1. Title of the Invention:

Job Entry – A Smart Job Portal for Skill-Based Recruitment

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2. Specify field of technology to which the invention belongs to:
The invention belongs to the field of Web Application Development, specifically utilizing the Spring Boot framework for building scalable, secure, and modular enterprise-level recruitment systems.

3. List all the currently existing technologies/ products that are similar to your invention: -

- **Naukri.com**
- **LinkedIn Jobs**
- **Indeed**
- **Monster India**
- **Shine.com**

Technical details of the invention

1. Background of the invention:

The increasing demand for streamlined recruitment processes has driven the need for efficient digital platforms that connect job seekers with potential employers. Traditional job search methods often result in a fragmented experience due to scattered job postings, outdated listings, and lack of personalized recommendations. This results in wasted time for both applicants and hiring managers.

The Job Entry project addresses these issues by offering a centralized platform that combines the advantages of modern web technologies. This platform enables job seekers to register, create detailed profiles, and search for jobs based on filters such as skills, location, and experience level. Employers can register their companies, post job listings, and manage applications via a user-friendly dashboard.

Unlike conventional portals, Job Entry introduces features like real-time job alerts, direct in-app messaging, secure profile management, and structured application tracking. This enhances user engagement, improves hiring coordination, and ensures better visibility of suitable opportunities. The use of Spring Boot, Hibernate, and MySQL ensures reliable backend performance, while a responsive frontend built with HTML, CSS, JavaScript, and Thymeleaf delivers an intuitive user experience.

Overall, Job Entry acts as a bridge between job seekers and employers, empowering both parties with tools to make informed decisions, reduce hiring cycles, and boost productivity.

2. Drawbacks in existing state-of-art and how your invention helps to overcome such drawbacks: -

Existing job platforms often suffer from the following limitations:

- **Lack of Personalization:** Job suggestions are generic and not based on specific skills or interests.
- **High Competition Visibility:** Applicants are often unaware of their competition and application status.
- **Limited Employer Control:** In some platforms like Indeed, employers have minimal control over candidate filtering.
- **Fake Listings:** Spam and unauthenticated job postings degrade user trust.
- **Delayed Communication:** Follow-ups and interviews are often delayed due to lack of direct communication channels.

Job Entry solves these problems by introducing:

- **Skill-Based Smart Filtering:** Applicants are recommended jobs tailored to their profile.
- **Application Tracking:** Both users and employers can track application statuses in real-time.
- **Dashboard Control:** Employers can manage postings and filter applications based on custom criteria.
- **Job Verification:** Only verified employers can post jobs, ensuring listing authenticity.
- **In-App Messaging:** Streamlined communication for scheduling interviews and updates.

This set of innovations ensures a faster, more transparent, and efficient hiring process

3. The technical features of your invention which are different from the existing inventions/applications: -

Job Entry is a next-generation web-based recruitment platform designed to simplify and modernize the hiring process for both job seekers and employers. Unlike conventional job portals, it introduces several user-centric features that enhance efficiency, transparency, and data security across the recruitment cycle.

One of the standout features is real-time job alerts that are customized based on user-defined filters such as location, experience level, and industry preferences. This ensures that job seekers receive timely and relevant opportunities. The platform also incorporates role-based dashboards tailored to each type of user — job seekers, employers, and administrators — allowing for a more focused and intuitive experience.

Job Entry places a strong emphasis on data security. Resumes and personal information are stored securely with encrypted access and customizable privacy settings, giving users full control over who can view their data. The integrated chat system facilitates two-way communication, enabling faster coordination between applicants and recruiters, thereby reducing hiring delays.

Additionally, the platform includes a robust analytics module for both employers and candidates. This module offers insights such as job engagement levels, application success rates, and user activity trends, enabling better decision-making and performance tracking. Together, these features create a seamless and intelligent job application experience that stands apart from traditional systems.

4. Main advantages of your invention: -

- Personalized job recommendations using smart filtering.
- Centralized dashboard for easy job and application management.
- Improved transparency and real-time tracking for both applicants and employers.
- Enhanced communication via built-in chat.
- Secure, scalable, and user-friendly interface.
- AI-based insights and analytics for informed hiring decisions.

5. Complete description of the invention –

Job Entry is a full-stack web portal developed using Java Spring Boot, designed to streamline the job search and recruitment process. It provides two main user roles: **Job Seekers** and **Employers**, with a dedicated admin panel for platform supervision.

