ONLINE JOB PORTAL SYSTEM

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of
Bachelor of Science in Computer Science and Engineering

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APPROVAL

This Project titled **"Online Job Portal System"**, submitted by MD. Atik Hossain Emon, ID No: 201-15-14367 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 25th January 2024.
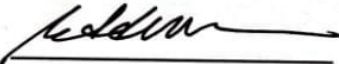
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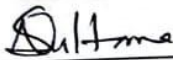
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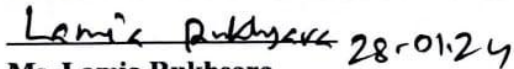Jahangirnagar University

DECLARATION

I hereby declare that, this project has been done by me under the supervision of **Ms. Naznin sultana,** Associate Professor, **Department of CSE** Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.
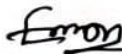
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ABSTRACT

The Online Job Portal System I named it Nightingale Jobs presented in this project is a comprehensive online platform aimed at revolutionizing the job-seeking and recruitment process. Leveraging PHP, CSS, and SQL technologies, the system integrates a robust backend with a sophisticated front-end design to deliver a seamless and user-friendly experience. The Online Job Portal is a web-based application. This allows for free and effective communication between job providers and job seekers without intermedi aries mediating recruitment methods. This portal is an online application that handles data about recruiters. Recruitment portals help all service job seekers and job providers find suitable organizations and workforces. For job seekers, the job portal presents a list of companies according to the job seeker's education, qualifications, experience and preferences. Job Portal is a complete online area where both job seekers and job providers can achieve their goals when it comes to finding top companies and suitable candidates.

TABLE OF CONTENTS

CONTENTS   **PAGE**

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1
INTRODUCTION

1.1 Introduction

The online job portal system, also known as Nightingale Jobs that helps job seekers to find jobs and assists the employers in finding the best candidate. Online job portals offer a wide range of jobs in various numbers of fields. The world of recruitment is changing rapidly. The mass adoption of modern tools and technology has created a knowledgeable and funding-friendly way to acquire talent. We tend to enrich some of the generations. Due to ongoing reasons, a significant number of companies are moving their success strategies into the digital realm. This project is a web-based online recruitment system and a platform that provides an interface between job seekers and companies. The system provides job seekers with a list of suitable companies according to their academic background, expertise and preferences. [1]

1.2 Motivation

There are currently many job portal systems available but only a few of them interact with organization and job seekers effectively, which is why online job portal system with relevance scoring technology. This motivated me to incorporate a testing system. I believe this is an easier and better option for both companies and job seekers. Students are generally very anxious about finding employment after graduation. For many companies, conducting interviews with students is completely unthinkable. I believe this is the reason why I chose this project. By harnessing the power of technology, the platform aims to streamline the job-seeking process, connecting qualified candidates with suitable opportunities and empowering employers to efficiently find the right talent. The motivation also lies in fostering inclusivity by providing a global platform accessible to a diverse range of job seekers and companies. Additionally, the portal aims to leverage data-driven insights to enhance the overall job matching experience, ultimately contributing to a more efficient, transparent, and accessible job market. Ultimately, the motivation is to bridge the gap between job seekers and employers, making the job search and recruitment process more dynamic, effective, and user-centric.

1.3 Objectives

- Both job seekers and companies can operate the system from their computers/smart phones other devices using the internet.
- Job seekers and companies can add information and upload photos/logo.
- Once we add the information, the student's resume will be automatically created.
- Job seekers can search for jobs by category and location.
- Companies can easily find a student's resume and can contact via email.
- Companies can post job information by category.
- Job seekers can apply by company requirements.

1.4 Expected Outcome

The implementation of a web-based online job portal is anticipated to yield several positive outcomes for both job seekers and employers. By providing a user-friendly interface and streamlined application processes, the portal is expected to increase job placements and efficiency in recruitment. Job seekers may benefit from improved visibility and a more diverse range of opportunities, while employers can access a broader talent pool. The incorporation of data-driven decision-making tools and analytics is likely to enhance the overall user experience and contribute to better matches between candidate skills and job requirements. The potential cost savings for employers, achieved through reduced traditional recruitment expenses, further underscores the positive impact of the online job portal. Increased accessibility across devices and locations, coupled with continuous platform improvement based on user feedback and market dynamics, is anticipated to create a robust and dynamic ecosystem for connecting job seekers with suitable employment opportunities. In this job seekers student can search jobs by category and location.

1.5 Project Management and Finance

Project Management:

Project management involves the systematic planning, organization, and control of resources to achieve specific objectives within defined constraints. It includes tasks such as defining project scope, scheduling activities, allocating resources, and ensuring effective communication. Project

managers oversee the entire project life cycle, addressing challenges, and ensuring that goals are achieved on time and within budget.

Finance:

Finance in the project context focuses on the effective management of monetary resources. It includes budgeting, financial analysis, and resource allocation to ensure optimal use of funds. Financial management tracks project expenses, monitors cash flow, and makes strategic financial decisions to keep the project financially viable. The goal is to maximize the efficient use of resources while adhering to the budget constraints, contributing to the overall success and sustainability of the project.

1.6 Report Layout

Chapter 1: Introduction

In this chapter I mentioned the motivation, goals as well as expected results of the project.

Chapter 2: Background

We discuss the basic circumstances of our project.

We tend to add related work, comparisons with other candidate systems, topic scope and project challenges.

Chapter 3: Requirements Specification

This chapter covers recruitment, modeling of similar business methods, recruitment needs and analysis, project use case models and their descriptions, Logical model of online database and thus style demand.

Chapter 4: Design Specification

In this chapter, all project styles. Front-end style, back-end style, interaction style and UX as well as recruitment implementation.

Chapter 5: Implementation and Testing

This chapter contains implementation information, user interface style, interactions, and verification results of the project.

Chapter 6: Impact on Society, Environment and Sustainability

This chapter contains how the system impacts society by reducing unemployment rates, fostering career development, and creating a diverse and inclusive job market.. Overall, the project's

commitment to ethical practices, inclusivity, and technological efficiency aligns with sustainability goals, positively influencing both society and the environment.

Chapter 7: Conclusion and Further Scope

In this chapter we discuss about the scope of further developments arising largely from the project.

