A
MINIPROJECT REPORT
On
“JOB PORTAL”

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In

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Guidance By

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CERTIFICATE

This is to certify that the miniproject report entitled **"Job Portal"** being submitted by **, Amol Shinde -32559 (TE AI-DS) , Yash Thakare - 32566 (TE AI-DS) Atharv Thakur – 32567 (TE AI-DS)** is a record of bonafide work carried out by him/her under the supervision and guidance of **Prof.Mrs Priti Malkhede** in partial fulfilment of the requirement for **TE (Artificial Intelligence and Data Science)** 2019 course of Savitribai Phule Pune University, Pune in the academic year 2024-2025

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Place: Pune

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ABSTRACT

The purpose of online job portal is to automate the existing manual system by the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data, information can be stored for a large period with easy access and manipulation of the same. The required software and hardware are easily available and easy to work with Online job portal, as described above can lead to error free, secure, reliable and fast management system. The Online Job Portal System, manage the details of Employer, Employer Registration, Posts about Jobs, Search Job. It manages all the information about Employer, Job Seeker, Search Job, Posts about jobs etc. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Employer, Employer Registration, Post Job. It tracks all the details about the Post Job, Search Job so on… The application storage of the data has been planned. Using the constructs of MYSQL Server and all the user interfaces have been designed using the PHP, HTML, CSS, BOOTSTRAP, JAVASCRIPT technologies. The database connectivity is planned using the "SQL Connection" methodology. The standards of security and data protective mechanism have been given a big choice for proper usage. The application takes care of different modules and their associated reports, which are produced as per the applicable strategies and standards that are put forwarded by the administrative staff. A job portal helps both the job seekers and recruiters finding the right organization for the employees. In the case of job seekers, according to their educational qualification, experience and their preferences, the job portal shows the list of companies to the job seeker. And, to the recruiters, provides the suitable candidates from a pool of lacks. The objective of this application is to develop a system to enable interaction between employers and applicants. The determination is to allow communication between the interested parties and complete the task of recruitment quickly.

ACKNOWLEDGEMENTS

We express our deepest gratitude and respect to our guide **Prof**.**Mrs. Priti Malkhede**, Lecturer, Department of Artificial Intelligence and Data Science, for his valuable guidance and encouragement while doing this project work.

We are indebted to **Prof. Dr.Mrs.S.V. Pandit**, Head of Department, for their advice and suggestions at various stages of the work.

We extend our thanks to the Management of Progressive Education Society's Modern College Of Engineering,Pune for providing good laboratory and library facilities. We also remain grateful to the co-operation and help rendered by the teaching and non-teaching staff of the Artificial Intelligence and Data Science Department.

Lastly, we take this opportunity to offer our regards to all of those who have supported us directly or indirectly in the successful completion of this project work.

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CHAPTER 1

INTRODUCTION

1.1 Introduction of the project

Today, the internet has changed many aspects of our life, such as the way we look for jobs. If one person wants to find a new job, he/she can submit a resume using software like Microsoft Office Word, open a web browser to send the resume and receive an e-mail. Online recruitment has become standard method for employers and jobseekers to meet their respective objectives. The employers upload the job offerings in to the job portals. Online recruitment has been accepted not only by most of large companies but also the small ones. The organizations send information or jobs vacancies for posting on the portals and communicate with the applicants via the Internet and Email. The process that aims to match job seekers to suitable job opportunities. From an economic perspective, job-search theory is concerned with individual's decisions to accept or reject job offers given the cost of searching and the reservation wage. A sociological perspective on job search takes into account more aspects of the job-search process, motivating factors leading individuals to search and activities that lead to job offers being made.

1.2 The Present Study:

Unemployment is a serious social and economic concern almost all over the world. When people are gainfully employed it leads to social and economic well-being in the country. Unemployment is caused due to many reasons. Often there is a high level of unemployment despite persons being educated. It may be due to the lack of linkage between education and the requirements of jobs or job profiles. Often the education system gives a high level of emphasis to academics that may not ensure a job or profession later on. Dorn and Naz mentioned that the unfair distribution or lack of information on job opportunities so people are unable to know the new job vacancies. It means that there are some jobs available, but job seekers do not have access to that information. Therefore, educated youth stay unemployed. An efficient search of the internet might help job seekers in their job hunt. There are some web portals that provide an efficient way to search the web for online information on job vacancies for jobseekers.

1.3 Motivation to do the project work:

Economically, employment provides income to poor families, revives domestic demand for goods and services, and stimulates overall growth. Socially, employment can also promote social healing, encourage the return of displaced persons, and improve social welfare in the long run. This statement makes it clear the importance of developing an Online Job Portal System for job seekers.

CHAPTER 2

LITERATURE REVIEW

Sr.No	Paper Title	Theme/Idea	Advantages And Limitations
1	[1] A. K. Gupta and M. Sharma, "Design and Implementation of a Job Portal System Using PHP and MySQL," in *Proc. Int. Conf. on Software Engineering and Applications*, 2014, pp. 102-108.	This paper presents the architecture and database design of a job portal developed using PHP and MySQL.	**Advantages**: • Open-source technologies ensure cost-effectiveness. • Efficient database management and dynamic content handling. **Limitations**: • Limited scalability and basic security measures are unsuitable for large-scale deployments. • Does not address mobile responsiveness.
2	[2] P. Raj and S. Kumar, "Online Job Portal with Recommendation System," in *IEEE Trans. on Computer Applications*, vol. 12, no. 3, pp. 45-50, 2019.	The paper explores the development of a recommendation engine for a job portal using collaborative filtering to improve job seeker experience.	**Advantages:** • Personalized job suggestions improve user engagement. • Reduces the search time for job seekers. **Limitations:** • Requires a large dataset for accurate recommendations. • May introduce biases based on user data patterns.
3	[3] M. Desai and P. Gupta, "A Secure Job Portal Using Blockchain Technology," in *Proc. IEEE Int. Conf. on Blockchain and Cryptocurrency*, 2021, pp. 67-73.	This study integrates blockchain technology to secure job portal transactions, making resumes and applications tamper-proof.	**Advantages**: • High security and transparency for job data. • Reduces fraud in job applications. **Limitations**: • Implementation is complex and resource-intensive.

4	[4] N. Singh and A. Rao, "Design of a Job Portal for Rural Employment Using Mobile Interface," in *Proc. IEEE Int. Conf. on Mobile and Ubiquitous Systems*, 2017, pp. 23-30.	This paper discusses the design of a mobile-first job portal to improve accessibility for rural job seekers, addressing digital divide challenges.	**Advantages**: • Mobile accessibility for underrepresented communities. • Simple user interface optimized for low-bandwidth environments. **Limitations**: • Lacks complex job search features due to mobile design constraints. • Relies heavily on network availability, limiting its usability in very remote areas.
5	[5] D. Patel, R. Verma, and L. Mehta, "A Comparative Study of Job Portals Based on User Experience and Functionality," in *IEEE Access*, vol. 8, pp. 34532-34540, 2020.	This paper provides a comparative analysis of popular job portals in terms of user experience, interface design, and functional features.	**Advantages**: • Offers detailed insights into best practices for job portal design. • Focus on user interface and navigation improves usability. **Limitations**: • Does not provide technical details about implementation. • Analysis is limited to a few top-tier job portals.
6	[6] S. Ali and T. Kumar, "Job Portal with Artificial Intelligence for Matching Skills with Job Requirements," in *IEEE Trans. on AI in Industry*, vol. 5, no. 2, pp. 124-130, 2022.	This paper discusses the integration of AI in job portals for automatic skill matching between job seekers and job descriptions using natural language processing (NLP).	**Advantages**: • Efficient job matching based on skills and experience. • Reduces the workload for recruiters. **Limitations**: • High computational cost due to advanced AI algorithms. • Limited accuracy in niche job markets.

CHAPTER 3

SOFTWARE REQUIREMENTS SPECIFICATION (SRS)

3.1 Introduction

3.1.1 Purpose

The purpose of this document is to provide a detailed description of the Job Portal website, which will allow students to search and apply for jobs, as well as for administrators to manage job listings and applications.

3.1.2 Scope

This website is designed for college students to easily access job vacancies, apply for jobs, and track their application status. Admin users will be able to manage job postings and user applications. The system will use HTML, CSS, Bootstrap, JavaScript, PHP, and MySQL for development.

3.1.3 Definitions, Acronyms, and Abbreviations

SRS: Software Requirements Specification

PHP: Hypertext Preprocessor

MySQL: A relational database management system

HTML: Hypertext Markup Language

CSS: Cascading Style Sheets

3.1.4 References

Reference to similar online job portal systems for design and functionality ideas.

3.2 Overall Description

3.2.1 Product Perspective

The job portal system will serve as a college-specific platform where students can log in, view available jobs, and apply. Admins can post jobs, review applications, and manage users.

3.2.2 Product Features

User login system for students and admins.

Job search functionality for users to browse job listings.

Application management system for tracking and managing applications.

