Software Requirements Specification (SRS)

Job Portal Management System

1. Introduction

1.1 Purpose

The purpose of this document is to define the software requirements for the Job portal. This platform will facilitate job seekers (employees) to search and apply for jobs and allow employers to post and manage job listings.

1.2 Scope

The System will offer a web-based portal with two main user roles:

- **Employees (Job Seekers):** Create profiles, upload resumes, search jobs, and apply.
- **Employers (Recruiters):** Register companies, post jobs, view applicants, and manage postings.
- Secure authentication and authorization for both Employees and Employers.

1.3 Definitions, Acronyms and Abbreviations

- **SRS**: Software Requirements Specifications
- **UI**: User Interface
- **UX**: User Experience
- **API**: Application Programming Interface
- **DFD**: Data Flow Diagram
- **ERD**: Entity Relationship Diagram

1.4 References

- IEEE 830 standard format for SRS.
- ReactJS Official Documentation – https://reactjs.org/docs
- Similar Job Portal Platform:

1.5 Overview

This document outlines the system's functional and non-functional requirements, user roles, constraints, interfaces, and development plan.

2. Overall Description

2.1 Product Perspective

The system will be a web application using the MERN stack (MongoDB, Express.js, React, Node.js). It will interact with a backend server for database and logic handling.

2.2 Product Functions

- Employee Registration/Login
- Resume Upload and Profile Management
- Job search and Filters
- Employer Registration/Login
- Job Posting using Multistep Form

2.3 User Classes and Characteristics

- **Employees**: Individuals looking for jobs; basic computer literacy.
- **Employers**: HR or hiring managers; intermediate computer literacy.

2.4 Assumptions and Dependencies

- The User has stable internet connection.
- The system has standard web browser.
- No major changes in job postings.

2.5 Technology Stack

- Frontend: React, Bootstrap, Axios
- Backend: Node.js, Express.js
- Database: MongoDB
- Authentication: JSON Web Token (JWT)
- Hosting: GitHub, Vercel
- Other tools: Postman

3. Specific Requirements

3.1 Functional Requirements

3.1.1 Employee Features

- Register with name, email, password, phone number.
- Login using email and password.
- Create and update profile
- Upload resume
- Seach jobs by title, company, location, category.
- Apply for the job with a click.

3.1.2 Employer Features

- Register company with name, address, description, email, password.
- Login using company email and password.
- Post new jobs with title, description, salary, location, category.
- View and manage all posted jobs.

3.1.3 Common Features

- Forget password
- Responsive design.

3.2 Non-Functional Requirements

- Performance
- Security
- Scalability
- Reliability
- Usability

3.3 Interface Requirements

3.3.1 User Interfaces

- Clean and intuitive React-based front end.
- Separate dashboards for Employee and Employer.

3.3.2 Hardware Interfaces

- Basic PC/mobile device with browser.

3.3.3 Communication Interfaces

- HTTPS for secure communication.
- RESTful API endpoints.

4. Validation and Verification

- Unit testing for each modules
- Integration testing for workflows
- UAT with real users
- Load testing with concurrent sessions

5. Project Timelines

- Planning Phase (5 Days)
- Design Phase (10 Days)
- Development Phase (12 Days)
- Testing Phase (2 Days)
- Deployment Phase (4 Days)

Total Timeline (33 Days)

6. Appendices

6.1 Glossary

- **Employee**: A job seeker using the portal to search and apply for job opportunities.
- **Employer**: A recruiter or company representative posting jobs and managing applicants.
- **Resume**: A document uploaded by the employee detailing their qualifications and experience.

6.2 User Flow Diagrams

- **Employee Journey**:
  Login → Manage Profile → Upload Resume → Apply Jobs → View Applied Jobs → Logout
- **Employer Journey**:
  Login → Enter Job Details → Enter Candidate Requirements → Enter Company Details → Review Job → Post Job → Logout

6.3 Data Dictionary

1. Employees: id, full_name, email, password, phone_number, resume_url, education, experience, skills, created_at, updated_at
2. Employers: id, contact_person, email, password, phone_number, created_at, updated_at

3. Jobs: id, category, title, description, location, salary, posted_at, updated_at
4. Requirements: id, education, experience, skills, created_at, updated_at
5. Company: id, name, address, description, website_url, created_at, updated_at
6. Applications: id, job_id, applied_at, updated_at

Your Sincerely,

Name: ________________

Position: ________________

Octopyder Services Pvt. Ltd.

