#### DEVELOPMENT OF A WEBSITE NAME "RECROOTER"

 $\mathbf{BY}$ 

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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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# DAFFODIL INTERNATIONAL UNIVERSITY DHAKA, BANGLADESH JANUARY 2024

#### APPROVAL

This Project titled "Recrooter", submitted by Md. Ali Imam to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory Engineering and approved as to its style and contents. The presentation has been held on 26/01/2024.

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We hereby declare that this project has been done by us under the supervision of Ms. Tania Khatun, Assistant Professor, Department of CSE Daffodil International University. We 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**

In today's culture, effective management of human resources within firms, corporations, and organizations poses a significant challenge for management. The primary objective of this project is the development of a Recrooter to address this need. The project aims to create a Recruitment streamlines corporate hiring processes while concurrently reducing hiring costs. To achieve this, a comprehensive assessment of the current systems and procedures was carried out as the project was developing. The system was designed using various Use case, activity, and sequence diagrams are examples of UML diagrams. The frontend utilizes Bootstrap, the backend is powered by PHP (Laravel), and the database is created using a database management system. The integrated development environment (IDE) employed for implementation is Visual Studio Code. Key technologies utilized in the development include PHP, MySQL, HTML, CSS, jQuery, and Bootstrap. The ultimate outcome and conclusion of the project involve establishing an effective Recrooter's that provides a platform for job seekers to apply for suitable employment opportunities while allowing recruiters to identify their ideal candidates at their convenience.

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#### **CHAPTER: 1**

#### INTRODUCTION

#### 1.1 INTRODUCTION

We are pleased to present Recrooter, a cutting-edge web-based tool that will simplify and improve the hiring process. Finding the proper people for your company is crucial in the fastpaced world of today, and Recrooter is here to make the process easier and more successful than it has ever been. Recrooter makes recruiting easier at every step, from posting job positions and handling applications to conducting interviews and selecting candidates, thanks to its intuitive interface and robust features. Recrooter eliminates time-consuming paperwork and interminable email chains by centralizing all recruitment-related tasks into a user-friendly platform, which benefits both companies and applicants by lowering expenses and promoting a smooth hiring process. With Recrooter, you can simply uncover your workforce's potential and join the future of recruitment.

#### 1.2 MOTIVATION

Recrooter's user-friendly online platform completely transforms the hiring process. Our goal is to make the recruiting process as easy as possible for both companies and applicants. Recrooter streamlines the entire recruitment process by using state-of-the-art technology, from job posting to candidate selection. Our goal is to equip hiring managers and HR specialists with effective tools for managing talent pipelines and determining applicant fit. Recrooter provides job searchers with an intuitive interface for navigating possibilities and successfully showcasing their talents. Our dedication is to creating relationships between businesses and job seekers that result in fruitful and satisfying career placements. Accompany us in revolutionizing the recruitment scene by utilizing Recrooter.

#### 1.3 OBJECTIVES

**Efficiency Improvement:** Recrooter's main goal is to use web-based technologies to simplify and improve the hiring process. In order to save manual labor and boost productivity, this entails automating processes like applicant communication, resume screening, and interview scheduling.

**Better applicant Experience:** Recrooter offers a user-friendly platform for job applications, progress updates, and contact with recruiters in an effort to improve the applicant experience in its whole. It aims to draw in top personnel and enhance company branding by providing a smooth and open approach.

**Data-Driven Decision Making:** Recrooter aims to offer insights into recruiting KPIs including time-to-hire, source efficacy, and applicant quality using data analytics and reporting functionalities. Recruiters may use this information to make well-informed judgments and constantly improve their hiring practices.

**Collaboration Facilitation:** By centralizing applicant data, interview comments, and decision making procedures inside the platform, Recrooter will help recruiting teams collaborate more effectively. By working together, we can make sure that everyone involved is on the same page and capable of evaluating applicants.

**Flexibility and Scalability:** Recrooter's architecture allows it to grow and change with businesses, adapting to their ever-changing recruitment requirements. Because of its customizable flexibility, businesses may mold the platform to fit their own needs and workflows.

**Compliance and Diversity:** Recrooter places a high priority on adhering to legal and regulatory regulations, which guarantee impartial and equitable hiring procedures. It also helps diversity initiatives by giving recruiters the ability to monitor and evaluate diversity data, which promotes a more inclusive recruiting procedure.

**Cost Reduction:** Recrooter strives to lower recruiting expenses for businesses by optimizing hiring results, cutting down on administrative waste, and optimizing manual procedures. Due to its affordability, it is a desirable option for companies of all kinds.

Constant Innovation and development: Recrooter is dedicated to constant innovation and development. It aims to be in the forefront of recruitment technology by incorporating user feedback, releasing changes on a regular basis, and meeting the changing demands of both recruiters and candidates.

#### 1.4 EXPECTED OUTCOME

"Recrooter" has the potential to completely transform the hiring process thanks to its cutting-edge online platform. Recrooter wants to simplify the entire hiring process by using state-ofthe- art technologies, from finding applicants to making the final decision.

**Enhanced Efficiency:** Recrooter saves time for recruiters and applicants by automating time-consuming operations like resume screening and interview scheduling.

**Enhanced Candidate Experience:** Recrooter makes sure that candidates feel appreciated and involved throughout the recruiting process with its user-friendly interfaces and tailored communications.

**Extensive Analytics:** Recrooter gives recruiters the capacity to make data-driven decisions and maximize their hiring strategy by offering perceptive analytics and reporting capabilities.

**Cost Savings:** Recrooter helps businesses cut expenses associated with hiring by decreasing cycles of hiring and depending less on manual procedures.

**Scalability:** Recrooter's architecture allows for easy expansion and scalability by responding to the changing requirements of companies of all sizes. Recrooter's overall goal is to improve the hiring process by increasing productivity, efficacy, and applicant and recruiter happiness.

## 1.5 Project financing and management

The "Recrooter" is a web-based platform that aims to make hiring easier for businesses. With the goal of streamlining the hiring process, it provides tools including resume processing, application tracking, job posting, and candidate management.

**Project Management Outcome:** To assure the project's success, the project management component of "Recrooter" focuses on appropriate resource allocation, timely task execution, and effective communication. Agile approaches, such as Scrum or Kanban, enable the development team to prioritize features, respond quickly to issues, and adjust to changing needs. Consistent sprint planning sessions, everyday stand-ups, and sprint retrospectives promote teamwork and ongoing development. Using project management software such as Jira or Asana also helps with issue solving, task tracking, and progress tracking.

Financial Outcome: "Recrooter" seeks to offer an affordable alternative to standard recruiting techniques by cutting down on the costs related to recruitment procedures. Organizations may reduce the time and costs associated with manual applicant sourcing, screening, and communication by automating repetitive operations and streamlining workflows. With adjustable price choices catered to the size and requirements of various enterprises, the platform's subscription-based business strategy ensures affordability and flexibility. Additionally, "Recrooter" helps to reduce opportunity costs associated with extended vacancies and lost talent acquisition chances by streamlining the recruiting process. All things considered, "Recrooter" will provide real financial benefits and cost savings to businesses looking to streamline their hiring processes.

#### 1.6 GOALS

**Streamline the Recruitment Process:** Provide a user-friendly platform to streamline and improve the hiring process, making it more effective for both employers and applicants.

