University of Cabuyao
(PAMANTASAN NG CABUYAO)

COLLEGE OF COMPUTING STUDIES

Referral Networks Software Development With Applicant Tracking and Data Analytics Enhancing Recruitment for Bonafide Trainology Placement Services

A Capstone Project Proposal

Submitted to the Faculty of

The College of Computing Studies

PAMANTASAN NG CABUYAO

City of Cabuyao, Laguna

In Partial Fulfillment

Of the Requirements for the Degree

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

By:

Baylosis, Eric Glenn D.

Natanauan, Lucky D.

Ramos, Joshua M.

May 2024

APPROVAL SHEET

In partial fulfillment of the requirements for the degree of **Bachelor of Science in Information Technology**, this research proposal titled, **Developing A Recruitment Software Integrating Referral Networks, Applicant Tracking, and Data Analytics to Enhance Hiring Efficiency for Bonafide Trainology Placement Services** has been prepared and submitted by **Eric Glenn D. Baylosis, Lucky D. Natanauan,** and **Joshua M. Ramos** is hereby recommended for approval and acceptance.

PROF. EVANGELINA MAGALING
Research Adviser

EDITOR

Edited and re-examined for final printing and submission to the faculty of the College of Computing Studies, Pamantasan ng Cabuyao.

Language Editor

PANEL OF EXAMINERS

Approved by the committee on Oral Examination with the grade of ___

Prof. Rommuele Jester Manongsong — Faculty

Mr. Darrell Bacarro — IT Expert

Dr. Ramiro Z. Dela Cruz
Chairman

Accepted and approved in partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology.

DATE

DR. ALICE M. LACORTE
Dean, College of Computing Studies

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I

THE PROBLEM AND ITS BACKGROUND

In the contemporary business landscape, the Human Resources (HR) department serves as the backbone of an organization, particularly in the recruitment and hiring of personnel. This essential function not only ensures that the right individuals are placed in roles that align with their skills and the company's needs but also contributes to the overall success and growth of the organization. [1][2] The importance of HR in this context is evident through several key areas such as identifying talent needs, attracting qualified candidates, and screening and selecting candidates.[3] This is especially critical for micro, small, and medium enterprises (MSMEs), where resources for employing talent are limited. MSMEs must ensure that these resources are used optimally by hiring the most qualified and suitable employees.

One such organization facing these challenges is Bonafide Trainology Placement Services, a small-sized direct hiring labor-broker based in Cabuyao, Laguna, Philippines. As an 11-person enterprise, Bonafide faced significant challenges in managing their recruitment processes efficiently. The firm does not employ any recruitment software, which hinders their ability to streamline operations and manage the candidate pipeline effectively. This lack of technology leads to several operational inefficiencies.

Firstly, Bonafide frequently misses deadlines due to the absence of automated tracking systems. Manual tracking of applications and candidate communications is time consuming and prone to delays. Secondly, the lack of a centralized system for storing and organizing candidate information results in misplaced files and documents. This disorganization can lead to confusion and errors during the recruitment process. Finally, without the capability to generate reports and analyze recruitment data, Bonafide struggles to monitor key metrics such as time-to-fill, and source effectiveness. This inability to track performance metrics impedes their ability to identify areas for improvement and make data-driven decisions.

These challenges underscore the critical need for integrating technology to facilitate recruitment. The increasing complexity and volume of HR tasks necessitated the adoption of advanced tools and systems to streamline operations and enhance productivity. [4] For Bonafide Trainology Placement Services, implementing recruitment software could significantly enhance their process efficiency, reduce errors, and improve overall performance. By adopting such tools, they would be better equipped to meet deadlines, easily manage candidate information, and gain valuable insights through data analytics, ultimately leading to more effective and strategic hiring decisions. Leveraging technology in this way allows HR departments to reduce administrative burdens, minimize errors, and focus more on strategic initiatives. [5]