3.2.3 User Classes and Characteristics

Students: Can search for jobs, apply for positions, and view application status.

Admins: Can add or remove job postings, approve/reject applications, and manage users.

3.2.4 Operating Environment

Server-side: PHP and MySQL.

Client-side: HTML, CSS, Bootstrap, and JavaScript.

Browser compatibility: Chrome, Firefox, Edge.

3.2.5 Design and Implementation Constraints

Must be developed using PHP and MySQL for backend.

Frontend must be developed with HTML, CSS, Bootstrap, and JavaScript.

Responsive design is required to ensure mobile compatibility.

3.2.6 Assumptions and Dependencies

Users must have internet access.

The system relies on the availability of a web server to host the PHP and MySQL backend.

4. System Features

4.3.1 User Registration and Login

Description: Users (students and admins) must be able to register and log into the system.

Functional Requirements:

Students can register using their college ID and a unique email address.

Admins have a separate login interface.

4.3.2 Job Listings and Applications

Description: Students can view job postings and apply for available jobs.

Functional Requirements:

Job listings must include position name, description, requirements, and application deadline.

Users can submit applications with their resume and other required details.

4.3.3 Admin Dashboard

Description: Admins can manage job listings and user applications.

Functional Requirements:

Admins can create, edit, or delete job postings.

Admins can view, approve, or reject job applications.

4.3.4 User Profile Management

Description: Students can manage their profile information and resume.

Functional Requirements:

Users can update their personal details.

Users can upload or update their resume.

4.3.5 Search and Filter Jobs

Description: Students can search for job listings based on filters.

Functional Requirements:

Search by keywords (e.g., job title, location).

Filter by job category, deadline, etc.

4.3.6 Application Status Tracking

Description: Students can view the status of their job applications.

Functional Requirements:

Application status (e.g., pending, accepted, rejected) should be visible to users.

4. External Interface Requirements

4.4.1 User Interfaces

A login page for students and admins.

A dashboard for both students and admins.

Job listings and a search page for students.

A profile management page for students.

4.2 Hardware Interfaces

The system will be hosted on a web server, accessible via modern web browsers on PCs, laptops, or mobile devices.

4.4.3 Software Interfaces

PHP and MySQL for the backend.

HTML, CSS, Bootstrap, and JavaScript for the frontend.

4.4.4 Communication Interfaces

HTTPS protocol for secure communication between the user and server.

5. System Attributes

5.5.1 Security

Password encryption for user login.

Role-based access control (student vs admin).

5.5.2 Performance Requirements

The system should be able to handle concurrent user logins and operations without significant delays.

5.5.3 Usability

The interface should be simple and intuitive for students and admins.

5.5.4 Reliability

The system must be reliable to ensure 99% uptime for critical operations.

5.5.5 Availability

The system should be accessible 24/7.

6. Other Non-functional Requirements

Responsive Design: Must work on desktops, tablets, and mobile phones.

Scalability: The system should handle an increasing number of users as more students register.

CHAPTER 4

DATA AND TOOL

4.1 Hardware

The hardware used to build this project are follows:

- RAM: 4GB or above
- Hard disk: 20GB and above
- Processor: 2.4GHz and above
- Memory: 4GB recommended
- Display: Standard output display

4.2 Software

The software used to build this project are follows:

- Operating System: Windows 7 or above
- Database Management tool: Xampp
- Integrated Development Environment: Visual Studio or Net Beans
- Browser: Chrome or any browser

The minimum software requirements to run the project: Any browser.

Script used to build project:

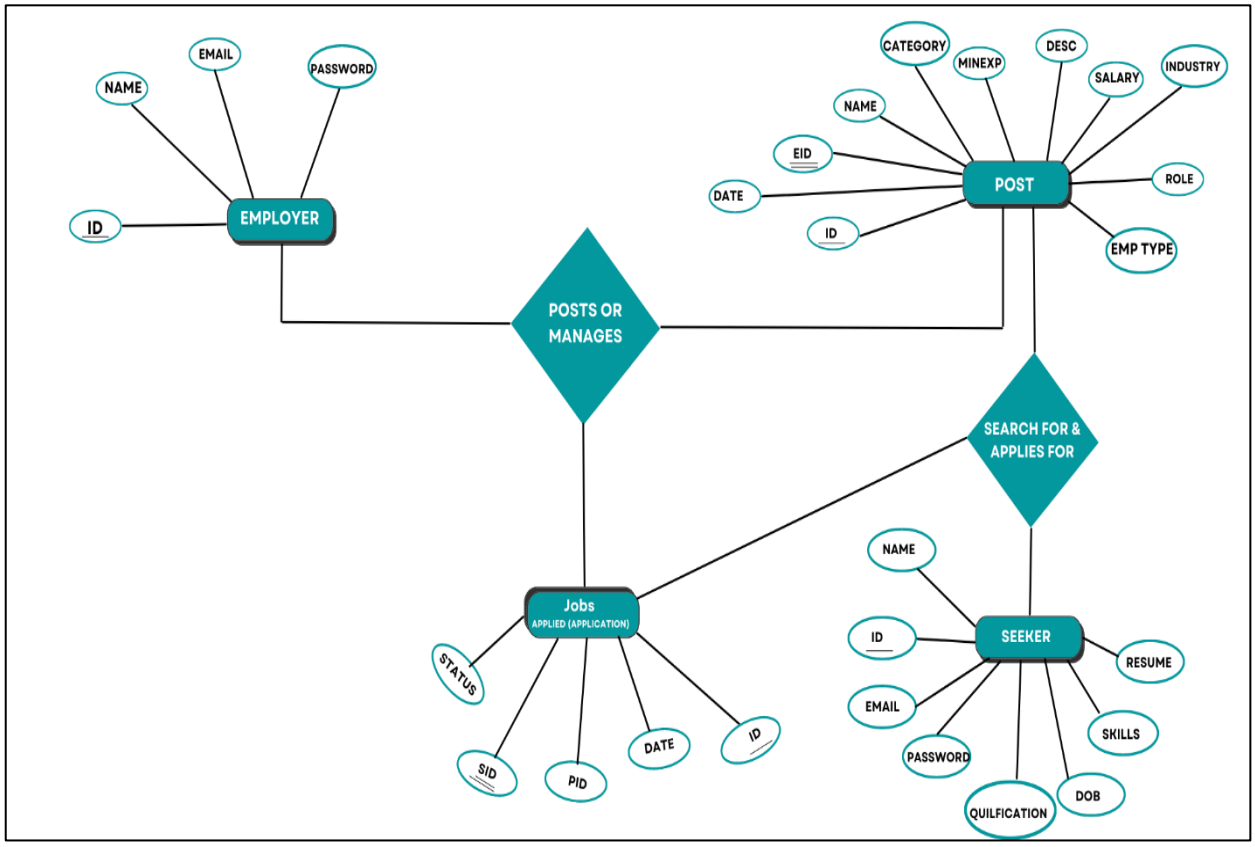
- **HTML, CSS, BOOTSTRAP**: To design User Interface
- **JAVASCRIPT**: To make web pages interactive
- **PHP**: To connect front-end and back-end
- **MYSQL**: To create and manage database.

4.3 Platform

This web application is browser independent it could be run on any of the available browsers. This application accessibility is also extended to Android and iOS devices in the form of device application. Therefore, it could also be run as Android or iOS application.

ER DIAGRAM

The ER Diagram of Online Job Portal System is shown in fig (4.1)



Fig(4.1)

The Entity Relationship model describes interrelated things of interest in specific domain of knowledge. In the fig (4.1), we have an employer who will post various jobs and manages all of them, and that post is also viewed by the seeker or seeker can search for specific job posts to apply. Employer can also manage seeker's job applications.

PROBLEM FORMULATION

6.1 General Problem Definition

Today, almost every action in the world is managed by a computer-based software program. As the life cycle became more complicated, various software systems, such as real-time business simulation, embedded, web-based, personal, and more recently artificial intelligence software, began to infiltrate every aspect of human contact. The manual method is in a nutshell, excruciatingly slow. We created this initiative for that reason. As a result, person can quickly search 1000+ jobs with and then can determine which is best for him without the assistance of others.

6.2 Problem statement

In the upgrading generation, manually finding jobs by using newspapers or asking others about vacancies is difficult. So online job portals will assist both companies and job seekers in finding the right place for them. From the comfort of their own homes. The job seeker can view all of the company's amenities and make the best decision possible. Employer can also find the best employees which they want.

6.3 Aim of the project

The aim of this application is to reduce the manual effort needed to find the best jobs and their details. A job portal provides an efficient search for online information on job vacancies for jobseekers. The main goal of this online job portal is to attempt to produce the right graduates get hired based on the industry needs.

6.4 Main Objectives of the Project:

- Single platform for viewing the job details.
- Enabling a user-friendly application.
- The purpose of the project is to reduce the manual work for managing the Interview, Jobseeker, Posts about Job etc.
- It helps to manage all the information about the employer & job seeker.
- It acts as a bridge between job seekers and companies.
- All the records of employee are seen by the employer in order to provide job for the Employee.