**Improve Candidate Experience:** Give top priority to developing an easy-to-use and entertaining application procedure and transparent communication routes for job searchers.

**Boost Hiring Decision-Making:** Employ features that help recruiters find the best applicants for each position, such skill matching, resume processing, and evaluation tools.

**Encourage Collaboration:** Promote effective exchange of applicant data and comments by facilitating smooth communication and cooperation amongst recruiting teams.

**Assure Data Security and Compliance:** Put strong security measures in place to safeguard confidential applicant data and guarantee adherence to data protection laws.

**Provide Insights and Analytics:** To assist recruiters in monitoring important indicators, pinpointing areas for development, and making informed decisions, provide them with extensive analytics and reporting tools.

**Adaptability and Scalability:** Create a platform that is both adaptable and scalable to meet the changing demands of expanding businesses and shifting employment practices.

**Offer Insights and Analytics:** To assist recruiters in monitoring important KPIs, provide extensive analytics and reporting tools.

# 1.7 Project Schedule

Given the time constraints, to ensure that I complete the task on time, I need to create a schedule. It also means expressing how urgent the work in question is.

# 1.7.1 Release Schedule and Objective

Below are the release schedule and milestones:

Activities	Duration in week Total week
Investigate	Wk-1, Wk-2
Details	Wk-2, Wk-3, Wk-4
Organizing	Wk-3, Wk-4
Create	Wk-4, Wk-5
Progress	Wk-4, Wk-5, Wk-6, Wk-7
Checking	Wk-7, Wk-8
Evaluate	Wk-9
Record-keeping	Wk-10, Wk-11, Wk-12
Release of software	Wk-12

Table 1.1: Schedule of Release

## **CHAPTER: 2**

## **BACKGROUND**

#### 2.1 Related work

Associated Work:

Numerous web-based systems, each with its own special features and functions, provide alternatives for expediting the hiring process. Prominent among them is LinkedIn Talent Solutions, offering an extensive network for finding and interacting with possible applicants. HI revue uses machine learning algorithms to conduct video interviews with candidates in order to evaluate them from a distance. Greenhouse also provides extensive candidate monitoring and on-boarding features designed for contemporary recruiting teams.

When it comes to specialty hiring, websites such as GitHub Jobs serve the IT sector exclusively and link developers with potential employers. Moreover, websites such as AngelList focus on hiring for startups, facilitating the link between professionals seeking to join creative enterprises and entrepreneurs.

Although these systems are excellent in different areas of the hiring process, Recrooter is particularly noteworthy due to its flexible workflow and user-friendly interface recruitment management, as well as interface possibilities with current HR systems, providing a holistic solution for successful and efficient hiring.

#### 2.2 SCOPE

Recrooter is a web-based platform that simplifies the recruiting process from start to finish, with the goal of revolutionizing the recruitment process. Recrooter's functionality includes the following essential features:

Recruiters will be able to effectively manage applicant profiles with the help of Recrooter. It will provide capabilities including applicant classification, resume processing, and a centralized database for quick access to candidate data.

With Recrooter, businesses can easily create, personalize, and post job vacancies. Recruiters will have the ability to monitor the progress of job ads, make necessary edits to the information, and close opportunities.

From the point of initial submission until the point of final selection, the platform will make it easier to follow applications. Recruiters will have the tools they need to efficiently screen, sort, and handle applications.

Cooperation and Communication: Recrooter will facilitate cooperation between members of the recruiting team by offering features and communication tools for instantaneous exchange of applicant profiles, comments, and feedback.

Interview Scheduling: Recrooter will have the ability to effectively handle interview logistics, remind interviewers and candidates, and schedule interviews.

Assessment and Evaluation: As part of the screening process, the platform will make it easier to provide exams, assessments, and evaluations of candidates. It will accommodate modifiable scoring systems and assessment criteria.

Analytics and Reporting: Recrooter will produce in-depth reports and analytics to offer insights into hiring parameters, such as applicant pipeline analysis, source efficacy, and time-to-hire.

Integration: Recrooter will provide the ability to integrate with various HR systems, including payroll, applicant tracking, and HRIS systems, to guarantee smooth data interchange.

Scalability and Customization: The platform will be extremely scalable, allowing it to adjust to the particular needs of various businesses. Additionally, it will be expandable to meet expanding demands and higher quantities of hiring-related operations.

Recrooter seeks to streamline and improve the hiring process, saving businesses time and money while guaranteeing a smooth and satisfying hiring experience for both applicants and recruiters.

#### 2.3 CHALLENGES

Recrooter is an online initiative that aims to transform the hiring process, but it has many Obstacles to overcome before it can guarantee the best possible user experience. Listed below are some significant obstacles that require attention:

Candidate Inclusivity and Accessibility: Ensuring that applicants from a variety of backgrounds are accessible is one of the main issues. This entails making sure the platform is compatible with a range of devices and internet speeds, offering multilingual assistance, and developing it to suit people with impairments.

Simplifying the application procedure is crucial to preventing the loss of candidates. Prolonged applications, repeated inquiries, or difficult navigation may turn off prospective candidates. Recrooter must improve the application process to make it simple to use, effective, and intuitive.

Customization and Personalization: Adapting the user interface to each person's unique requirements and preferences can greatly increase engagement. Recrooter may become more user-friendly and relevant by adding features like interactive interfaces, configurable profiles, and personalized job suggestions.

Integration with social media and Networking Platforms: Recrooter's reach may be increased, and smooth candidate sourcing made possible by utilizing social media and professional networking platforms. It is difficult to integrate with these platforms and preserve data security and privacy at the same time.

Data Security and Privacy Compliance: Managing candidate information that is sensitive. Requires strong data security protocols and adherence to privacy laws like the CCPA and GDPR. Gaining the trust of users requires providing end-to-end encryption, safe data storage, and clear privacy rules.

Establishing feedback systems facilitates users' expression of problems and recommendations, hence enabling Recrooter to undergo continual improvement and iteration. Applying efficient Long-term success depends on feedback loops and quickly resolving consumer complaints.

It will need an all-encompassing strategy that prioritizes technology innovation, user-centric design, and regulatory compliance to overcome these obstacles. Recrooter may improve the hiring process for companies and applicants by removing these obstacles, increasing productivity, and developing deep relationships in the workforce.

## **CHAPTER: 3**

# REQUIREMENT SPECIFICATION

#### 3.1 Modeling of Business Processes

The goal of the online project Recrooter is to make hiring operations for companies more efficient. Its main objective is to effectively oversee the requirements gathering stage to facilitate a seamless transition from job vacancy identification to new hire on boarding.

#### Creation of Job Postings:

Hiring managers or HR personnel can generate job posts by logging onto the Recrooter portal.

- They include job specifics like the title, description, necessary skills, and other relevant data.
- The system saves job advertisements and makes them available to prospective applicants.

# Submission of an Application:

- Candidates view the job postings that are available by visiting the Recrooter website.
- Through the portal, interested candidates submit their applications.
- The system automatically saves applications for further assessment.

#### Evaluation and screening of applications:

- Using Recrooter, hiring managers or HR staff may view the applications that have been submitted.
- To create a shortlist of qualified applicants, they evaluate submissions based on predetermined standards.
- Applicants advance through the procedure if they satisfy the first screening requirements.