CHAPTER 2

BACKGROUND

2.1 Preliminaries

Online inquiries are one of the most effective areas of e-commerce. The expansion of Internet requirements is driven by a combination of real value savings in the requirements system, increased ease of use for businesses, and increased expertise for students. This technique can make it easier to advertise jobs and employers. This project can reduce cash flow and save time.

2.2 Related Works

There are several job portals in the online market in Bangladesh. The dominant players today seem to be BD Jobs, LinkedIn, Skill Jobs and a few others. Here we will demonstrate some examples and point them out working principles and investigating the problems, weaknesses and others.

Bdjobs.com :

Bdjobs is one of the most popular job portals in Bangladesh, offering a variety of job opportunities in various fields. It provides services to job seekers and employers, allowing them to connect effectively. (Jobs: bdjobs, 2023) [2]
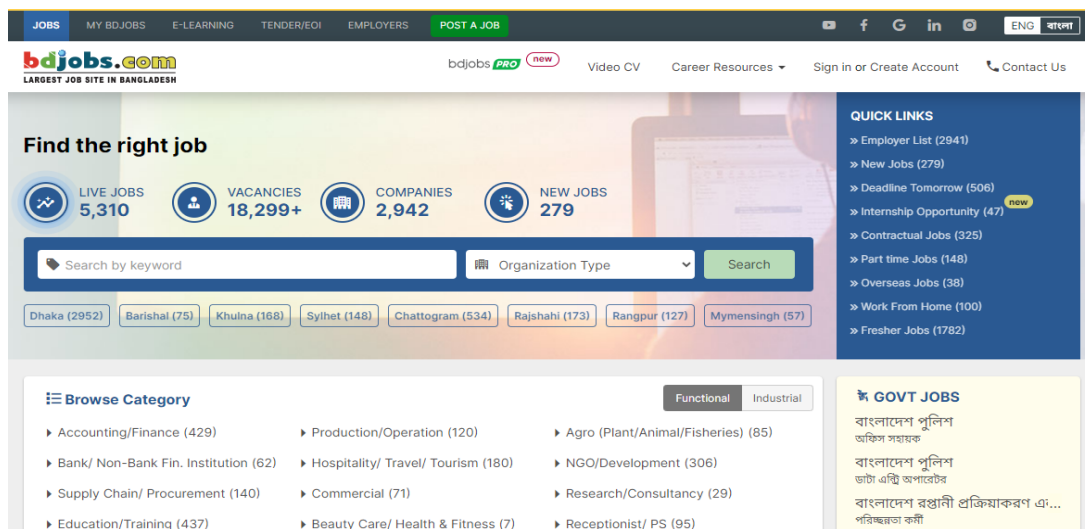

Figure 2.1: bdjobs.com

LinkedIn :

LinkedIn is a business and employment-focused social media platform that works through websites and mobile apps. The platform is primarily used for professional networking and career development, and allows jobseekers to post their CVs and employers to post jobs. (Home: LinkedIn, 2023) [3]
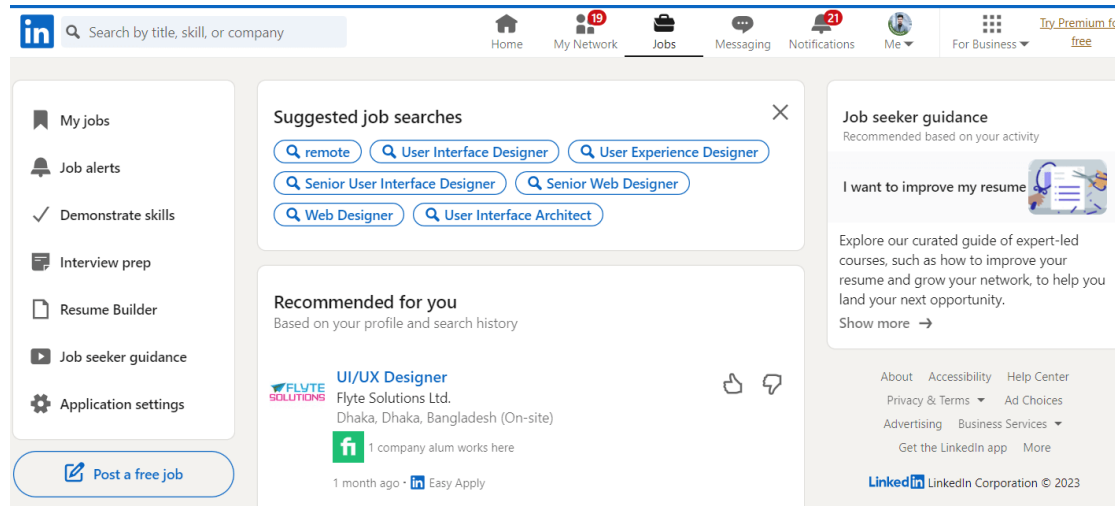

Figure 2.2: LinkedIn

2.3 Comparative Analysis

In a comparative analysis of online job portals, various factors play a crucial role in assessing their effectiveness and user satisfaction. The user interface and experience, job matching algorithms, diversity of job listings, and the size and engagement level of the user base are key considerations. Security measures, global adaptability, cost structures, technological infrastructure, employer services, and innovative features also contribute to the overall assessment. Transparency, trustworthiness, and adherence to ethical practices are vital factors for users and employers to consider. Through a comprehensive comparative analysis, stakeholders can make informed decisions based on the platforms that best align with their specific needs, providing a foundation for successful and satisfactory experiences in the dynamic landscape of online job portals. Our deployed software is different from existing software. There is also the option of online video interviews via Google meet or Zoom, which cannot be found on any other recruitment portal.

2.4 Scope of the Problem

- User Experience Impact:

  Complex interfaces, slow loading times, and frequent errors can lead to user dissatisfaction, affecting the platform's effectiveness which is one of the major scope of problem.

- Trust Erosion:

  Security breaches, fraudulent job postings, or misinformation can erode user trust, affecting the platform's credibility, so it is a scope of problem.

- Negative Publicity:

  System problems can lead to negative publicity, influencing potential users' perceptions and deterring them.

- Reduced User Engagement:

  Persistent challenges can lead to user disengagement, impacting the platform's overall vibrancy.

- Impact on Employer Reputation:

  Inefficient recruitment processes can negatively affect employers' reputation.

- Spread of Misinformation:

  Inaccurate job listings or misrepresented candidate profiles can create confusion.