Despite the advantages of technology adoption, many organizations, especially MSMEs, struggled to fully utilize its potential, Bonafide Trainology Placement Services cannot fully disclose all aspects of their data and processes to us due to various circumstances, with the client firm declining certain features due to unwillingness and the limitations of their processes. A key area often overlooked is the integration of referral features from external sources within recruitment software. Referral programs, when effectively implemented, can significantly enhance the quality of hires and lowered cost-per-hire by leveraging social and professional networks. [6][7] While current trends emphasize applications of data analytics within HR, the potential of referral systems is often overlooked. Integrating referral systems into recruitment software can significantly improve talent acquisition processes by utilizing existing employees' and applicants' networks to source suitable candidates. [8]

This research aims to explore the integration of referral networks and data analytics within recruitment software, particularly in the context of MSMEs. By analyzing current technological trends, identifying research gaps, and understanding organizational challenges, this study sought to provide insights into the design, development, and

implementation of an integrated recruitment software solution tailored to address the specific needs of MSMEs in talent acquisition.

The study's objectives are to develop a recruitment software solution that optimizes talent acquisition processes through enhanced referral features, design a user-friendly interface for managing candidate referrals and recommendations, analyze recruitment data, and monitor key recruitment metrics. Additionally, the research will test the system's performance and effectiveness, assessing its impact on recruitment outcomes and operational efficiency.

Objectives of the Study

General Objective:

To develop and implement an integrated recruitment software solution that enhances talent acquisition processes for Bonafide Trainology Placement Services, a small direct hiring labor–broker based in Cabuyao, Laguna, Philippines.

Specific Objectives:

1. Design a user-friendly interface for the recruitment software solution, focusing on:
    3.1 Management of candidate referrals and recommendations.
    3.2 Applicant tracking functionalities to monitor number of transacted applicants, failure and passing rates, and requirements tracking.
    3.3 Development of reporting capabilities for analyzing time-to-fill, sourcing analytics, and candidate pipeline monitoring.
2. Develop the recruitment software with functionalities for:
    2.1 . Management and tracking of candidate referrals from external and internal sources.
    2.2 . Integration of data analytics to optimize recruitment strategies and decision-making, including identifying sought-after jobs and qualifications.
    2.3 . Implementation of an applicant tracking system to manage candidate pipelines from initial application to deployment.
    2.4 . Implementation of an applicant tracking system to monitor candidate pipelines, including identifying drop-off points and tracking number of backouts and deployed candidates, and time-to-fill. Some proposed features were declined and is thus replaced by other KPI monitoring.

3. Evaluate the performance of the proposed system based on the following criteria of ISO 25010:
    3.1 Effectiveness.
    3.2 Reliability.
    3.3 Efficiency.
    3.4 Usability.

Scope and Limitations of the Study

This study focuses on developing and implementing a web-based recruitment software solution tailored for Bonafide Trainology Placement Services, located in Cabuyao, Laguna, Philippines. The study will encompass the design, development, and initial implementation phases within the second semester of A.Y. 2023 – 2024 and the first semester of A.Y. 2024 – 2025.

The software aims to enhance talent acquisition processes through the following functionalities:

- Designing a user-friendly interface that allows applicants to refer potential candidates, submit their information, and view job postings easily.
- Providing HR personnel with web-based tools to collect and manage applicant data, as well as data specific to Bonafide Trainology Placement Services. HR can generate reports, schedule interviews, and manage application statuses.
- Integrating data analytics to optimize recruitment strategies, including tracking metrics such as number of transacted applicants, failure and passing rates, time-to-fill, sourcing analytics, candidate pipeline monitoring (identifying drop-off points), offer acceptance rates, and identifying sought-after jobs and skills.

While the developed recruitment software solution offers enhancements to talent acquisition processes, several limitations should be considered in its implementation and use:

- The software operates exclusively online and requires an internet connection to function, limiting its usability in offline environments.
- The primary focus of the software is on streamlining and optimizing the recruitment process. Other HR functions such as payroll processing or broader HR management beyond recruitment are outside the scope of this study.
- While adaptable for similar small to medium-sized enterprises, the software's specific design and functionalities are optimized for the unique needs and processes of Bonafide Trainology Placement Services in Cabuyao, Laguna.
- The client firm has declined various features such as qualified costs due to circumstances, it has thus been replaced by time-to-fill which will be automatically monitored by the system and does not need to be inputted by the client firm, in addition, after deployment of applicants to their clients, Bonafide Trainology Placement Services does not have any monitoring systems in place to monitor attrition rates, the system thus substitutes this KPI with requirements tracking, sourcing analytics and other key metrics.