Client Name: ______________

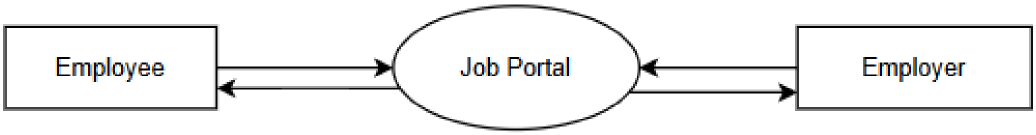
Position: _________________

Company Name

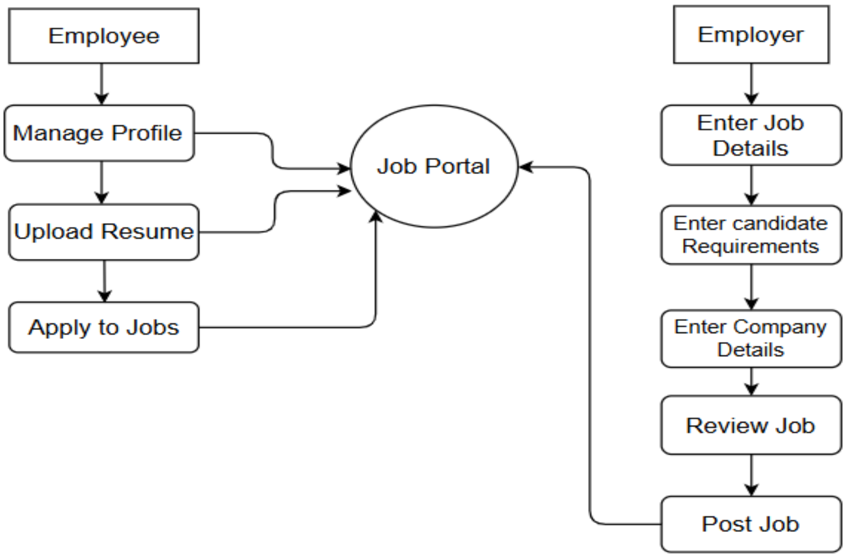
Diagrams

7.1 Data Flow Diagrams

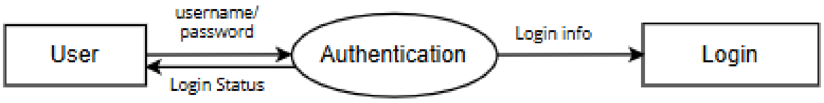
7.1.1 Level 0

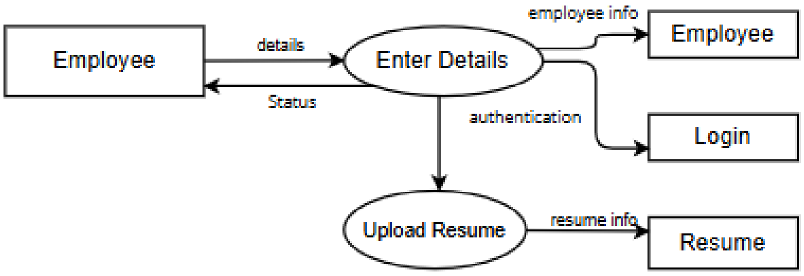


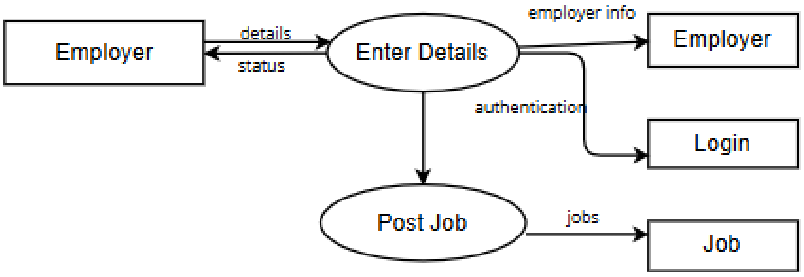
7.1.2 Level 1

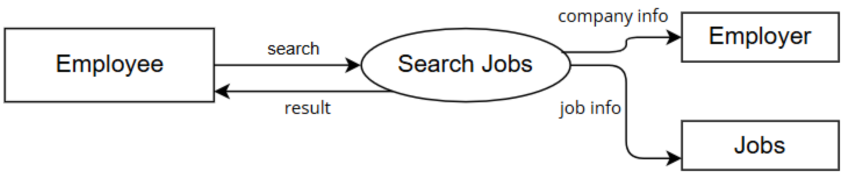


7.1.3 Level 2

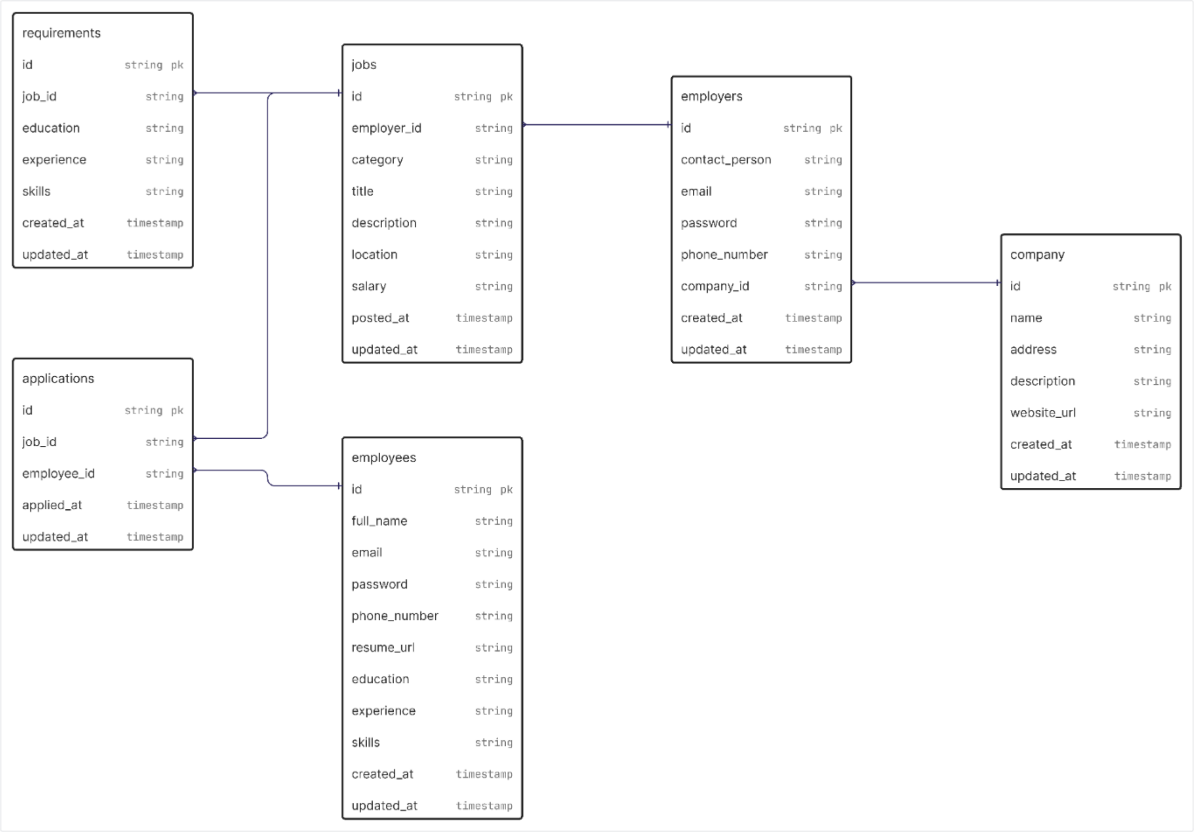

User
username/
password
Login Status
Authentication
Login info
Login


Employee
details
Status
Enter Details
employee info
Employee
authentication
Login
Upload Resume
resume info
Resume


Employer
details
status
Enter Details
employer info
Employer
authentication
Login
Post Job
jobs
Job


Employee
search
result
Search Jobs
company info
Employer
job info
Jobs

7.2 ER Diagram


requirements
id string pk
job_id string
education string
experience string
skills string
created_at timestamp
updated_at timestamp
jobs
id string pk
employer_id string
category string
title string
description string
location string
salary string
posted_at timestamp
updated_at timestamp
employers
id string pk
contact_person string
email string
password string
phone_number string
company_id string
created_at timestamp
updated_at timestamp
company
id string pk
name string
address string
description string
website_url string
created_at timestamp
updated_at timestamp
applications
id string pk
job_id string
employee_id string
applied_at timestamp
updated_at timestamp
employees
id string pk
full_name string
email string
password string
phone_number string
resume_url string
education string
experience string
skills string
created_at timestamp
updated_at timestamp