**Business Requirement Document (BRD)**

**Project Title : Resume Analyzer With AI**

**1. Executive Summary**

The Resume Analyzer Web Application aims to simplify and improve the process of matching job seekers' resumes with job descriptions by using AI.  
The application allows users to upload resumes (PDF/DOCX), extract and analyze resume contents, compare with job descriptions, provide matching scores, skill gap analysis, section-wise feedback, and downloadable reports.

**2. Business Objectives**

* Provide an AI-powered platform for analyzing resumes against job descriptions.
* Help job seekers identify skill gaps and areas of improvement.
* Assist recruiters in efficiently shortlisting candidates based on compatibility.
* Offer detailed, downloadable reports for career enhancement.

**3. Scope of Work**

**In-Scope:**

* User authentication (registration, login, logout with JWT and cookies).
* Upload resume (PDF, DOCX formats).
* Upload job description (text input).
* Resume content extraction.
* Resume analysis using AI (Gemini API).
* Generate matching score.
* Perform skill gap analysis.
* Provide section-wise feedback (Education, Skills, Experience, etc.).
* Store analysis reports linked to the user account.
* Allow users to download the report in PDF format.

**Out-of-Scope:**

* Resume building services.
* Job application services.

**4. Business Requirements**

| **ID** | **Requirement Description** | **Priority** |
| --- | --- | --- |
| BR-1 | Users must be able to register and login securely. | High |
| BR-2 | Users must be able to upload resumes in PDF/DOCX format. | High |
| BR-3 | Users must input the target job description. | High |
| BR-4 | System must extract text from uploaded resumes. | High |
| BR-5 | System must analyze resume and job description using AI. | High |
| BR-6 | System must generate a matching score. | High |
| BR-7 | System must perform a skill gap analysis. | High |
| BR-8 | System must generate section-wise feedback. | Medium |
| BR-9 | System must allow users to download a report (PDF). | High |
|  |  |  |

**5. Functional Requirements**

* Authentication system with JWT access/refresh tokens.
* Resume upload to Cloudinary or server.
* Text extraction using libraries like pdf-parse, docx, or custom parsers.
* Use Google Gemini-1.5-flash model for resume/job description analysis.
* Data storage using MongoDB.
* API routes for:
  + User authentication
  + Resume upload
  + Analysis request
  + Report generation
  + Admin controls
* Frontend built with React (Vite + TailwindCSS + Redux Toolkit).
* Responsive and intuitive UI for all devices.

**6. Non-Functional Requirements**

* System must respond within 5 seconds for analysis results (post-upload).
* Application must handle up to 100 concurrent users.
* Data must be securely stored and transmitted (HTTPS, secure cookies).
* Resume files must have a size limit (e.g., 5MB).
* API rate limiting to prevent abuse (especially AI analysis).

**7. Assumptions**

* Users have updated browsers and internet connections.
* AI costs (Gemini API usage) are manageable under free or paid plans.
* Users upload genuine and professional resumes.

**8. Constraints**

* Dependent on third-party APIs (Gemini, Cloudinary).
* Limited by file size and API usage quotas.
* No offline usage planned.

**9. Risk Analysis**

| **Risk** | **Impact** | **Mitigation** |
| --- | --- | --- |
| API rate limits from Gemini | High | Cache responses, limit retries |
| Cloudinary upload failures | Medium | Retry uploads, validate files before upload |
| Data privacy concerns | High | Encrypt sensitive data, use GDPR practices |
| Large file uploads slowing app | Medium | Set file size limits and optimize parsing |
|  |  |  |

**10. Timeline Estimate**

| **Phase** | **Duration** |
| --- | --- |
| Requirements Gathering | 2 days |
| UI/UX Design | 3 days |
| Backend Development | 7 days |
| Frontend Development | 7 days |
| Testing and Bug Fixing | 4 days |
| Deployment | 2 days |
| Total Estimated Timeline | 25 days |