#### Interview Timetable:

- Recrooter helps hiring managers and HR representatives communicate with shortlisted candidates.
- Direct scheduling of interviews takes place via the site, and both parties get alerts.

#### Selection and Reactions to Interviews:

- Interviewers contribute input into Recrooter after completing interviews.
- The platform's collaborative decision-making capabilities help choose the best applicant in the end.
- While others receive automatic alerts of their status, selected applicants are alerted via the platform.

#### Orientation:

- For chosen applicants, Recrooter creates and oversees the required on boarding paperwork and assignments.
- HR manages the platform-based on boarding procedure, making sure that new personnel have a seamless transition.

Benefits: Recrooter reduces manual labor and time spent on administrative duties by streamlining the hiring procedure. Improved openness, more stakeholder participation, and ultimately more effective hiring and on-boarding processes are the results of it.

# 3.2 Development model

Requirement Analysis: To comprehend the goals and extent of Recrooter, collect specific needs from relevant parties. Describe the feature set, user profiles, and technological requirements.

Design Phase: To conceptualize the user interface and experience, create wireframes and prototypes. Create the system architecture, processes, and database schema. Make that all devices are responsive, secure, and scalable.

Iterations in Development:

Frontend Development: Utilizing JavaScript, HTML, and CSS frameworks such as Laravel, implement user interface.

Backend Development: Use tools like Laravel to create server-side logic. Connect to databases (MySQL) to store data.

Integrity testing: Carry out comprehensive testing to confirm system performance, data integrity, and functioning.

User Input and Iteration: To pinpoint areas in need of improvement, get input from users and stakeholders. Use frequent updates and patches to iterate on features and improvements in response to user input.

Maintenance and assistance: To guarantee smooth functioning and take care of any problems that may come up after launch, provide continuous maintenance, bug fixes, and technical assistance. Maintain the system's security and up to date by routinely updating dependencies and security updates.

## 3.2.1 Requirements for Function

Essential Functions for "Recrooter":

User Authentication: Recrooter needs a safe mechanism for user authentication so that Administrators, recruiters, and applicants may sign in using their special login information.

The creation of a candidate profile should allow candidates to include personal details, employment experience, education, abilities, and pertinent documentation (certificates, cover letters, and resumes).

Recruiters should be able to post job openings with detailed job descriptions that include the position's location, title, and necessary skills and experience.

Job Application Management: Applicants need to have the ability to peruse job postings, submit applications for open openings and monitor the progress of their applications.

Resume Parsing: Recrooter needs to be able to automatically extract pertinent information from resumes and add it to the candidate's profile.

Communication: Using messaging or other internal channels, recruiters and applicants should be able to easily exchange information within the platform.

Interview Scheduling: Using the platform, recruiters need to be able to set up interviews with applicants and receive automatic recollections.

Feedback Mechanism: Candidates and recruiters should be able to comment on each other's interactions, interviews, and profiles.

Administrations should have access to thorough reports and analytics on recruiting practices, including data on applications, hiring patterns, and user behavior.

Accessibility and Compatibility: Recrooter should be accessible across multiple platforms (desktop, mobile, tablet) and compatible with major web browsers to offer a smooth user experience for all stakeholders.

#### 3.2.2 Non-functional Requirement

Performance Efficiency: During periods of high usage, Recooter must provide excellent system performance to support concurrent user operations. Without experiencing any delay in response time, the system needs to be able to manage at least 500 concurrent user connections. Standard user activities, including applying online and seeing candidate profiles, should not take longer than two seconds on average to respond.

High availability and dependability are required of Recrooter, guaranteeing a minimum of 99.5% system uptime in any given month. Off-peak times should be designated for scheduled maintenance tasks, and the system should have fallbacks in place to manage unplanned outages or server failures with grace, reducing downtime and guaranteeing data integrity.

Security: Recooter must put strong security measures in place to protect critical user information, such as personally identifying information (PII) and private records. The system's data transmission and storage must adhere to industry-standard encryption methods. It is important to implement access controls and authentication systems to guarantee that just authorized workers possess access to designated capabilities and data within the system.

Scalability: In order to handle an expanding user base and higher data volumes, Recrooter should be built with horizontal scalability in mind. The architecture of the system should

provide seamless integration with more servers and resources to guarantee scalability without sacrificing efficiency. Recrooter will be able to effectively adjust to the changing demands of the hiring process thanks to this.

# 3.2.3 Hardware requirements

Processor	1.6 GHz or faster process
RAM	4 GB
Disk Space	8 GB of available hard disk

Table 1.2: Hardware requirements

# **3.2.4 Software requirements**

Operating System	Windows 10
Frontend	HTML, CSS, JS
Frameworks	Bootstrap, Laravel
Backend	PHP (Laravel)
Text Editor	Visual studio code
Database	MySQL
Web browser	Google chrome
Web server	Apache
Drawing tools	diagrams.net

Table 1.3: Software specification

# 3.3 Use Case Diagram

#### Recrooter view interview <<extend>> details update interview details search job view job list report view job list view job details report Hiring-Manager (registred) view job <<include> details Job Seeker apply job <<extend>> add new job update job details login view profile details <include/ <<exténd>> <includé> update change profile password view view interview candidate list update candidate <<extend>> details candidate HR(registered) add candidate details Employee add onsite (registered) add phone interview interview \*<extend>><<extend? edit/delete add interview interview report manage employees view <<extend>> employee details `<<extend>>

Figure 3.3: Use case diagram.

view interview

report

update

employee

details

## 3.3.1 Use Case Summary

Performers:

Recruiter: The user in charge of overseeing the hiring procedure.

Candidate: The person putting in an application for a job.

The goal of the web-based initiative Recrooter is to make the hiring process easier for both employers and applicants.

Use Cases:

Make an employment announcement:

Performer: Hiring

The recruiter drafts a job ad that includes the position's title, description, qualifications, and other pertinent information.

Look for Potential Candidates:

Performer: Hiring

Description: The recruiter looks for possible applicants based on predetermined standards including credentials, experience, and abilities.

Apply for a Job:

Actor: Candidate Description: After perusing open job advertisements, candidates apply for vacancies by sending in their resumes and any necessary supporting documentation.

Examine the applications:

Performer: Hiring

Description: After receiving applications, the recruiter assesses applicants and creates a

shortlist.

Performer: Hiring

The recruiter chooses which individuals to select for additional consideration after reviewing all applications received.

Performer: Hiring

The recruiter arranges dates and times for interviews with the prospects who made the

short list. Interviews should be conducted.

Actor: Prospective Hire,

To determine a candidate's suitability for a post, the recruiter interviews them.

Offer a Job:

Performer: Hiring

Description: The recruiter provides the chosen applicant with a job offer that includes the

terms and conditions of employment.

By giving recruiters a single platform to handle job posts, evaluate applications, and

quickly engage with applicants, Recrooter streamlines the recruiting process and

improves the experience for both parties.

3.4 Activity Diagram

An activity diagram is a flow chart that shows the order of occurrences. The command

chain is traced to one surgery followed by another because the thing may be seen as one

of the program's processes. Concurrent, parallel, sequential, branching, or any of the

above might describe this flow.