In addition, due to various constraints such as time and resource constraints, the number of respondents will be limited.

Significance of the Study

The study holds significance both academically and practically. From a broader academic standpoint, it contributes to advancing knowledge in HR technology by developing and implementing a specialized recruitment software solution. This software integrates features such as referral networks, data analytics, and streamlined applicant tracking, addressing critical gaps in current HR solutions. This exploration not only enhances understanding of effective recruitment strategies but also sets a precedent for future research and innovation in HR technology.

Practically, the study aims to streamline talent acquisition processes specifically tailored for Bonafide Trainology Placement Services and similar MSMEs in the Laguna area. By optimizing recruitment practices through applicant tracking, data analytics, and reporting capabilities, the software enhances organizational competitiveness and operational efficiency. Moreover, the integration of referral features enables leveraging existing networks to source high – quality candidates, thereby reducing recruitment costs and time-to-fill vacancies.

Overall, this study bridges academic insights with practical applications, fostering advancements in HR technology and significantly improving recruitment outcomes for small and medium-sized enterprises. By empowering organizations like Bonafide Trainology Placement Services with innovative tools and strategies, the study contributes to sustainable growth and success in the competitive business landscape.

Definition of Terms

1. Recruitment Software – A specialized software solution designed to automate and streamline the process of attracting, sourcing, selecting, and hiring candidates for job openings within an organization. It encompasses functionalities such as applicant tracking, candidate management, and integration of data analytics to optimize recruitment strategies.

2. Applicant Tracking System (ATS) – A component of recruitment software that allows organizations to electronically manage and track candidates throughout the hiring process. It includes features for receiving applications, screening candidates, scheduling interviews, and managing communications.

3. Referral Features – Tools within recruitment software that facilitate employee referrals and external recommendations for potential candidates. These features leverage existing networks to source qualified applicants, enhancing recruitment efficiency and quality of hires. [9]

4. Data Analytics – The process of examining extensive datasets to uncover meaningful insights and patterns related to recruitment metrics and performance indicators. In the context of recruitment software, data analytics helps optimize decision-making, improve time-to-fill vacancies, and assess the effectiveness of recruitment strategies.

5. Time-to-Fill – A recruitment metric measuring the duration from the initiation of a job opening to the final placement of a candidate in the position. It reflects the efficiency of recruitment processes and the organization's ability to fill vacancies promptly.

6. Sourcing Analytics – Tools and methodologies within recruitment software used to analyze and evaluate the effectiveness of different recruitment channels and sources. Sourcing analytics help HR professionals identify the most productive channels for attracting candidates and allocate resources accordingly.

7. Candidate Pipeline Monitoring – The process of tracking candidates as they progress through various stages of the recruitment process, from initial application to final selection or rejection. Candidate pipeline monitoring identifies bottlenecks and drop-off points, enabling organizations to optimize recruitment workflows and improve conversion rates.

8. Offer Acceptance Rate – A metric indicating the percentage of suitable candidates accepted by the client firm of Bonafide Trainology Placement Services. It provides insights into the candidate satisfaction levels, and the organization's ability to find suitable talent in the market.

9. Micro, Small, and Medium Enterprises (MSMEs) – Business entities characterized by their smaller size and operational scale compared to larger corporations. MSMEs typically have limited resources and staff, requiring efficient and cost-effective solutions for managing HR and recruitment processes.

10. Talent Acquisition – A strategic method for identifying, attracting, and integrating top talent to fulfill evolving business requirements. [10]

11. Operational Efficiency – In the context of recruitment software, operational efficiency refers to the ability to streamline recruitment processes, reduce administrative burdens, and achieve hiring goals effectively. [11]

CHAPTER II

REVIEW OF RELATED LITERATURE AND STUDIES

This literature review explores the role of Human Resource Management Systems (HRMS), focusing on integrating referral features and data analytics to optimize recruitment processes for MSMEs like Bonafide Trainology Placement Services. It examines the benefits and challenges of HRMS, the impact of referral systems on hiring quality and efficiency, and the importance of data-driven decision-making in HR operations. By synthesizing existing research gathered from published journals, books, articles, and other scholarly materials we aim to identify gaps, and provide insights for developing a tailored HRMS solution to enhance talent acquisition and overall HR efficiency for Bonafide Trainology Placement Services.

