key features and benefits.
- **Features**:
    - Navigation links for easy access to other sections (Login, Register, Submit Grievance, Admin Dashboard).
    - A search bar enabling quick access to external articles related to grievances.

3.2 Login Page

- **Description**: This page allows existing users to log in using their credentials.
- **Features**:
    - Secure login form with email and password fields.
    - Options for social login via Google or Facebook.
    - Link to the registration page for new users.

3.3 Register Page

- **Description**: Enables new users to sign up by providing necessary details such as name, email, and password.
- **Features**:
    - A user-friendly registration form with input validation.
    - Options to sign up via Google or Facebook.

3.4 Submit Grievance Page

- **Description**: Authenticated users can submit grievances, specifying details like type, title, description, and attaching supporting documents.
- **Features**:
    - A comprehensive form for submitting grievances.
    - File upload functionality to attach relevant documents.

3.5 Admin Dashboard

- **Description**: Provides administrators with a comprehensive view of all grievances, allowing them to manage and resolve issues.
- **Features**:
    - A dynamic table listing all grievances, with options to mark them as resolved.
    - Real-time updates to the status of grievances.

3.6 Profile Page

- **Description**: Displays the grievances submitted by the logged-in user, along with their current status.
- **Features**:
    - A detailed list of the user's grievances.
    - Status indicators showing the progress of each grievance.

3.7 Navbar with Search Functionality

- **Description**: The navbar provides quick navigation to all key sections of the site, including a search feature to find relevant external articles.
- **Features**:
    - Links to key pages: Home, Submit Grievance, Admin Dashboard, Profile.
    - Search bar for querying Google Scholar articles related to grievances.
    - Logout option for users to securely exit the platform.

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4. Setting Up and Running the Project

4.1 Prerequisites

- Node.js installed on your system.
- MongoDB running locally or access to a cloud instance.
- Git for version control.
- A code editor like Visual Studio Code.

4.2 Cloning the Repository

git clone https://github.com/meenakshi-m/grievance-web.git

4.3 Setting Up the Backend

1. Navigate to the backend directory: cd backend
2. Install the dependencies: npm install
3. Create a `.env` file in the root of the backend directory with the following contents: MONGO_URI=your_mongodb_uri JWT_SECRET=your_jwt_secret
4. Start the backend server: `npm install`

4.4 Setting Up the Frontend

1. Navigate to the frontend directory: cd frontend
2. Install the dependencies : npm install
3. Start the frontend development server: npm start

Running the Application

```
Start the backend server:
```

- `cd backend`
- `npm start`

```
Start the frontend development server:
```

- `cd frontend`
- `npm start`

4.5 Accessing the Application

- Open your web browser and go to `http://localhost:3000` to start using the application.

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5. Future Enhancements

- **Role-based Access Control**: Implement distinct roles and permissions for different types of users.
- **Email Notifications**: Automatically notify users about the status of their grievances via email.
- **Third-Party Authentication**: Integrate with popular authentication providers like Google and Facebook.
- **Analytics and Reporting**: Provide detailed reports and analytics on grievances for better decision-making.