METHODOLOGY

7.1 General

PHP and MySQL will be used to create this project. The user interface is made simple to use with graphics, allowing this application to be used by a wide spectrum of users. By registering, you will be able to see the numerous types of jobs that are available. The major goal of this program is to provide users with detailed job information.

Admin will be given access to the database where he can access all the information of employer, seeker etc. And can track all the information related to the job posts. He can also search for the jobs added by the job provider that are available. Job Seeker register himself by filling the required details on the job portal. After login he will search for the job on various conditions and he can apply for the jobs based on various conditions. He can see the response of the company and he can contact the company for interview. Job Provider register himself and his company and after login he will add new job posts and he can search for the job seekers on various condition and he can offer the job to job seeker according to the job profile and he can also see the response from the job seekers. The employers can view the job seekers who have applied through their posted job and they can accept or reject the application. The status of job application can be viewed by respective job seeker. So here we are concerned with the probability of job seekers entering the workforce, which is in turn calculated as the product of the probability of jobs being offered and the probability of jobs being accepted.

7.2 Data Flow diagram

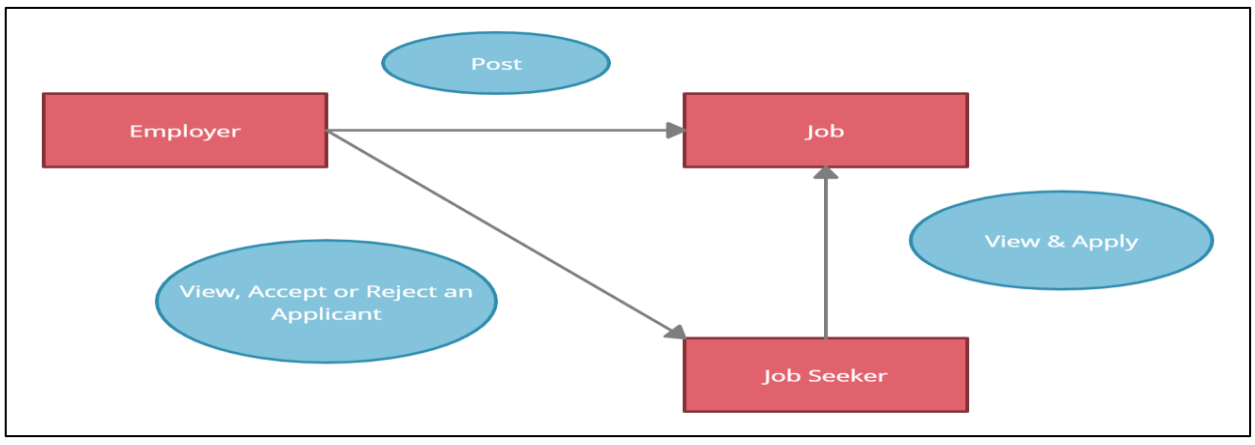


Fig 7.2(A) System Design

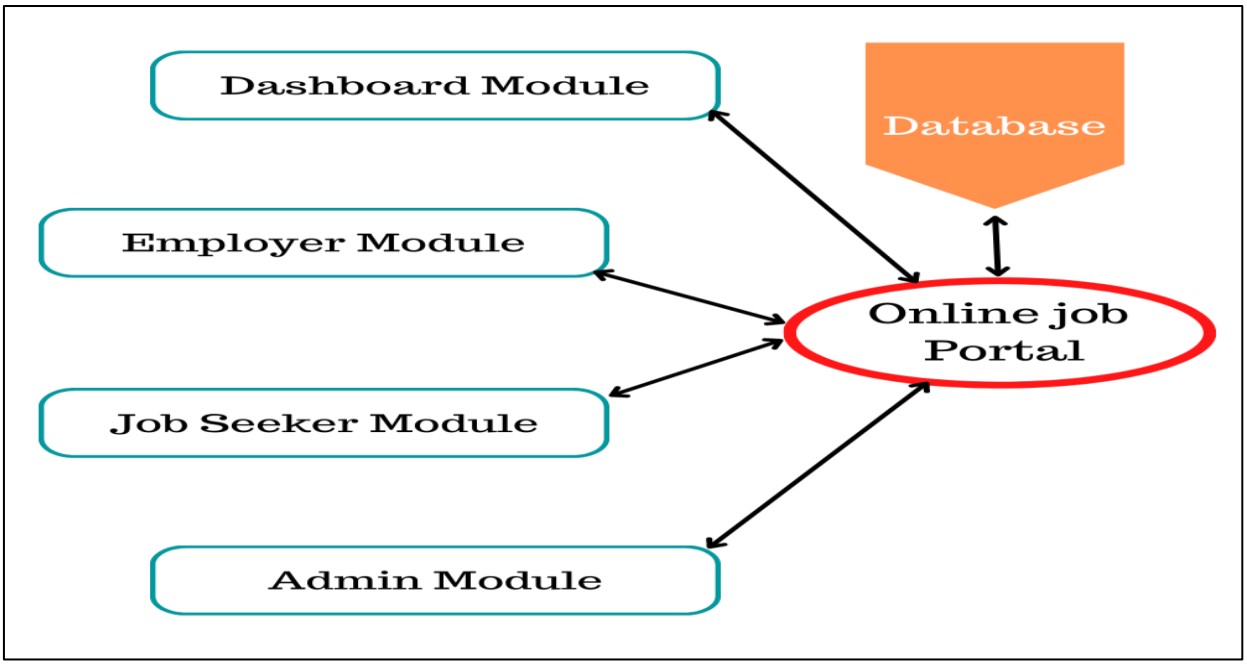


Fig 7.2 (B) Modules

7.3 Database Table

The database table figure is shown in fig 7.3(A)

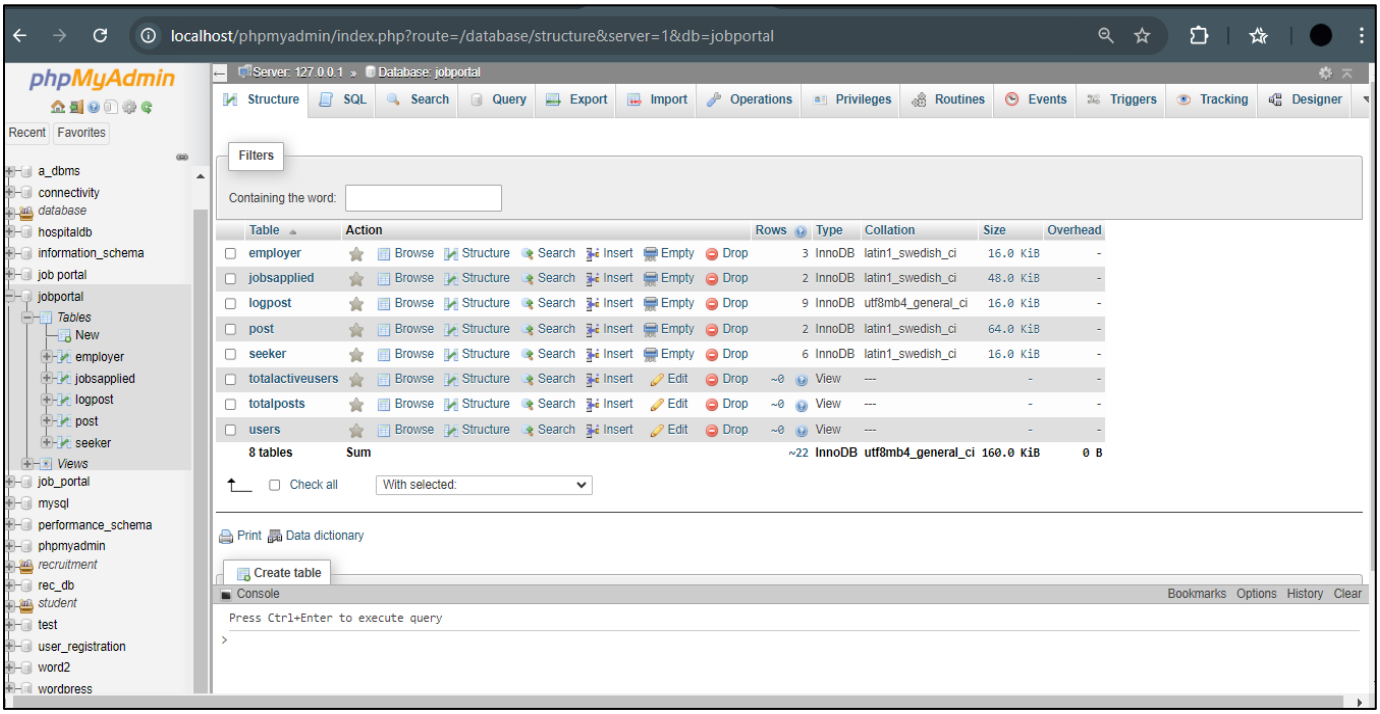


Fig 7.3 (A) Snapshot of Tables

The Fig 7.3(B) shows Employer table

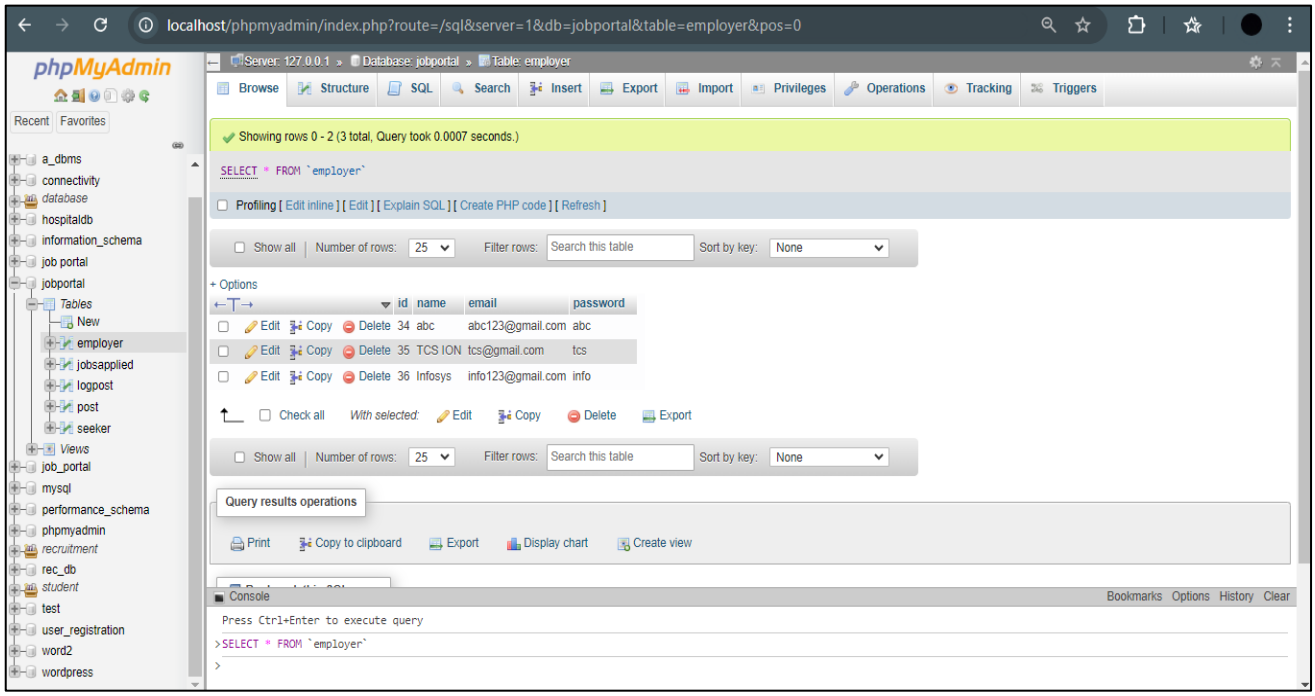


Fig 6.3 (B) Snapshot of Employer Table

The Fig 7.3(C) shows jobs applied table

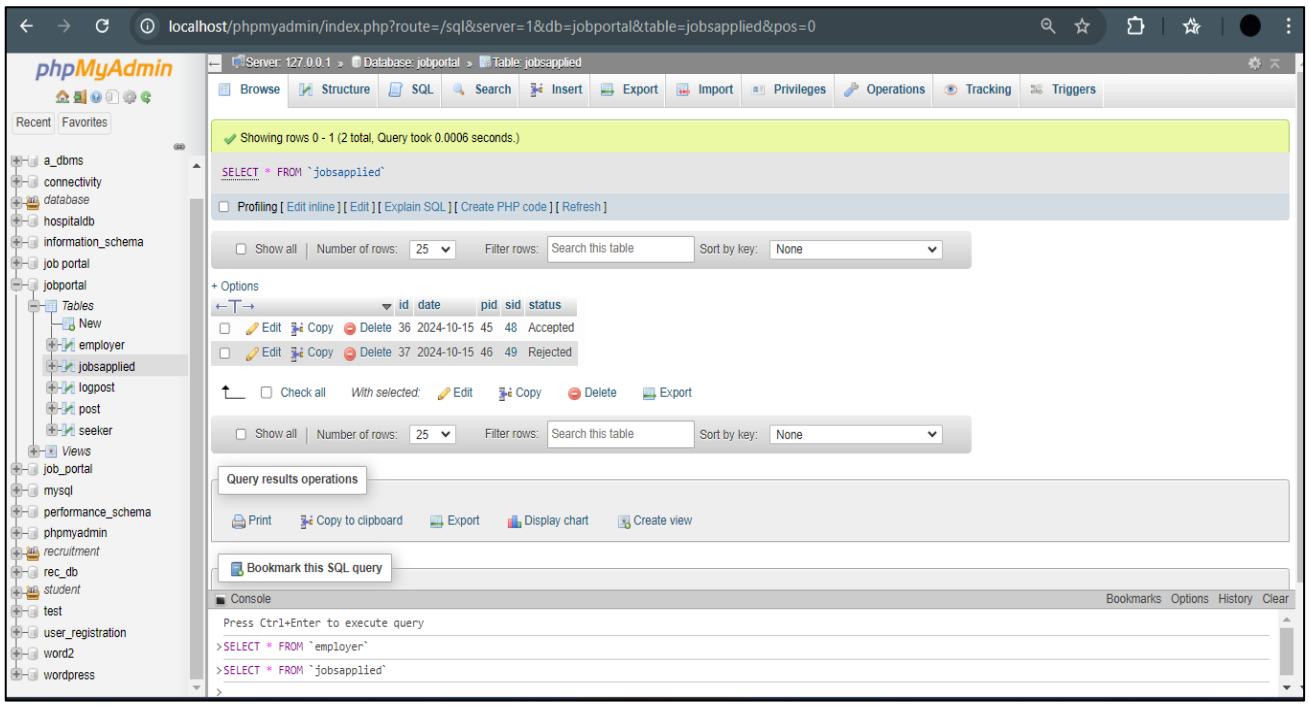


Fig 7.3 (C) Snapshot of Jobs Applied Table

The Fig 7.3(D) shows log post table

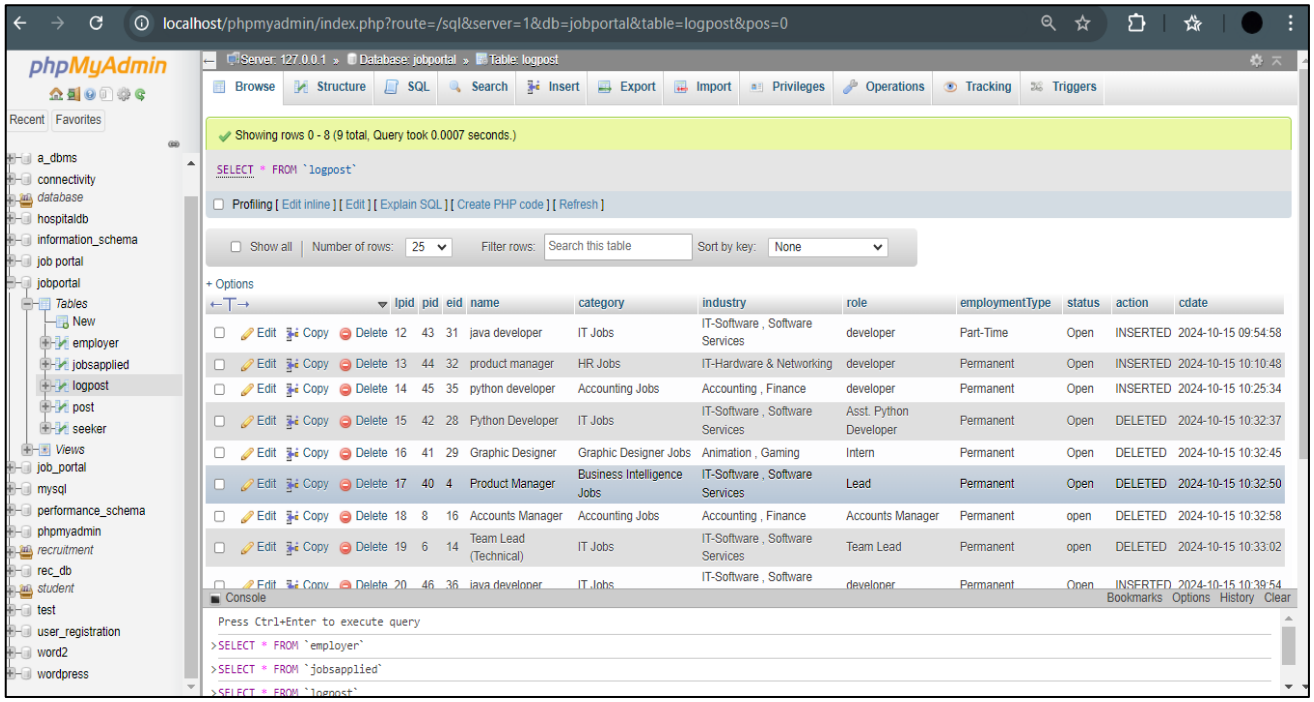


Fig 6.3 (D) Snapshot of Log Post Table

The Fig 7.3(E) shows post table

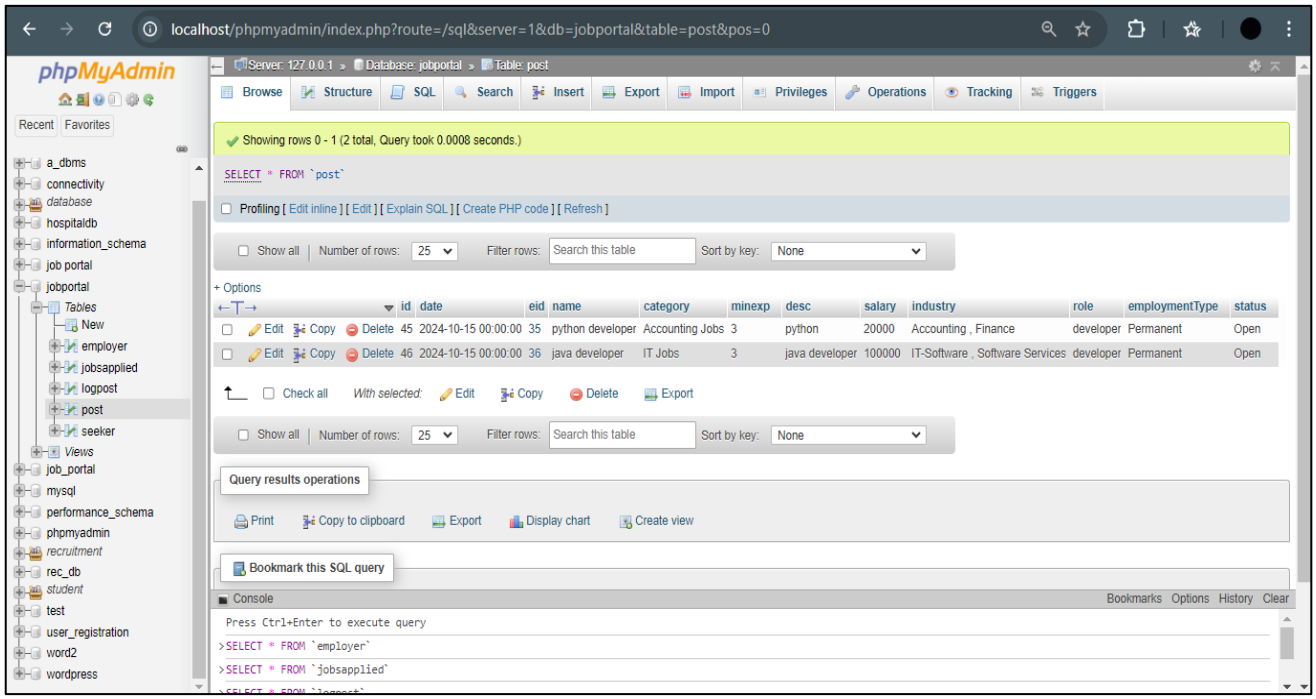


Fig 7.3 (E) Snapshot of Post Table

The Fig 7.3(F) shows seeker table

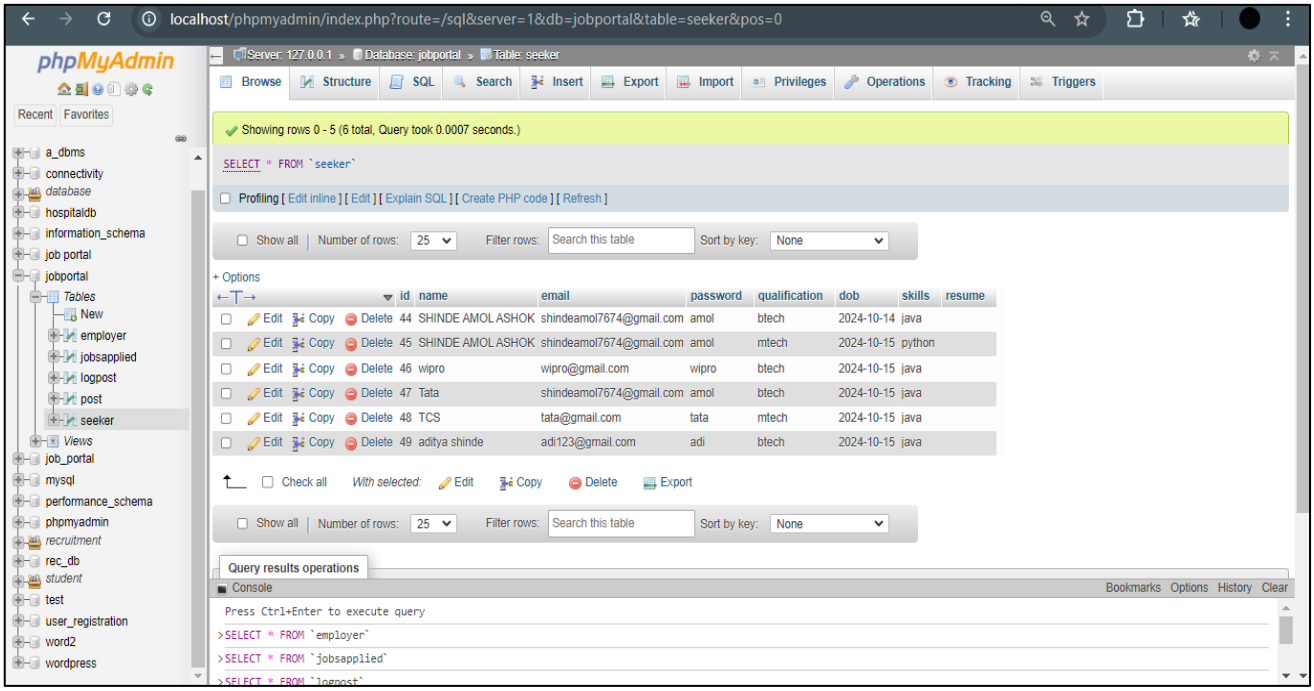


Fig 7.3 (F) Snapshot of Seeker Table

RESULTS AND DISCUSSIONS

8.1 Dashboard

The Fig 8.1 (A) is the Home Page of Job Portal

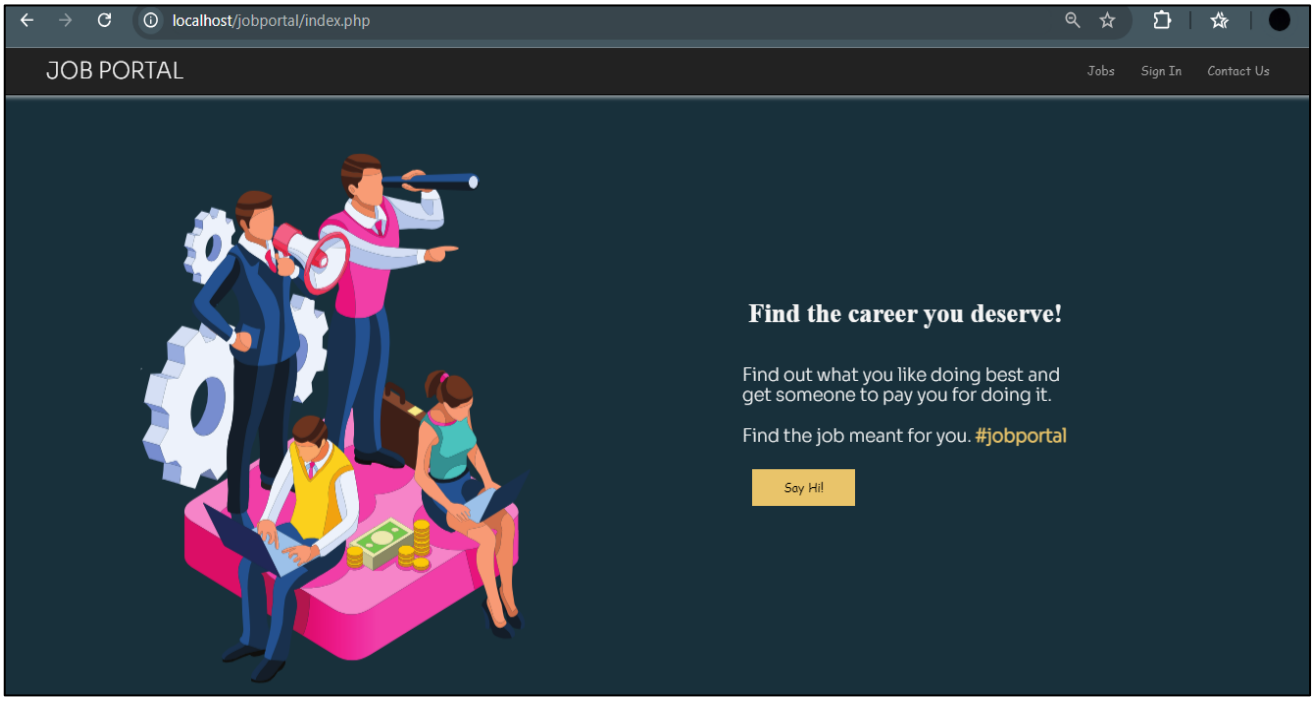


Fig 8.1 (A) Snapshot of Home Page

The Fig 8.1 (B) is the Home Page of Job Portal

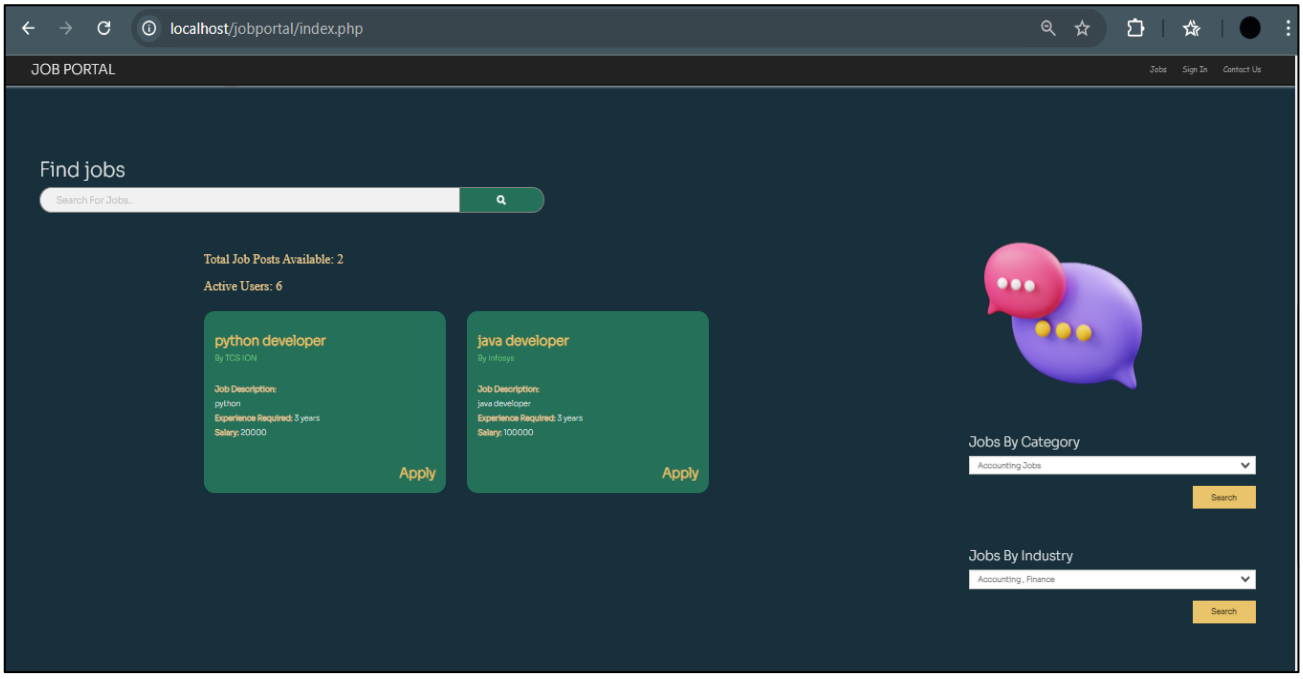


Fig 8.1 (B) Snapshot of Home Page

8.2 Sign In & Sign Up Page

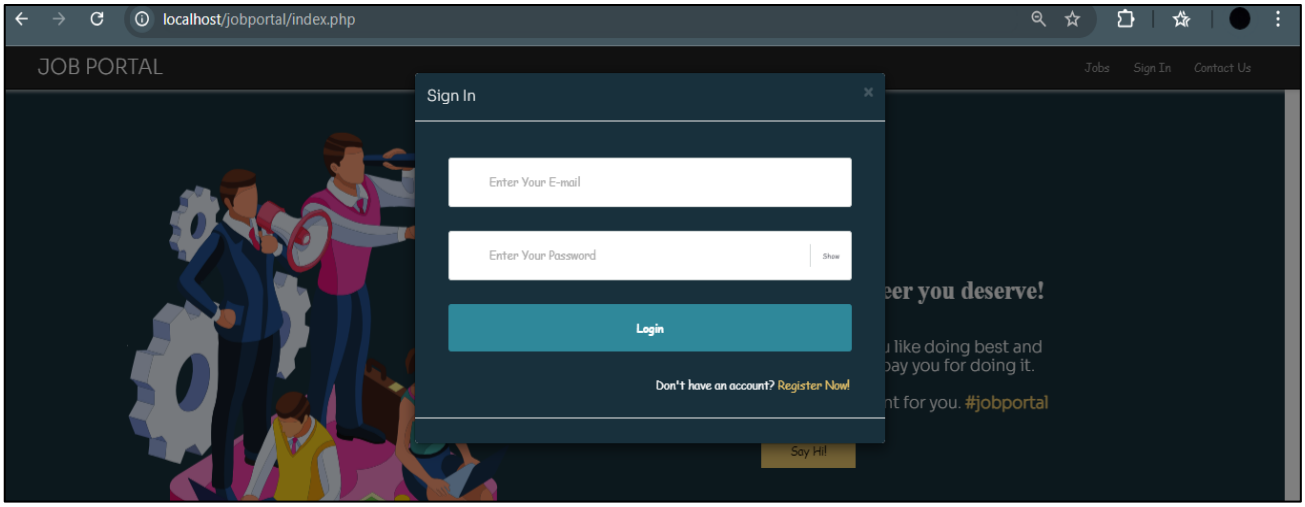


Fig 8.2 (A) Snapshot of Sign In

The Fig 8.2 (B) is the Registration page for Employer of Job Portal

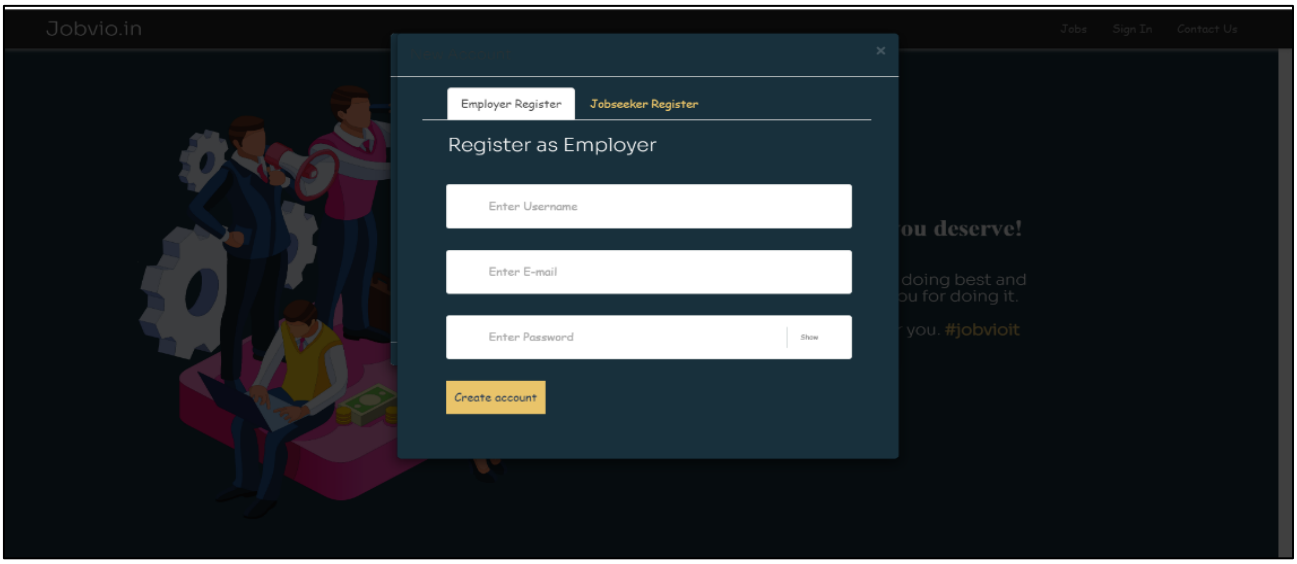


Fig 8.2 (B) Snapshot of Employer Register

