

Project Design Phase
Problem – Solution

Date	19 june 2025
Team ID	LTVIP2025TMID49547
Project Name	Platform for online complaints
Maximum Marks	2 Marks

Problem – Solution Fit Template:

Application Flow and Project Structure

1. Customer/User Module:

- **Role:** Create and manage complaints, interact with agents, and manage profile.
- **Flow:**
 - **Registration & Login:** Create an account with email and password, then log in.
 - **Complaint Submission:** Fill in the complaint form with a description, contact details, and upload attachments.
 - **Status Tracking:** View the status of complaints and get real-time updates.
 - **Interaction with Agents:** Use the built-in chat feature to communicate with the assigned agent.
 - **Profile Management:** Update personal details and addresses.

Agent Module:

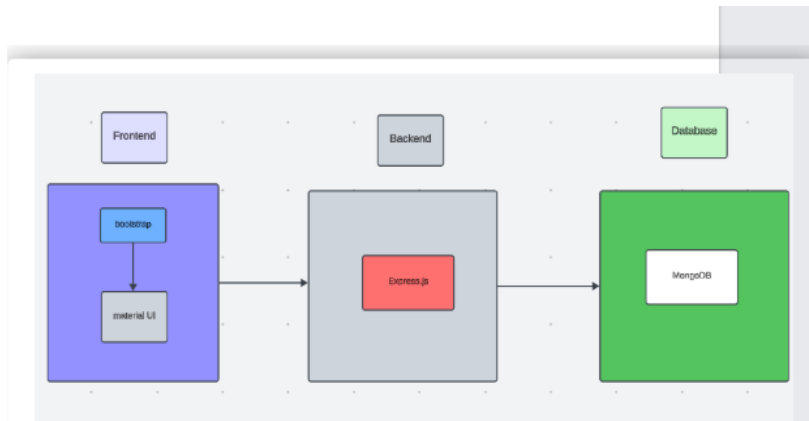
- **Role:** Manage complaints assigned by the admin, communicate with users, and update statuses.
- **Flow:**
 - **Registration & Login:** Sign up and log in securely.
 - **Complaint Management:** View and handle assigned complaints.
 - **Status Updates:** Change complaint status as per progress or resolution.
 - **Customer Interaction:** Communicate via chat, resolve issues, and handle feedback.

Admin Module:

- **Role:** Oversee operations, manage users, agents, and complaints.
 - **Flow:**
 - **Management:** Monitor and review all complaints.
 - **Complaint Assignment:** Allocate complaints to agents based on workload.
 - **User & Agent Management:** Manage registrations and profiles.
 - **Policy Enforcement:** Ensure compliance with terms, privacy, and data security.
 - **Continuous Improvement:** Update platform features based on user feedback.
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2. Technical Architecture

- The architecture follows a **client-server model**.
- **Frontend:** Built with **Bootstrap** and **Material UI**, connected via Axios to backend APIs.
- **Backend:** Powered by **Express.js** framework handling requests, logic, and API endpoints.
- **Database:** MongoDB for storing user data, complaint records, messages, and admin logs.



3. ER Diagram (Database Design)

- Shows the relationship between users, agents, complaints, and messages.
- Users can register, submit complaints, and chat with assigned agents.
- The schema supports complaint tracking and secure user-agent interaction.



4. Folder Structure

Frontend:

- Contains files related to UI components, CSS, images, and logic handling.

- Example folders: `/components`, `/pages`, `/assets`.

Backend:

- Contains APIs, models, routes, middleware, and configuration files.
- Example folders: `/routes`, `/models`, `/controllers`, `/config`.