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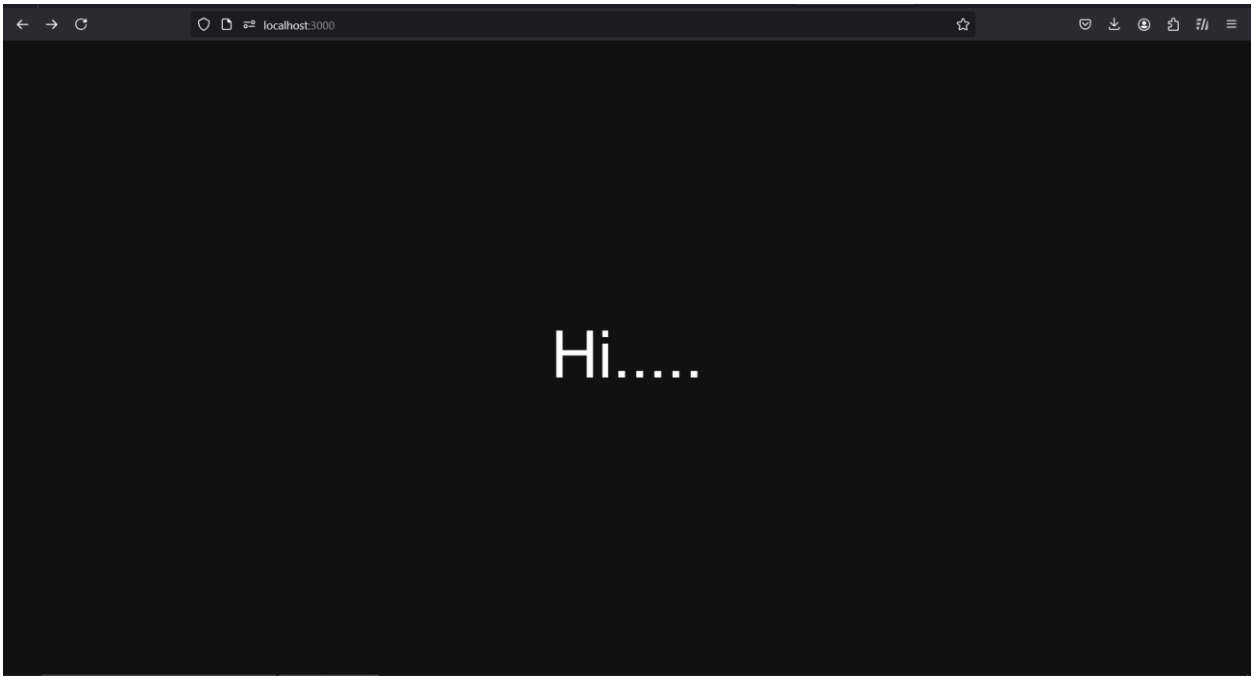
