

# JOB PORTAL SYTSEM

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# Introduction

A Job Portal System is an online platform designed to bridge the gap between job seekers and employers. It serves as a digital marketplace where individuals seeking employment can connect with organizations looking to fill various roles. The system automates many aspects of the recruitment process, providing tools for posting jobs, searching resumes, applying for positions, and managing candidate interactions. Job portal is a cutting-edge digital platform designed to revolutionize the modern hiring process by seamlessly connecting qualified job seekers with potential employers. This web-based application serves as an efficient intermediary in the recruitment ecosystem, leveraging technology to streamline job searches, candidate screening, and hiring procedures . To eliminate manual processes in recruitment, reduce time and effort for both employers and applicants, and provide a user-friendly interface with advanced search and filtering features. The system will also include an admin panel to manage users, job postings, and ensure smooth functioning of the platform. The goal of a Job Portal System is to simplify the hiring process, reduce time-to-hire, and expand the reach for both employers and job seekers. It leverages technology to ensure a more efficient, transparent, and accessible employment ecosystem.

# Purpose

The purpose of the Software Requirements Specification (SRS) document for the Job Portal System is to define Functional & Non-Functional Requirements – Clearly outline the system's features, user interactions, and , performance criteria . Serve as a Reference for Stakeholders – Provide developers, testers , project managers , and clients with a shared understanding of system requirements. Guide Development & Testing – Act as a blueprint for designing, implementing , and validating the job portal system. Ensure Alignment with Business Goals – Confirm that the system meets employer, job seeker, and administrative needs efficiently. Facilitate Future Enhancements – Document requirements to support scalability and future updates.

The purpose of the Software Requirements Specification (SRS) document for the Job Portal System is to capture and document the functional and non-functional requirements of the system in a clear and structured manner.It serves as a formal agreement between stakeholders—including clients, developers, testers, and users—by outlining exactly what the system should do (functional requirements) and how it should perform (non-functional requirements). The functional requirements define the core features and functionalities such as user registration, job posting, job searching, application tracking, and communication between users. Detail performance criteria, usability, reliability, scalability, security, and compliance standards that the system must meet in Specify Non-Functional Requirements.

# Scope

The Job Portal System is a web-based platform designed to facilitate seamless interaction between job seekers and employers. It provides tools for job postings, applications, resume management, and recruitment workflows while ensuring security, usability, and scalability. The main functionalities and features for job seekers are User registration and profile management, Upload and manage resumes and cover letters, Search and filter job listings by category, location, experience, etc., Apply for jobs directly through the platform, Track application status, Receive job alerts and notifications, Save favorite jobs. For employers, registration and profile management, Post, edit, and delete job listings, View and search applicant profiles, Manage and respond to job applications, Receive candidate suggestions based on job requirements. For administrators, Employer registration and profile management, Post, edit, and delete job listings, View and search applicant profiles, Manage and respond to job applications, Receive candidate suggestions based on job requirements. The limitations and exclusions of the job portal system are No third-party integrations, Limited language support, No advanced AI-based matching, No payroll or contract management. The user roles of job seeker individuals looking for job opportunities, can create profiles, upload resumes, search and apply for jobs. For employers, Companies or recruiters posting job openings can manage company profiles, post jobs, and review applicants. and for administrators, Platform managers overseeing overall operations can manage content, moderate users, and ensure platform compliance and performance.

# Objectives

The high-level objectives of the Job Portal System are to create an efficient, centralized platform that connects job seekers with potential employers, streamlining the entire recruitment process. The system aims to make job searching easier and more targeted for candidates while providing employers with tools to post vacancies, filter applicants, and manage recruitment activities effectively. It addresses key problems such as the inefficiency of manual hiring processes, difficulty in accessing suitable job opportunities, poor communication between recruiters and applicants, and the lack of a unified system for tracking and managing job applications. By automating and organizing these processes, the system reduces effort, improves accuracy, and enhances the overall experience for all users involved.

