Job Portal System - Project Report

Abstract

The Job Portal System is a full-stack web application developed using Java and Spring Boot that allows employers to post job openings and applicants to search and apply for jobs online. The system aims to simplify recruitment by providing an integrated and secure platform for job listings, user authentication, and application tracking. It incorporates both front-end and back-end technologies, ensuring a seamless user experience and efficient data handling.

Introduction

The project focuses on building a functional and user-friendly job portal that bridges the gap between job seekers and employers. It provides features such as job posting, job search, registration, login authentication, and application management. The application follows the MVC (Model-View-Controller) architecture and integrates Thymeleaf templates for the front end, making it efficient and easily maintainable.

Tools Used

- Java 17 – Core programming language
- Spring Boot – Framework for backend development
- Spring Security – For authentication and authorization
- Thymeleaf – Template engine for building dynamic web pages
- MySQL – Relational database for data storage
- Maven – Build automation and dependency management tool
- HTML, CSS, JavaScript – Front-end technologies
- Eclipse/IntelliJ IDEA – IDE for development

Steps Involved in Building the Project

- 1. Created a new Spring Boot project using Maven and configured dependencies for web, JPA, MySQL, and Thymeleaf.
- 2. Designed database tables for users, roles, jobs, and applications using JPA entities.
- 3. Implemented repositories and services for data persistence and business logic.
- 4. Developed controllers to handle HTTP requests for job management, authentication, and applications.
- 5. Integrated Thymeleaf templates for front-end views including login, register, job list, and post job pages.
- 6. Configured Spring Security for user login and role-based access control (Employer/Applicant).
- 7. Tested the system end-to-end with sample data and ensured data validation and secure access.
- 8. Deployed the project locally and connected it with a MySQL database.

Conclusion

The Job Portal System successfully demonstrates a real-world implementation of a full-stack web application using the Spring Boot ecosystem. It enhances the hiring process by allowing employers and applicants to interact efficiently through a secure platform. The project also strengthens practical knowledge in Java, database design, and web application development, making it a valuable learning experience for full-stack developers.