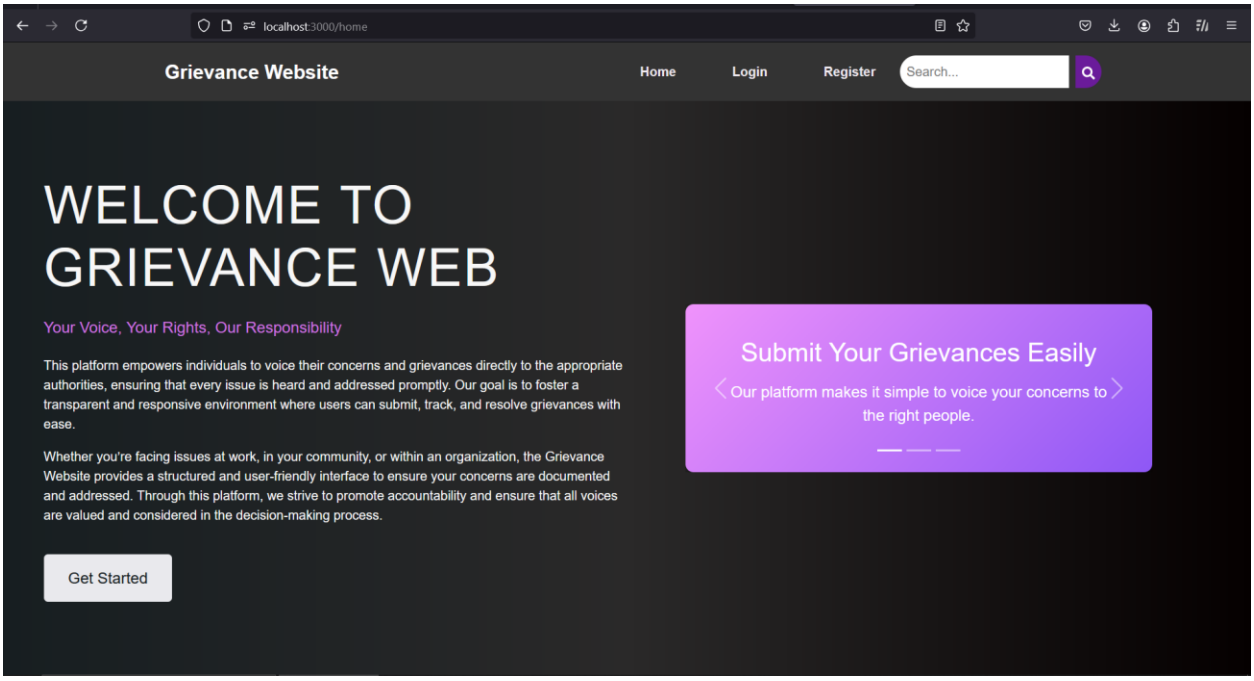
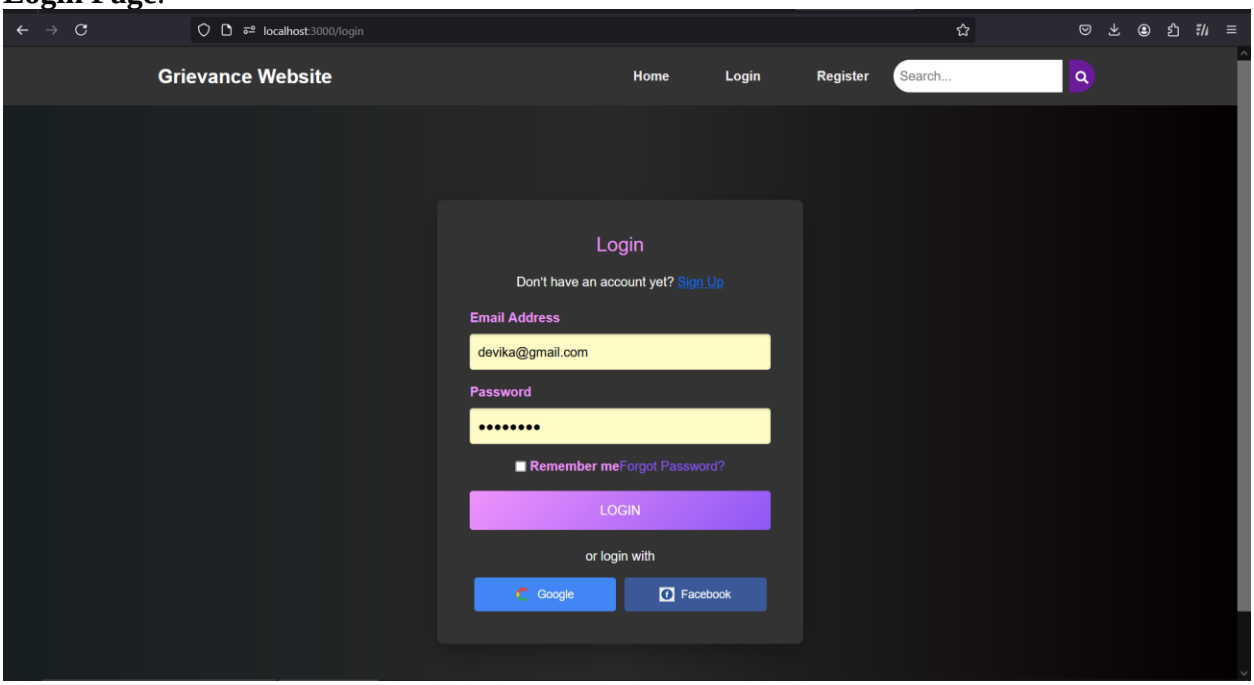
6. Screenshots of the Application