Conceptual Literature

Developing an HRMS to aid HR professionals and managers in managing their human capital is integral for streamlining HR processes within an organization. However, for MSMEs without a dedicated information technology department or professionals HRMS adoption poses challenges towards effective implementation, it is therefore important for the HRMS to be user-friendly and easy to use.

Applicant Tracking System (ATS)

Applicant Tracking Systems are software designed to help recruiters and employers in monitoring the entire recruitment process.

It can expedite the recruitment pipeline by centralizing and categorizing resumes received for job positions to be accessible within an organization across departments. [14] In addition, ATS technology can also be equipped with the functions to automatically screen for job qualifications and parse through submitted resumes enabling keyword searches

allowing recruiters to look for relevant candidates more effectively with the right qualifications. [15]

Data Analytics and Reports Generation

Incorporating data analytics capabilities into the HRMS allows organizations to harness the power of data-driven decision-making. These features enable the analysis of recruitment data, providing insights into candidate sourcing, hiring trends, and process efficiency [19].

Research Literature

Technology has always been revolutionizing fields that it has been applied in, Sunghoon et al. [20] tracks the technological and academic trends within the field of human resources starting around the 1960s up to contemporary HR practices and technologies. The study identified 3 major turning points for the field of human resources with regards to the adoption and application of technology, advances within the field of computers and the growth of consumer internet services made employing these technologies within HR processes viable and worthwhile. The first period the researchers identified was where HR managers started to use computers developed by IBM to streamline employee information management by electronically processing employee information to better comply with regulations. The second was characterized by the increasing affordability of personal computers, this allowed enterprises to develop complex management information systems which eventually led to the development of human resources information systems (HRIS). And thirdly, the growth of consumer internet services led to the rise of social networking sites and HR processes has never been the same since.

In another paper by Lakhwani et al. [21], they posit that while technology adoption can provide firms with a competitive advantage and an increase in organizational capacity, it largely depends on the level of successful incorporation of the appropriate technologies within an organization. The researchers of the study have also noted that there has been extant research on the effects of information technology within organizations and their services/products but judged that while it can play a vital role, it most often depends on the level of support whether materially or from the management,

but it was found that organizations that give higher levels of support outperform those that don't. Existing infrastructure and IT professionals also play a material role in the development of these organizations, but it must be ensured that organizational objectives and IT functions are aligned to achieve optimal results.

The impact of technology adoption cannot be understated, while results may vary, technology adoption presented new opportunities to facilitate HR processes, whether it be to support HR decision-making or to process data more conveniently, HR systems have become indispensable to foster competitive advantages and better business outcomes.

Recruitment and Talent Acquisition serves as the cornerstone for any organization, and it is one of the major responsibilities that HR departments handle, and this is not a light responsibility as Gilch et al. [22] posits in her article that recruitment serves a crucial role in the digital transformation of an organization. In her article, they examined the determinants of digital transformation for successful technology adoption. They identified human resources as one of the hurdles when it comes to adapting and fully leveraging the opportunities associated with technology. Their findings conclude that digital talents serve as a catalyst for an organization's digital transformation.

Margherita [3] also states that staffing or the recruitment of employees can be done through a variety of means but proposes that candidates should possess basic familiarity and proficiency with regards to IT solutions. Their research also suggests the importance of proper and clear job design to attract suitable candidates with the appropriate skillsets, and that neglecting proper job designing leads to the underdevelopment of the OP40 field. The role of human resource management is further highlighted in the study as it discusses the necessity of training to maintain a highly skilled workforce and prevent the loss of valuable knowledge, in addition to this, performance appraisal systems, another HR function, aids in aligning employee work behaviors with organizational objectives.