The Fig 8.2 (C) is the Registration page for Employer of Job Portal

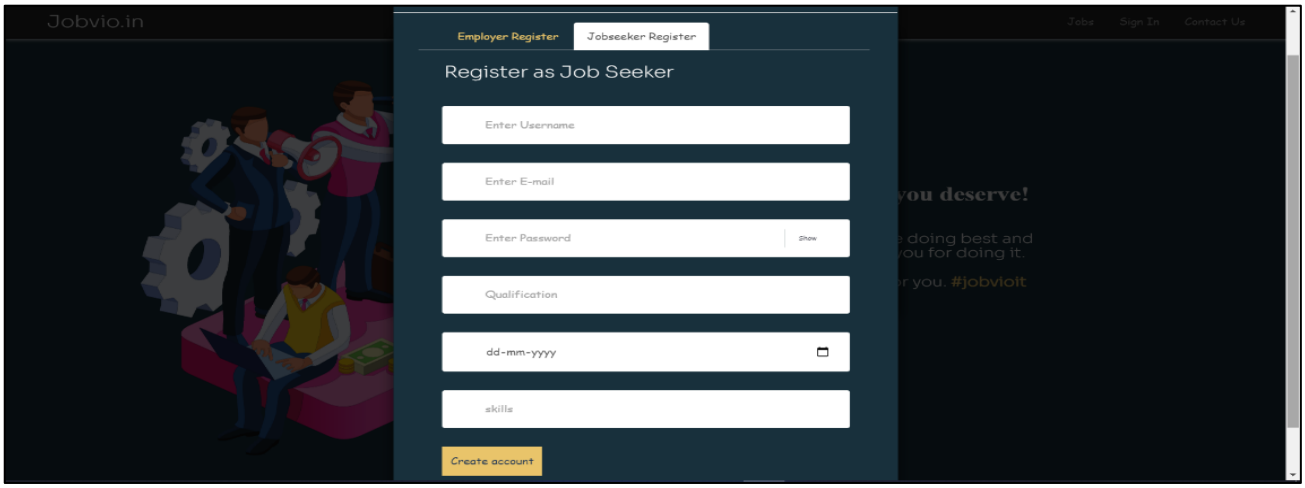


Fig 8.1 (C) Snapshot of jobseeker Register

8.3 Employer Account

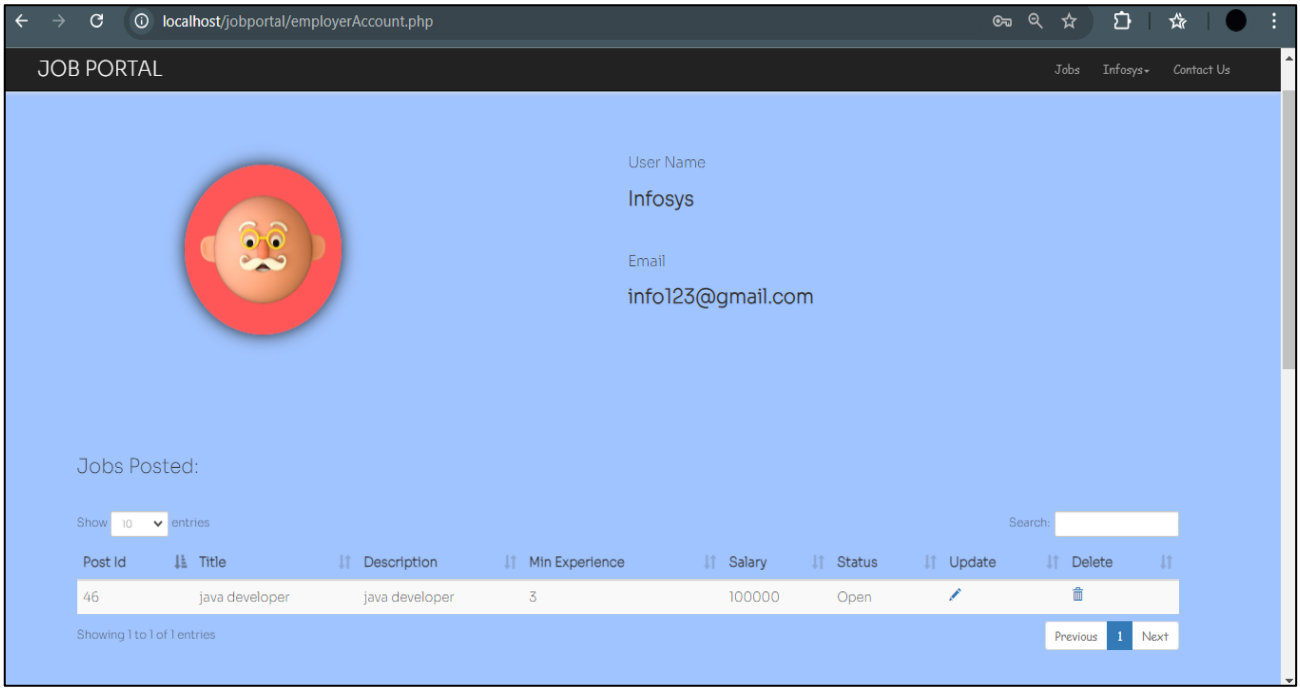


Fig 8.3 (A) Snapshot of Employer Account

The Fig 8.3 (B) is the page to post a job in the Job Portal

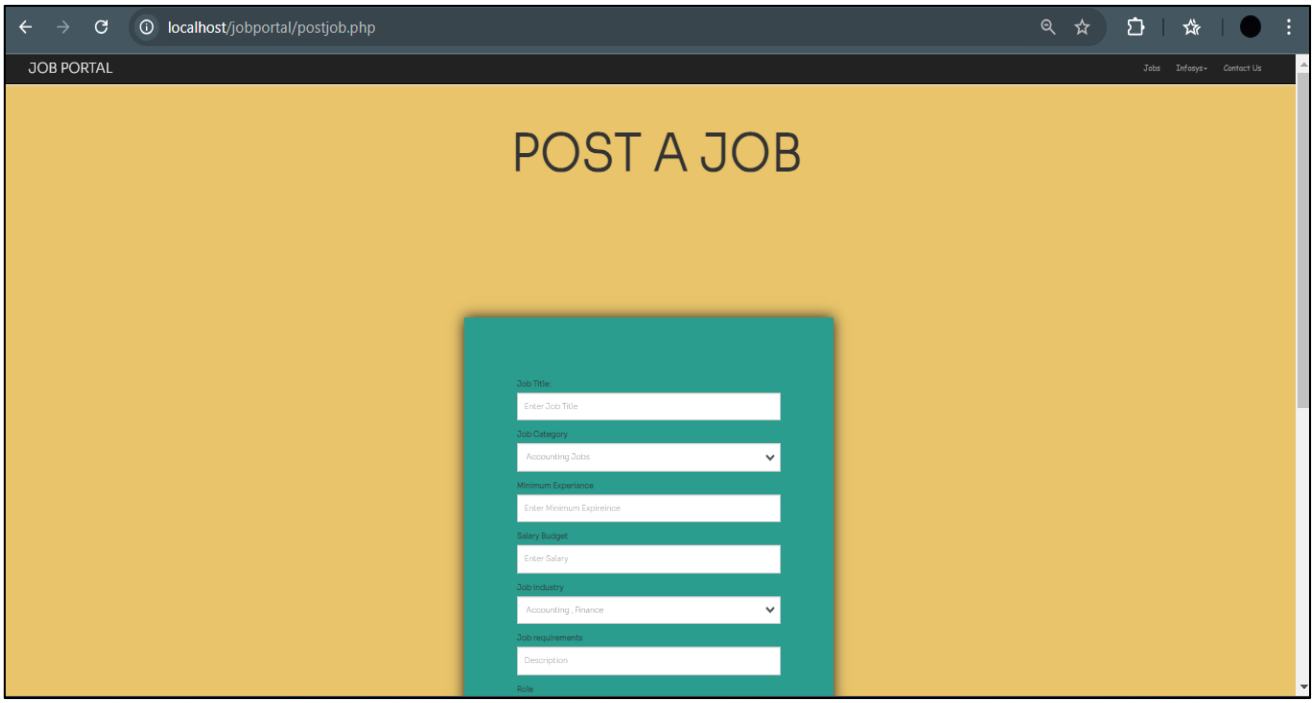


Fig 8.3(B) Snapshot of Job Pos

The Fig 8.3 (C) shows the Application of job seekers in the Job Portal

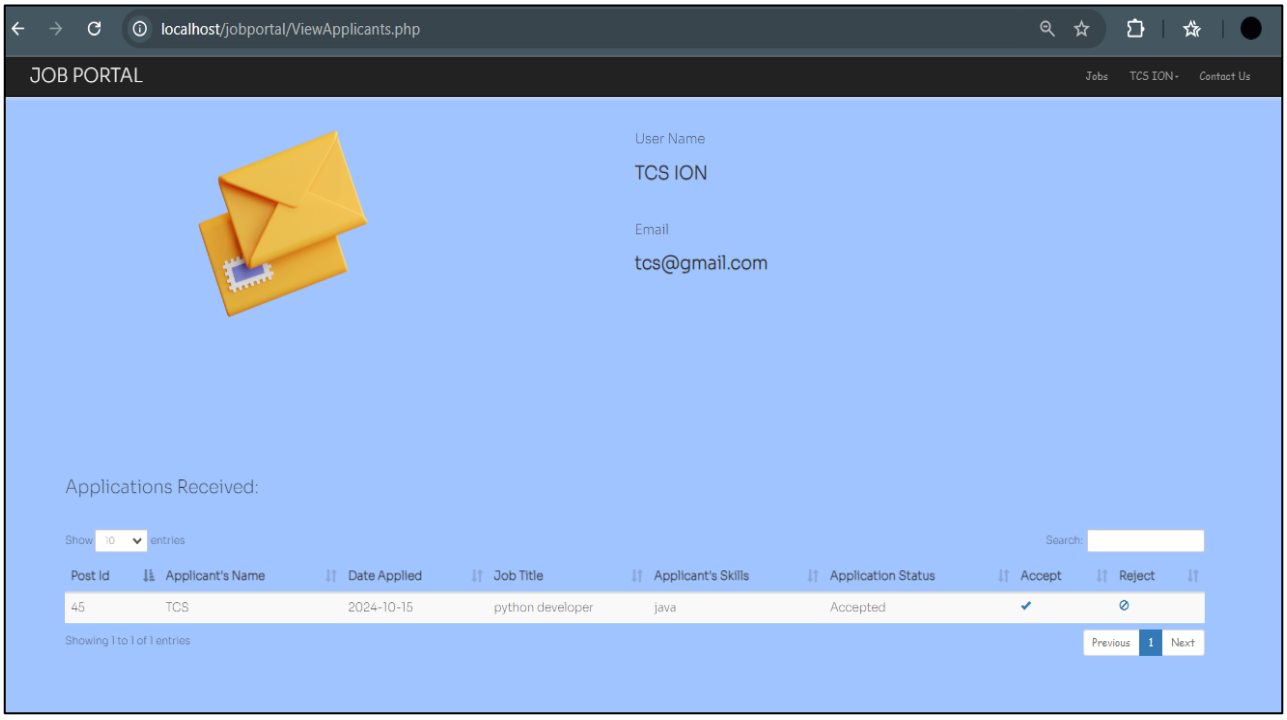


Fig 8.3 (C) Snapshot of Employer Account

8.4 Seeker Account Page

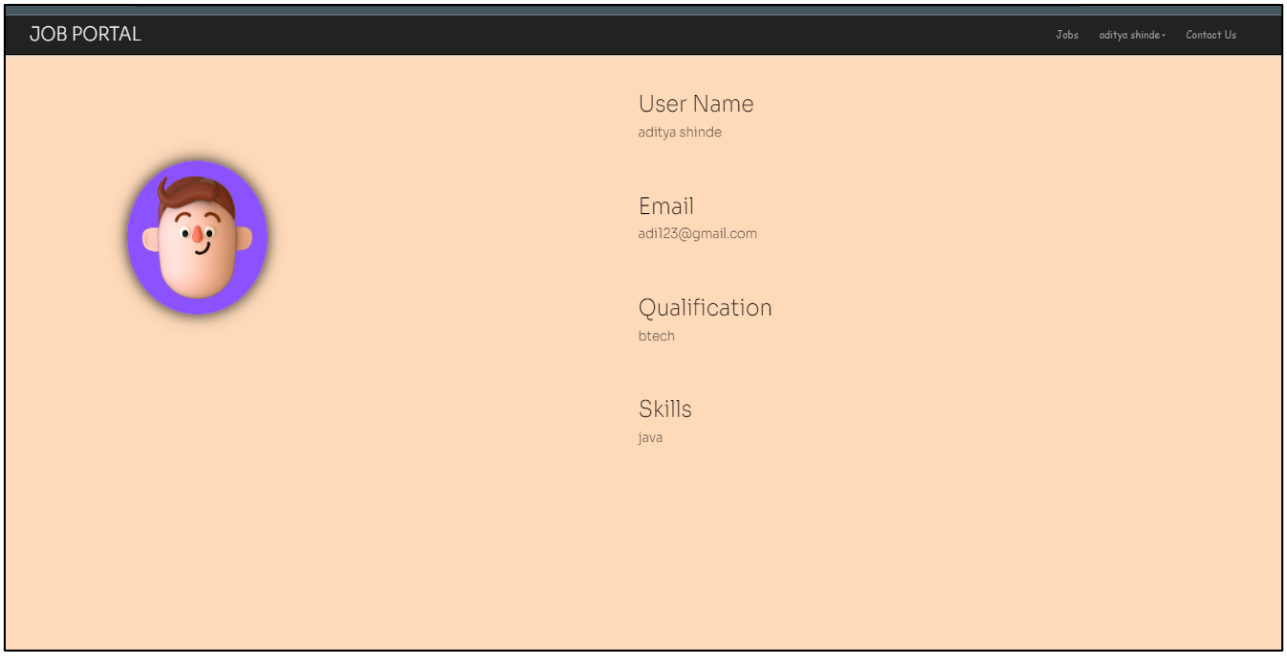


Fig 8.4 (A) Snapshot of Seeker Account