- **Home Page**:

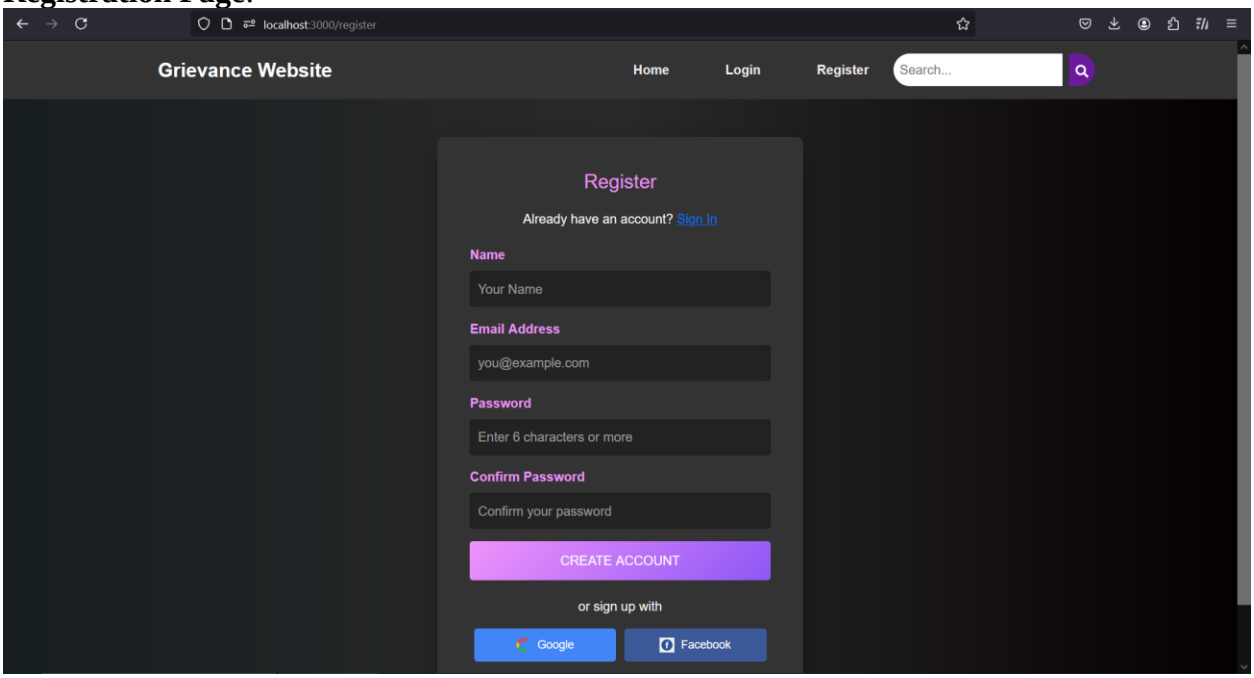

localhost:3000
Hi.....


localhost:3000/home
Grievance Website
Home
Login
Register
Search...
WELCOME TO GRIEVANCE WEB
Your Voice, Your Rights, Our Responsibility
This platform empowers individuals to voice their concerns and grievances directly to the appropriate authorities, ensuring that every issue is heard and addressed promptly. Our goal is to foster a transparent and responsive environment where users can submit, track, and resolve grievances with ease.
Whether you're facing issues at work, in your community, or within an organization, the Grievance Website provides a structured and user-friendly interface to ensure your concerns are documented and addressed. Through this platform, we strive to promote accountability and ensure that all voices are valued and considered in the decision-making process.
Get Started
Submit Your Grievances Easily
Our platform makes it simple to voice your concerns to the right people.

