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Design and Development of a Job Portal Web Application

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ABSTRACT

In the current digital age, employment services have shifted online, making job portals a critical tool for bridging the gap between job seekers and employers. This research paper presents the development of a web-based job portal that facilitates efficient job searching, application, and recruitment. The platform allows job seekers to register, build profiles, upload resumes, and apply for jobs based on preferences such as location, industry, and experience. Employers can post vacancies, filter applicants, and manage hiring processes. Built with modern web technologies, the portal emphasizes user experience, security, and scalability.

Keywords: Job Portal, Employment, Web Application, Recruitment System, Software Development

1. Introduction

The global employment market has evolved with the rise of digital technology, and job portals have become essential tools for job seekers and employers alike. Traditional recruitment methods are time-consuming and often inefficient. This project aims to address these challenges by creating a job portal that streamlines the job-seeking and hiring processes. The objective is to develop a system that is intuitive, reliable, and adaptable to the changing needs of the job market.

2. Literature Review

Previous studies and applications like Naukri.com, Indeed, and LinkedIn have demonstrated the impact of technology on job recruitment. However, these platforms often lack customization for local or niche job markets. Research has also emphasized the importance of user-friendly interfaces, secure data handling, and real-time job updates as core features of a successful job portal (Jain & Singh, 2022).

3. Methodology

3.1 System Architecture

- Frontend: Developed using HTML, CSS, JavaScript
- Backend: Built with Node.js and Express
- Database: MongoDB stores user data, job listings, and applications
- APIs & Communication: Axios is used for API calls; JSON Web Token (JWT) is implemented for secure authentication

3.2 Features Implemented

- User Registration and Authentication (JWT-based encryption)
- Job Posting by Employers
- Resume Upload and Profile Building by Job Seekers
- Job Search with Filters (keyword, location, salary, etc.)
- Application Tracking System

4. Results and Discussion

The platform was tested with multiple users in a simulated environment. The system demonstrated reliable performance under concurrent access and showed responsiveness on both desktop and mobile devices. Feedback collected from test users indicated high satisfaction with the simplicity and usefulness of the interface. Security tests ensured data privacy through encrypted storage and role-based access control.

5. Conclusion

The job portal developed as part of this research effectively meets the requirements of a modern recruitment platform. It offers a comprehensive, secure, and scalable solution for both employers and job seekers. Future work includes integrating AI-based job recommendations and mobile app deployment.

6. References

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