**Streamline the Recruitment Process:** Provide a centralized, efficient platform where employers can post job openings and job seekers can find and apply for relevant opportunities.

**Enhance Accessibility and Usability:** Deliver a user-friendly interface that ensures easy navigation and accessibility for users with varying levels of technical expertise.

**Enable Effective Profile and Resume Management:** Allow job seekers to build, update, and manage their profiles and resumes to showcase their skills and experiences effectively.

**Facilitate Communication Between Users:** Provide communication tools and notifications to keep job seekers and employers informed and engaged throughout the application process.

# Functional Requirements

Primary actors of the system :

The **Job Portal System** involves several key actors that interact with the system in different ways. These actors represent both human users and potential external systems.

## **Job Seekers (Users)**

**Role:** Individuals seeking employment opportunities. **Responsibilities:** Register and log in to the system, Create and update personal profiles, Upload and manage resumes or CVs, Search and filter job listings based on preferences (e.g., location, skills, job type), Apply for jobs and track application status, Receive notifications about job openings and application updates.

## **Employers (Recruiters/Companies)**

**Role:** Organizations or individuals looking to hire candidates.

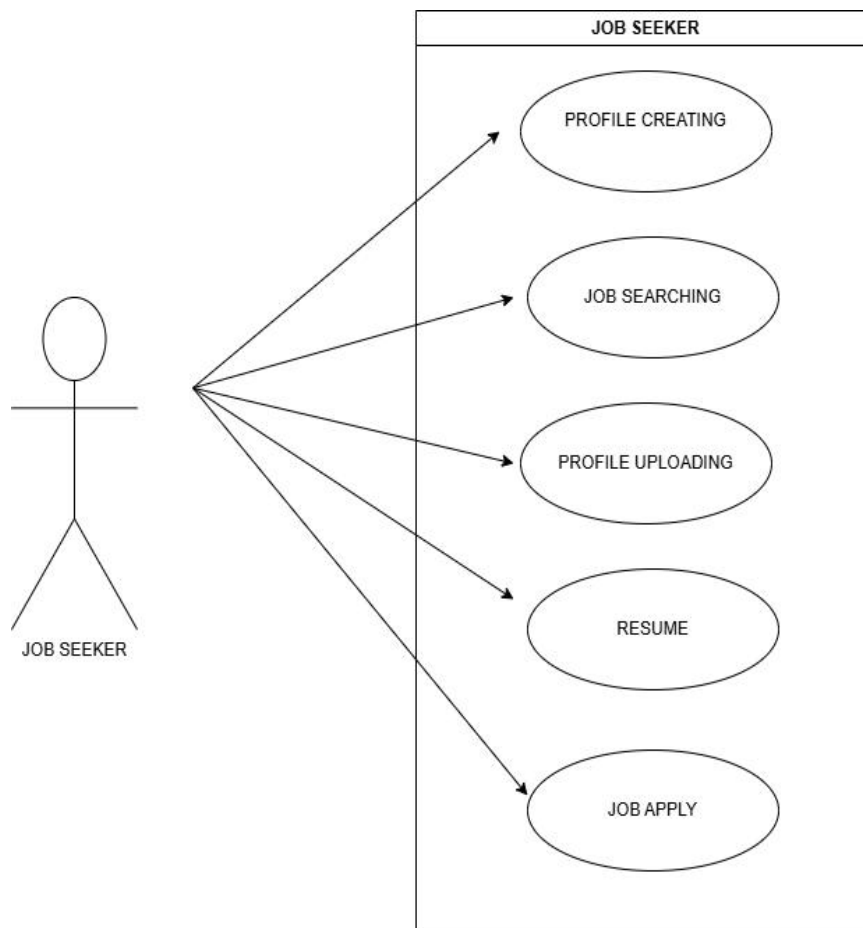
**Responsibilities:** Register and login as employer users, Create and manage company profiles, Post new job vacancies with detailed descriptions, View and manage applications from job seekers, Search for and browse job seeker profiles, Communicate with applicants and manage recruitment processes.

## **Administrators**

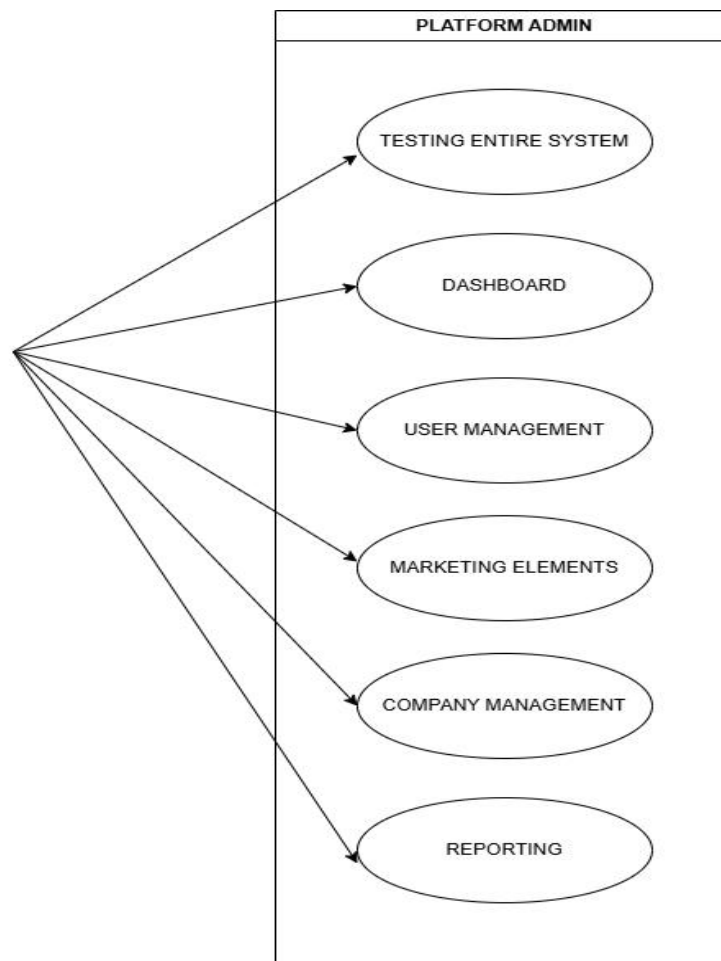
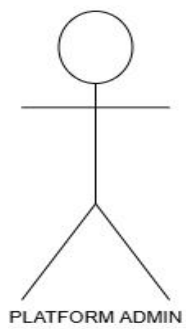
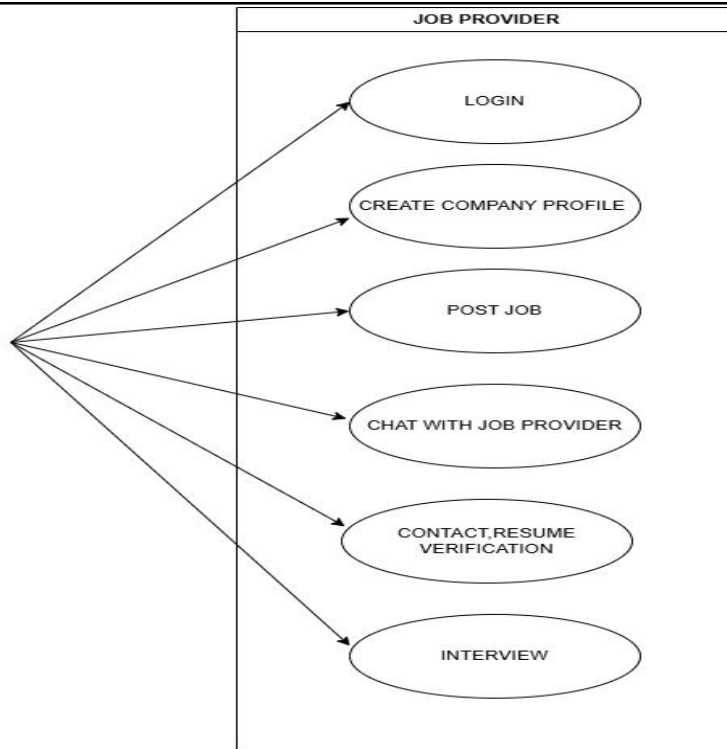
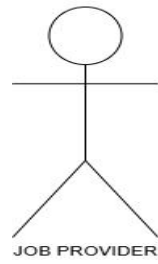
**Role:** System managers responsible for platform oversight. **Responsibilities:** Manage and moderate user accounts (job seekers and employers), Approve, reject, or remove job postings as necessary, Monitor platform activity for compliance and security, Generate and review system usage and performance reports, Maintain the integrity, performance, and availability of the system.