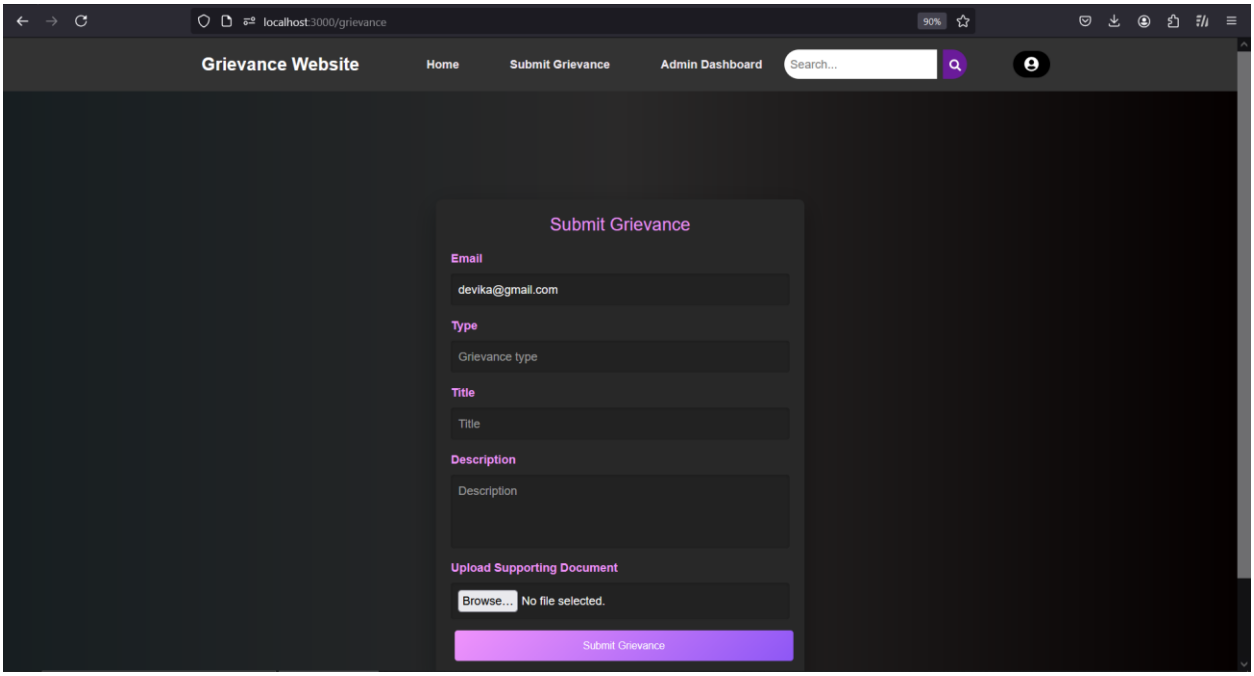
- **Login Page**:



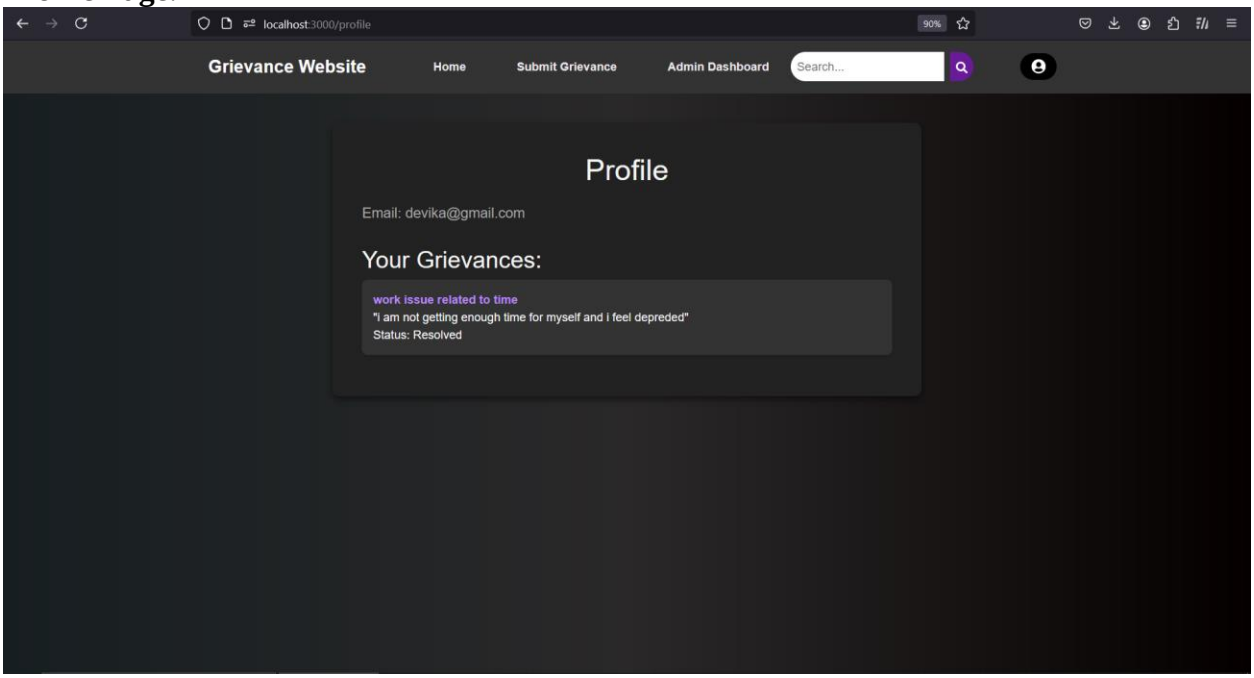
- **Registration Page**:



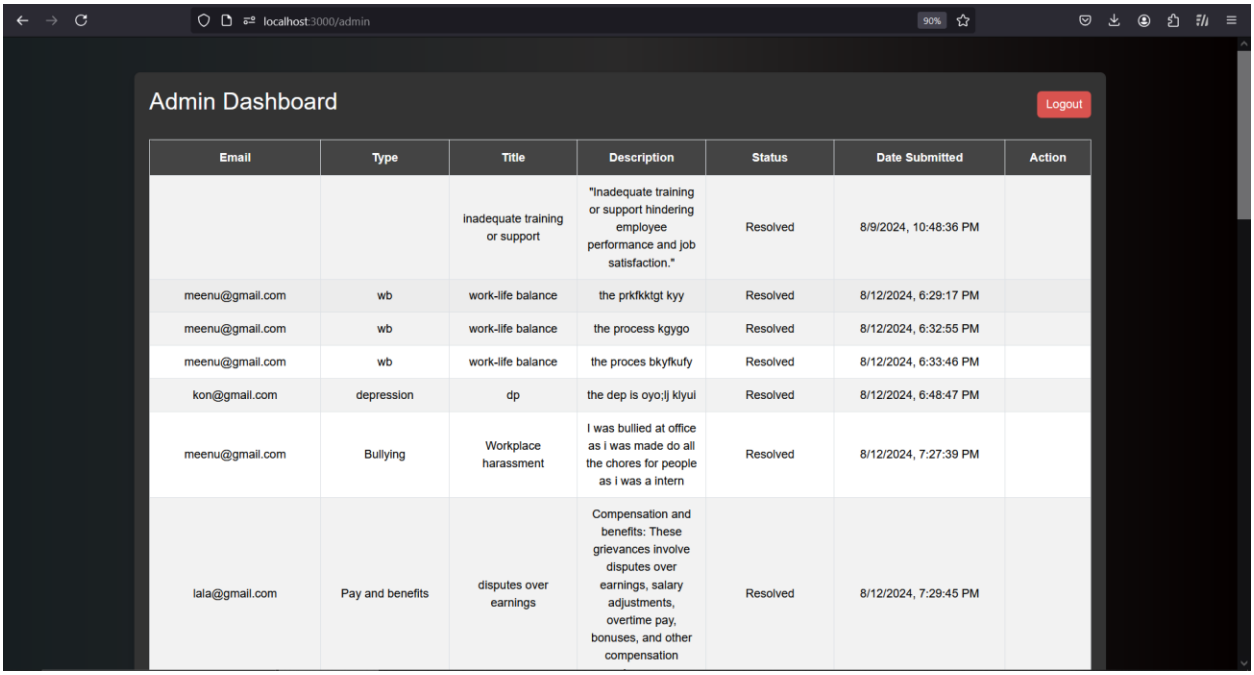
- **Submit Grievance Page**:



- **Profile Page**:



- **Admin Dashboard**:



- **logout**: