Legal Aid Matching Platform

Project Statement

This is a full-stack web platform designed to connect citizens with verified pro bono lawyers and NGOs based on legal case type, location, and expertise. It simplifies case submission, enables secure communication, and tracks the impact of legal aid services through a centralized dashboard. The system integrates public legal directories and supports role-based access for citizens, lawyers, NGOs, and admins.
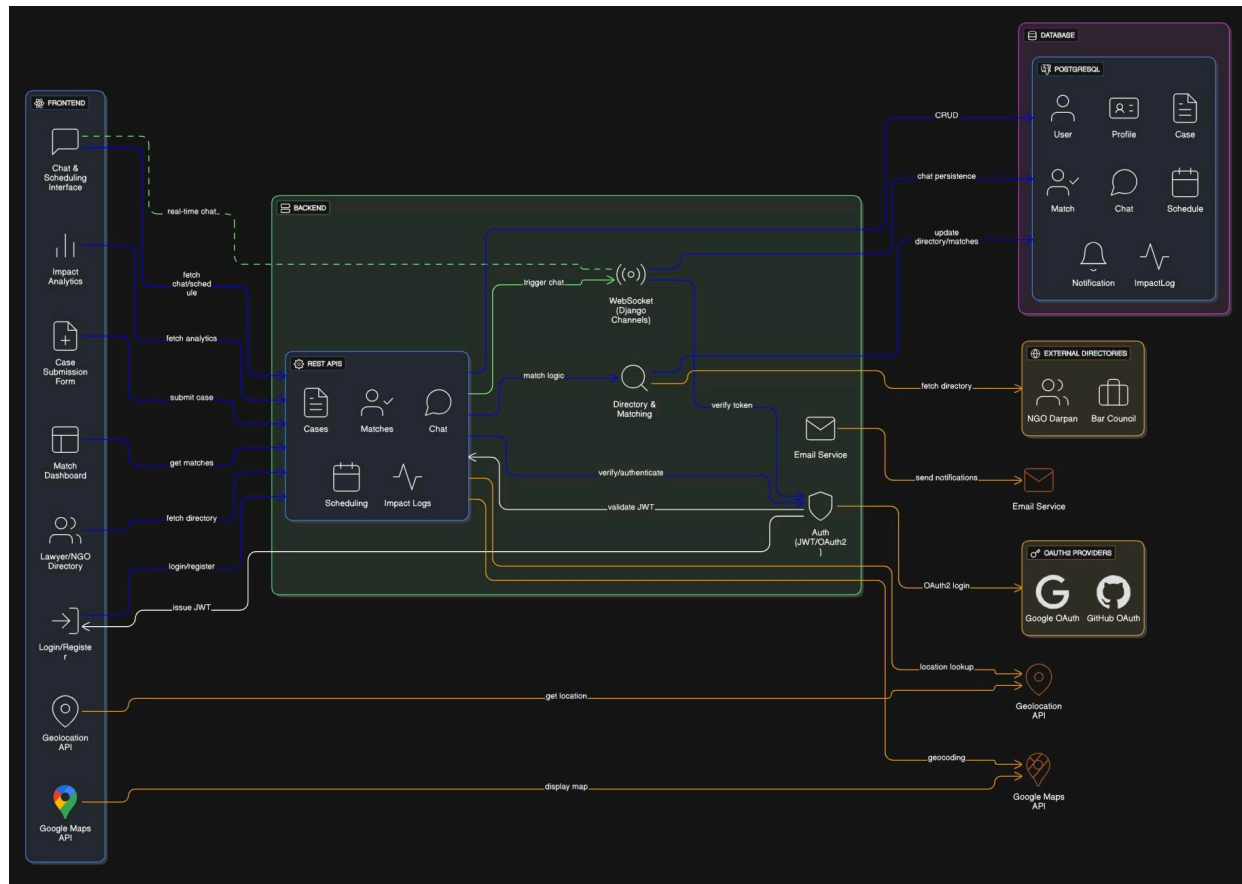
Outcomes:

- Role-based registration and authentication for citizens, lawyers, NGOs, and admins
- Case submission interface with plain-language input
- Integration with NGO Darpan, Bar Council, and international directories
- Matching engine based on expertise and geographic proximity
- Secure chat and call scheduling between matched parties
- Notification system for matches, messages, and appointments
- Impact dashboard showing resolved cases and network metrics
- Admin tools for verification and system monitoring
- Deployment-ready configuration with PostgreSQL

Tech Stack

- **Frontend**: React.js + Tailwind CSS
- **Backend**: SpringBoot
- **Database**: PostgreSQL (production), SQLite (development)
- **Authentication**: JWT (access + refresh tokens), OAuth2 (Google/GitHub optional)
- **Maps & Location**: Google Maps API + Geolocation API
- **Real-time Messaging**: WebSockets (secure chat)

Architecture diagram

Modules

- **Module A**: Authentication and profile management
- **Module B**: Case submission and directory integration
- **Module C**: Matching engine and communication tools
- **Module D**: Impact dashboard and admin panel
- **Module E**: Final testing, deployment, and documentation

Milestone

Milestone 1: Week 1 & 2 —Authentication & Setup

- Define roles: Citizen, Lawyer, NGO, Admin
- Initialize Springboot REST backend and React frontend
- Implement JWT and OAuth2 authentication
- Create registration/login UI and profile CRUD

Outcome:

- Auth endpoints
- Role-based login
- Profile management module.

Milestone 2: Week 3 & 4 — Case Submission & Directory Integration

- Build citizen-facing case submission form
- Integrate NGO Darpan and Bar Council directories
- Develop searchable lawyer/NGO directory UI

Outcomes:

- Case submission form
- Directory ingestion module
- Filterable directory UI.

Milestone 3: Week 5 & 6 — Matching & Communication

- Match cases with lawyers/NGOs based on expertise and location
- Build secure chat and call scheduling interface
- Implement notifications for matches and appointments

Outcome:

- Matching algorithm
- Chat module
- Notification system

Milestone 4: Week 7 & 8 — Impact & Deployment

- Create impact dashboard with metrics
- Build admin panel for verification and monitoring
- Final deployment and documentation

Outcome:

- Impact analytics dashboard
- Admin verification tools
- Live demo and documentation

Database design

users
id 🔑	int
username	varchar
email	varchar
password	varchar
role	varchar
created_at	datetime

cases
id 🔑	int
user_id 🔗	int
title	varchar
description	text
status	varchar
created_at	datetime
updated_at	datetime

chats
id 🔑	int
match_id 🔗	int
sender_id 🔗	int
message	text
timestamp	datetime

impact_logs
id 🔑	int
profile_id 🔗	int
cases_taken	int
cases_resolved	int
last_updated	datetime

profiles
id 🔑	int
user_id 🔗	int
name	varchar
expertise	text
location	varchar
verified	boolean
organization	varchar
contact_info	text

matches
id 🔑	int
case_id 🔗	int
profile_id 🔗	int
match_date	datetime
status	varchar

schedules
id 🔑	int
match_id 🔗	int
scheduled_time	datetime
status	varchar