The system allows job seekers to register, build a profile, upload resumes, and search for jobs using advanced filters like location, experience, and skills. job recommendations help users discover the most relevant listings. Employers can create job postings, view applicant profiles, and communicate with potential hires.

The portal features:

- **Registration/Login System** with role-based access.
- **Dynamic Job Board** with advanced search and filters.
- **Application Tracking System** for both parties.
- **Admin Panel** for monitoring listings, users, and system analytics.

a. **Components/Embodiments involved in the invention**
b. **User Management Module** (Structure: User entity, Function: registration & login)
c. **Job Module** (Structure: Job entity, Function: job posting and filtering)

d. **Application Module** (Structure: Application entity, Function: status tracking)
e. **Admin Module** (Function: system analytics and control)

Security measures include JWT-based authentication, encrypted user data, and job post verification via business registration.

The backend is built with **Java Spring Boot**, using **RESTful APIs** and **Hibernate ORM** for database operations on **MySQL**. The frontend is developed using **HTML, CSS, JavaScript, Bootstrap**, and **Thymeleaf** for dynamic content rendering

b. How are the components installed/arranged?

- Frontend interacts with backend through REST APIs.
- Backend contains service layers and repositories to process logic.
- MySQL database stores all entities like jobs, users, and applications.
- JWT handles session management securely.

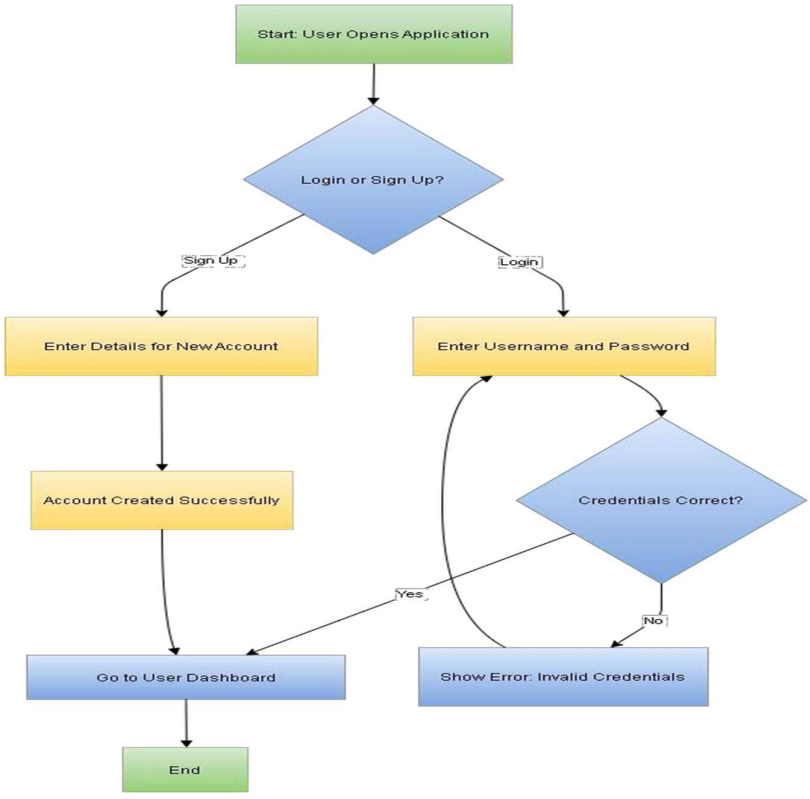

Figure 1- Operational Diagram

c. Figures/Structures: (Please attach the figures or structures as line drawings) – (Ensure all figures and structures are original line drawings, free from plagiarism, created based on their understanding or appropriately modified from reference materials)

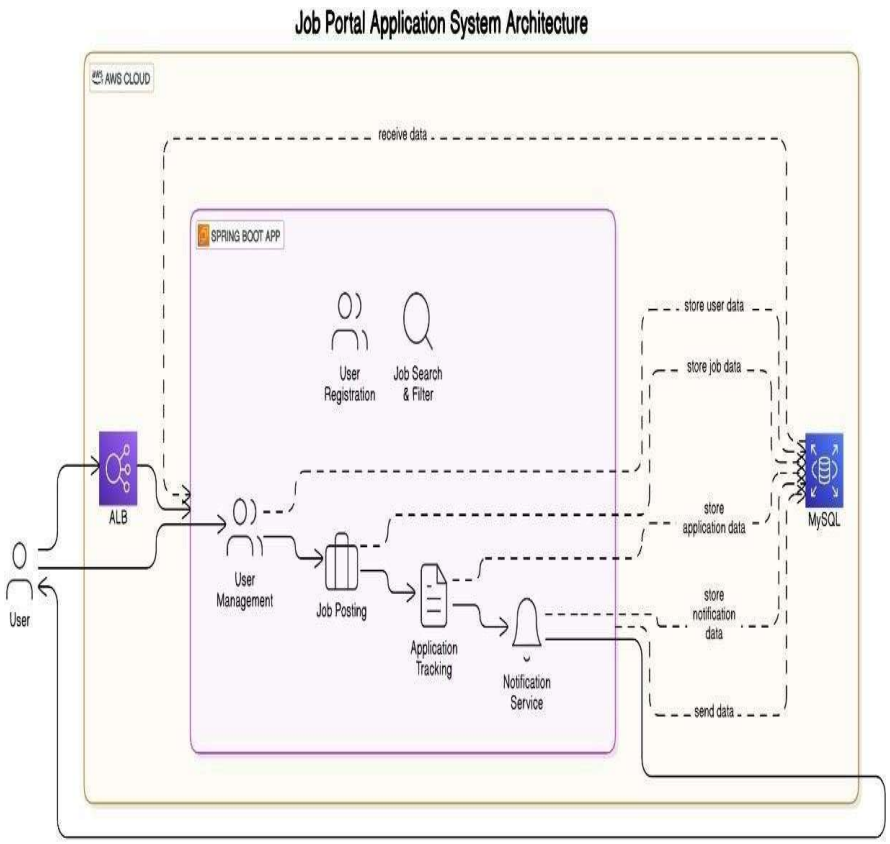

Figure 2 - Detailed System Architecture

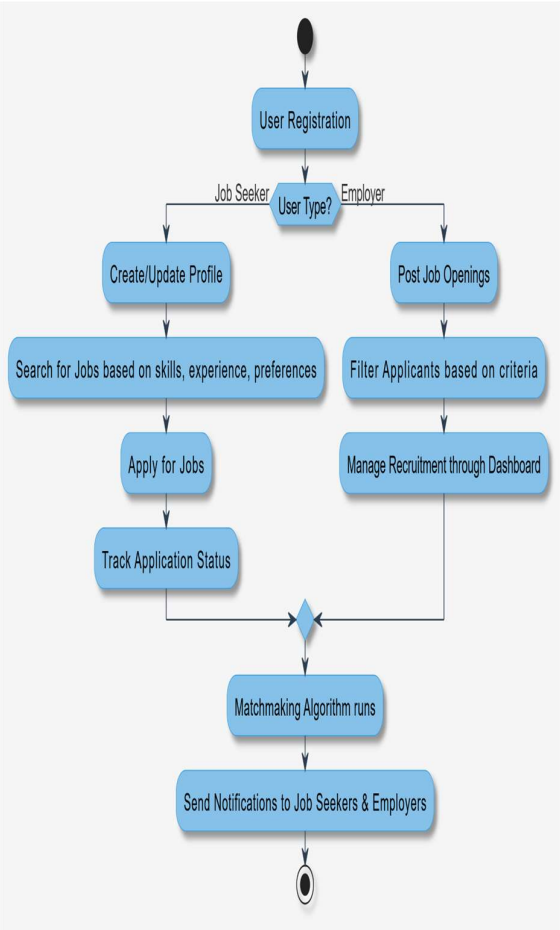

Figure 3: Flowchart

1. **List of novel features in the invention-**

Role-Based Access Control (RBAC):
Enables secure access by assigning specific permissions to Job Seekers, Employers, and Administrators. Implemented via Spring Security, it ensures each user accesses only relevant features and data.

3. Admin Analytics Dashboard:
Provides admins with visual insights on user activity, job trends, and system usage. Built using chart libraries, it helps optimize platform performance through data-driven decisions.

4. Profile Visibility Settings:
Gives job seekers control over who can view their profile—public, limited, or private. Implemented using visibility flags and aligns with privacy regulations like GDPR.

2. List of keywords relevant to the invention:

- Job Portal
- Spring Boot
- Job Application Tracker
- Web Application
- Candidate Dashboard
- Employer Management
- Job Board

3. Any other relevant details: -

- The invention can be extended to mobile platforms.
- Future versions may include ML-based salary prediction and video interview integration.
- GDPR compliance and employer verification standards will be followed.
- Monetization options include premium job postings and resume review services.