## Use Case Diagram

A Use Case Diagram is a visual representation of the interactions between users (actors) and a system, highlighting the key functionalities offered. For a Job Portal System, this diagram helps clarify how different users (e.g., job seekers, employers, admins) interact with the platform to achieve their goals.







## User stories

User stories are short, simple descriptions of a feature or functionality told from the perspective of the person who desires the new capability — typically a user or customer of the system. They are widely used in Agile software development to capture product requirements in a way that focuses on user needs and business value.

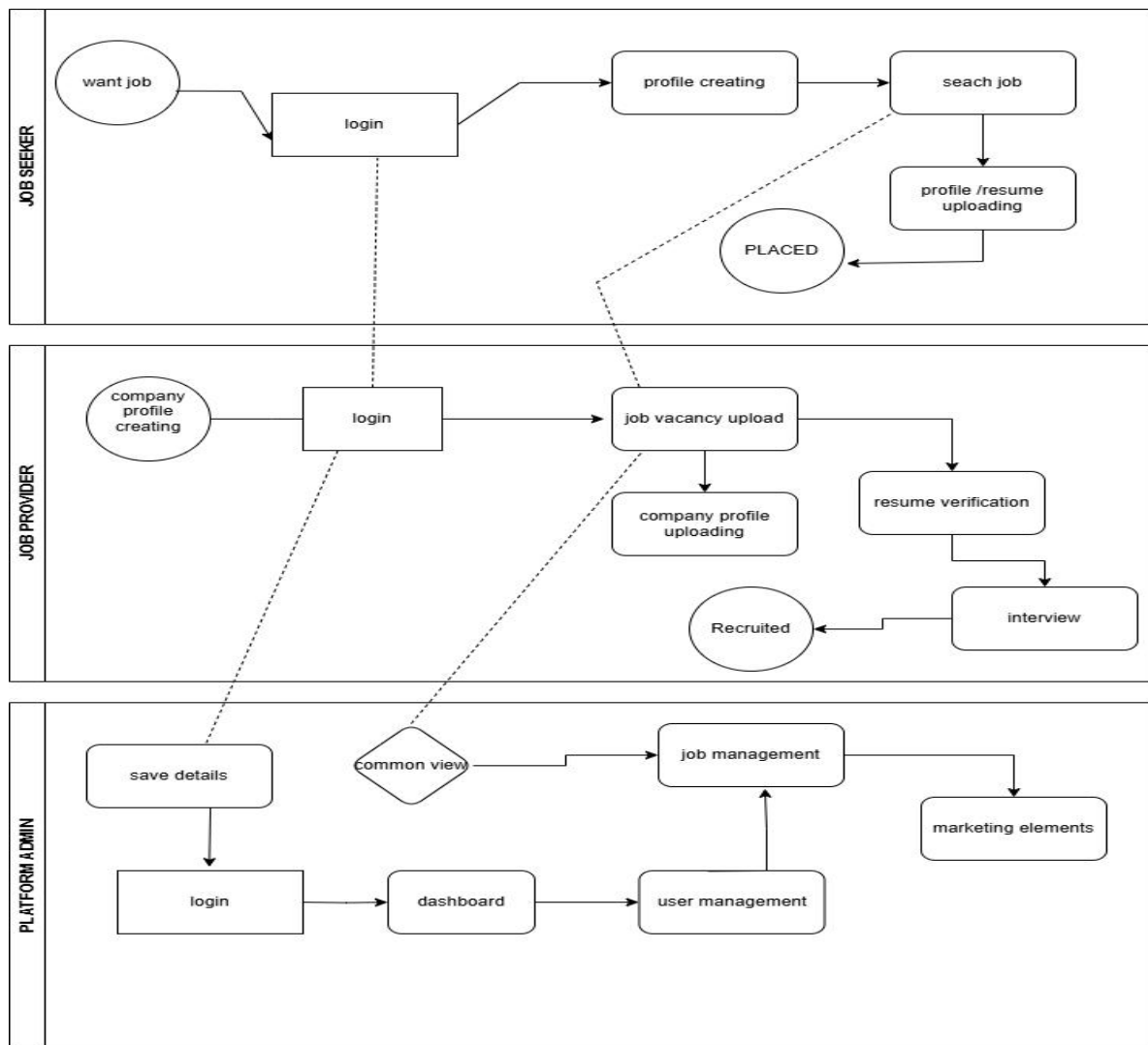
AS A	I NEED TO	SO THAT I CAN
JOB SEEKER	LOGIN SECURELY TO THE JOB PORTAL	I CAN ACCESS MY PERSONALIZED
JOB SEEKER	CREATE AND COMPLETE MY PROFILE	I CAN SHOWCASE MY QUALIFICATIONS AND PREFERENCES
JOB SEEKER	SEARCH FOR JOBS USING FILTERS LIKE LOCATION	FIND RELEVANT JOBS AND OPPORTUNITIES
JOB SEEKER	UPLOAD MY RESUME TO MY PROFILE	I CAN QUICKLY APPLY TO JOBS AND PROVIDE EMPLOYERS WITH DETAILED INFORMATION
JOB SEEKER	TO APPLY FOR JOBS	EXPRESS INTEREST IN JOBS OPENINGS