The activity diagram for each system user is displayed here:

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# 3.4.1 Activity Diagram for Work Seeker

# Activity Diagram for Job- Seeker

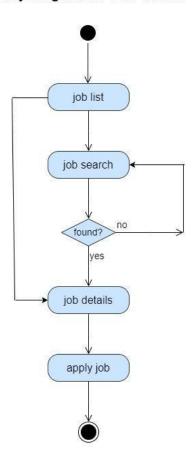


Figure 3.4.1: Activity Diagram for Work Seeker

# 3.4.2 Activity Diagram for Human Resources

# Activity Diagram for HR

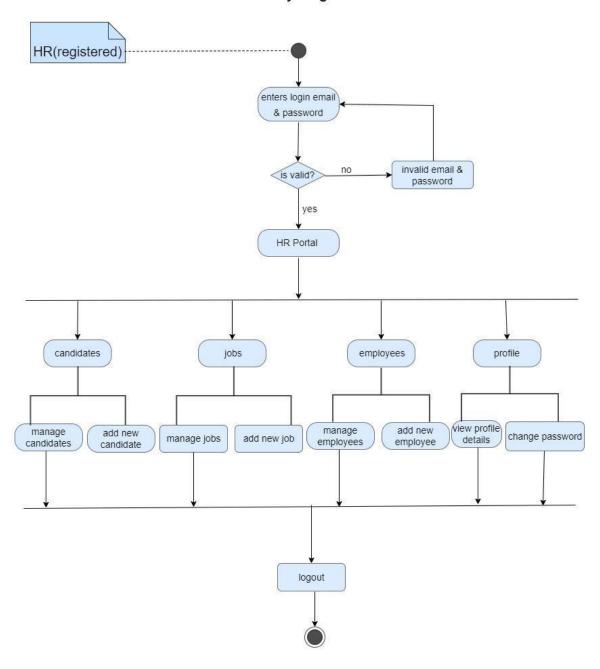


Figure 3.4.2: Activity Diagram for Human Resources

# 3.4.3 A hiring manager's activity diagram

# Activity Diagram for Hiring-Manager

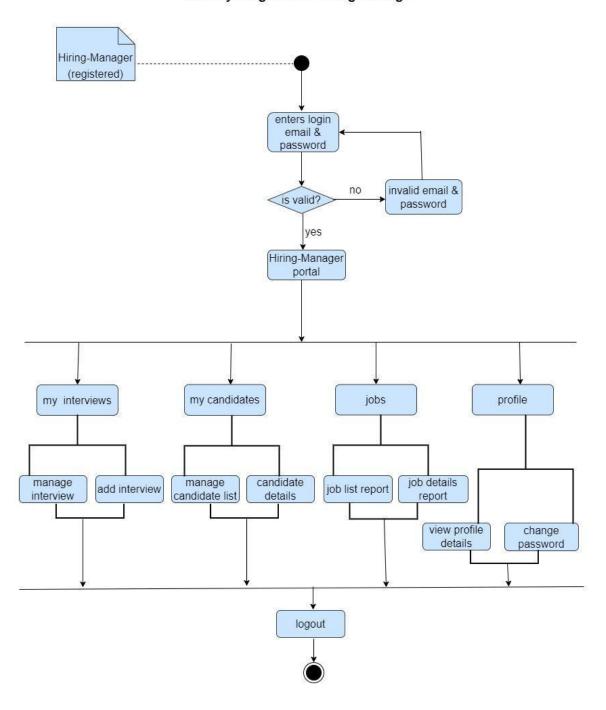


Figure 3.4.3: Activity Diagram for Hiring-Manager

# 3.4.4 Activity Diagram for Employee

# **Activity Diagram for Employee**

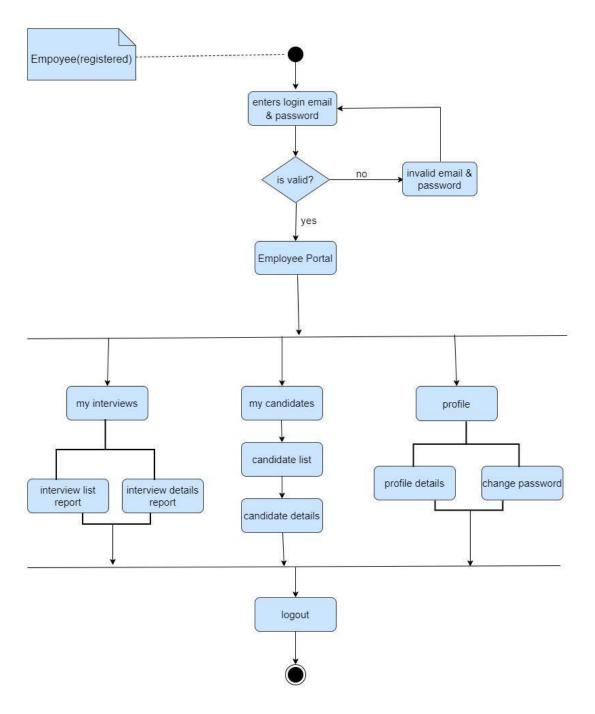


Figure 3.4.4: Activity Diagram for Employee

# 3.5 Sequence Diagram

# 3.5.1 Sequence Diagram for Work Seeker

# Sequence Diagram for Job Seeker

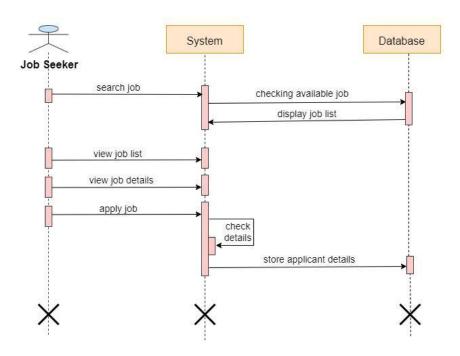


Figure 3.5.1 Sequence Diagram for Job Seeker

# 3.5.2 Sequence Diagram for Human Resources

# Sequence Diagram for HR

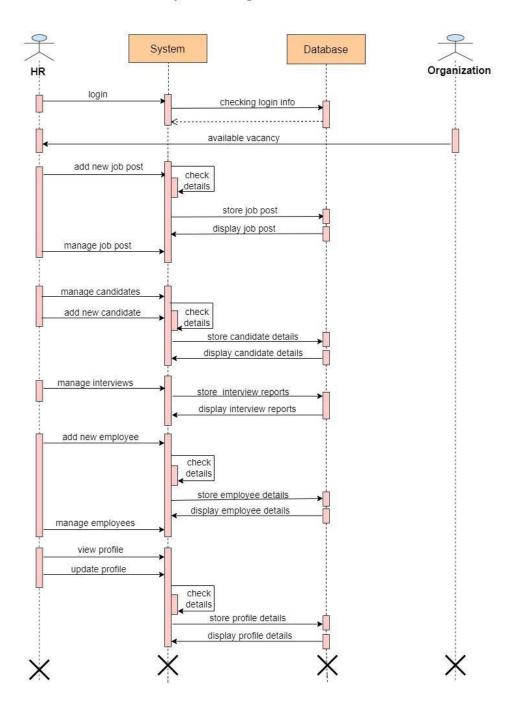


Figure 3.5.2 Sequence Diagram for Human Resources

# 3.5.3 Sequence Diagram for Hiring-Manager

# Sequence Diagram for Hiring-Manager

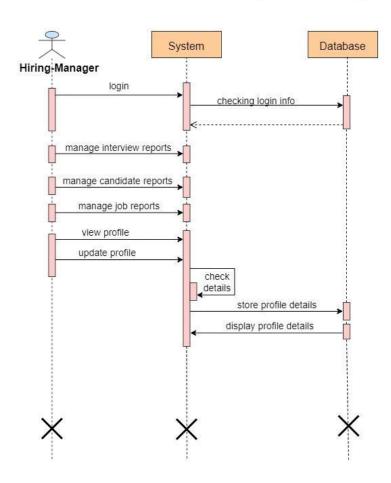


Figure 3.5.3 Sequence Diagram for Hiring-Manager

## 3.5.4 Sequence Diagram for Employee

## Sequence Diagram for Employee

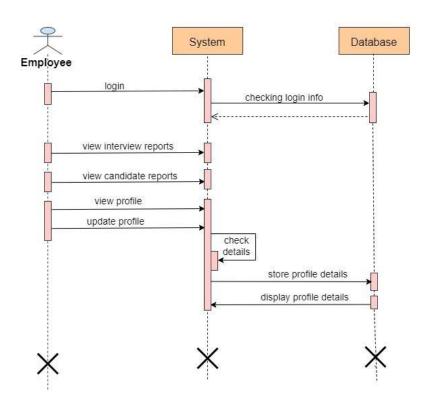


Figure 3.5.4 Sequence Diagram for Employee

#### 3.6 Class Diagram

The MVC (MODEL VIEW CONTROLLER) will be followed by the entire system. Below is the pattern for these controller class diagrams and model diagrams:

- Model: An application's data is contained in a model. An object or a group of objects can be considered data.
- Controller: An application's business logic is contained in a controller. The class is designated as the controller in this instance using the Controller annotation.
- View: A view is a specific format that shows the information that has been provided. Despite this, Spring also works with alternative view technologies including Free Marker, Thyme Leaf, and Apache Velocity.

#### 3.6.1 Class Diagram for the Recrooter

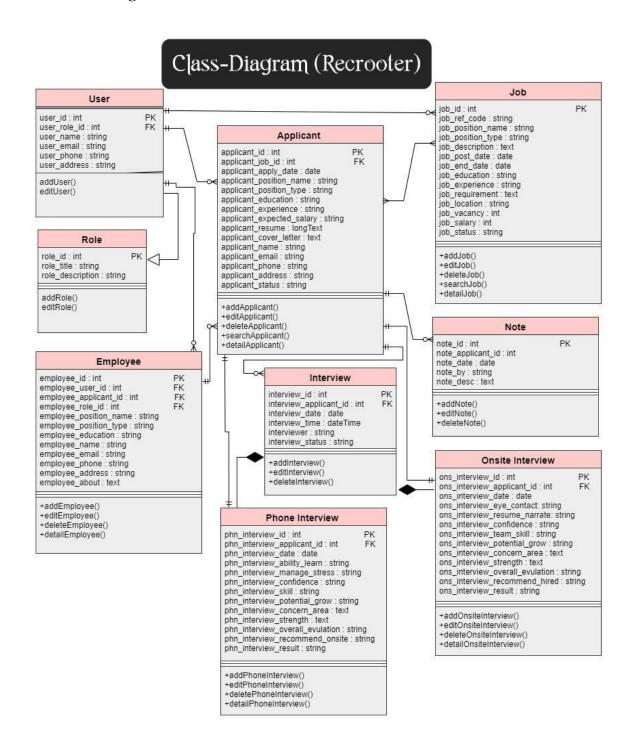


Figure 3.6.1: Class Diagram

### 3.7 Entity Relationship Diagram

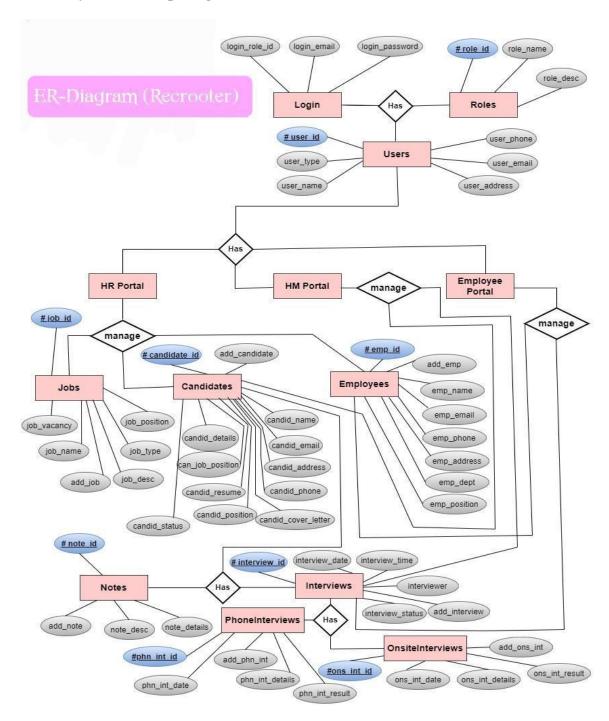


Figure 3.7: Entity Relationship Diagram for RECROOTER

