**Product Requirement Document (PRD)**

**1. Product Overview**

An **AI-driven web platform** that helps reduce an employer’s recruitment load by:

1. **Assessing resumes** against specific job descriptions (JD).
2. Conducting a **first-level interview** via a text-based AI chatbot to validate the candidate’s skills.

The system has **two separate portals**:

* **Admin Portal** (for onboarding companies, managing JDs, operators, and usage tracking).
* **Operator Portal** (for handling day-to-day resume assessments and text-based interviews).

**MVP Goal**: Reduce the **initial screening burden** (both resume review and first-level interviews) by **80%** for each hiring cycle.

**2. User Personas**

**2.1 Admin Persona**

* **Role**: System administrator with full access.
* **Responsibilities**:
  1. **Onboard Companies** (set up company details, create JD libraries).
  2. **Manage Operators** (create operator accounts, track usage).
  3. **Oversee Usage & Performance** (reports on how many resumes/interviews per company).

**2.2 Operator Persona**

* **Role**: Day-to-day user who performs resume assessments and schedules/conducts interviews.
* **Responsibilities**:
  1. **Resume Assessment** (upload resumes against JDs, generate shortlisting reports).
  2. **First-Level Interview** (schedule, initiate text-based chatbot interview, generate final interview reports).

**3. Scope & Key Features**

**3.1 Admin Portal**

**3.1.1 Company Onboarding**

* **Create New Company**: Name, location, industry, contact email.
* **View/Manage Companies**: A dashboard of all onboarded companies with basic details.

**3.1.2 Job Description (JD) Library**

* **Upload JDs**: Accept PDF, DOCX, TXT, Excel.
* **JD Metadata**: Job Title, Years of Experience, Must-have vs. Good-to-have skills.
* **JD Management**: Ability to edit or delete old JDs.

**3.1.3 Operator Management**

* **Create/Manage Operator Accounts**: Basic user profile, login credentials.
* **Track Operator Performance**: Number of resumes assessed, interviews conducted.

**3.1.4 Reporting & Analytics**

* **Usage Metrics**: Resumes processed, interviews conducted (daily, monthly, quarterly).
* **Downloadable Reports**: Summaries of operator performance or company activity.

**3.2 Operator Portal**

**3.2.1 Resume Assessment**

1. **Select Company & JD**
   * Operator chooses from the **company list** and selects the **JD** of interest.
2. **Upload Resumes** (max 5 at once)
   * Supported formats: PDF, DOCX, TXT.
   * Graphical resumes not allowed initially; failed parses are flagged.
3. **AI Assessment**
   * The system uses **keyword + semantic** matching to gauge candidate suitability.
   * Produces a **shortlisting decision** (Shortlisted/Not Shortlisted) with a brief justification.
   * Flags anomalies (e.g., suspicious experience claims).
4. **Reports**
   * The system generates plain text summaries.
   * The Operator can download and/or email these to the company.

**3.2.2 First-Level Interview**

1. **Candidate Listing & Scheduling**
   * Operator selects the candidates who need interviews (including those not originally shortlisted if the company requests).
   * Operator manually **schedules** an interview time and shares the link + OTP login instructions.
2. **Text-Based AI Chatbot**
   * Candidate logs in with OTP at the scheduled time.
   * The chatbot asks **12-14 questions**:
     + ~80% open-ended (4-8 sentences), ~20% short-answer.
     + Interview is capped at **25 minutes**.
   * Focus on validating **must-have skills** and **resume claims**.
3. **Interview Outcome**
   * A **one-page text document** is generated:
     + Candidate info (Name, Email, Phone)
     + JD/Role interviewed for
     + Final decision (Selected or Not)
     + Fitment Score
     + Brief justification
   * Operator can make edits if needed, then finalize and share with the employer.

**4. Technical Approach (MVP)**

* **Backend & Database**
  + A single web application (monolithic or simple microservices).
  + **Relational DB** (e.g., PostgreSQL or MySQL) for storing companies, operators, JDs, resumes, interview data.
* **NLP & Chatbot**
  + **Lightweight NLP** approach or **OpenAI API** for question generation and answer analysis.
  + Minimal prompt engineering for now; we’ll refine later.
* **Authentication**
  + **Admin & Operator**: Standard username/password.
  + **Candidate**: OTP-based login for the text-based interview portal.
* **Reporting**
  + **Plain text** output for resume assessments and interview results.
  + Downloadable from the Operator interface.

**5. Answers to Open Questions**

1. **Data Privacy/Compliance**
   * **All personal data** (resumes, contact info, interview responses) will be **stored in a single database** with appropriate security measures (e.g., access controls, encryption at rest if needed).
2. **Multi-Tenancy**
   * **Logical separation** of each company’s data (e.g., using a company\_id field).
   * Operators can only access data for assigned companies.
3. **Prompt Engineering (OpenAI)**
   * We will **discuss in detail later**. For now, we’ll provide a basic prompt structure with JD and candidate info to generate or analyze questions and answers.

**6. Success Metrics**

* **Time Saved**: Reduction in manual screening effort (resume + interview) by **80%**.
* **Number of Companies Onboarded**: How many adopt the MVP solution.
* **Candidate Throughput**: How many resumes and interviews can one operator handle per day.
* **User Feedback**: Overall satisfaction of operators and employers on the clarity of AI-generated shortlists and interview outputs.

**7. Project Timeline (Indicative)**

1. **Month 1**
   * **Admin Portal** with company onboarding, JD library.
   * **Operator Portal** with basic resume upload and shortlisting feature
   * Implement the **AI-based matching** for resume assessment.
2. **Month 2**
   * Build the **text-based chatbot** for interviews (using rule-based or OpenAI approach).
   * **OTP-based Candidate Login** flow.
   * Final testing of the **end-to-end** process (resume assessment + interview).
   * **Deployment** and feedback loop.

**8. Out of Scope (Future Enhancements)**

* **Voice/Video Integration**: Using speech-to-text or video analytics.
* **Advanced Proctoring**: Enforcing video on, restricting screen switching, etc.
* **Integrated Scheduling & Calendar Sync**: Automated creation of meeting links (Teams, Zoom).
* **Deep Prompt Engineering**: More sophisticated conversation modeling beyond MVP.