Jobs applied by the seeker is shown in Fig 8.4 (B)

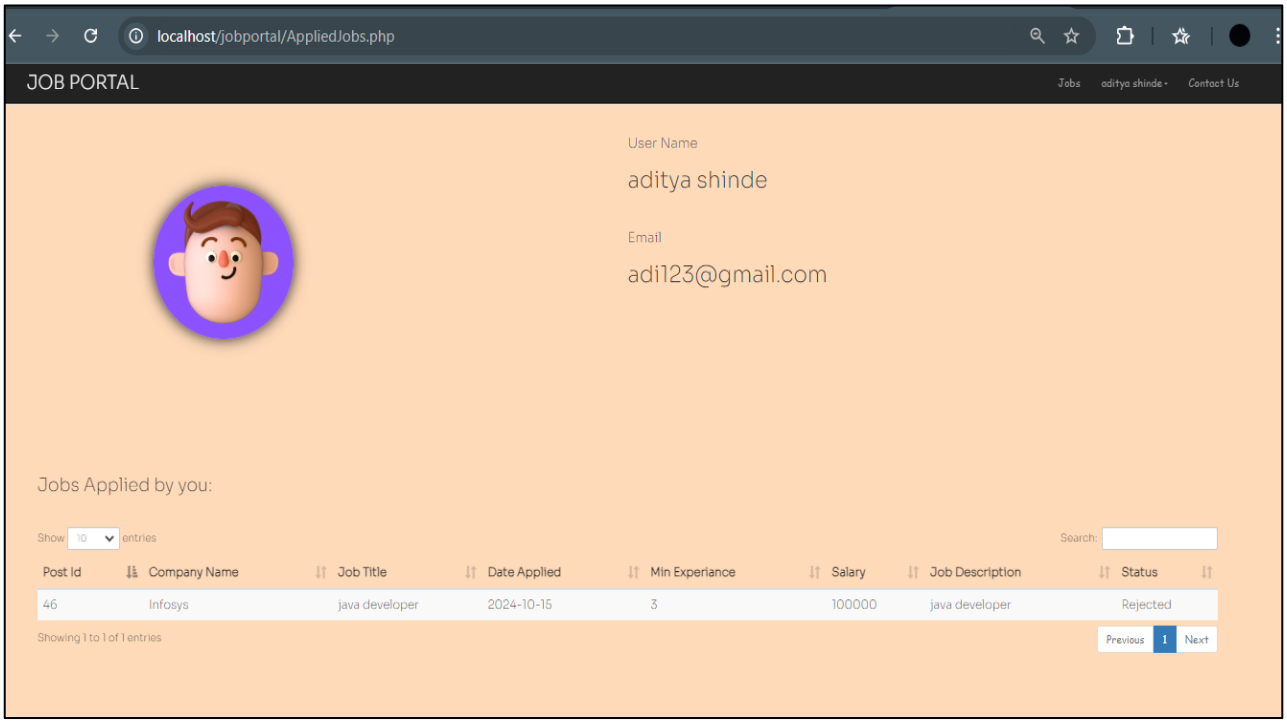


Fig 8.4 (B) Snapshot of Seeker Account

8.5 Footer

Fig 8.5 (A) Snapshot of Footer

CHAPTER 9

CONCLUSION

Analyses of different methods of job search used and their efficacy should provide information that can be used for developing better ways of helping unemployed job seekers find employment. Moreover, knowledge about the factors surrounding typically unsuccessful job search could help individuals and labor market intermediaries to channel their resources more effectively. While the Internet has become seemingly ubiquitous in job search for the highly qualified and for those in professional and associate professional occupations, it has also made important inroads in other segments of the labor market. It is used by a majority of job seekers from all occupational groups. A job web portal provides an efficient search for online information on job vacancies for jobseekers. The main goal of this portal is to attempt to produce the right graduates based on the industry needs. However, it is important that be aware the job web portals can never fulfill all the problems of jobless graduates.

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