## CHAPTER: 4 DESIGN SPECIFICATION

#### 4.1 FRONT END DESIGN

Recrooter is your all-inclusive web-based solution for recruiting procedures, built to optimize and expedite the hiring process. Recrooter enables smooth communication between recruiters and candidates with its feature-rich interface.

#### Important characteristics:

Simple Dashboard: A single, easily accessible dashboard gives you a quick overview of all of the open positions, applications from candidates, and status updates on the recruiting pipeline.

- Recruiters may quickly create and modify job posts by adding specific requirements, application forms, and job descriptions. Candidate Management: Track candidates' advancement during the recruiting process, maintain their profiles with ease, and interact effectively inside the platform.
- Automated alerts: Stay up to speed on new applications, scheduled interviews, and status updates with automated alerts, which guarantee prompt follow-ups.
- Collaborative Tools: Promote cooperation by utilizing tools that enable several team members to evaluate applications, offer comments, and make well-informed employment choices.
- Adaptive Design: Availability Recrooter from any platform, guaranteeing a smooth experience on mobile, tablet, or desktop.

#### **4.2 BACK-END DEVELOPMENT:**

The goal of the web-based platform Recrooter is to simplify the hiring process. The goal of Recrooter's backend development is to provide a reliable and effective system for managing candidate applications, job postings, and applicant-recruiter contact.

Important aspects of the backend consist of:

Database management is the practice of securely storing job listings, candidate profiles, and other pertinent data in databases.

User Authorization & Authentication: Securing login processes to verify users (applicants, recruiters) and manage access to various areas of the platform according to user roles.

Recruiters may create, amend, and manage job ads using this capability, which includes information about prerequisites, application deadlines, job descriptions, and other pertinent facts.

Candidate tracking: Putting in place tools that let hiring managers examine, sort, and monitor applications from candidates, such as resume processing and keyword matching techniques to find suitable applicants.

Communication Tools: Including email or message features to make it easier for recruiters and applicants to communicate, including setting up interviews and giving progress updates on applications.

Including tools to provide reports and analytics on hiring parameters, such as candidate demographics, hiring time, and recruiting funnel analysis.

Recrooter's backend concentrates on these essential features to automate and optimize the hiring process, saving recruiters and applicants time and money.

# CHAPTER: 5 IMPLEMENTATION & TESTING

## 5.1 Log in to website.

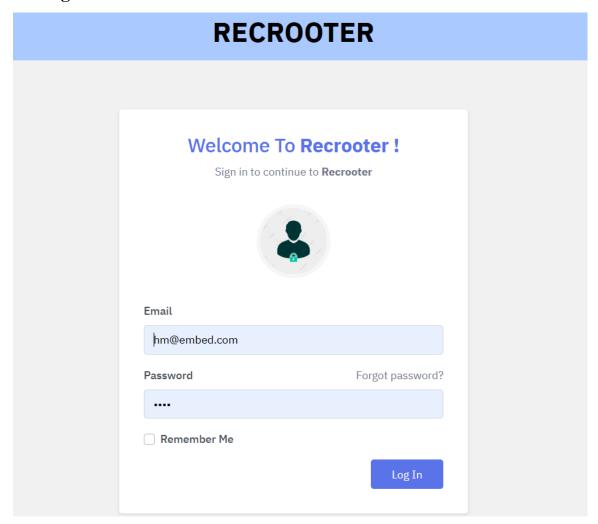


Figure 5.1: Log in.

