

JobHuntBD – WEB BASED JOB PORTAL APPLICATION

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FINAL YEAR DESIGN PROJECT REPORT

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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DAFFODIL INTERNATIONAL UNIVERSITY

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APPROVAL

This Project titled **Web Based Job Portal Application (JobHuntBD)**, submitted by **MD Al-Amin (202-15-3799)** and **MD Raisul Islam (202-15-3797)** 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 13-07-2024.

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DECLARATION

We hereby declare that this project has been done by us under the supervision of **Ms. Zahura Zaman, Lecturer, Department of Computer Science and Engineering, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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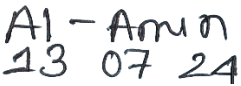
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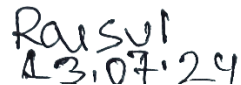


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ABSTRACT

The improvement of online job portals has changed the recruiting and job-hunting scene, especially in Bangladesh. “JobHuntBD”, a web-based job portal in Bangladesh, aims to address unemployment, skill gaps, and remote work trends through user-centric design and various functionalities. It connects job seekers with employers by offering features like job search, application submission, resume building, and communication tools. It prioritized security, data privacy, and accessibility. In the recruiting process and promoting open communication, job boards such as bdjobs.com, Prothom Alo Jobs, AllJobsBD.com, and other job portals have grown to be vital resources for both companies and job seekers. The report analyzes existing job portals within Bangladesh, outlining their strengths and weaknesses. The needs of the users are identified through functional and non-functional requirements, including performance, scalability, and mobile compatibility. The design of our employment portal emphasizes personalized suggestions, advanced search, and comprehensive profiles. The report also details the Business Process Model, Use Case Model, Logical Data Model, as well as financial analysis of our project. By addressing challenges like fake job postings and limited internet access, “JobHuntBD” tries to be a reputable platform fostering economic growth and connecting talent with opportunity across Bangladesh.

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CHAPTER 1

Introduction

1.1 Introduction

Online job portals have significantly impacted job searching and hiring in Bangladesh, by providing centralized tools for businesses and job seekers. These platforms have made the employment process more efficient, reducing the time and resources needed. They also promote openness, allowing informed choices. Job posts are posted on the site, allowing applicants to apply quickly and easily. This saves both time and money on recruiting firms and raises brand awareness. The quick response times improve employer brand impression, and pleasant comparison, and create a talent pool for future hiring. Advanced talent relationship management technologies can compile a database [1]. The communication between the users will be established through messaging systems and email notifications as well as phone calls, with optional payment integration for premium features. The extensive use of online job platforms has socioeconomic consequences, reducing unemployment and facilitating remote and independent employment in our country. However, government regulation and partnerships between public and private sectors are needed to further enhance its efficiency.

1.2 Motivation

The reason we are intending to develop this web-based job portal is as follows:

High unemployment rate: Bangladesh faces challenges related to high unemployment, especially among the youth. Our job search website can help solve this problem by connecting job seekers with available opportunities.

Skill mismatch: Many job seekers in Bangladesh face a skill gap. Our website can provide resources and information to help them acquire the skills they need for available job opportunities.

Fake job postings: Fake job postings on job portals are fraudulent advertisements that look like genuine job openings, often originating from malicious individuals with

malicious intentions such as identity theft or financial scams.

Economic Growth: Employment generation and workforce development are crucial for the economic growth and stability of the country.

Remote work trend: The COVID-19 pandemic has created opportunities for the remote work trend. Our website can serve job seekers looking for remote work or telecommuting positions globally.

1.3 Objectives

The main objectives of our project are to find and solve the weaknesses of the existing job portals. Sometimes job seekers face problems while using the job portal and lose interest. Also, providing some essential facilities including:

- ❖ **User-Centric Design:** Our first intention is to develop a user-friendly and intuitive interface that prioritizes the needs and preferences of job seekers, as well as making it easy for them to navigate and find relevant job listings.
- ❖ **Increase employment opportunities:** Besides, it will connect job seekers with a wide range of job openings across Bangladesh and reduce unemployment rates.
- ❖ **Avoid fraud:** We will only allow legitimate companies to post their job vacancy and as well as regularly monitor older/expired job postings.
- ❖ **Ensure User's Data Security:** We will not compromise to protect user data and privacy in compliance with local regulations.
- ❖ **Enhance candidate skills:** Our platform offers several essential resources such as resume-building tools and career advice which help job seekers improve their qualifications and make them marketable.
- ❖ **Interview Preparation:** There will be a section dedicated to common interview questions, tips, and best practices to help job seekers prepare for interviews. Additionally, mock interview simulations or resources will be made for practicing interview skills.

All these goals work together to provide a robust, user-friendly web-based job portal application (JobHuntBD) that meets the needs of job seekers and companies while transforming functionality.

1.4 Expected Outcomes

The expected outcomes for " JobHuntBD - Web-based Job Portal Application" includes:

- ❖ **Increased Job Opportunities:** JobHuntBD aims to create more job opportunities for individuals across various industries and sectors by reducing the gap between job seekers and companies.
- ❖ **Streamlined Recruitment Process:** With efficient tools and features offered by the portal, employers will benefit from a simplified recruitment process, facilitated.
- ❖ **User-Friendly Experience:** Job seekers will enjoy our user-friendly interface, which will help them search for jobs, submit applications, manage their profiles, and get many helpful career resources.
- ❖ **Enhanced Visibility:** By following effective marketing strategies and search engine optimization techniques JobHuntBD's familiarity and growth can be significantly enhanced and reach a wider audience of job seekers and employers.
- ❖ **Revenue Generation:** The financial sustainability of JobHuntBD including premium job listings, some career resources, and subscription services that are ensured by its various revenue streams.
- ❖ **Establishment of a Reputable Platform:** Our platform aims to become a reputable platform for both job seekers and companies by keeping trust and facilitating data security for individuals.

All of these expected results work together to make our platform reputable by offering effectiveness, user-friendliness, security, and flexibility for both job seekers and companies.

1.5 Project Management and Finance

Project Management:

● Project Objectives:

A. To develop a job portal website for manage job post or apply for job and provide career resources tools.

B. To give a reputable platform for job seekers and companies in the job marketplace.

C. To find and solve weakness of existing job portal website in Bangladesh.

● Project Timeline:

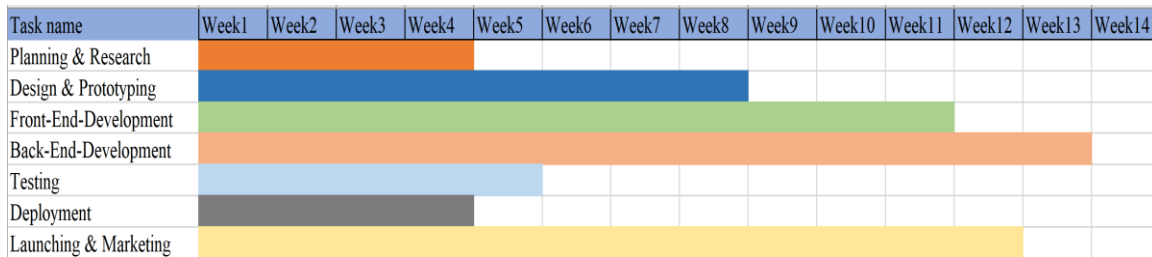


Figure 1.5.1: Estimated time required for JobHuntBD

● Resource Planning:

A. Equipment and Tools:

- For the local development environment, we used Node.js and MongoDB.
- In the cloud server, we used AWS, and Azure to get more flexibility.
- Slack, Trello, and project management software have been used as collaboration tools.
- For the version control system, we used Git.
- Testing tools: Apache JMeter, and Selenium are used for testing purposes.

B. Software and Technologies:

- For the Front-End-Development, we used HTML, CSS, JavaScript, React.
- In the Back-End-Development, we used Node.js as technologies.
- MongoDB is used for our Database Management System.
- For the server hosting as Cloud Servers AWS, Google Cloud, Azure are used.
- Users can use bKash, Nagad, Card, and others to get access to premium features or paid services.

C. Data and Content:

Job Postings: This involves several job postings which are provided by recruiters or companies.

Management: Recruiters create and edit job postings on the other hand job seekers create profiles and apply for the job through a user interface on the website.

Storage: Job posting data along with user profile data is stored in the MongoDB database.

Access: Job postings are publicly accessible on the website and can be filtered/searched by users.

Static Content Management: Information pages such as About Us, FAQs, and Contact have been managed directly through the back-end code.

Blog Posts: In our blog section for career resources, current news, or company updates, a content management system will be implemented so that only authorized users are allowed.

D. Training and Skill Development:

Core Skills and Knowledge:

Front-End Development: Our team has a strong understanding of HTML, CSS, and JavaScript along with front-end frameworks like React. Besides, they know the responsive mechanisms to ensure the website adapts to different types of devices.

Back-End Development: Also, they have experience with the Express.js framework for building web applications on Node.js. As well as they have knowledge of API design and development for data exchange with front-end and potential external services.

Database Management: They know about MongoDB query language for interacting with databases.

Testing and Debugging: Our team have familiarity with different types of testing frameworks like Apache JMeter, and Selenium to ensure the quality of code and functionality.

Debugging: They have a good understanding of debugging techniques for identifying and resolving issues quickly in the code.

Additional Skills:

Security: Additionally, they know about how to protect the website from vulnerabilities and attacks with the help of Knowledge of web applications.

Cloud Deployment: Also, they have wisdom in deploying and managing applications on cloud platforms like AWS, Azure, or Google Cloud.

● Risk Management:

Strengths:

❖ Wide Market Reach

- ❖ Efficient Matching
- ❖ User-Friendly Interface
- ❖ Mobile Responsiveness
- ❖ Brand Reputation

Weaknesses:

- ❖ Technical Challenges
- ❖ Dependence on Third-Party Services
- ❖ Initial User Base
- ❖ Data Security Concerns

Opportunities:

- ❖ Market Growth
- ❖ Collaboration with other organizations
- ❖ Integration with other data sources
- ❖ Monetization Strategies
- ❖ Data-Driven Insights
- ❖ Emerging Technologies

Threats:

- ❖ Market Competition
- ❖ Economic Factors
- ❖ Regulatory Changes
- ❖ Cybersecurity Threats
- ❖ Shifting User Needs

● **Communication Plan:**

A. Stakeholder Meetings:

Purpose: To update project stakeholders on progress, including requirements gathering, development milestones, and potential roadblocks. We need to gather feedback from stakeholders to ensure alignment with project goals and user needs.

Participants: Development team members such as developers, designers, and project testers as well as stakeholders such as product owners, clients, investors.

Frequency: Once in two weeks.

B. Change Control Meetings:

Purpose: To formally discuss approving any changes to our project's scope, requirements, or functionality. Also evaluate the impact of proposed changes on timelines, budgets, and resource allocation.

Participants: Our project supervisors or managers and development team members.

Frequency: Significant changes are proposed whenever necessary during the development process.

Financial Analysis

Below is a table with estimated costs for different components of our job portal website. We have chosen these based on our requirements.

Table 1.5.2: Cost estimation for JobHuntBD

SN	Components	Estimated Cost (BDT)
01.	Domain and Hosting	2500-3000
02.	Purchase Stock Content	2000-2500
03.	Visiting Stakeholders	1000-1500
04.	Doing Online Course or Training for learning new technology	5000-5500
05.	Documentation and Report Writing	500-1000
06.	Miscellaneous (e.g., licenses, tools)	12000-15000
07.	Maintenance cost	1500-2000
08.	Development cost	25000-30000
09.	Marketing cost	10000-12000
10.	Contingency (10% of total)	5950-7250
Total Estimated Cost		65450-79750

1.6 Report Layout

Developing a comprehensive report layout for "JobHuntBD - Web-based Job Portal Application" needs to break down the project into multiple sections that show the project details including features, outcomes, and development stages. A summary of the report's layout is given below:

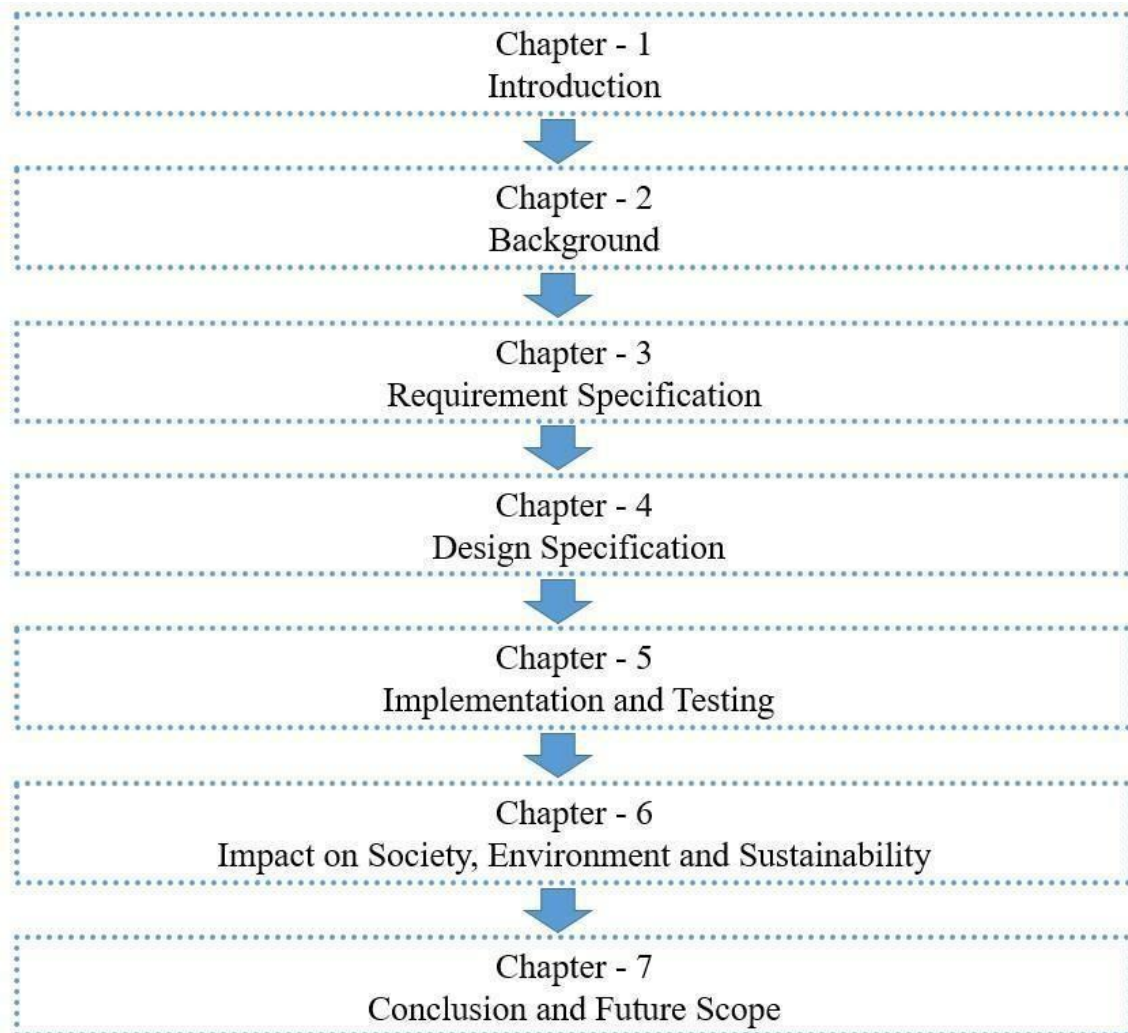


Figure 1.6.1: Report Layout of this Project.

CHAPTER 2

Background

2.1 Terminologies

The Terminologies that might be associated with our job portal website:

- ❖ **Job Seeker:** A person who is looking for job opportunities and uses the JobHuntBD platform to search for jobs.
- ❖ **Employer/Company:** A company or organization that posts job openings on JobHuntBD to find suitable candidates for open positions.
- ❖ **Job Posting:** A detailed description of the job posting posted by the company on the JobHuntBD. Includes information such as job title, responsibilities, qualifications, salary, and application instructions.
- ❖ **Resume/CV:** A document submitted by a job seeker to demonstrate his or her education, work history, skills, and qualifications to a potential employer.
- ❖ **Application:** The process by which a job seeker submits their resume and other required documents to apply for a specific job opening on JobHuntBD.
- ❖ **Job Types:** Different categories of jobs based on industry, job function, location, etc. that help job seekers narrow their search.
- ❖ **Search Filter:** Users can narrow their job search based on standards such as location, job title, salary range, and experience level of the job seekers.
- ❖ **Notifications:** Notifications or updates sent to users via email or notifications within his JobHuntBD platform regarding new job openings, application status, or other related information.
- ❖ **Profile:** A personal account created by a user on JobHuntBD. It may include details such as contact information, work history, education, skills, and preferences.
- ❖ **Application Tracking:** The ability for job seekers to track the status of their applications, including whether the application has been viewed or considered by an industry.
- ❖ **Job Alerts:** Customizable notifications that notify users of new job postings that match specified criteria. Sent via email or within this JobHuntBD platform.
- ❖ **Feedback/Reviews:** In order to maintain quality, a mechanism that allows users to feedback or rate their experiences with jobs, employers, the JobHuntBD platform itself.

2.2 Related Work

JobHuntBD will compete with local Bangladeshi job portals like BDJobs.com, Prothom Alo Jobs, Skilljobs, Alljobs by Teletalk, and Bdjobstoday.com. It differentiates itself in the Bangladesh market by analyzing functionalities like job listings, search filters, and employer profiles. Below we have given a summary of the relevant literature:

bdjobs.com: bdjobs.com is a comprehensive job portal that offers a wide variety of jobs in various industries. They are committed to excellence and serve as a central hub that connects job seekers with rich career possibilities and fosters growth in a variety of locations [6].

Prothom Alo Jobs: The Prothom Alo Jobs platform is the part dedicated to jobs in the popular newspaper Prothom Alo. By offering a variety of job vacancies and advertising job openings in a number of areas, they appeal to a broad readership [7].

Skill Jobs: This platform focuses on skill development and training, along with job placement. It offers job postings, skill assessments, and training courses to help you improve your employability [5].

bdjobstoday.com: BDJobsToday provides a variety of job opportunities across Bangladesh, focusing on different industries and job seekers. They offer employment opportunities in a variety of locations [8].

Alljobs by Teletalk: This job portal is control by the telecommunications company named Teletalk, and it exclusively focuses on government jobs. It is a good resource for those interested in working in the public sector and less suitable for private jobs hunters [9].

“JobHuntBD – Jobportal Web Application” operates a populous Bangladeshi job market where competitors like Prothom Alo Jobs and BDJobs.com offer many job postings. On the contrary, Teletalk's AllJobs offers government jobs, and SkillJobs focuses on skills training and recruitment. JobHuntBD's success depends on its ability to assess the characteristics of these competitors and provide a unique experience to companies and job seekers in Bangladesh.

2.3 Comparative Analysis

Comparative exploration for the "JobHuntBD– Job portal Web Application" results evaluating the existing job platforms that are currently in use in the industry. Below is a summary of a comparative analysis of the remaining job portal:

Table 2.3: Comparative analysis among existing job portals

Features	Primary focus	Target audience	Service Categories	Pricing	Limitations
bdjobs.com	General job postings.	Job seekers across industries & experience levels	Job listings, resume management, career advice	Free (basic), premium features available	Cluttered interface, limited features in free version
Prothom Alo Jobs	Jobs from various companies	Job seekers across industries & experience levels of Prothom Alo	Job listings covering diverse industries.	Usually free for job seekers; employers may have fees.	Focuses only The Daily Prothom Alo newspaper
Skilljobs	Skill development & job placement	Individuals seeking to improve employability.	Skill development courses, career counseling, job search assistance, employer	Offers various models (individual course fees, subscription plans)	Less relevant for experienced job seekers, lower brand recognition.
bdjobstoday.com	Offering a variety of job opportunities.	Jobseeker & companies in Bangladesh	Apply/Post jobs, provide information about university admission, latest news for job	Free for job seekers; employers have to pay for membership	Not user friendly & high pricing rates
AllJobs by Teletalk	Govt. & private sector jobs	Job seekers who are interested in both sectors	Job listings, career resources	Free for job seekers; employers may have fees.	Not suitable for private jobs

Bdjobs.com is a leading platform with a vast database, but search functionalities and data privacy concerns may pose challenges. Besides, Prothom Alo Jobs offers various job postings, and Skilljobs offers training, but the job pool may be smaller than bdjobs.com. Bdjobstoday.com has a less user-friendly interface and higher pricing rates for packages, and AllJobsBD.com focuses on government positions and fewer private jobs.

2.4 Scope of the Problem

Starting a new employment portal website in Bangladesh can be a very profitable venture, but we should be aware of the range of challenges that exist in comparison to the portals that already exist. By prioritizing user experience JobHuntBD manages the competitive job portal landscape in Bangladesh. Our platform offers users a smooth application process, seamless navigation, and lightning-fast search. Our portal ensures quality by working with companies to provide valid, up-to-date job listings and many career resources that help job seekers increase their skills and experience. User privacy is our first priority; that's why JobHuntBD takes advantage of robust security measures and keeps at to data privacy regulation. To handle high demand and continuously innovate to stay ahead we will build on a scalable technological infrastructure. By overcoming these challenges, JobHuntBD will build a space for both companies and job seekers to gain in the Bangladeshi job market.

2.5 Challenges

Even with success, these job platforms may face certain challenges. This including such as digital literacy gaps and limited internet access in rural areas can hinder equal access for all job seekers. It can be difficult to gain user trust for a new platform. The frequency of fraudulent job postings is one big worry. Job hunters may be cheated by applying for the fake job post. Besides, they may be victimized by scams and deceptive advertising, which harms these sites' reputations. Also, regarding concerns regarding data privacy and the quality of job postings, we need to verify expired job postings continuously and adhere to ethical practices.

CHAPTER 3

Requirement Specification

3.1 Business Process Modeling

The business process model of a job portal indicates a dynamic dance between employers, job seekers, and the admin which is shown in BPMN notation. The employers list positions to draw applicants who create profiles and submit applications. While users go through filters and suggestions, the administrator ensures that the listings are of high quality. The administrator continuously monitors the platform, evaluates data, and makes sure every user has a seamless and effective experience. This model will be a road plan for streamlining the hiring and job hunt process when it is visualized using BPMN. Below, the given Figure 1 shows the Business Process Model of our job portal website.

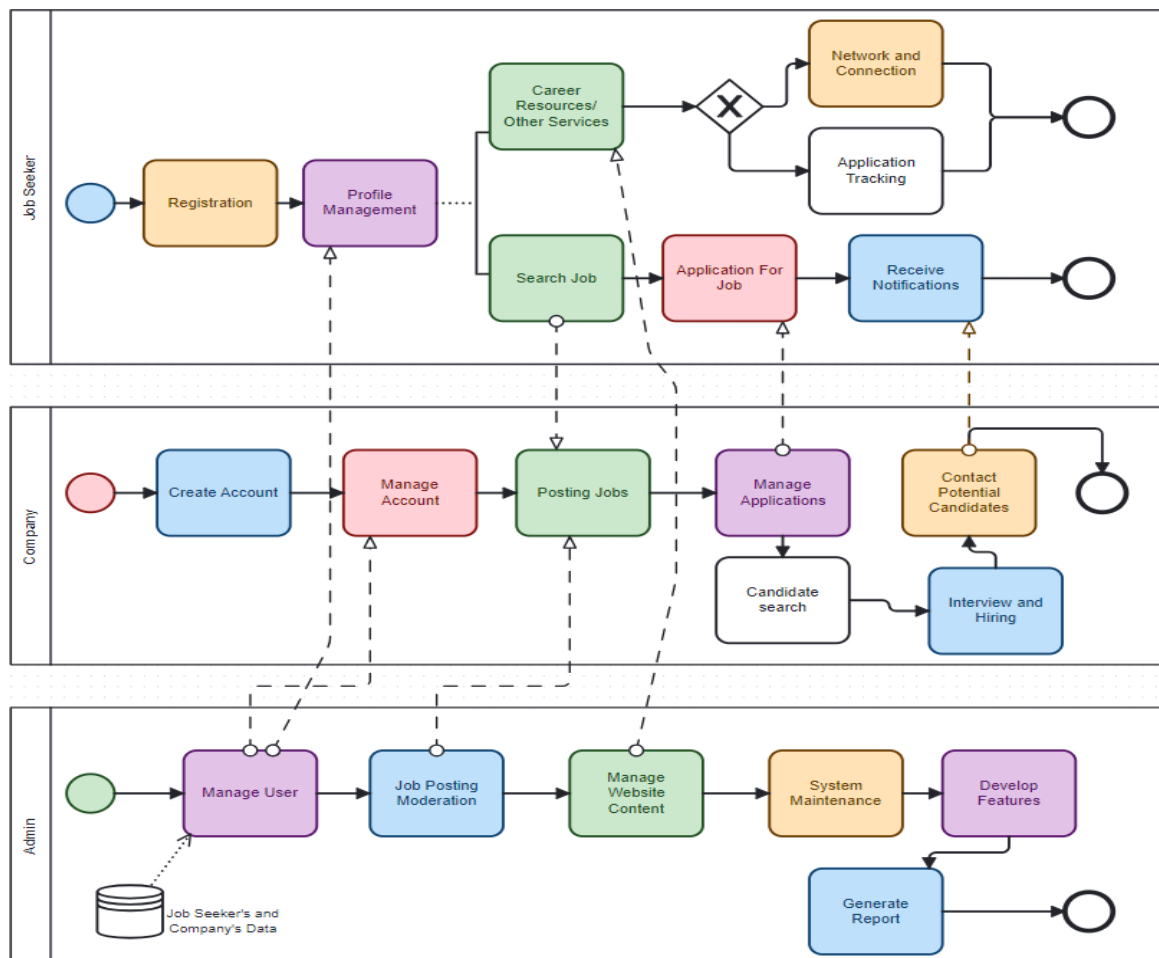


Figure 3.1.1: Business Process Modelling

3.2 Requirement Collection and Analysis

Our job portal website with distinct Job seeker, and Company functionalities involves a thorough analysis of requirements, system design, database schema definition, and technology stacks. An outline of the process is given below:

Functional Requirements

For the Job Seeker:

- They can Create and manage a profile, including education, work experience, skills, and career goals.
- Can upload resumes and cover letters.
- Can search for jobs using filters like location, industry, job title, and other keywords.
- They can apply for jobs with a single click.
- Can track application progress and receive notifications about updates.
- They can connect with employers through messages or video interviews.

For the Employer:

- They can create and manage company profiles, which include branding and mission statements.
- Also, can post job openings with detailed descriptions and requirements.
- Besides, can review applications and resumes, shortlist candidates, and schedule interviews.
- Can track the recruitment process and analyze applicant data.
- They can manage communication with candidates through messages or calls on the platform.

Non-Functional Requirements

Performance: Our job portal website is designed to guarantee excellent responsiveness even during heavy user flow and to work quickly and responsively.

Security: The website uses strong security protocols, such as strict access limits and encrypted data to minimize potential hazards and by taking these precautions to ensure the safety and integrity of user data.

Scalability: Our platform can scale without compromising the number of users and job posting performance.

Usability: Our website has a user-friendly interface, which ensures easy navigation and interaction between jobseekers and companies.

Compatibility: We ensure that the website works properly in all major web browsers and is suitable for different screen sizes and devices.

Accessibility: The website prioritizes accessibility and adheres to all applicable guidelines for persons with disabilities so that they can use and benefit from the platform to its fullest potential.

The development phase of our project concludes with comprehensive testing, deployment, hosting, domain configuration, and website accessibility. We can ensure a remarkable website through continuous maintenance and updates to monitor performance, security, and based on user feedback.

3.3 Use Case Modeling and Description

Our job portal website consists of three main actors like others: job seekers, companies, and the admin. Where job seekers can create profiles, the company can post jobs, and the admin can moderate content. These UML use case diagrams help to visualize the interaction, including job posting, search, application submission, interviewing, hiring, and so on. Besides, this diagram helps understand the job portal website's function and facilitates the connection between job seekers and employers. Below, the given figure 2 shows the UML use case diagram of our job portal website.

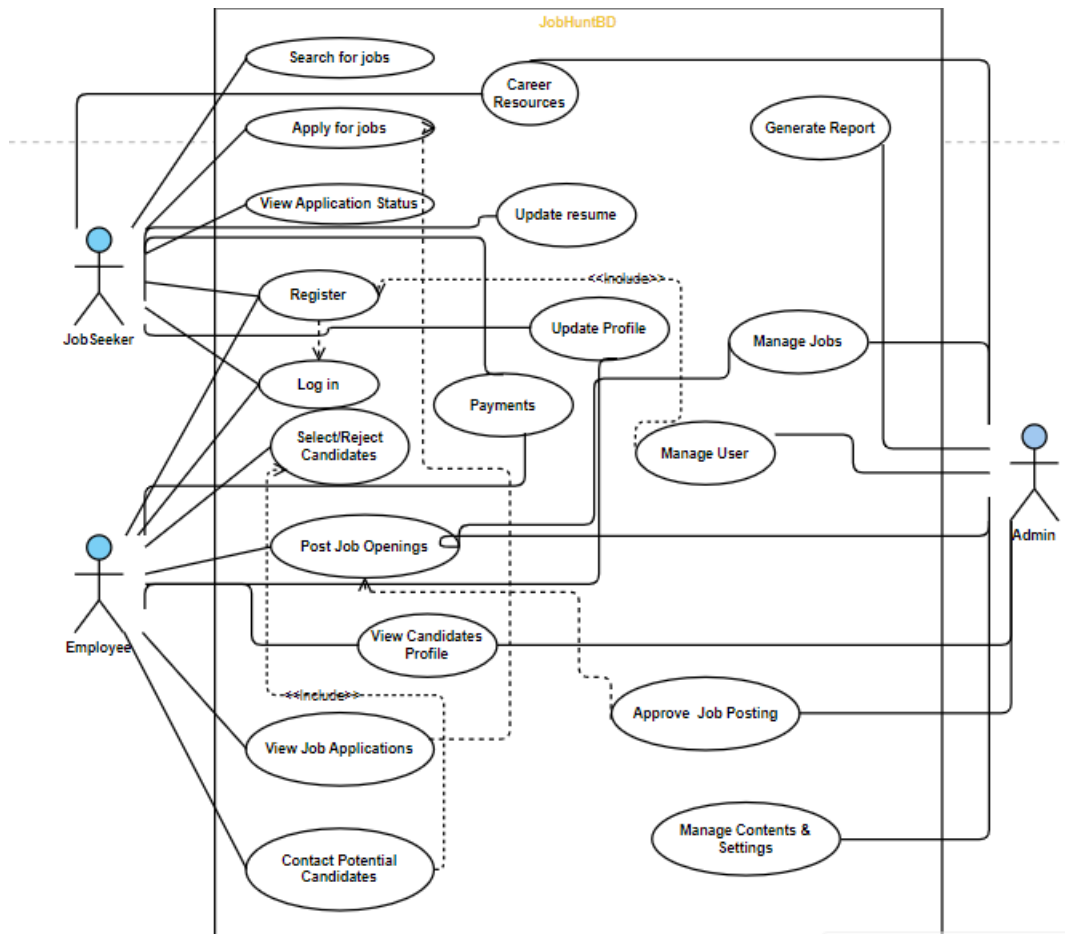


Figure 3.3.1: Use Case Diagram.

3.4 Logical Data Model

The diagram represents a logical data model for a job portal website with entities: Users, JobSeekers, Employers, JobListings, Applications, EmployerReviews, JobSeekerSkills, Skills, and JobRequirement. Users have basic information, while JobSeekers and Employers extend user details with profiles. Employers post JobListings, which JobSeekers apply to via Applications. EmployerReviews link JobSeekers and Employers with ratings and comments. JobSeekerSkills connect skills to job seekers, and JobRequirement specifies skills needed for job listings. The relationships include one-to-one, one-to-many, and many-to-many, facilitating efficient management of users, job postings, applications, skills, and reviews.

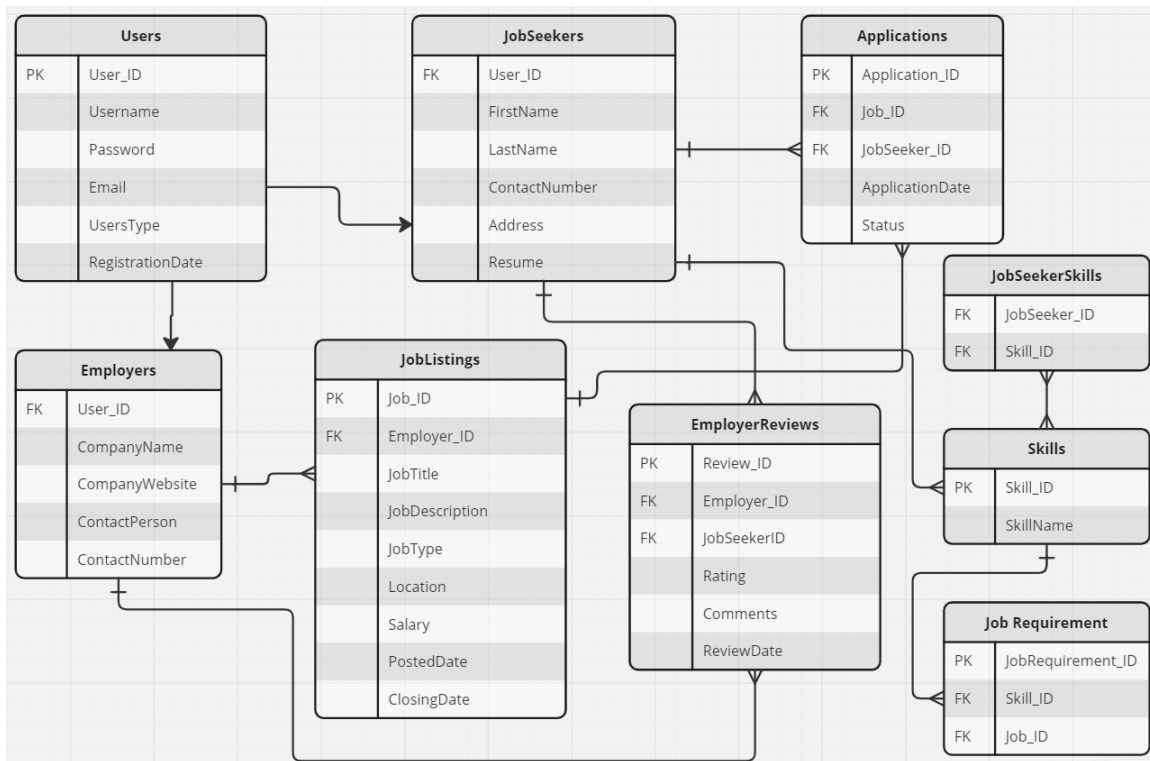


Figure 3.4.1: Logical Data Modeling.

3.5 Design Requirement

The design requirements for "JobHuntBD - Web-based Job Portal Application":

- ❖ **User Interface/UX:** We will ensure a user-centric design that puts companies and job seekers first is essential for an online job portal website to succeed. Besides, our user-friendly interface including personalized suggestions and advanced search capabilities enables job searchers to discover their ideal position.
- ❖ **Security Measures:** User data on our website will be protected by strong security and privacy protocols.
- ❖ **Application engagement:** Application engagement and job posting performance will be monitored via a perceptive analytics dashboard.
- ❖ **Customization and Personalization:** Job seekers can easily create comprehensive profiles that highlight their educational qualifications, experience, and skills. The process is more helpful for personalized recommendations based on search history and profile information.
- ❖ **Compatibility and Integration:** The usability of the platform will be enhanced by additional services including career resources, employer profiles, etc.
- ❖ **Accessibility:** We will ensure that everyone can easily take advantage of the platform by ensuring that everyone has an equal opportunity to find a job.
- ❖ **Reliability and Maintenance:** We will maintain scalability, performance, and security which are essential technical factors, to provide a smooth and reliable experience for every user.

By combining the above design features with user satisfaction, "JobHuntBD - Web-Based Job Portal Application" will be a powerful, reliable, user-centric platform for many stakeholders.

CHAPTER 4

Design Specification

4.1 Front-end Design

We used a combination of React, Angular, and Tailwind CSS to design a dynamic and responsive front-end of JobHuntBD to provide a responsive and dynamic user experience. React and Angular are two well-defined frameworks that enable us to create modular, reusable components to improve interaction and navigation. Additionally, Tailwind CSS, a utility-first design approach, made it easy for us to quickly create and customize designs, quickly creating an aesthetic interface with minimal work. There was a separate UI for individual users where some items were different based on their role and others were the same. A search bar has been included in the job search section that looks simplified and matches job listings for effortless job searching. A responsive design has been implemented for our website, to ensure compatibility across all the devices including desktops, tablets, and smartphones. To provide an exceptional platform for both job seekers and employers JobHuntBD prioritizes usability, aesthetics, and functionality.

4.2 Back-end Design

To deliver powerful functionality and scalability to the website, JobHuntBD has used a powerful backend stack that includes Node.js, JavaScript, MongoDB, and Cloudinary. Node.js provides a high-performance runtime environment for the server-side execution which enables efficient handling of asynchronous activities and concurrent requests. To ensure consistency and ease of development our team's process is streamlined using JavaScript across the stack. MongoDB offers scalability and flexibility in the NoSQL database, which makes it possible to easily store, manage, and retrieve work lists, user data, and other application-related information. In addition, for delivering and organizing media files and photos Cloudinary increases the speed and scalability of our platform providing a reliable cloud-based solution. Our platform ensures a secure, reliable, and feature-rich job portal experience for companies and job seekers likewise because of its comprehensive backend infrastructure.

4.3 Interaction Design and User Experience (UX)

User Experience (UX) and Interaction Design are the two main priorities for JobHuntBD to create a smooth and user-friendly platform for both employers and job seekers. Our approach is to focus on a lot of features like easy navigation, engaging job listings, and search options that are easy to use:

Interaction Design:

- ❖ We have made browsing job listings, search options, and account management tools simple and easy to use for employers as well as job seekers.
- ❖ Besides we kept options like creating profiles, applying for jobs, and perusing job listings and helpful career resources with user-friendly buttons and prompts to assist users.
- ❖ We kept all design components, layout, and language consistent across the platform to improve user closeness.
- ❖ When users completed an action, we provided a visual sign to them to let them know, including loading indications and happy-ending messages by using react toast.

User Experience (UX):

- ❖ **Job Recommendations:** JobHuntBD saves job seekers time and effort based on the job seeker's profile and search history by surfacing relevant job openings that match their skills and interests.
- ❖ **Accessibility:** We ensured that everyone could easily take advantage of the platform by ensuring everyone has equal opportunities to find a dream job.
- ❖ **Usability Testing:** User feedback helps us continuously improve the platform's usability. Also, we ensured a user-friendly experience that lets users focus on finding their next great career step.
- ❖ **Responsive Design:** We ensure a responsive design for all types of devices to provide users with a consistent experience.
- ❖ **Performance and Speed:** Our platform loads quickly and efficiently to provide a smooth and seamless user experience and help you focus on your job search.

Finally, we developed a user-centered platform by prioritizing Interaction Design and UX principles, that enhance satisfaction and promote improved interactions to an optimized job

search experience for all users.

4.4 Implementation Requirements

The following technical, operational, and developmental elements are included in the implementation requirements for "JobHuntBD - Web-based Job Portal Application":

❖ Front End Technologies

- React
- HTML
- CSS
- JQuery
- JavaScript
- Virtual DOM

❖ Back End Technologies

- Cloudinary
- Mongo DB
- JWTs
- Express
- Node.js
- JavaScript
- Firebase

❖ Tools

- Visual Studio Code (*IDE*)
- Postman
- Web Browser

CHAPTER 5

Implementation and Testing

5.1 Implementation of Database

By those Database Tables, JobHuntBD can store, manage, and retrieve data, providing a reliable foundation for the application's functionality and ensuring data integrity, security, and performance.

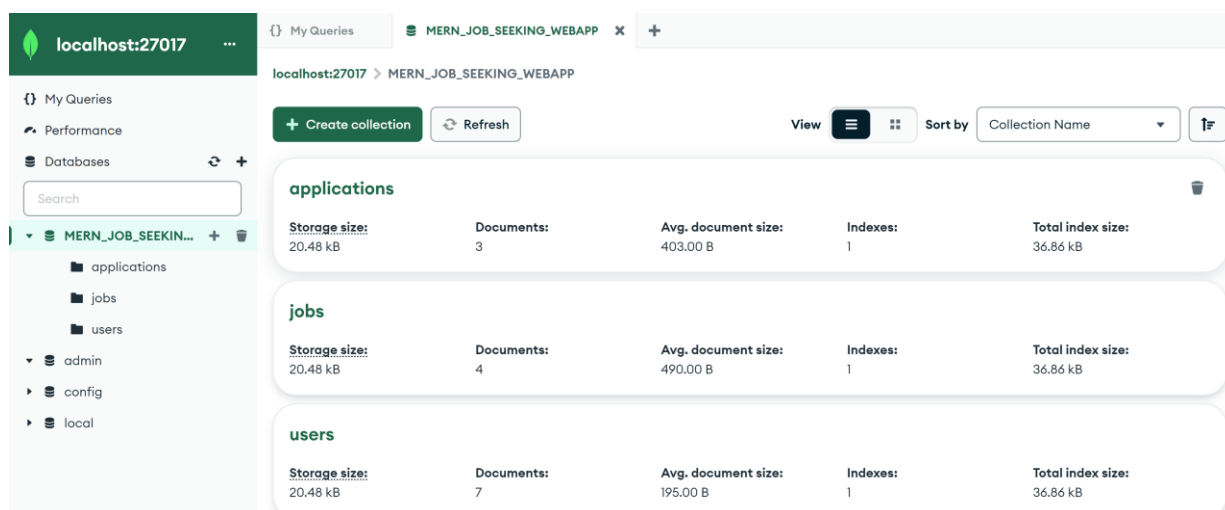


Figure 5.1.1: MongoDB Architecture.

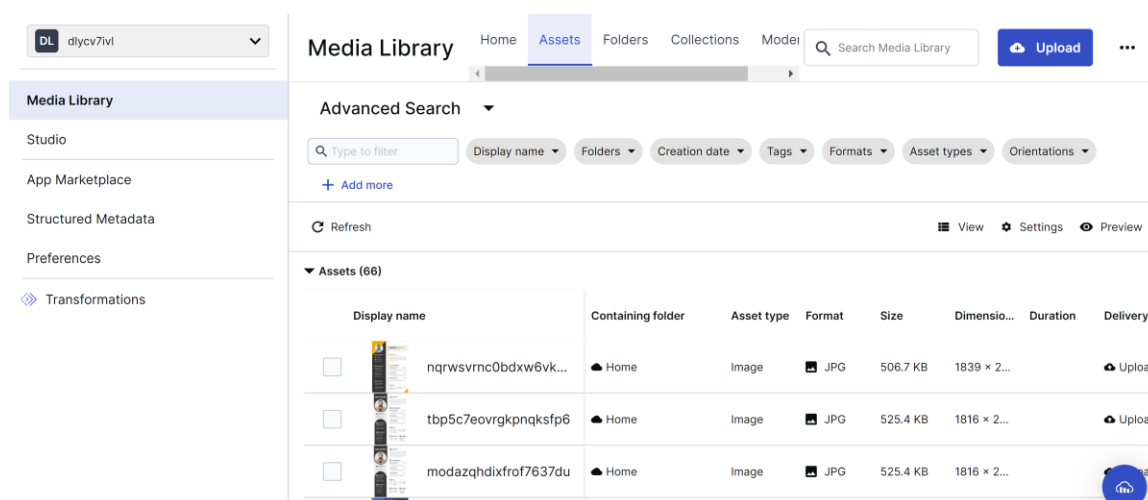


Figure 5.1.2: Cloudinary Architecture.

5.2 Implementation of Front-end Design

JobHuntBD's user-friendly design of the front end provides a smooth job search experience in Bangladesh. Our platform offers efficient application direction, personalized job search, and easy navigation. Job seekers can find their ideal job quickly with JobHuntBD.

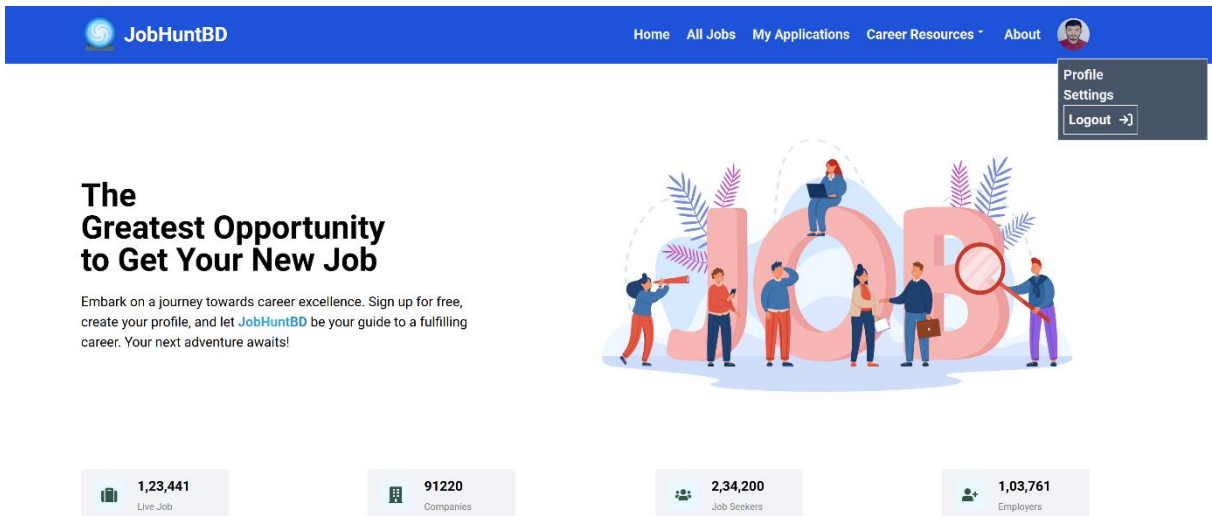


Figure 5.2.1: Home Page Design.

This is the home page of the JobHuntBD-Job Portal Web Application. Here are some options such as login/signup options, all jobs, my applications, career resources, etc.

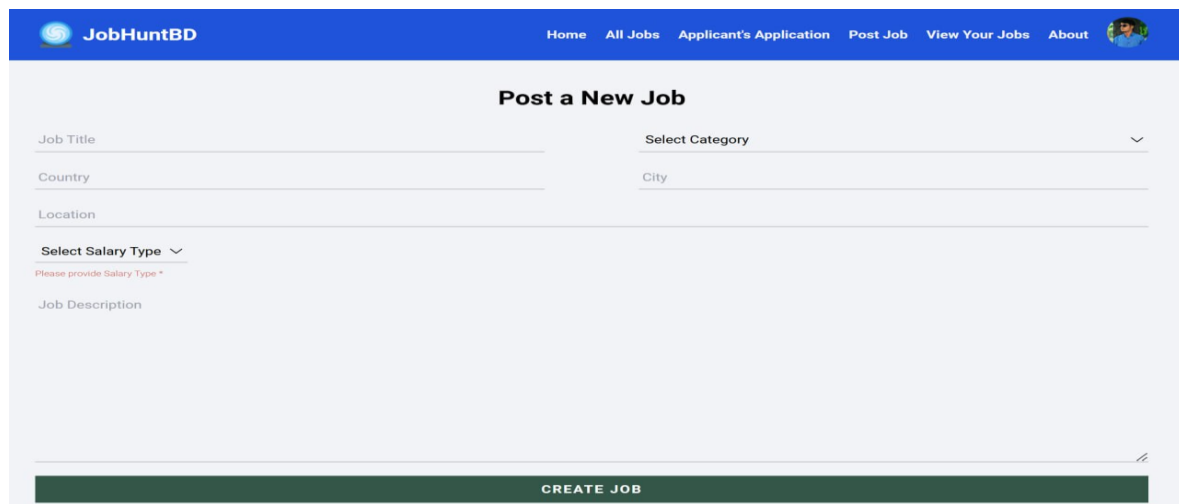


Figure 5.2.2: New Job Post Design.

This page is made for creating or posting a new job. Here, companies will provide the expected information for posting a job.

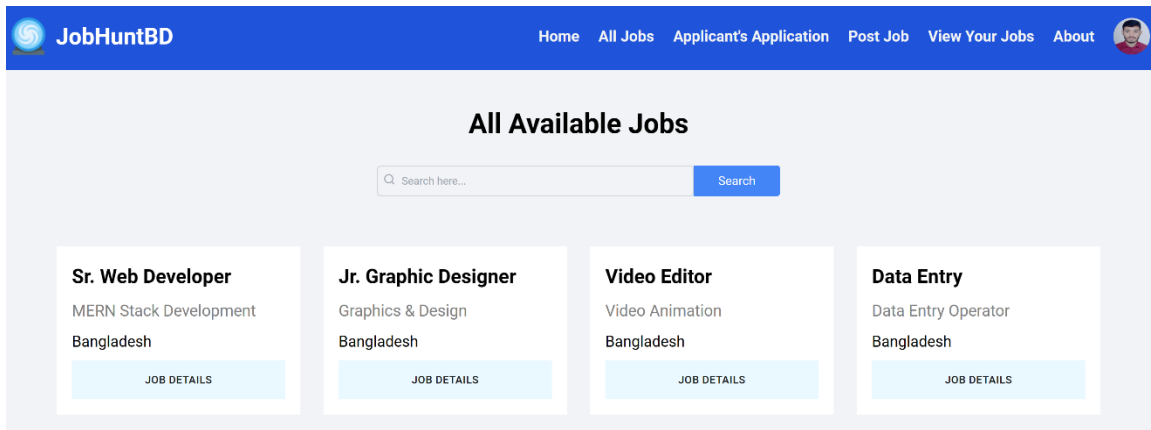


Figure 5.2.3: All Available Jobs Design

This page is made for all available jobs. Here, job seekers can search for their demanded jobs with a sophisticated search bar.

Figure 5.2.4: Job Apply Design.

This page is created to apply for jobs which are selected by job seekers. Here, job seekers provide all the required information like name, email, resume, cover letter etc.

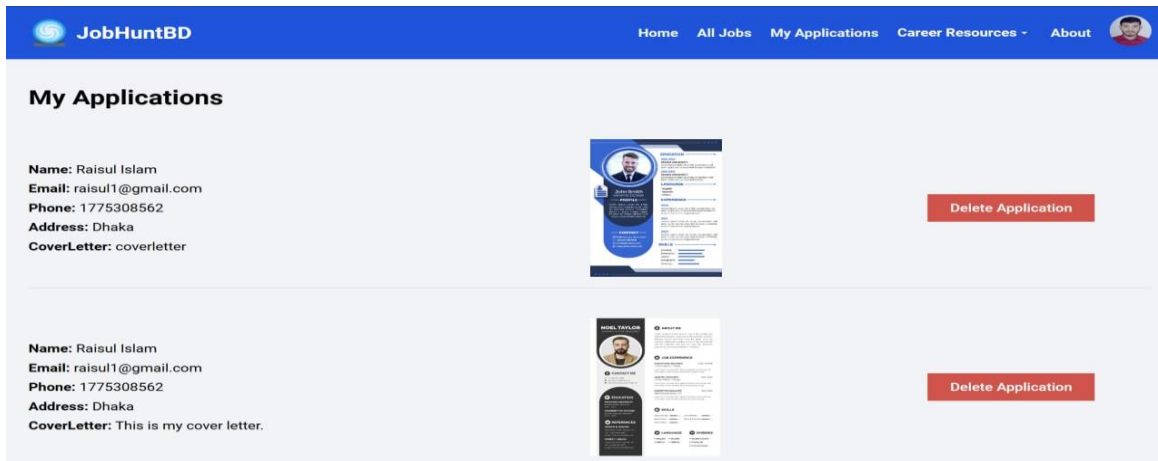


Figure 5.2.5: My Applications page design.

This is my application page where job seekers can see their applied job lists.

Skill Development Resources

Coursera

Coursera offers online courses from universities and colleges on various topics, including programming, data science, business, and more.

[Explore](#)

Udemy

Udemy provides a wide range of online courses taught by industry experts, covering topics such as web development, digital marketing, and personal development.

[Explore](#)

Codecademy

Codecademy offers interactive coding lessons in various programming languages, making it easy for beginners to learn coding skills.

[Explore](#)

LinkedIn Learning

LinkedIn Learning offers video courses taught by industry experts on topics such as leadership, project management, and software development.

[Explore](#)

Skillshare

Skillshare provides online classes and workshops on creative topics, including design, photography, and illustration.

[Explore](#)

Essential YouTube Videos



How to Learn Anything Quickly - Josh Kaufman



The Skill of Self Confidence - Dr. Ivan Joseph



The Power of Vulnerability - Brené Brown



The Puzzle of Motivation - Dan Pink

Figure 5.2.6: Skill Development Resources Design.

This is the page for skill development resources. Here, we provided some free courses for the job seekers to elaborate their skills.

Common Interview Questions

Tell me about yourself.

This is often the first question asked in an interview. Keep your response focused on your professional background and experience, highlighting key achievements and skills relevant to the job you are applying for.

What are your strengths and weaknesses?

When discussing your strengths, focus on qualities that are relevant to the job and back them up with examples. For weaknesses, choose something that you are actively working to improve and explain how you are addressing it.

Why do you want to work for this company?

Research the company beforehand and mention specific reasons why you are interested in working there, such as their company culture, mission, or recent accomplishments.

Where do you see yourself in five years?

Show your ambition and enthusiasm for the role by discussing your career goals and how you see yourself growing within the company.

How do you handle stress and pressure?

Describe specific strategies you use to manage stress, such as prioritizing tasks, taking breaks, or seeking support from colleagues.

Do you have any questions for us?

Prepare thoughtful questions to ask the interviewer about the company, team, or role to demonstrate your interest and engagement.

What motivates you?

Discuss what drives you to excel and succeed, whether it's personal goals, a desire for recognition, or a passion for the work you do.

How do you handle conflicts or disagreements in the workplace?

Describe your approach to resolving conflicts diplomatically and professionally, emphasizing communication, collaboration, and finding common ground.

Tell me about a time you demonstrated leadership skills.

Share a specific example from your past experience where you took on a leadership role, delegated tasks, motivated team members, and achieved a positive outcome.

Top Interview Videos



Figure 5.2.7: Interview Preparation Design.

This page is made to provide the most common and essential interview questions that will help the job seekers prepare for the job interview. Also, we provide helpful videos which will be beneficial for them.

Resume Building Tips

Keep it concise: Your resume should ideally be one page long. Keep the information concise and relevant to the job you are applying for.

Use a professional format: Use a clean and professional format with clear headings and bullet points to make it easy for recruiters to scan your resume.

Highlight your achievements: Rather than simply listing your job duties, focus on your accomplishments and how they contributed to the success of your previous roles.

Customize for each job application: Tailor your resume to the specific job you are applying for by emphasizing the skills and experiences that are most relevant to the position.

Proofread carefully: Check your resume thoroughly for spelling and grammar errors, and consider asking a friend or colleague to review it as well.

[Example Resume's](#)

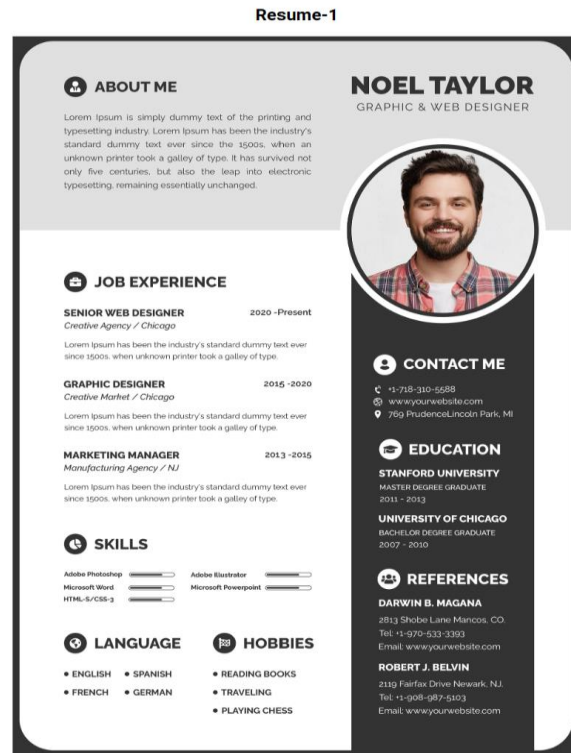


Figure 5.2.8: Resume Building Design.

This is a resume builder page for job seekers. Here, they can get the best resume-building tips as well as create a CV from us if they want.

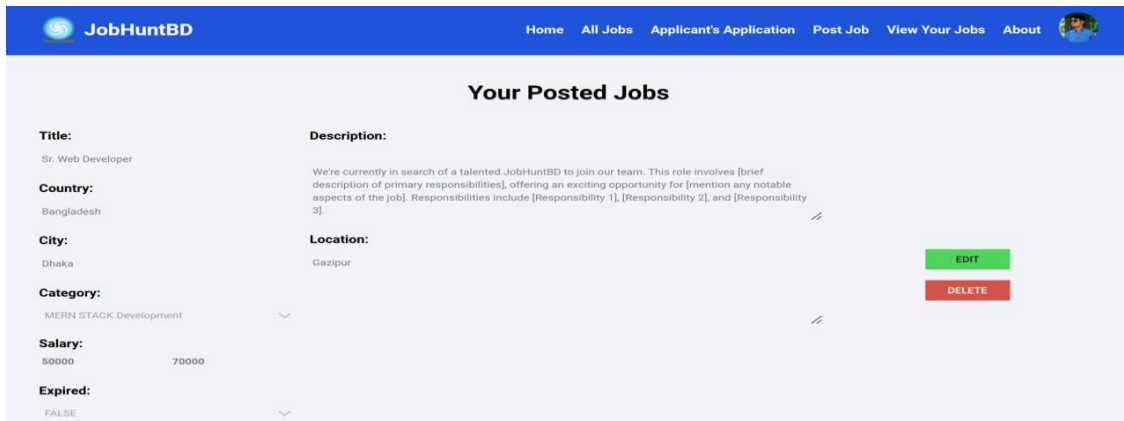


Figure 5.2.9: Posted job lists page design.

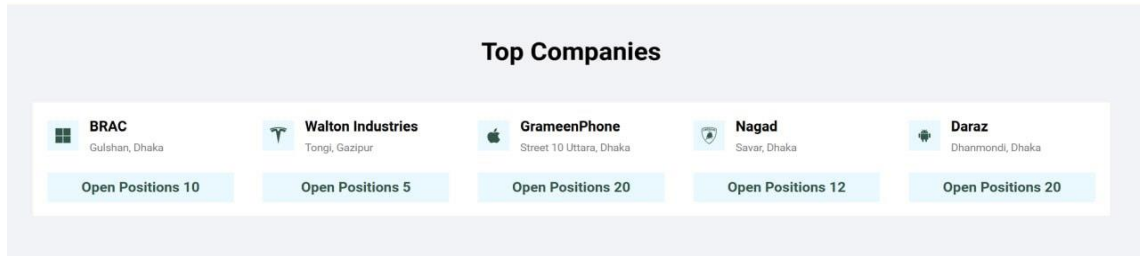


Figure 5.2.10: Top Companies lists

This section is created to show the list of top companies. It also shows the number of job postings that companies open.

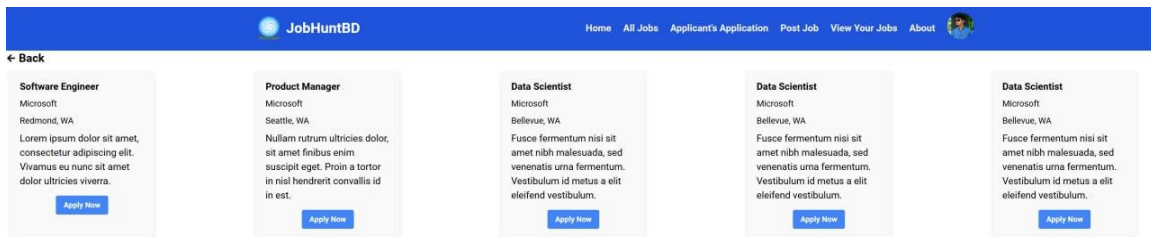


Figure 5.2.11: Companies open positions

This section shows all the job posts that the top companies provide. Here, Job seekers can see the job details as well as apply if they are interested.

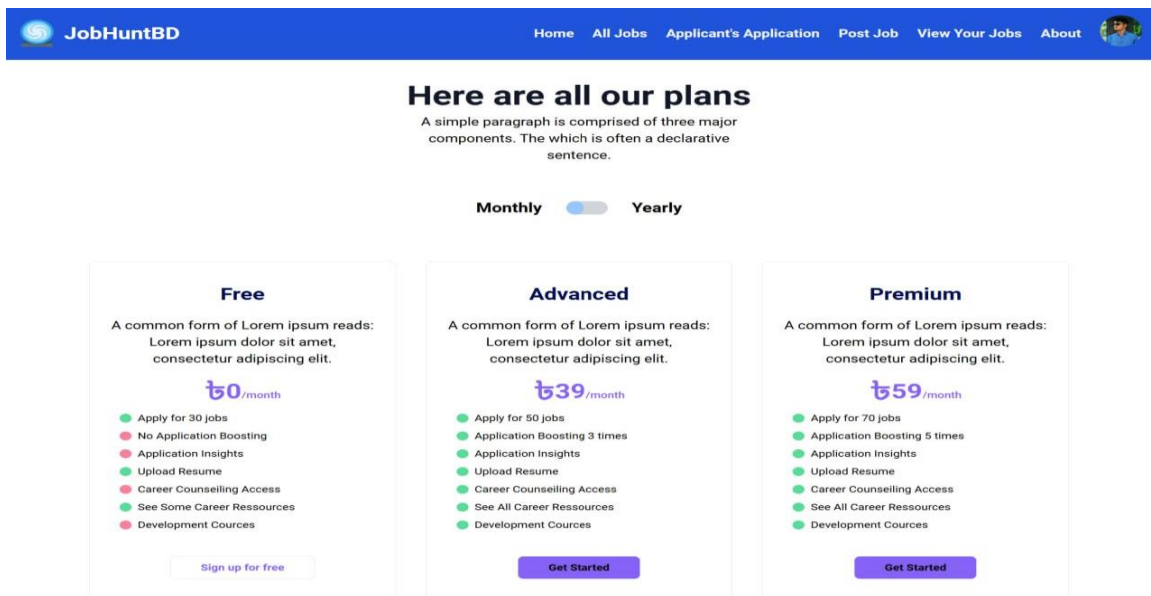


Figure 5.2.12: Different category of packages

5.3 Testing Implementation

All necessary tests and evaluations through various methodologies JobHuntBD has been completed successfully, which indicates that our platform is easy to use, reliable, and prepared for implementation. Below we have discussed this:

- ❖ **Functional Testing:** From user registration to the application of job functional testing has thoroughly examined every aspect of JobHuntBD. Every functionality has been confirmed to function perfectly that offering users a smooth and user-friendly experience.
- ❖ **Usability Testing:** JobHuntBD provides a great user experience validated by usability testing. Actual users found it easy to browse our platform, with well-decorated UI design and directions that led them through the process of finding a dream job along with many helpful career resources.
- ❖ **Responsiveness Testing:** With the help of Responsiveness Testing permitted that our platform is fully responsive and dynamically adjusting to different screen sizes and resolutions.
- ❖ **Security Testing:** JobHuntBD maintains stringent security standards, maintaining the integrity of the platform, and safeguarding user data, all verified by Security Testing.
- ❖ **Accessibility Testing:** We have also conducted accessibility testing which has ensured that JobHuntBD complies with accessibility guidelines making it usable for people with disabilities.
- ❖ **User Acceptance Test:** Finally, we have evaluated our job portal by conducting a User Acceptance Test (UAT) from real users and provided valuable feedback based on their experiences.

By following these testing guidelines, JobHuntBD is ready for launch, as well as allowing companies to find top talent and connect job seekers with stimulating career prospects.

5.4 Test Results and Reports

We have constructed JobhuntBD to be a reliable, trustworthy, and user-friendly portal after applying almost all kinds of the required testing. From user registration to job application, each option has been extensively reviewed by functional testing to guarantee seamless activities. JobHuntBD delivers a convenient user interface, clarifies instructions, and a simple job search process that has been validated by usability testing. JobHuntBD is given away to protect user data while testing responsiveness, which ensures the platform's conformation to different devices. While load testing assesses, accessibility testing offers the insertion of the stability of the platform under heavy traffic. JobHuntBD improved in another way through User Acceptance Testing (UAT).

It's clear that after all things have been considered JobHuntBD passes every test, and guarantees that users searching the website will have a first-priority, smooth, and compatible job-finding experience.

Table 5.4: Test Cases and Results

Testing	Results
Functional Testing	Success
Usability Testing	Success
Responsiveness Testing	Success
Accessibility Testing	Success
User Acceptance Testing	Success

CHAPTER 6

Impact on Society, Environment, and Sustainability

6.1 Impact on Society

JobHuntBD - Web-based Job Portal" holds significant potential for impacting society in several positive ways:

- ❖ **More Employment Opportunities:** It, thereby, increases access of right talent with skills for the job market reducing unemployment.
- ❖ **Improved Skills matching:** The platform streamlines the placement process by using advanced search algorithms along with skills assessments to match individuals with jobs that are in-line with their qualifications and career goals.
- ❖ **Diverse and Inclusive:** This platform supports a variety of job opportunities to foster a diverse and equitable workforce by making inclusive features available to both the employer and themselves.
- ❖ **Geographic Mobility:** With a virtual labor market, job seekers can try different locations to increase their mobility.
- ❖ **Upskilling and Training:** The platform provides job seekers with career resources and training to help you in retaining yourself updated.
- ❖ **Economic Expansion:** It can enable collective growth & productivity by making the job market more efficient and connecting skilled people with employers.
- ❖ **Skills gap mitigation:** Enhanced skills matching via the platform can help to support better compatibility between the needs of employers and the talent present in the workforce.
- ❖ **Entrepreneurship and Innovation:** Creative EU Startups can help drive further innovation and new company development by connecting entrepreneurs with the talent they need.
- ❖ **Information:** Makes job seekers aware of the latest trends in the market, salary research, and company insights to help them make career decisions.
- ❖ **Reduced Bias in Hiring:** As the system automatically matches skills and qualifications hiring parties will be less prone to unconscious bias.

- ❖ **Better Employer Branding:** Boost your credibility through employer branding that directly aligns with the culture and values of a company, enabling you to direct the attention of the right candidates.
- ❖ **Data-Driven Insights:** The platform arms workforce development initiatives and educational programs with proprietary data and analytics on job market trends and hiring needs.

“JobHuntBD - Web-based Job Portal Application” ultimately benefits society by promoting a more efficient and inclusive job market, connecting skilled individuals with employers, and empowering career development.

6.2 Impact on the Environment

Our job portal's primary purpose is to link companies and job seekers, but it can also benefit the environment in a number of ways:

- ❖ **Less Paper Consumption:** The platform greatly lowers the demand for paper copies by enabling digital resumes and online applications. As a result, less paper is consumed, fewer trees are felled, and there is less paper trash produced overall.
- ❖ **Encouraging Remote Work:** The platform can facilitate the expansion of options for remote work. This not only helps job searchers looking for a work-life balance and geographic flexibility, but it also lessens the need for personal automobiles for commuting, which may result in less emissions and traffic congestion.
- ❖ **Encouraging Sustainable Business Practices:** Employers may be encouraged by the platform to use eco-friendly hiring procedures. This can entail rewarding businesses who use digital interview tools and online application processes with badges or recognition programs.
- ❖ **Encouraging Informed Decisions:** The platform can enable job seekers to make environmentally aware career decisions by giving them access to firm information. This could contain information about a business's environmental projects, sustainability efforts, or even location-specific aspects like ease of access to public transportation.
- ❖ **Less Travel Needed for Interviews:** The platform's features, such as video conferencing for interviews, may lessen the requirement for both employers and job

seekers to physically travel for interviews.

This may help lessen the carbon footprint caused by traveling for job interviews. We can contribute to a greener future for the employment market by integrating these elements and encouraging eco-friendly behaviors on our job platform.

6.3 Ethical Aspects

An employment portal website can play an important role in connecting businesses and skilled candidates. To create a fair and successful platform, consider these ethical aspects:

For Job Seekers:

- ❖ **Transparency and Accuracy:** Job descriptions ought to fairly describe the role, duties, and pay. Make sure the descriptions are clear to prevent deceiving candidates.
- ❖ **Data Privacy:** Information about job seekers should be safe. Prior to sharing data with third parties, obtain express consent. You should also have a clear privacy policy that outlines data collecting and usage.
- ❖ **Fairness and Non-Discrimination:** Discriminatory practices based on age, gender, race, religion, or other unrelated considerations should not be permitted on the platform. Encourage hiring chances for a diverse pool of applicants.
- ❖ **Accessibility:** To guarantee that everyone has an equal chance at employment, the website should be used by people with impairments.

For Employers:

- ❖ **Clear Job Requirements:** Job postings should have clear and specific requirements to attract qualified candidates and avoid wasting time on irrelevant applications.
- ❖ **Honest Communication:** Employers should be upfront about the hiring process, interview stages, and timelines. Communicate promptly with applicants regarding their candidacy.
- ❖ **Avoiding Bias:** Employers should utilize tools that minimize unconscious bias in the screening process, focusing on skills and qualifications.

By prioritizing these ethical aspects, job portal website can foster a trusted environment that facilitates a successful job search for both employers and candidates.

6.4 Sustainability Plan

This plan outlines our commitment to building a sustainable job portal website that promotes environmental responsibility, fosters social good, and ensures economic viability.

I. Environmental Sustainability

- ❖ **Reducing Carbon Footprint:** We will give top priority to features that promote remote work opportunities and draw attention to environmentally friendly modes of transportation like cycling and public transportation.
- ❖ **Energy Efficiency:** To reduce energy usage, we will optimize server operations and website design. Another long-term objective is to investigate renewable energy sources for server power.
- ❖ **Paperless Operations:** We will promote the electronic submission of applications and resumes by users. Reducing the amount of paper used by providing agreements with digital signature choices.
- ❖ **Less Travel:** To cut down on the necessity for travel and the corresponding emissions, if feasible, encourage teleconferencing and video calls for interviews.

II. Responsible Data Handling

- ❖ **Privacy Compliance:** We'll put user privacy first by keeping our privacy policy up to date and compliant with the most recent data protection laws. Openness in data gathering and application procedures will be essential.
- ❖ **Data Security:** To protect user data from breaches, we'll put strong security measures in place, such as data encryption and regular security audits.
- ❖ **Data Minimization:** We shall collect and store only the data necessary for platform functionality, adhering to data minimization guidelines.

III. Social Responsibility

- ❖ **Diversity and Inclusion:** To provide equitable opportunities for all job searchers, we will integrate technologies that enable customized searches based on a range of backgrounds and skill sets.
- ❖ **Professional-Life Balance:** To help job searchers better balance their professional and personal lives, we will draw attention to job postings that include remote and flexible work opportunities.
- ❖ **Community Engagement:** To assist job training and career development programs, particularly for underserved populations, we will collaborate with regional groups or educational institutions.

IV. Continuous Improvement

- ❖ **User feedback:** To continuously enhance the platform's features, accessibility, and user experience, we will proactively solicit user feedback through surveys and forums.
- ❖ **Innovation and Adaptation:** We'll keep up with the latest developments in technology and add new features to improve user interfaces, search capabilities, and the general effectiveness of the platform.
- ❖ **Monitoring and Reporting:** In order to meet our sustainability objectives, we will monitor important performance indicators such as energy usage, job posting diversity, and user happiness. We plan to publish a public sustainability report that will clearly detail our efforts.

V. Ethical Business Practices

- ❖ **Transparency:** In order to gain the trust and confidence of our users, we will continue to operate with transparency regarding our fees, the services we provide, and our corporate policies.
- ❖ **Fair Partnerships:** With outside service providers who respect ethical business conduct, we shall guarantee moral alliances.

This sustainability plan is dedicated to ongoing development. Through the implementation of these measures, our goal is to create a successful job portal website that also complies with social and environmental standards and supports a vibrant labor market for everybody.

CHAPTER 7

Conclusion and Future Scope

7.1 Discussion and Conclusion

The launch of JobHuntBD, a web-based job portal, represents a big step forward in expediting the job search process for both companies and job seekers. The platform intends to alter the job market environment with its user-centric design, advanced search functionality, and commitment to ethical standards.

JobHuntBD has a comprehensive and user-friendly layout, providing users with quick search tools, tailored job recommendations, and clear communication channels. This allows candidates to have a more enjoyable and efficient job search experience, while businesses gain access to a larger pool of qualified personnel.

The platform places a high value on ethical factors such as data protection, fair treatment of all users, and diversity and inclusion. JobHuntBD exhibits their commitment to sustainability by minimizing environmental effect through paperless processes and encouraging remote work options.

While obstacles may arise during the platform's ongoing development and operation, its success is dependent on its capacity to link employers with the right personnel and enable job searchers to discover rewarding professions. JobHuntBD is positioned to become a major force in influencing the future of online job recruiting through continuous user feedback, new product development, and market trend adaptability. As the employment market evolves, the platform will adapt to ensure its long-term relevance and efficacy in linking companies and job seekers.

7.2 Scope for Further Developments

We're excited to bring upcoming advancements to our job portal website, designed to empower both job seekers and employers in their journeys.

Improved User Experience:

- ❖ **Admin Panel:** Implementing an admin panel will improve user account administration, job posting oversight, and website analytics to optimize the platform depending on user activity.
- ❖ **Integration with Payment Gateway:** For getting access to some extra features such as cv booster, professional CV/resume writing assistance, and courses to level up their skillsets. We'll include a secure payment channel.

AI-powered innovation:

- ❖ **AI CV scoring system:** This will compare CV to the job requirements, highlighting applicable abilities and experience. It will also provide an "acceptability score" to indicate how well a CV matches with the vacancy.

The Learning and Development Hub:

- ❖ **Skill-up courses:** We will integrate mentors from educational institutions and industry specialists. They will take courses which are in-demand skills, allowing users to advance their certifications and increase employability.
- ❖ **Soft skill and communication development:** This course will teach effective communication, teamwork, problem-solving, and time management skills. And that is a complete strategy to prepare candidates for any role.

Looking Forward:

Our development team will continuously do research for ways to improve user experience:

- ❖ **Matching Algorithm:** Our goal is to design an AI-powered matching algorithm. This will intelligently match job seekers with appropriate job listings based on their qualifications, experience, and career goals.
- ❖ **Employers Profile:** Companies will soon be able to develop complete profiles that highlight their work culture, benefits, and mission. This transparency will attract top

personnel and give job seekers a more accurate view of possible companies.

- ❖ **Integrate social media:** To expand our network furthermore. We'll integrate with key social networking platforms, allowing for simple job sharing and presenting profile to a larger pool of potential employers.
- ❖ **Creating a community:** We aim to build a sense of community among users. This could include discussion forums, interview tips sections, or even mentorship programs, all of which are intended to connect and assist the user's professional development.

By occupying these chances, JobHuntBD may grow into a more comprehensive and user-friendly job portal website in the Bangladeshi job market. This will increase job search speed, employer-candidate matching, and, ultimately, individuals' ability to find rewarding professions.

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Appendix A

Course Outcomes, Complex Engineering Problems (EP) and Complex Engineering Activities (EA) Addressing

Title: Job Portal Web Application (JobHuntBD)

Student ID: 202-15-3799 and 202-15-3797

CO Description for FYDP

CO	CO Descriptions	PO
Phase -I		
CO1	Integrate recently gained and previously acquired knowledge to identify a Job Portal Web Application problem for the Final Year Design Project (FYDP).	PO1
CO2	Analyze different aspects of the goals in designing a solution for this FYDP	PO2
CO3	Explore diverse problem domains through a literature review, delineate the issues, and establish these goals for the FYDP.	PO4
CO4	Perform economic evaluation and cost estimation and employ suitable project management procedures throughout the development life cycle of the FYDP.	PO11
Phase -II		
CO5	Design and develop technical solutions and system components or processes that meet specified requirements, ensuring compliance with public health and safety standards, as well as considering cultural, socioeconomic, and environmental factors in this FYDP	PO3
CO6	Choose and apply appropriate methodologies, resources, and contemporary engineering and IT technologies to address complex engineering processes, encompassing prediction and modeling, while adhering to relevant constraints in this FYDP	PO5
CO7	Analyze societal, health, safety, legal, and cultural considerations, along with associated responsibilities, in the context of professional engineering practice and the resolution of this problem, employing logical reasoning guided by contextual understanding.	PO6
CO8	Comprehend and evaluate the enduring sustainability and impact of professional engineering endeavors in addressing intricate engineering challenges within social and environmental frameworks.	PO7
CO9	Implement ethical principles and adhere to professional standards and norms in this FYDP	PO8
CO10	Capable of operating proficiently both individually and as a team member or leader across diverse teams and interdisciplinary settings in this FYDP.	PO9
CO11	Proficiently communicate with the engineering community and broader society regarding complex engineering endeavors, including the ability to comprehend and generate comprehensive reports and design documentation, as well as provide and receive clear instructions throughout this FYDP.	PO10
CO12	Acknowledge the importance of self-directed and life-long learning within the evolving landscape of technology, and possess the readiness and capability to engage in lifelong learning endeavors.	PO12

Addressing CO (1 to 8), Knowledge Profile (K), Attainment of Complex Engineering Problems (EP), and Attainment of Complex Engineering Activities (EA)

Addressing CO (1 to 8), Knowledge Profile (K), Attainment of Complex Engineering Problems (EP):

SN	EP Definition	Attainment	CO	Justification (with Knowledge Profile)	References
1.	EP1: Depth of Knowledge required	Yes	CO1, CO2, CO3, CO5, CO6, CO7 and CO8	Our project requires EP1 basic engineering knowledge, Programming languages, Databases, Web Development: HTML, CSS, JavaScript, Understanding of search algorithms, data structures and so on (K3).	Page no: [13,15-17,22-28], Section: [3.1, 3.3, 3.4, 5.1, 5.2]
				The project tackles (K4) by integrating front-end and back-end design, interaction design, and user experience (UX), utilizing HTML, CSS, JavaScript, JQuery, react for the front end, and JavaScript frameworks like express.js for the back end, demonstrating expertise in web-based job portal development.	Page no: [19-29], Section: [4.1, 4.2, 4.3, 5.1, 5.2, 5.3]
				We will implement a user-centered design, information architecture, visual design, accessibility for a user-friendly platform (K5).	Page no: [13,15-18], Section: [3.1,3.3,3.4, 3.5]

SN	EP Definition	Attainment	CO	Justification (with Knowledge Profile)	References
				MERN stack (MongoDB, Express.js, React.js, Node.js) is used for scalable and user-friendly development (K6) .	Page no: [19-21], Section: [4.1, 4.2, 4.3, 4.4]
2.	EP2: Range of Conflicting Requirements	Yes	CO2, and CO7	In the project we may face EP2 challenge's such human trust issues, digital literacy gaps concern, fake job posting, quality of jobs, smooth experience in website.	Page no: [12] Section: [2.4, 2.5]
3.	EP3: Depth of analysis required	Yes	CO2, and CO6	We have analyzed other websites and find out their limitations EP3 after that we will tried to meet those limitations on our project.	Page no: [19-21], Section: [4.2, 4.3, 4.4]
4.	EP4: Familiarity of Issues	Yes	CO8	This project attains EP4 by researching existing job portal platforms, analyzing user needs, and tracking industry trends. This dives deeper than just CSE knowledge, going beyond the field to understand real job market issues and optimize the user experience.	Page no: [10,12], Section: [2.2, 2.4]
5.	EP5: Extends of application codes	Yes	CO5	We did focus on EP5 while creating a job portal website that can adapt and grow. The code will be designed to easily incorporate new features, integrate with future technologies, and handle increased user demands, ensuring the platform stays relevant in the ever-changing job market.	Page no: [21], Section: [4.4]

SN	EP Definition	Attainment	CO	Justification (with Knowledge Profile)	References
7.	EP7: Interdependence	Yes	CO5	This project tackles core job portal issues by prioritizing a secure and well-designed database (mitigates data concerns), focusing on a user-friendly front-end (improves user experience), and implementing comprehensive testing (ensures smooth performance) throughout development EP7. This delivers a reliable and user-friendly job portal for all.	Page no: [22,29], Section: [5.1, 5.3]

Addressing CO11 with Complex Engineering Activities (EA) [Some or all of the following]:

SN	EA Definition	Attainment	CO	Justification	References
1.	EA1: Range of resources	Yes	CO11	The job portal website (EA1) demands applying engineering principles for resource management. This entails assembling a skilled development team, meticulously allocating finances for infrastructure, marketing, and development tools. The chosen technology stack, including MongoDB, Visual Studio Code, and specific programming languages, will be crucial for project success.	Page no: [21], Section: [4.4]

SN	EA Definition	Attainment		Justification	References
2.	EA2: Level of interaction	Yes		A critical aspect of the job portal website is fostering user interaction (EA2) . This necessitates comprehend the requirements of both job seekers and employers. The website should then be designed to enable interactive features like searching for jobs, applying for positions, managing applications so on.	Page no: [23-28], Section: [5.2]
3.	EA4: Consequences for society and the environment	Yes		The job portal website extends beyond its core function, impacting society and the environment (EA4) . Socially, it can enhance employment rates, improve job matching, and promote diversity in hiring. Environmentally, it can lead to shorter commutes and potentially facilitate remote work opportunities.	Page no: [31-33], Section: [6.1, 6.2]
4.	EA-5: Familiarity	Yes		Understanding existing job portals (EA5) is vital for a competitive website. This requires applying comparative analysis. Analyzing competitor's strengths, weaknesses, and user experience.	Page no: [9, 11-12], Section: [2.1, 2.3]

Addressing CO (4, 9, 10, and 12):

SN	COs	Attainment	Justification	References
1	CO4	Yes	The project builds a job portal website cost-effectively CO4 by employing project management best practices including budgeting, resource allocation, cost monitoring, risk mitigation, and following a defined development methodology.	Page no: [3-7], Section: [1.5]

SN	COs	Attainment	Justification	References
2	CO9	Yes	This project prioritizes CO9 user trust by upholding ethical principles like data privacy, transparent data practices, and fair job recommendations. We respect cultural sensitivities and ensure accessibility for all. Professional standards in security, data integrity, documentation, and testing guarantee a robust and reliable job portal website.	Page no: [33-34], Section: [6.3]
3	CO10	Yes	Our project has been done CO10 by both of the team members. One team member had reviewed data from another website & one team member has designed the proposed model. After that we both worked on the code.	Page no: [13,15-17,22-28], Section: [3.1,3.3,3.4.5.1,5.2]
4	CO12	Yes	This project acknowledges the ever-changing tech world. We emphasize lifelong learning through various testing methods and data analysis to continuously improve the platform. Our team is committed to staying updated with the latest advancements to ensure the job portal's long-term success CO12 .	Page no: [30], Section: [5.4]

JobHuntBD - Web Based Job Portal Application

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