<b>AS A</b>	<b>I NEED TO</b>	<b>SO THAT I CAN</b>
<b>JOB PROVIDER</b>	<b>Login with username and password</b>	<b>Enter to the application</b>
<b>JOB PROVIDER</b>	<b>Create profile with their details</b>	<b>Post job opportunities,attract qualified candidates,and manage applications effectively</b>
<b>JOB PROVIDER</b>	<b>Post jobs</b>	<b>Attract qualified candidates to fill open positions with in my organization</b>
<b>JOB PROVIDER</b>	<b>Resume verification</b>	<b>Reduce the risk of hiring unqualified or dishonest applicants</b>
<b>JOB PROVIDER</b>	<b>Chat with seeker</b>	<b>Better understand their carrier goals,motivations and cultural fit</b>
<b>JOB PROVIDER</b>	<b>Conduct interview</b>	<b>Evaluates a candidate skill,experience and suitability for the role</b>

<b>AS A</b>	<b>I NEED TO</b>	<b>SO THAT I CAN</b>
<b>ADMIN</b>	<b>User Management</b>	<b>Control access to systems and ensure data security</b>
<b>ADMIN</b>	<b>Dashboard</b>	<b>Quickly identify and respond to issues or anomalies</b>
<b>ADMIN</b>	<b>Testing entire system</b>	<b>Ensure all components are working correctly and seamlessly together</b>
<b>ADMIN</b>	<b>Company management</b>	<b>Oversee and coordinates all departments and operations efficiently</b>
<b>ADMIN</b>	<b>Marketing elements</b>	<b>Track marketing performance and optimize strategies for better results</b>
<b>ADMIN</b>	<b>Reporting</b>	<b>Identify issues and areas that need improvement</b>

# Business Process Diagram

A Business Process Diagram (BPD) is a visual representation of the steps or activities involved in completing a business process. It shows how work flows through a system — from the start to the end — and illustrates the roles, actions, decisions, and systems involved.



