



# Job Recommendation Platform Project Brief

## Overview

You will build a **Job Recommendation Platform** using **React.js (frontend)** and **FastAPI (backend)**. The platform should allow job seekers to browse, apply, and get recommended jobs, while employers can post and manage job listings. An **AI recommendation system** will suggest relevant jobs to candidates and provide employers with suitable candidate matches.

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## Features to Implement

### Phase 1: User Authentication

- User registration and login (JWT authentication).
- Roles: Job Seeker, Employer, and Admin.

### Phase 2: Core Job Features

#### Employer side:

- Post new jobs (title, description, requirements, salary, location, job type).
- Edit or delete job postings.
- View list of applicants for each job.

#### Job Seeker side:

- Create profile with skills, education, and experience.
- Upload and manage resumes.
- Browse jobs by category, location, or job type.
- Search and filter jobs (salary, industry, type).
- Apply for jobs.
- Save jobs for later.
- Track application status (Submitted, Shortlisted, Rejected).

### Phase 3: Admin Dashboard (Optional)

- Approve or reject employer accounts before activation.
- Manage users (job seekers and employers).
- Monitor job postings and applications.
- Generate reports (most applied jobs, most active employers, hiring statistics).

### Phase 4: Reviews & Feedback

- Job seekers can leave feedback about application experiences.
- Employers can review applicants (optional rating system).

## Phase 5: AI Component

- **Job Recommendations:** Suggest jobs to seekers based on their skills, profile, and previous applications.
  - **Candidate Matching:** Suggest suitable applicants to employers.
  - (Optional) **Skill Gap Analysis:** Highlight missing skills and suggest training resources.
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## Tools & Libraries

- **Frontend:** React.js, Redux/Context API, Axios.
  - **Backend:** FastAPI, SQLAlchemy (PostgreSQL or SQLite).
  - **AI:** Scikit-learn or TensorFlow for job recommendation.
  - **Auth:** JWT (PyJWT in FastAPI).
  - **Notifications:** Email/SMS (e.g., SendGrid or Twilio).
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## Deliverables

1. A working React frontend for Job Seekers, Employers, and Admins.
  2. A FastAPI backend with routes for jobs, applications, and authentication.
  3. AI-powered job recommendations for users.
  4. Documentation (README) explaining setup, features, and usage.
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