# 🧠 AI Job Apply App — Module Roadmap

This document outlines the module-by-module roadmap for the Job Apply App. It is designed so that 2–3 team members can divide work clearly, understand responsibilities, and build towards a full-fledged software system with Docker, n8n, and Vercel.

## Module 0 — Foundations

Setup monorepo or polyrepo, Docker Compose (frontend, API, n8n, Postgres, storage), Vercel deployment, Supabase/MinIO storage, secrets/env setup, basic health checks.

## Module 1 — JD Extractor (Text/OCR)

Convert raw text or screenshots into structured job description JSON using OCR + LLM cleanup.

## Module 2 — Profile Parser

Parse user’s CV into structured profile\_info JSON including personal info, skills, education, experience, certifications, projects, languages, and preferences.

## Module 3 — CV Tailor (Resume Customizer)

Customize CV to match JD keywords and requirements. Generate DOCX and export PDF.

## Module 4 — Cover Letter Generator

Generate a personalized cover letter referencing JD and profile highlights. Output DOCX/PDF.

## Module 5 — Email Composer + Sender

Detect HR email, compose message with tailored CV + CL, and send via Gmail API/Outlook API.

## Module 6 — Company Insight Generator

Fetch short company summary (overview, industry, mission, size) using SerpAPI/web scraping + LLM summarization.

## Module 7 — Interview Question Generator

Generate potential interview questions (technical + behavioral) based on JD and tailored CV.

## Module 8 — Job Tracker Brain

Log each application in the database with company, role, date, status, and artifacts. Add reminders for follow-ups.

## Module 9 — Chatbot Orchestrator

Provide conversational flow to guide user from JD input → CV/CL preview → send → tracking.

## Module 10 — History Dashboard

Vercel-hosted dashboard tab with tabular view of all applications (date, role, company, status, next actions, artifacts).

# 👥 Team Structure

• Member A – Backend/ML: JD Extractor, Profile Parser, CV Tailor, Cover Letter  
• Member B – Automation/DevOps: n8n workflows, Docker Compose, email integrations, reminders  
• Member C – Frontend: Vercel Next.js app (chat + dashboard), auth, UX polish  
  
If only 2 members: A covers Backend+ML; B covers Automation+Frontend.

# 📅 Suggested Sprint Plan

Sprint 1 (Week 1):  
- Member B: Module 0  
- Member A: Module 1  
- Member C: Frontend scaffolding  
  
Sprint 2 (Week 2):  
- Member A: Modules 2–4  
- Member B: Modules 5–6  
- Member C: Chat flow & dashboard skeleton  
  
Sprint 3 (Week 3):  
- Member B: Module 8  
- Member C: Module 10  
- Member A: Module 7 + integration QA