2.5 Challenges

- Security Concerns:

  One of the primary challenges is ensuring the security of user data. Job portals handle sensitive information, including personal details and resumes. Measures must be in place to protect against data breaches, unauthorized access, and fraudulent activities.

- Fraudulent Job Postings:

  Online job portals may be susceptible to fraudulent job postings, where scammers or unethical entities post fake job opportunities. This can mislead and harm job seekers, eroding trust in the platform.

- Data Accuracy and Quality:

Maintaining accurate and high-quality data is crucial for effective matchmaking between job seekers and employers. Inaccurate information or out dated job postings can lead to a sub optimal user experience.

- User Verification:

  Verifying the authenticity of both job seekers and employers can be challenging. Ensuring that users are genuine and qualified is essential to maintaining the integrity of the platform.

- Mismatch of Expectations:

  Job seekers and employers may have different expectations regarding the effectiveness of the platform. Managing and aligning these expectations is crucial to maintaining user satisfaction.

- Monetization Strategies:

  Identifying effective and ethical monetization strategies that benefit both job seekers and employers while sustaining the platform financially is an ongoing challenge.

- Changing Industry Dynamics:

  Staying abreast of evolving trends in recruitment, technology, and employment practices is crucial to remaining relevant and competitive in the dynamic job market.

CHAPTER 3
REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

A business process model is a visual representation or abstraction of the activities, tasks, and interactions that occur within an organization to achieve a specific business goal. It provides a structured way to understand, analyze, and communicate how different elements of a business work together to deliver value. Business process modeling is a key component of business process management (BPM), allowing organizations to optimize and streamline their operations. There are different types of business process models, including flowcharts, UML diagrams, and Business Process Model and Notation (BPMN) diagrams. The choice of model depends on the complexity of the process and the level of detail needed for analysis and communication. (Creately , 2023) [4]

3.2 Requirement Collection and Analysis

The requirement collection and analysis is a critical phase in the development of any project. It involves translating the specified functionalities and features outlined in the project requirements into actual code and components. Below is an example of how you might describe the implementation of requirements for an online job portal project.

Implementation of requirements for the Online Job Portal

User Authentication:

- Objective: Implement a secure and user-friendly authentication system.

- Implementation:

 - Utilized PHP for backend authentication logic.

 - Employed password hashing techniques (e.g., bcrypt) to enhance security.

 - Created responsive HTML and CSS forms for user registration and login.

Job Listings:

- Objective: Develop a platform for employers to post job.

- Implementation:

- Designed a job listing creation form using HTML and CSS.

- Developed backend functionality in PHP to process and store job details in

MySQL database.

- Implemented retrieval logic for displaying job listings on the frontend.

Search and Filter Mechanism:

-Objective: Enable users to search and filter job listings based on specific criteria.

- Implementation:

- Created a dynamic search bar using HTML and CSS.

- Integrated PHP and SQL to process search queries and filter job listings.

- Ensured a seamless user experience with responsive design.

Profile Management:

- Objective: Allow job seekers to create and manage their profiles.

- Implementation:

- Developed user registration and profile creation forms.

- Integrated file upload functionality for users to upload resumes and portfolios.

- Implemented backend logic to store and update user profiles in the database.

Application Process:

- Objective: Facilitate the application process for job seekers.

- Implementation:

- Designed an intuitive application form for users to apply to job listings.

- Integrated PHP backend logic to handle application submissions and updates.

- Implemented frontend features to track and display application status.

Notifications:

- Objective: Implement automated email notifications for application status updates.

- Implementation:

- Integrated PHP email functionality to send notifications to users.

- Configured triggers to send emails based on changes in application status.

- Ensured that notification content is clear, informative, and user-friendly.

Security Measures:

- Objective: Implement security measures to protect user data and prevent unauthorized access.

- Implementation:

- Applied secure coding practices to prevent SQL injection and other vulnerabilities.

- Implemented HTTPS to encrypt data transmission.

- Conducted regular security audits and applied patches to address potential risks.

3.3 Use Case Modeling and Description

A use case diagram is a type of Unified Modeling Language (UML) diagram that visually represents the interactions between different actors (users or systems) and a system under consideration. Use case diagrams are useful in system design to capture and communicate the functional requirements of a system from a user's perspective. Use case modeling is a technique in systems engineering and software development that identifies, clarifies, and organizes system requirements from an end-user's perspective. It involves creating scenarios that illustrate how users interact with a system to achieve specific goals, defining various use cases to capture these interactions. Through use case diagrams and descriptions, it provides a visual and textual representation of the system's functionalities and user interactions.
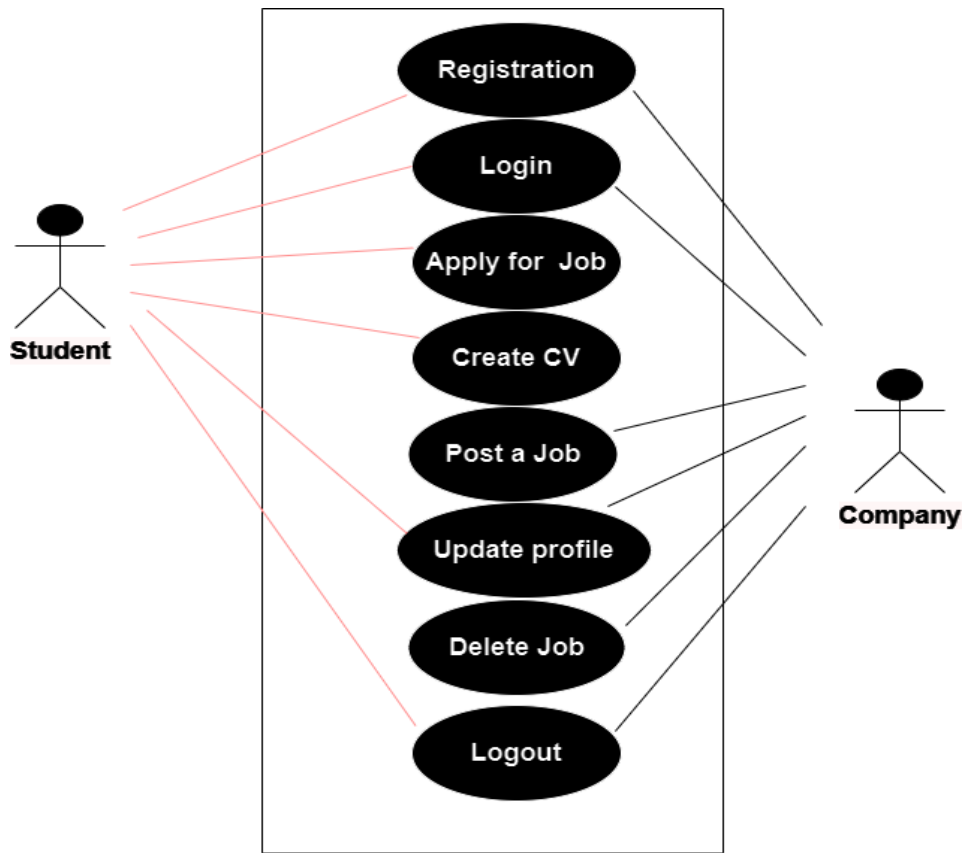
Figure 3.1: Use Case Model Diagram