## **5.2** Career Page View

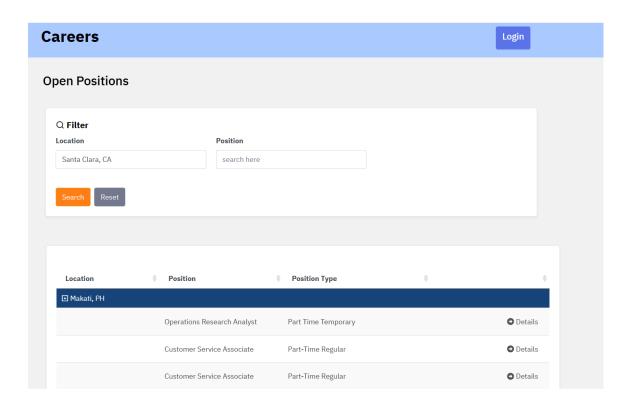


Figure 5.2: Career Page

## 5.3 Apply Job Page View

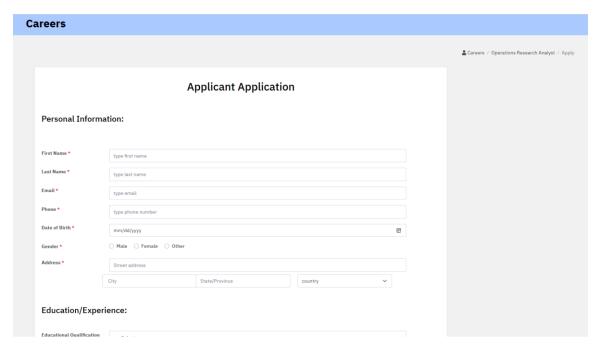


Figure 5.3: Apply Job Page

#### **5.4 Human Resources Portal View**

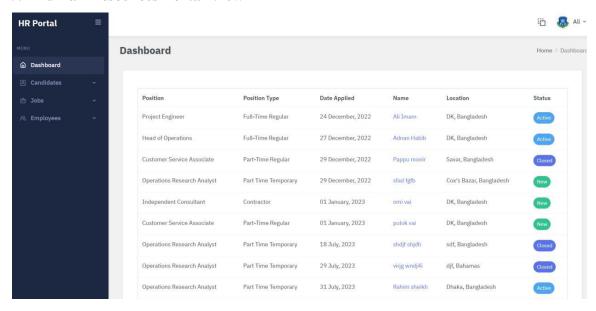


Figure 5.4: Human Resources Portal

#### 5.5 Manage Candidates View

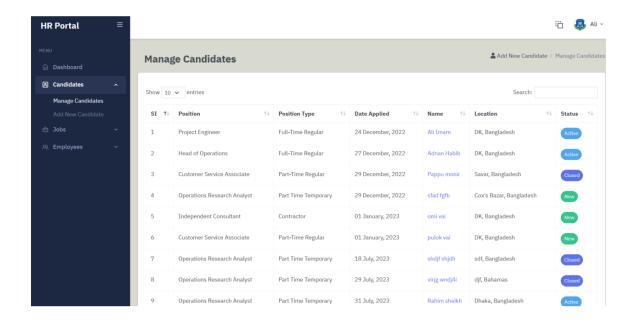


Figure 5.5: Manage Candidates

#### 5.6 Candidate Details View

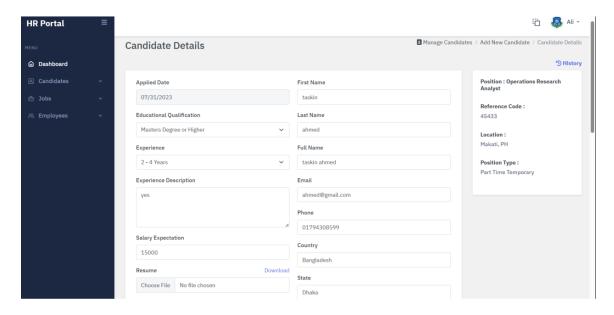


Figure 5.6: Candidate Information

## **5.7** The Hiring Portal View

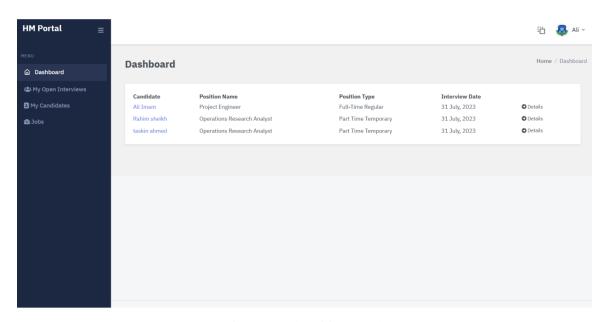


Figure 5.7: The Hiring Portal

## 5.8 The Hiring Candidates View

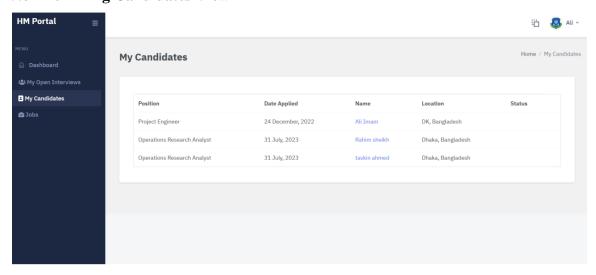


Figure 5.8: The Hiring Candidates

## **5.9** The Hiring Job View

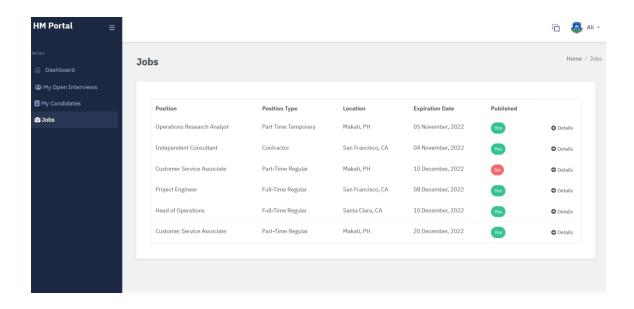


Figure 5.9: The Hiring Job

## 5.10 Telephone Consultation

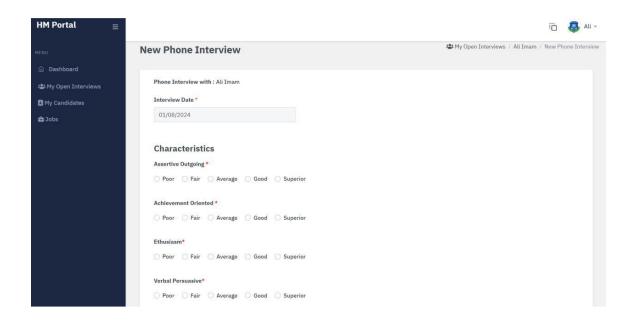


Figure 5.10: Telephone Consultation

## 5.11 In-person conversation

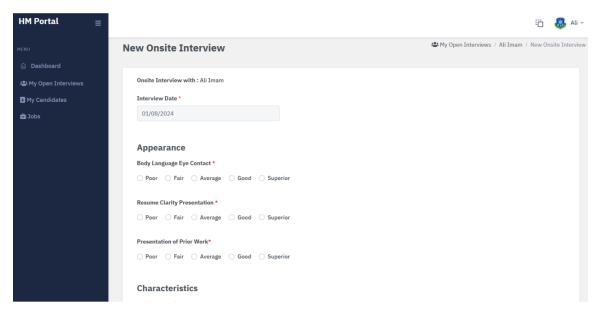


Figure 5.11: In-person conversation

## **5.12 View of the Employee Portal**

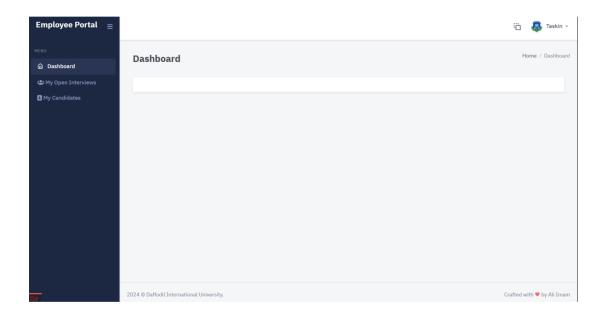


Figure 5.12: View of EP

#### **5.13 PF View**

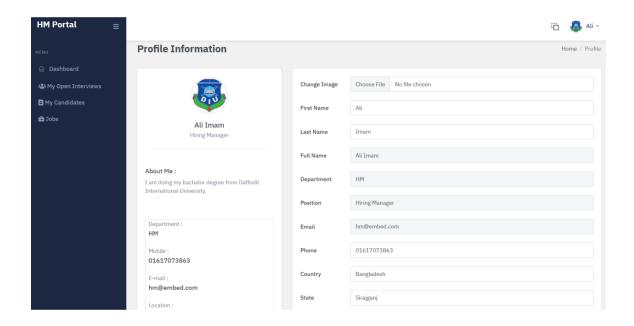


Figure 5.13: PF Page

## **5.14 View of the Passcode Change**

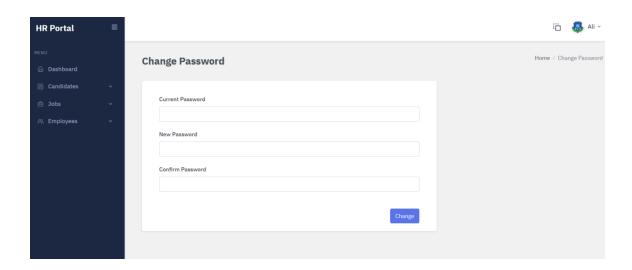


Figure 5.14: Passcode Change Page

#### **5.15 Feature Testing**

The goal of the online project Recrooter is to make the hiring process more efficient. Feature testing ensures the platform works as planned and gives applicants and recruiters a smooth experience. The following are important feature tests:

#### User Verification:

- Check to see that users can properly register, log in, and log out.
- Test safe authentication procedures and password encryption.

#### Job Advertisement:

- Verify the ability of recruiters to add, amend, and remove job posts.
- Verify the accuracy of the job data (title, description, and requirements) on display.

#### Application for Candidate:

- Check the user-friendliness and thoroughness of the candidate application procedure.
- Make sure you provide the necessary information and papers (cover letter, resume).

#### Lookup and Sorting:

- Verify the jobs' keyword, location, and category-based search capability.
- Verify filters are functioning properly to narrow your job search results.

#### Interaction:

- Test the system for communicating applicants and recruiters.
- Check alerts for updates and new messages.

#### Interview Timetable:

- Make sure the software allows recruiters to arrange and oversee interviews.
- Verify reminder alerts and calendar integration.

#### Assessment of the Candidate:

- Test assessment tools to help recruiters determine the appropriateness of candidates.
- Verify the scoring methodology and submission of feedback.

#### Reporting and Analytics:

- Verify the reporting tools that recruiters may use to monitor application metrics.
- Verify the display and veracity of the recruiting analytics data.

#### Mobile-Friendliness:

- Make sure the platform works flawlessly and is easy to use across a range of devices.
- Verify compatibility with various screen resolutions and sizes.

#### Data privacy and security:

- Conduct security testing to find and fix vulnerabilities.
- Verify adherence to data protection laws (such as the CCPA and GDPR).

Through thorough feature testing, Recrooter can provide a sturdy and dependable foundation for efficient recruitment processes.

#### **5.16 Test Strategies**

#### 5.16.1 Test approach

Requirement Analysis: Recognize Recrooter's functional requirements, user stories, and business objectives.

Test Planning: Formulate a comprehensive plan for the test that covers the goals, parameters, materials, timetable, and risk assessment.

Setup of the Environment: To guarantee realistic testing circumstances, configure testing environments to replicate production.

Functional Testing: Conduct thorough testing of all functions including applicant registration, job posting, resume processing, and application tracking.

Usability testing: Assess the user interface's intuitiveness, navigability, and compliance with accessibility standards.

Compatibility testing: To guarantee a flawless user experience, confirm compatibility across a range of browsers, devices, and screen resolutions.

Performance testing: Evaluate system responsiveness and scalability under both average and high loads.

Security testing: Make security assessments to find weaknesses and guarantee the integrity and confidentiality of data.

Verify relationships between Recrooter and external systems through integration testing. Verify interactions between Recrooter and other systems, including payment gateways or HRIS, through integration testing.

Regression Testing: Run regression tests to make sure that upgrades or fixes don't negatively affect features that are already in place.

User Acceptance Testing (UAT): Work together with stakeholders to confirm that Recrooter satisfies expectations and business needs.

Documentation: Keep thorough records of all test cases, outcomes, and flaws discovered during the testing procedure.

By taking this strategy, we hope to guarantee that Recrooter provides a strong, dependable, and user-friendly platform for the hiring process.

