

Assignment: AI-Powered Job Tracker with Smart Matching

Time limit: 2-3 days

The Challenge

Build a job tracking system that fetches jobs from an external API, tracks application status intelligently, and uses AI to match jobs with user's resume.

Core Features to Build

1. Job Feed & External Integration

- Fetch jobs from a **public job API** (Adzuna, JSearch on RapidAPI, or mock API)
- Display jobs in a clean feed with: title, company, location, description, job type
- Each job card should have an "Apply" button

Required Filters:

- **Role/Title:** Search by job title
- **Skills:** Multi-select skills (React, Node.js, Python, etc.)
- **Date Posted:** Last 24 hours, Last week, Last month, Any time
- **Job Type:** Full-time, Part-time, Contract, Internship
- **Work Mode:** Remote, Hybrid, On-site
- **Location:** City/region filter
- **Match Score:** High (>70%), Medium (40-70%), All

2. Resume Upload

- At login, prompt user to upload resume (PDF/TXT)
- Single resume - user can replace/update anytime
- Extract and store resume text

3. AI-Powered Job Matching ★

- **When jobs load**, automatically score each job against user's resume
- Show **match score (0-100%)** on every job card
- Display with color badges: Green (>70%), Yellow (40-70%), Gray (<40%)
- Show "Best Matches" section at top (6-8 highest scoring jobs)

- Explain why it matched (key skills, experience alignment)

4. Smart Application Tracking ★ (Critical Thinking Test)

- When user clicks "Apply", **open job link in new tab**
- **When user returns to your app**, show popup:
 - "Did you apply to [Job Title] at [Company]?"
 - Options: "Yes, Applied" | "No, just browsing" | "Applied Earlier"
- If "Yes", save as "Applied" with timestamp
- User can later update status: Applied → Interview → Offer/Rejected
- Show all applications in a dashboard with timeline with filters with different stages

5. AI Sidebar Assistant

Build a chat interface that answers:

- "Show me remote React jobs"
- "Give me UX jobs requiring Figma"
- "Which jobs have highest match scores?"
- "Find senior roles posted this week"

Also answers product questions:

- "Where do I see my applications?"
- "How do I upload my resume?"
- "How does matching work?"

The AI filters jobs intelligently and explains recommendations.

Technical Stack

Frontend: React (clean UI, responsive design)

Backend: Node.js with Fastify(preferred) or Nodejs

AI: OpenAI/Anthropic/Gemini or any for scoring and chat

Storage: In-memory use redis e.g upstash

Required Deliverables

1. Live Link (MANDATORY)

Deploy and share working URL

2. GitHub Repository (MANDATORY)

- Clean code, good structure
- `.env.example` with required variables
- No API keys committed

3. README.md Must Include:

a) Architecture Diagram Visual diagram showing components, API flow, AI integration, and data structure

b) Setup Instructions How to run locally, environment variables, prerequisites

c) AI Matching Logic How you calculate scores, your approach, and efficiency considerations

d) Critical Thinking: Popup Flow Explain your design decisions, edge cases handled, alternatives considered

e) Scalability How this handles 100 jobs at once and 10,000 users

f) Tradeoffs What you'd improve with more time and known limitations

What We're Evaluating

Must Have:

- ☒ Live deployment working
- ☒ GitHub repo accessible
- ☒ Architecture diagram in README
- ☒ All filters functional
- ☒ AI match scores showing
- ☒ Smart popup flow working

Looking For:

- Product thinking (does it make sense for job seekers?)
- AI used meaningfully, not as gimmick
- Clean React code and good UX
- Smart backend design
- Independent problem-solving
- Professional UI that looks good

Bonus:

- Exceptional design
 - Performance optimizations
 - Mobile responsive
 - Creative extra features
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Submission Checklist

- Live link works on mobile + desktop
- GitHub repo is public
- README has architecture diagram
- Filters work
- Match scores visible
- Popup flow works
- AI chat functional
- No secrets in code