Use Case Description

TABLE 3.1: USE CASE DESCRIPTION OF REGISTRATION

Use case	Registration
Primary Actor	Company, Student
Scenario	Enter Name Enter Email Enter Password
Post-condition	Registration successful or failed

The "User Registration" use case involves a new user accessing the online job portal and providing necessary information, including their name, email, and password. The system validates the entered details, ensuring proper email format and password strength. Upon successful validation, a unique user account is created, and a confirmation email is sent. The user completes the registration by confirming through the provided email link. This process is designed to be user-friendly, secure, and accessible on various devices, facilitating a seamless entry for individuals into the online job portal system.

TABLE 3.2: USE CASE DESCRIPTION OF LOGIN

Use case	Login
Primary Actor	Company, Student
Scenario	Enter Email Enter Password
Post-condition	Login successful or failed

The "User Login" use case involves an already registered user accessing the online job portal by providing their credentials, typically an email and password. The system verifies the entered information, granting access upon successful validation. The user gains entry to the portal, allowing them to utilize personalized features and services. This use case ensures secure and

controlled access for registered users, enhancing the overall user experience on the online job portal.

TABLE 3.3 : USE CASE DESCRIPTION OF POST JOB

Use Case	Post Job
Primary Actor	Company
Pre-condition	Complete Company Profile
Scenario	- Job title - Job type - Job details - Experience - Deadline
Post-condition	Job posted successfully

The "Post Job" use case involves an employer logged into the online job portal posting a job vacancy. The employer completes a form with details such as job title, description, and requirements. After validation, the job vacancy is added to the portal, becoming visible to job seekers. This use case streamlines the process for employers to advertise job opportunities, enhancing the overall functionality of the online job portal.

TABLE 3.4 : USE CASE DESCRIPTION OF APPLY FOR JOB

Use Case	Apply for Job
Primary Actor	Student
Pre-condition	Complete Profile
Scenario	View Job Apply for job
Post-condition	Applied successfully

In the "Apply for Job" use case, the job seeker, logged into the online portal, selects a specific job listing, and clicks "Apply." The system prompts the submission of required documents (e.g., resume), which the job seeker uploads. Upon successful submission, the system records the application and notifies the employer. This straightforward process streamlines job applications, ensuring efficiency for both job seekers and employers on the online job portal.

TABLE 3.5 : USE CASE DESCRIPTION OF LOGOUT

Use Case	Logout
Primary Actor	Company, Student
Pre-condition	Null
Scenario	Log out
Post-condition	Logout successful

In the "Logout" use case, the user initiates the logout process by selecting the option within the online job portal. The system securely terminates the user's session, confirming their intention, and redirects them to the login page. This straightforward process ensures the user's account security and is a routine action for both job seekers and employers on the portal.

3.4 Logical Data Model

E-R Diagram

An Entity-Relationship (ER) diagram is a visual representation of the data model that represents the structure of a database. It is a graphical tool used in database design and systems analysis to depict the relationships among different entities in a database. ER diagrams use symbols like rectangles to represent entities, ovals to represent attributes, and diamonds to represent relationships. Lines connecting entities indicate the nature of the relationship and may include cardinality information to denote how many instances of one entity are related to another. ER diagrams are helpful in the database design process as they provide a clear and concise way to represent the structure and relationships within a database. They serve as a blueprint for developers and database administrators when creating or modifying a database.
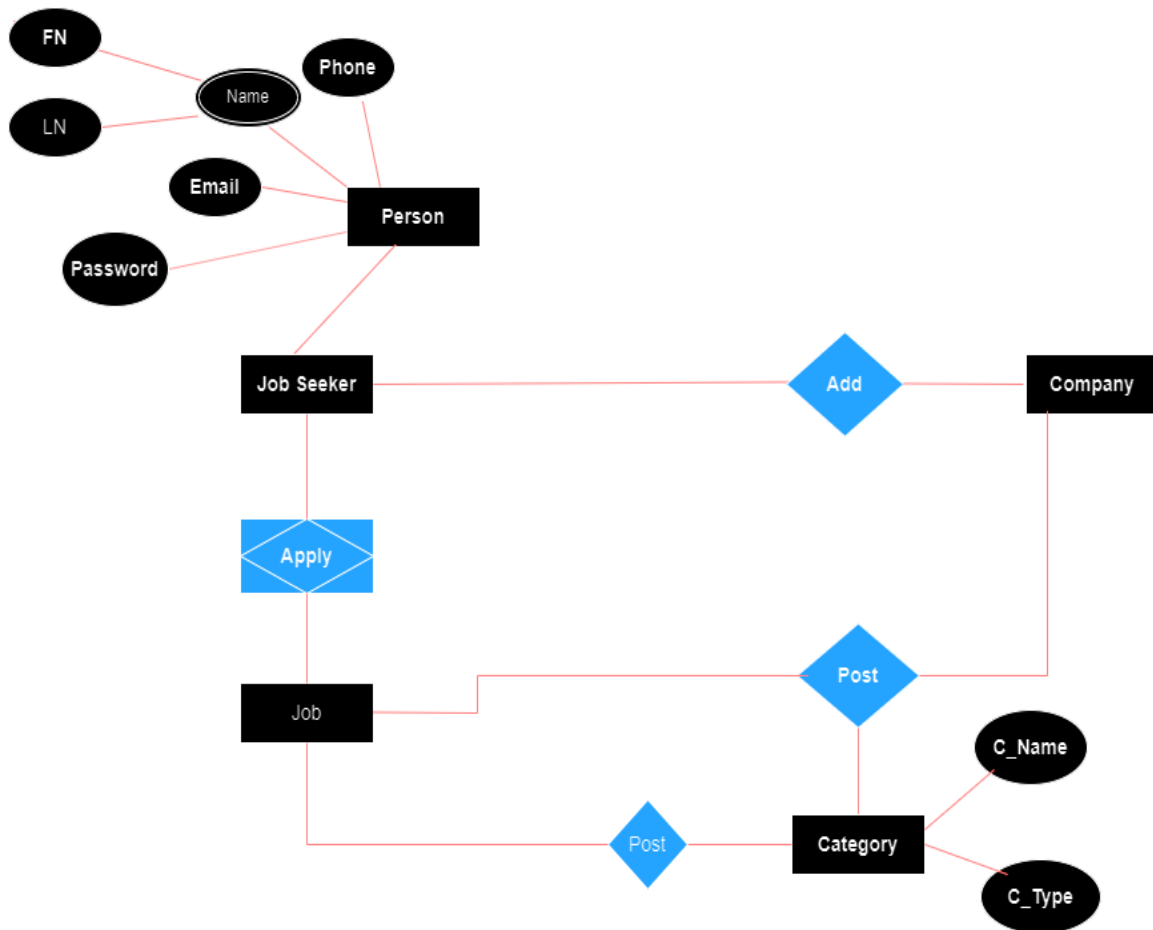
Figure 3.2: E-R Diagram

3.5 Design Requirements

- The system contains two types of users which is Company and Job seekers. Companies and Job seekers have to create their profiles.
- Companies can post job.
- Job seekers can view all job posts.
- Companies and Job seekers must register for jobs.
- Conduct interviews by video conference.

CHAPTER 4
DESIGN SPECIFICATION

4.1 Front-end Design

The front-end design is a representation of the software. This is the interaction mode between the user and the server. Front-end design is called client-side development. In most aspects of software development, the most important part is user interface design. I have created a simple user interface design for users to easily interact with the software. Below are some of the front-end designs of my software.

Home Page
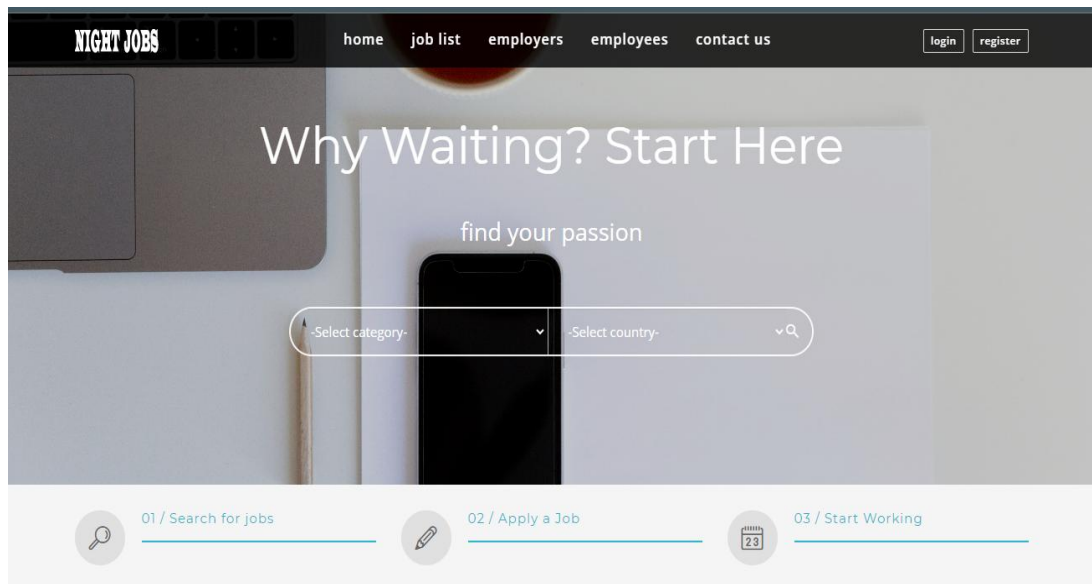
Figure 4.1: Home Page

The homepage serves as the central hub of the online job portal, presenting a user-friendly interface that provides immediate access to key features. It typically features job list, employers, employees and job search by category and country and essential tools, creating a welcoming and efficient starting point for both job seekers and employers.

Registration

Figure 4.2: Registration Form for Company
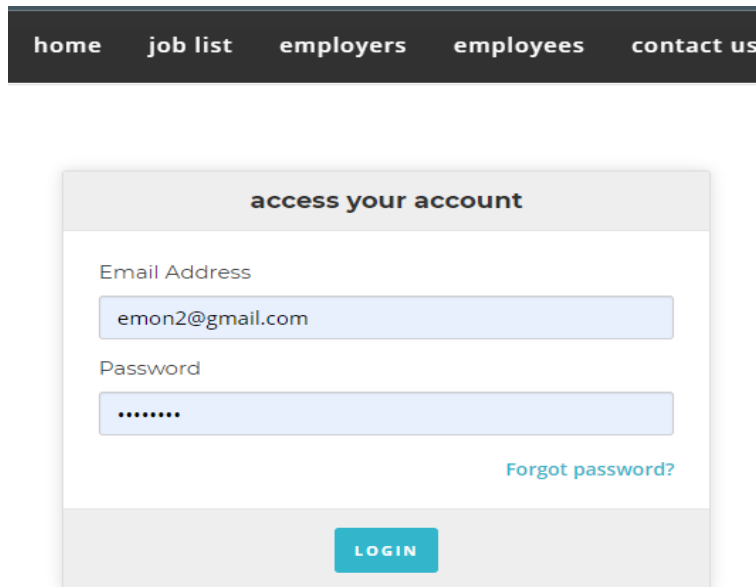
Both employers and employee have to register with required information. Company has to put company name, type of the company, email, password. As well as applicant need to fill up the form with first name, last name, email and password.

Figure 4.3: Registration Form for Applicant

Login

Figure 4.4: Login Form

The Login involves an already registered user accessing the online job portal by providing their credentials, typically an email and password. The system verifies the entered information, granting access upon successful validation.
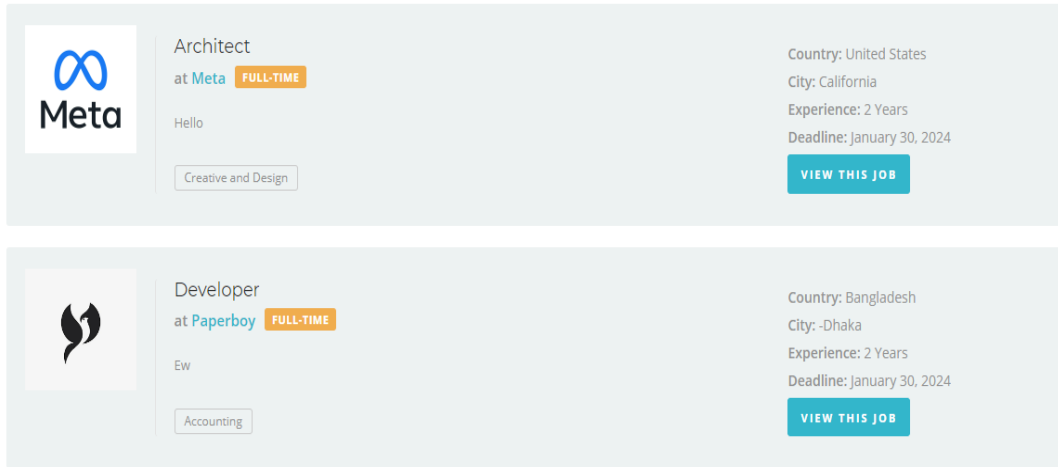
Profile

Figure 4.5: Applicant and Company Profile

Applicant and company must have to complete there profiles. Applicant can view his auto generated CV by completing their profile and company can post job by giving proper information of the company. So the applicant need to fill up information as name, education

level, gender, experience, skills etc. In the same way company need to fill up of the company name, establish date, company type, location etc.
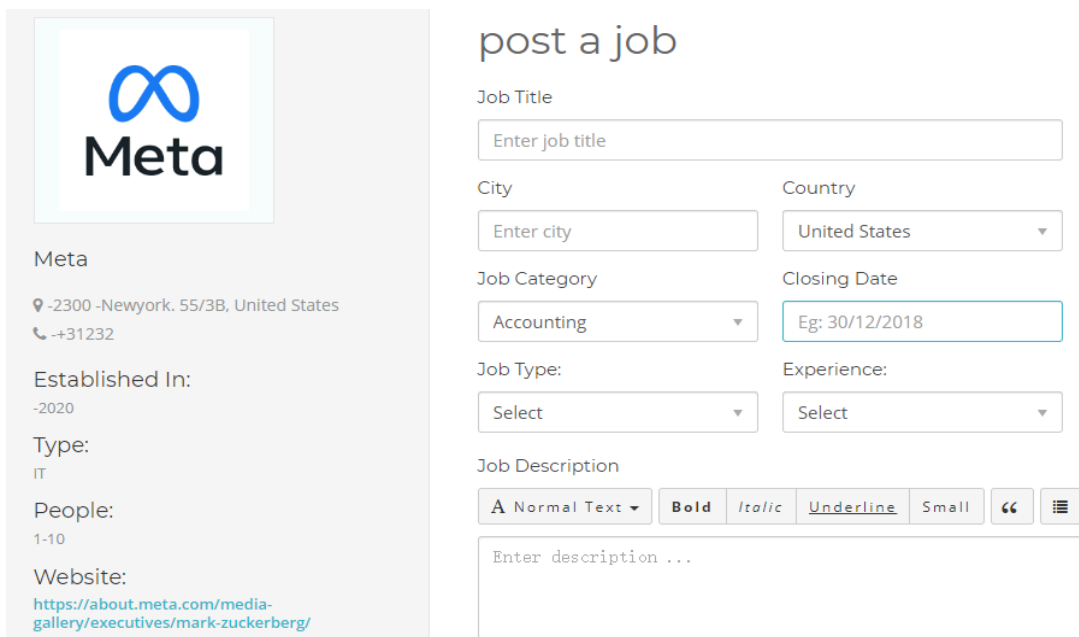
Job List

Figure 4.6: Job List

Job Post

Figure 4.7: Posting Job

Company can post a job by fulfilling some requirements as above. This will help an applicant for searching the proper job and to apply. Job title, city, country, job category, what experience an applicant has to be apply etc are some criteria need to fillup.

Search Job

Figure 4.8: Job Search

Job Seekers CV

Figure 4.9: Applicants CV List

This is a auto generated CV. Whenever an applicant completed their profile to apply a job a CV like this generated automatically. They can download the CV by clicking VIEW CV button only

Applicants
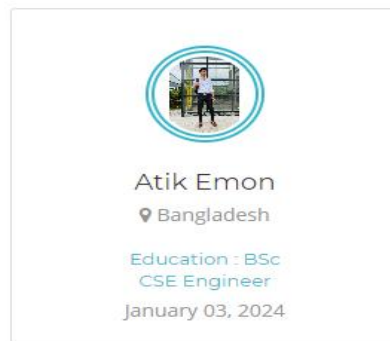
Figure 4.10: Applicants

Contact

Company will contact through email or phone to have an interview and discussion via google meet or zoom.

4.2 Back-End Design

The logical part of the software takes place in the back-end. This is the most important part of the software. The entire system depends on it. In general, back-end refers to the server side. In the backend there are many elements like scripting language or server-side language, database management, security, authentication, authorization, data analysis, data validation, backup data, etc. I developed an "online recruitment system" using PHP, a server-side language. Here all logic and hosting site provide us with MySQL database to save data information and workflow of software.

Figure 4.11 : Database tables

4.3 Interaction Design and User Experience (UX)

Apache Web Server

The Apache Web Server is employed both locally through the XAMPP control panel and online via a Linux web server for the job portal application. Recognized as one of the premier web server platforms globally, Apache, an open-source software, was initially developed by eight contributors in February 1995. A significant number of websites worldwide rely on the Apache web server for their operation.

PHP

PHP, which stands for Hypertext Preprocessor, is an open-source scripting language extensively utilized in website development. PHP scripts undergo processing by the PHP interpreter and are transformed into HTML documents on the web server. Subsequently, the rendered HTML file is transmitted to the browser via HTTP. PHP allows the integration of HTML code, and vice versa, making it a platform-independent scripting language compatible with various operating systems.

MySQL

The MySQL Server serves as a popular relational database management system, widely adopted for numerous open-source web applications. PHP My Admin, a graphical user interface tool, is commonly used for managing My SQL databases.

Visual Studio Code

Visual Studio is a lightweight and user-friendly code editor, facilitating tasks such as debugging, task running, and version control during development. It is a platform-independent software that does not require installation.

Notepad

Notepad, a text editor, supports debugging and code editing for multiple languages, including PHP, HTML, CSS, and JavaScript. Known for its lightweight nature, Notepad provides a versatile solution for developers.

The implementation phase involved translating conceptualized features into functional components of the online job portal. By utilizing a combination of frontend technologies (HTML, CSS) and backend technologies (PHP, MySQL), the implementation process aimed to deliver a robust, secure, and user-friendly platform that aligns with the specified requirements. This example provides an organized overview of how each requirement is implemented, showcasing the technologies and strategies employed in the development process.

4.4 Implementation Requirements

The implementation requirements for the online job portal encompass a comprehensive set of considerations. First, define the technology stack, including programming languages, frameworks, and tools for backend and frontend development, ensuring compatibility and efficiency. Establish secure user authentication mechanisms, such as multi-factor authentication, and integrate encryption protocols to safeguard sensitive user data. Design the system architecture to ensure scalability, allowing the platform to handle increased user and data loads over time. Implement robust data storage solutions and management practices to efficiently handle user profiles, job listings, and application records. Ensure mobile responsiveness, optimizing the platform for various devices, including smartphones and tablets. Create an intuitive and visually appealing user interface through usability testing, prioritizing a seamless user experience. Implement real-time communication features, such as messaging systems, to facilitate interaction between job seekers and employers. Integrate analytics tools for insights into user behavior, job market trends, and platform performance. Backend development requires a database management system (DBMS) that supports SQL, such as MySQL Ensure compliance with data protection regulations and other relevant legal requirements in the regions where the

platform operates. Establish thorough testing procedures, including unit testing, integration testing, and user acceptance testing, to identify and rectify bugs and issues. Create comprehensive technical documentation for developers, administrators, and end-users to facilitate system understanding and troubleshooting. Outline a deployment strategy, considering phased releases and updates to minimize disruptions, and monitor deployment processes to ensure a smooth transition from development to production. By addressing these implementation requirements holistically, the online job portal can be developed with a focus on functionality, security, and user satisfaction.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

I utilized PHP to create various tables, outlining their attributes and corresponding data types. During this process, SQL queries were necessary for executing actions. In the model, I implemented data validation to verify whether users possess the appropriate permissions to directly input data into the database. The database comprises 10 tables. I have listed several tables, presumably representing database tables, for the system. Each table likely corresponds to a specific entity or aspect of the system. Below is a brief interpretation of each table based on its name:

Alerts Table:
This table might store information related to alerts or notifications within the system. It could include fields such as alert_id, user_id, message, timestamp, etc.

Job Categories:
This table likely holds information about job categories or classifications. It might include fields like category_id, category_name, description, etc.

Countries Table :
This table is likely to store information about countries. Fields may include country_id, country_name, ISO code, and other relevant details.

Experience Table :
This table might contain details related to the experience levels required for job listings. Fields may include experience_id, experience_level, description, etc.

Job :
This table probably represents job listings and could include fields such as job_id, employer_id, job_title, description, requirements, etc.

Job Applications:

This table is likely to track job applications made by users. Fields may include application_id, job_id, user_id, application_status, timestamp, etc.

Language:

This table might store information about languages relevant to job listings or user profiles. Fields may include language_id, language_name, proficiency_level, etc.

Professional Qualification:

This table could contain details about professional qualifications required for specific jobs. Fields may include qualification_id, qualification_name, description, etc.

Training Table:

This table likely represents information about training programs or certifications relevant to job seekers. Fields may include training_id, training_name, provider, duration, etc.

User table:

This table probably stores user information. Fields may include user_id, username, password (hashed), email, role, and other user-related details.Understanding the relationships between these tables and how they interact is essential for designing an effective and normalized database schema for your online job portal system. Each table serves a specific purpose and contributes to the overall functionality of the system.

5.2 Implementation of Front-end Design

The front-end design of my job portal system prioritizes a user-centric and visually engaging experience. Using HTML, CSS, and JavaScript and JQuery, we've crafted an intuitive interface that seamlessly guides users through the platform. The homepage offers a clean layout with a prominent search bar for job exploration.

User profiles are presented in a visually appealing format, displaying key information and highlighting skills job listings are displayed with clarity, providing comprehensive information about each position. Interactive elements, such as easily accessible application buttons and filters, enhance user engagement. The design ensures a consistent and optimized experience for all users. For employers, the portal offers a streamlined interface for posting jobs, managing applications, and reviewing candidate profiles. The design emphasizes simplicity and efficiency in the recruitment process, allowing employers to focus on finding the right candidates.

Overall, the front-end design of my job portal system is a balance of functionality and aesthetics, prioritizing user satisfaction and efficiency. By combining a visually pleasing interface with seamless navigation and interactive features, the design aims to elevate the overall user experience and facilitate successful interactions between job seekers and employers.

5.3 Testing Implementation

Test ID	Test Case	Test Input	Expected output	Success / Fail
1	Registration	Name, Email, Password	Successful	Success
2	Login	Email, Password	Successful	Success
		Incorrect Email or Password	Invalid email or password	Success
3	Password	Forgot password	Contact us and recover	Success
4	Profile settings	View profile, Update profile	Show and update profile information	Success
5	Post job	Input job requirements	Job post has been posted	Success
6	Apply Job	Apply this job	You have applied this job	Success
7	CV	View CV	Downloaded CV	Success
8	Search jobs	Search by category and location	Show the matching job	Success
9	Logout	Click logout Button	Logged out successfully	Success

5.4 Test Results and Reports

The testing process was successful, and all test cases passed as expected. The system demonstrated the ability to handle user registration, login, password recovery, profile management, job posting, job application, CV viewing, job searching, and logout functionalities without any critical issues. This suggests that the system is functioning according to the specified requirements and is ready for deployment. However, ongoing monitoring and testing are recommended to ensure continued reliability and performance. Test results and reports play a critical role in the software testing process. Following the execution of test cases, detailed results are compiled to provide insights into the system's functionality and identify any potential issues. These reports typically include information on test case Success / Fail status, any deviations from expected behavior, and detailed error logs for failed cases. Metrics such as code coverage and performance data may also be included to assess the overall quality of the software. Test reports are essential for communication between development and testing teams, providing a comprehensive overview of the software's health. They aid in decision-making by highlighting areas that require further attention and guide the debugging and improvement process. Additionally, these reports serve as valuable documentation for future testing cycles and auditing purposes.

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Impact on Society

1. Job opportunities: Facilitate reasonable connections between job seekers and employers, thereby reducing unemployment and contributing to economic growth.

 2. Career Development: Empowers individuals with resources for upskilling and personalized learning, promoting continuous career growth.

 3. Global Connections: Break down geographic barriers, enabling individuals to explore employment opportunities globally and foster a diverse and inclusive workforce.

 4. Recruitment efficiency: Streamline the recruitment process for businesses, helping to attract talent and use resources faster and more effectively.

 5. Technological progress: Encourage the application of advanced technologies in the labor market, thereby contributing to the general technological progress of society.

6.2 Impact on Environment

The impact of an online job portal on the environment is relatively indirect, but there are aspects to consider:

1. Reduced Commuting:: By facilitating remote working opportunities, the portal indirectly contributes to reduced travel, leading to reduced carbon emissions and reduced traffic congestion.

2. Paperless transactions: The digital nature of the platform promotes paperless interactions, minimizing the use of physical documents and reducing the need for paper resources.

3. Energy consumption: Although operating an online portal requires server infrastructure, advances in cloud computing and energy-efficient data centers can minimize the associated environmental impact to energy consumption.

4. Global Accessibility: Enabling global job search and remote work options can contribute to a more dispersed workforce, reducing the need for extensive travel and related environmental impacts.

Although the main focus of the online job portal is on economic and social impacts, these indirect environmental benefits align with broader sustainability goals. Organizations hosting such portals can further enhance their environmental responsibility by adopting environmentally friendly practices in their infrastructure and technology operations.

6.3 Ethical Aspects

The ethical aspects of this online job portal involve considerations related to user privacy, fairness, transparency, and responsible use of technology. Here are some key ethical considerations:

User Privacy:

Transparency: Clearly communicate how user data is collected, stored, and used.Obtain explicit consent for data processing and ensure users are informed about privacy protections.

Security measures: Implement strong security measures to protect sensitive user information, including personal data and resumes.

Fair and inclusive practices:

Equal opportunities: Ensure that the platform promotes equal opportunities and does not discriminate based on factors such as age, gender, race or disability disability.

Transparency in job offers:

Accurate Representation: Encourage employers to make job offers accurately and transparently, avoiding misleading information about roles, responsibilities and compensation.

User feedback and resolution:

Accessible feedback channels: Provide accessible channels for users to report issues, provide feedback, and seek to resolve disputes.

Responsive Resolution: Address user concerns quickly and transparently, demonstrating your commitment to ethical business practices.

Verification techniques:

Conduct verification to ensure the legitimacy of job postings and user profiles in order to prevent fraudulent activities.

User Education: Educate users about potential scams, phishing attempts, and the importance of verifying the legitimacy of job opportunities.

Accessibility and inclusion:

Accessible design: Ensure that the design of the platform is accessible to users with disabilities, promotes inclusivity, and provides capabilities Equal access for all individuals.

By addressing these ethical considerations, the online job portal can create a trustworthy and responsible platform that prioritizes user well-being, fairness, and the ethical use of technology. Regular assessments and updates to policies and practices are crucial to maintaining ethical standards in an ever-evolving digital landscape.

6.4 Sustainability Plan

The sustainability plan for our online job portal system is rooted in a commitment to environmental responsibility, social inclusivity, and economic resilience. To minimize our environmental footprint, we prioritize energy efficiency through server infrastructure optimization and explore the use of renewable energy sources. We actively promote remote work to reduce commuting and advocate for paperless transactions. Emphasizing diversity and equal opportunity, we ensure fair and inclusive practices in job listings and user interactions. Privacy and data security are paramount, with transparent policies and data minimization practices. Regular algorithm audits uphold fairness, while user empowerment features provide control over personal data. Our plan includes continuous improvement, user engagement, and community initiatives, fostering a sustainable and socially responsible platform for the benefit of our users and the broader community.

CHAPTER 7
CONCLUSION AND FUTURE SCOPE

7.1 Discussion and Conclusion

The online job portal is a successful and user-friendly platform designed for Companies and Job seekers. Using PHP and SQL queries for the back-end, the system is secure and scalable. The platform includes features such as user management, job listings, company information, job applications, and assessments. By creating different user levels and detailed profiles, we ensure safety and accuracy. The job posting and application process is streamlined through the Job, Job Category, and Job Post tables, accompanied by question and answer assessments. Regular maintenance and user feedback will help us improve and tailor the platform to meet changing job market needs. We are committed to creating a useful and effective tool for all parties involved. the online job portal stands as a technological solution designed to bridge the gap between job seekers and employers, providing a dynamic and efficient platform for talent acquisition. Its successful implementation signifies a commitment to user satisfaction, data security, and adaptability in the ever-evolving landscape of online recruitment. The continuous refinement of features and adherence to industry best practices will contribute to the sustained success and impact of the online job portal.

7.2 Scope for Further Developments

- Improved user experience: - Continuously refine and optimize the user interface for an intuitive and seamless experience. - Collect user feedback to identify areas for improvement and make user-centered design changes.
- Mobile accessibility: - Develop a mobile-friendly version or dedicated mobile app to serve users who prefer to access the platform on smart phones and tablets.
- Advanced matching algorithms: Implement complex matching algorithms to improve the accuracy of job recommendations to users, based on profile, skills and their preferences.

- Expanded feature set: Introducing new features like a personalized dashboard, real-time chat capabilities between recruiters and job seekers, and Improved assessment tools for more complete assessment. Email notification for each company and student.

- Continuous security measures: Security can upgrade a lot. Stay alert to cyber security threats and deploy advanced security measures to protect user data.

- Scalability and performance optimization: Ensure the platform is scalable to accommodate a   growing user base and optimize its performance to handle manage ever-increasing traffic and data volumes.

By setting and achieving these future goals, our online job portal aims to remain a cutting-edge and indispensable resource for both job seekers and employers, contributing positively to the professional development landscape.

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Online Job Portal System

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