



eResolve

Complaint Management System

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Presented To

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Project Idea

This Complaint Management System will streamline how complaints are managed by citizens, employees, and administrators. Citizens will be able to log in, submit, view, and track their complaints, while employees will handle complaints and manage their tasks. Administrators will oversee the entire system, managing employees, complaints, and the overall workflow. The system includes dashboards that provide tailored views and system statistics. Additionally, all users can access account settings to update personal information and passwords with robust validation and security measures.

Function Requirements for Citizen

1. Login

- Validate user inputs (username and password).
- Authenticate citizens using the database.
- Redirect users to the appropriate dashboard on successful login.
- Show error messages for invalid credentials.

2. SignUp

- Collect citizen details (e.g., username, password, phone number, name).
- Validate inputs (e.g., password strength).
- Store user information in the database.
- Display error messages for invalid inputs or duplicate accounts.

3. Citizen Dashboard

- Display a summary of active, resolved, and pending complaints.
- Provide shortcuts to submitting a new complaint, track complaints, view account settings, and logout options.

4. Account Settings

- Allow citizens to update their profile details.
- Enable password changes with validation (e.g., confirm password field).
- Display error messages for invalid inputs or database update failures.
- Require current password to update sensitive information.

5. Complaint Submit

- Allow citizens to submit new complaints.
- Collect details (e.g., title, description, city, department, phone number, address).
- Validate inputs (e.g., required fields, valid phone number).
- Save complaint data to the database with a "Pending" status.
- Display error messages for missing or invalid inputs.

6. View Complaints

- Show all relevant information, including title, description, status, submission date, and resolution date.
- Filter complaints based on the selected status.
- Sort complaints by submission date in ascending or descending order.
- Allow editing of complaints with a "Pending" status only.
- Validate inputs when editing a complaint.
- Delete complaints with a "Pending" status only, after user confirmation.

Function Requirements for Admin

1. Login

- Allow admins to log into the system securely.
- Validate username and password.
- Authenticate admin employees using the database.
- Redirect to the admin dashboard upon successful login.
- Display error messages for invalid credentials.

2. Admin Dashboard

- Display system statistics, such as the number of complaints (Pending, In Progress, Resolved), number of complaints in each city.
- Provide shortcuts to manage employees, view complaints.
- Provide links to access all admin functionalities, including profile, employee, complaints management, and logout options.

3. Account Settings

- Display admin details (e.g., username, phone number).
- Allow updating information (e.g., phone number, email).
- Enable password changes with current password verification.
- Display validation errors for invalid inputs.

4. Add Employee

- Allow admins to add new employees to the system.
- Collect employee details like username, password, role, phone number, and department.
- Validate inputs (e.g., email format, unique username).
- Assign roles and departments to employees.
- Show error messages for invalid inputs or duplicate usernames.

5. View Employees

- Display a list of all employees.

- Enable admins to manage, and update employee details.
- Filter employees by city or department.
- Display errors for database issues or invalid updates.

6. View Complaints

- Display a list of all complaints.
- Assign complaints to specific employees for resolution.
- Filter complaints by status.
- Sort complaints in ascending or descending order by submission date.

Function Requirements for Employee

1. Login

- Validate employee username and password.
- Authenticate employees using the database.
- Redirect to the relevant employee dashboard upon successful login.
- Display error messages for invalid credentials.

2. Employee Dashboard

- Display a chart of complaints for an employee per month in the current year.
- Provide links to access complaints, profile settings, and logout options.

3. Account Settings

- Display the employee's personal details.
- Enable employees to edit their non-sensitive details like phone number.
- Provide functionality to change the employee's password with proper validation (e.g., confirm password).
- Display error messages for invalid inputs or failed database updates.

4. View Complaints

- Display a list of complaints assigned to the employee.
- Allow employees to filter complaints by status (All, Pending, In Progress, Resolved).
- Sort complaints by submission date (Newer to Older, Older to Newer).
- Allow employees to update complaint status and assign a resolution date.

Non-Function Requirements

1. Security

- Securely store user credentials (hashed and salted).
- Role-based access control to restrict unauthorized actions.
- Maintain data integrity for complaints and user information.

2. Usability

- Provide an intuitive and user-friendly interface for all users.

3. Availability

- Notify users of downtime or temporary data retrieval issues.

4. Maintainability

- Follow clean code principles for easy maintenance and future enhancements.