## **5.16.2** Test Schedule

Test Phase	Time
Making a test strategy	2 Week
Unit testing	The developmental era
Element test	The developmental era
User interface testing	3 Weeks
Performance testing	2 Weeks

Table 1.4: Test Schedule

#### **CHAPTER: 6**

## IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

#### **6.1 IMPACT ON SOCIETY:**

Recrooter, a web-based project designed for streamlining the recruitment process, has a profound impact on society by revolutionizing the way companies find and hire talent. First off, It significantly reduces the amount of time and resources typically needed for recruiting, which results in hiring procedures that are more effective. Businesses can reinvest their savings or devote resources to other areas of operation or growth thanks to this efficiency.

Recrooter also helps job searchers by giving them an easy-to-use platform to highlight their credentials and abilities. The recruiting process has become more inclusive, making it possible for people from different backgrounds to apply for jobs that they would not have been able to before.

Recrooter also uses uniform processes and standards to encourage equity and openness in recruiting practices. This lessens prejudices and discrimination, resulting in a fairer labor market where candidates are assessed based on their qualifications rather than arbitrary criteria.

Recrooter has a wide-ranging effect on society overall, from promoting diversity and justice in recruiting methods to streamlining employment procedures. It promotes social and economic advancement by helping companies and applicants connect more effectively.

#### **6.2 IMPACT ON ENVIRONMENT**

"Recrooter," a web-based initiative for hiring procedures, has the potential to have a big environmental effect in a lot of different ways. First, it may help cut down on paper consumption by expediting hiring procedures and minimizing the requirement for paper documentation. This translates directly into reducing the carbon footprint associated with the manufacture and disposal of paper and conserving trees.

Recrooter can also lessen the amount of carbon emissions brought on by transportation by enabling remote work and virtual interviews. Reducing the amount of time recruiters and applicants spend on the road can help reduce air pollution and fuel consumption, which will lessen the environmental effect of the project.

Recrooter's digital platform may also encourage a paperless workflow, which will cut down on the use of other office consumables like toner and ink cartridges, which can contain dangerous chemicals. But you also need to take into account the energy usage of hosting and maintaining the online application. Reduce this part of the environmental effect by making sure the servers that power Recrooter are energy-efficient and perhaps even using renewable energy sources. Overall, Recrooter has a lot to offer in terms of expediting hiring procedures, but if resource consumption and emissions are deliberately minimized over the course of the product's lifetime, there is potential for a very positive environmental effect.

#### **6.3 ETHICAL ASPECTS**

To guarantee justice, openness, and respect for all parties involved, "Recrooter," a webbased initiative for the hiring process, must handle several ethical issues: Privacy Protection: It's critical to protect job applicants' personal information. Administering candidate data securely, limiting access to authorized individuals, and using it exclusively for recruiting needs are all requirements that Recrooter must meet in accordance with data protection legislation.

Non-discrimination: Any protected trait, including age, gender, ethnicity, race, religion, or handicap, shall not be the basis for discrimination in Recrooter's design. It is important to routinely audit the algorithms used for candidate screening to identify and address biases.

Informed approval: Before their information is processed or shared with third parties, job seekers should be made fully aware of how their data will be used inside Recrooter and give their express approval.

Fair Evaluation: Merit and pertinent job-related criteria should be the foundation of Recrooter's selection procedure. To guarantee that candidates are aware of the reasons behind their acceptance or rejection, evaluation procedures must be transparent.

Accessibility: To ensure equitable opportunities for involvement in the recruiting process, Recrooter should be accessible to all persons, including those with impairments.

Feedback Mechanism: Candidates' future employment chances are improved, and transparency is promoted when constructive criticism is given to them, even if they are not chosen.

Through the integration of ethical principles into its design and functioning, Recrooter aims to promote a recruiting process that is fair and courteous to all parties involved.

#### **6.4 Sustainability Plan**

The Plan for Sustainability of Recrooter delineates our dedication to ecological, societal, and financial sustainability through our online employment marketplace.

#### Sustainability of the Environment:

- To reduce paper waste, we give priority to digital procedures.
- To cut down on carbon emissions from commuting, promote remote employment.
- Reduce energy use by optimizing server efficiency.

#### Social Durability:

- Encourage an inclusive and diverse work environment to provide equal opportunity for all.
- Encourage our team members' mental health and work-life balance.
- To give back, assist with volunteer activities and community projects.

#### Financial Stability:

- Use economical tactics to get the most out of your resource use.
- Provide competitive and equitable rates for our services.
- To find creative ideas that provide long-term value, spend money on research and development.

#### Constant Enhancement:

- Review and update our sustainability policies and procedures on a regular basis.
- To determine areas that require improvement, work together with stakeholders.
- Accept openness and responsibility in our attempts to be sustainable.

Recrooter seeks to uphold the long-term viability and resilience of our company while simultaneously making a good impact on the environment and society via the integration of sustainability into our fundamental beliefs and activities.

#### **CHAPTER: 7**

#### **CONCLUSION**

#### 7.1 Project Summary

To sum up, "Recrooter" offers a thorough and effective approach to the hiring process. It offers companies and job seekers unmatched ease and efficacy by streamlining the whole recruiting process—from job advertising to applicant selection—through its web-based platform.

Employers may easily develop and submit job postings that meet their unique specifications with "Recrooter's" user-friendly interface, which streamlines the job posting process. Moreover, recruiters can quickly go through a large candidate pool to locate the ideal fit for their company because to its sophisticated search and filtering features.

"Recrooter" gives job searchers an easy-to-use interface that makes a wide variety of work possibilities easily accessible. Its method of individualized recommendations guarantees that job seekers are paired with roles that complement their qualifications. Your preferences, making the job search process more efficient and increasing the likelihood of landing the perfect position.

Additionally, "Recrooter" has strong capabilities for evaluating prospects, such as automatic screening tools and customized evaluation criteria, which let recruiters make well-informed decisions and guarantee that only the best candidates move forward in the hiring process.

All things considered, "Recrooter" transforms the recruiting environment by utilizing state-of the-art technology to streamline and maximize each step of the hiring procedure. With its focus on accuracy, efficiency, and user happiness, "Recrooter" is a top choice for contemporary hiring requirements.

#### 7.2 Scope for Further Development

The web-based recruiting project Recrooter has established a solid basis for hiring process simplification. Still, there are several ways to improve it further in order to increase its usefulness and efficiency.

Advanced Candidate Matching Algorithm: Use an advanced algorithm to match candidates more effectively according to experience, skill set, and cultural fit with the organization. In order to more accurately assess applicant profiles and job needs, this would entail incorporating machine learning methods.

Connection with Social Media Platforms: To source candidates more broadly and improve communication with them, allow connection with social media platforms. Features like posting job openings directly on social media platforms and using social media data to assess candidates might fall under this category.

Improved Reporting and Analytics: Create extensive reporting and analytics tools to offer insights into hiring procedures, including measurements for applicant quality, source efficacy, and time-to-hire. Decision-making and recruiting strategy optimization might benefit from this.

Mobile Application Development: Develop a mobile application for Recrooter to enable recruiters and applicants to use it while they are on the go, enabling smooth communication and application tracking.

Integration with HR Management Systems: Provide smooth data synchronization and transfer throughout the employee lifetime by integrating with current HR management systems. This will guarantee efficiency and consistency.

Provide a feedback tool so that hiring managers and applicants may share their thoughts on the recruiting process. This will help the platform to evolve over time.

Recrooter has the potential to transform into a holistic solution that revolutionizes the recruiting process and offers improved efficiency, effectiveness, and user happiness by following these routes for further growth.

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