# Non-Functional Requirements

## Performance Requirements

- The system must support at least **1,000 concurrent users** without performance degradation.
- Page load times should not exceed **3 seconds** under normal load conditions.
- The job search function should return results within **2 seconds** for queries with standard filters.

## Reliability Requirements

- The system must maintain 99.9% uptime monthly.
- In case of failure, the system must recover within 5 minutes using automated recovery tools or backup servers.
- Daily incremental backups and weekly full backups must be scheduled to prevent data loss

## Security Requirements

- User passwords must be stored using encryption (e.g., bcrypt).
- The system must implement role-based access control (RBAC) for job seekers, employers, and administrators.
- All sensitive transactions (e.g., login, registration, resume uploads) must occur over HTTPS.
- Implement protection against common vulnerabilities (e.g., SQL injection, cross-site scripting).

## Usability Requirements

- The interface must be intuitive and user-friendly, accessible to users with basic internet skills.
- The system must comply with WCAG 2.1 AA standards to support users with disabilities.
- Users should be able to complete core tasks (e.g., apply for a job or post a job) with no more than 3 clicks from the home page.

# Technical Requirements

## Hardware Requirements

### Server-Side:

- Minimum 8-core CPU, 16 GB RAM, 500 GB SSD (for production server).
- Scalable cloud infrastructure (e.g., AWS EC2, Azure VM, or DigitalOcean Droplets).

### Client-Side:

- Compatible with modern browsers (Chrome, Firefox, Edge, Safari).
- Minimum screen resolution support: 1366x768.

## Software Requirements

- Operating System (Server):
- Ubuntu Server 22.04 LTS or CentOS 8 (Linux-based OS preferred for stability and performance).
- Database Management System (DBMS):
- PostgreSQL 14+ or MySQL 8+
- Support for database backup and replication features.
- Web Server:
- Nginx or Apache for handling HTTP requests and reverse proxying.
- Application Server:
- Node.js (if using JavaScript stack) or Apache Tomcat (if using Java).
- Alternatively, Gunicorn with Django (if using Python).

## Development & Deployment Tools

- Version Control: Git with GitHub or GitLab
- CI/CD Pipeline: GitHub Actions, Jenkins, or GitLab CI/CD
- Containerization: Docker (recommended for consistent deployment)
- Monitoring: Prometheus + Grafana, or New Relic for performance monitoring

## Programming Languages & Frameworks

#### Frontend:

- HTML5, CSS3, JavaScript (ES6+)
- Framework: React.js or Angular for a dynamic, responsive UI

#### Backend:

- Node.js with Express, or
- Python with Django/Flask, or
- Java with Spring Boot

#### Mobile Compatibility:

- Responsive design using Bootstrap or Tailwind CSS
- Optional: Native mobile apps using React Native or Flutter (if mobile apps are planned)

#### Compatibility Requirements

##### Browser Compatibility:

- Fully compatible with the latest two versions of major browsers: Chrome, Firefox, Safari, Edge.

##### Device Compatibility:

- Responsive across desktop, tablets, and mobile devices.

##### API Standards:

- RESTful API design for integration with third-party services (e.g., email, job boards, payment gateways).
- JSON as the primary data exchange format.

## Conclusion

The Job Portal System serves as a comprehensive digital platform that bridges the gap between job seekers and employers, streamlining the recruitment and job search process. It is designed to offer an efficient, user-friendly, and secure environment where users can interact through intuitive features like job posting, profile creation, resume submission, application tracking, and candidate shortlisting.

With clearly defined user roles — including job seekers, employers, and administrators — the system supports personalized workflows and responsibilities, ensuring that each user can perform their tasks effectively. The inclusion of external integrations (e.g., email notifications, job syndication) and a robust technical foundation ensures scalability, maintainability, and future growth.

In addition to core functionality, the system adheres to essential non-functional requirements such as performance, security, usability, and reliability — all critical to providing a seamless user experience and protecting user data.

By combining practical features with strong technical and architectural design, the Job Portal System is not only a tool for connecting candidates with opportunities but also a scalable solution capable of evolving with the dynamic needs of the employment market.