While Margherita focuses on the retention of valuable knowledge and best practices, Adeosun [23] recognizes that attracting and hiring the best candidates is essential for sustained competitive advantage and thus focuses on examining the patterns and determinants of effective recruitment and talent acquisition. The study explains that recruitment is a process in which individuals use other individuals to achieve what they cannot otherwise achieve, it is therefore evident that hiring an individual that cannot fulfill the responsibilities of a position, they become a liability and waste of resources, ultimately harming their organization. Adeosun identifies the steps by which organizations can find appropriate candidates, the first step is identifying the recruitment objectives, followed by developing a suitable recruitment strategy, execution of the recruitment activities, and finally evaluating the results of the process.

In their paper regarding job referral networks and local labor markets, Schmutte [24] found that jobseekers are informed of job offers through local interactions and aids them in locating appealing job offers, the paper concluded that there is a correlation between salary increases and who referred them. This is further supported by Chandrasekhar et al. [7] which proposes that entrepreneurs often hire from local networks of known individuals.

Margherita [3] in their article identifies and categorizes the common conceptual underpinnings and definitions of the various types of data analytics, people analytics, human resources analytics, HR analytics, workforce analytics, talent analytics, and human capital analytics. In response to the growing importance of business analytics, human resource management has also embraced advanced data analysis and visualization techniques to support strategic decisions. This integration aids executives and key decision-makers by providing insights derived from HR and business data. HR analytics encompasses various processes and applications, such as evaluating people-related risks, performance metrics, employee engagement, organizational culture, and career development pathways. The definitions from various scholars and practitioners emphasize that HR analytics is an evidence-based, systematic approach to HR data analysis and visualization. It supports executives and decision-makers by offering a comprehensive, multi-process framework that has broad implications. As technology advances, the role of HR analytics continues to grow in importance, highlighting its value in organizational decision-making.

In their article, Khan [8], highlights the importance of technology in addressing the challenges of hiring and retaining talent, particularly in the context of expanding international business activities. The study proposes a hybrid CNN-LSTM model within a Cloud Web-based Human Resource Management System (CLWHRMS) to streamline HR processes and connect job applicants with suitable roles. By analyzing real-time data from 250 resumes, the model demonstrates high accuracy (91%) and sensitivity (90%), surpassing traditional methods. This automated approach offers valuable insights for improving recruitment processes, particularly within Saudi Arabian firms, by efficiently assessing candidate suitability and enhancing organizational efficiency. In the context of Small and Medium Enterprises (SMEs) in the Kurdistan Region-Iraq (KRI), Abdullah et al. [25], stated that there's a prevalent reliance on outdated, paper-based HR methods despite technological advancements.

To address this, a proposed Enterprise Human Resource Management System (EHRMS) utilizing Cloud Technology is developed. Agile Methodology guides its creation, ensuring adaptability and value delivery.

The system necessitates specific software (e.g., Apache server, MySQL, PHP) and hardware (minimum 1.8 GHz processor, 200GB hard disk, 3GB RAM) requirements for optimal functionality. Its architecture comprises sixteen modules tailored to SME needs, covering HR functions from staff management to payroll and finance.

Key modules include Core HR, Organization Management, Attendance Monitoring, Recruitment, and Payroll. These streamline HR processes, enhance organizational productivity, and ensure regulatory compliance. By centralizing critical functions within the EHRMS, SMEs can modernize operations, optimize resource utilization, and foster sustainable growth in the KRI.

Theoretical Framework

The researcher used the ensemble view of technology as a lens for the study, ensemble view of technology would involve contextualizing technology not just as standalone software but as integral components of the organizational ecosystem. This perspective emphasizes the interplay between technology and human actors, acknowledging that recruitment software solution implementation and use are influenced by social dynamics within the organization. By adopting the ensemble view, organizations can approach the development and integration holistically, considering both technological and social factors to optimize HR processes and enhance organizational performance. [26]

In addition to the ensemble view of technology, the social network theory provides a valuable framework for analyzing referral networks within recruitment software solutions. By applying social network analysis techniques, researchers can examine the structure of referral networks, identify key influencers or connectors, and understand how information about job opportunities flows through the network. This analysis can inform the development of effective referral programs and enhance talent acquisition processes within the organization. [27]

Conceptual Framework

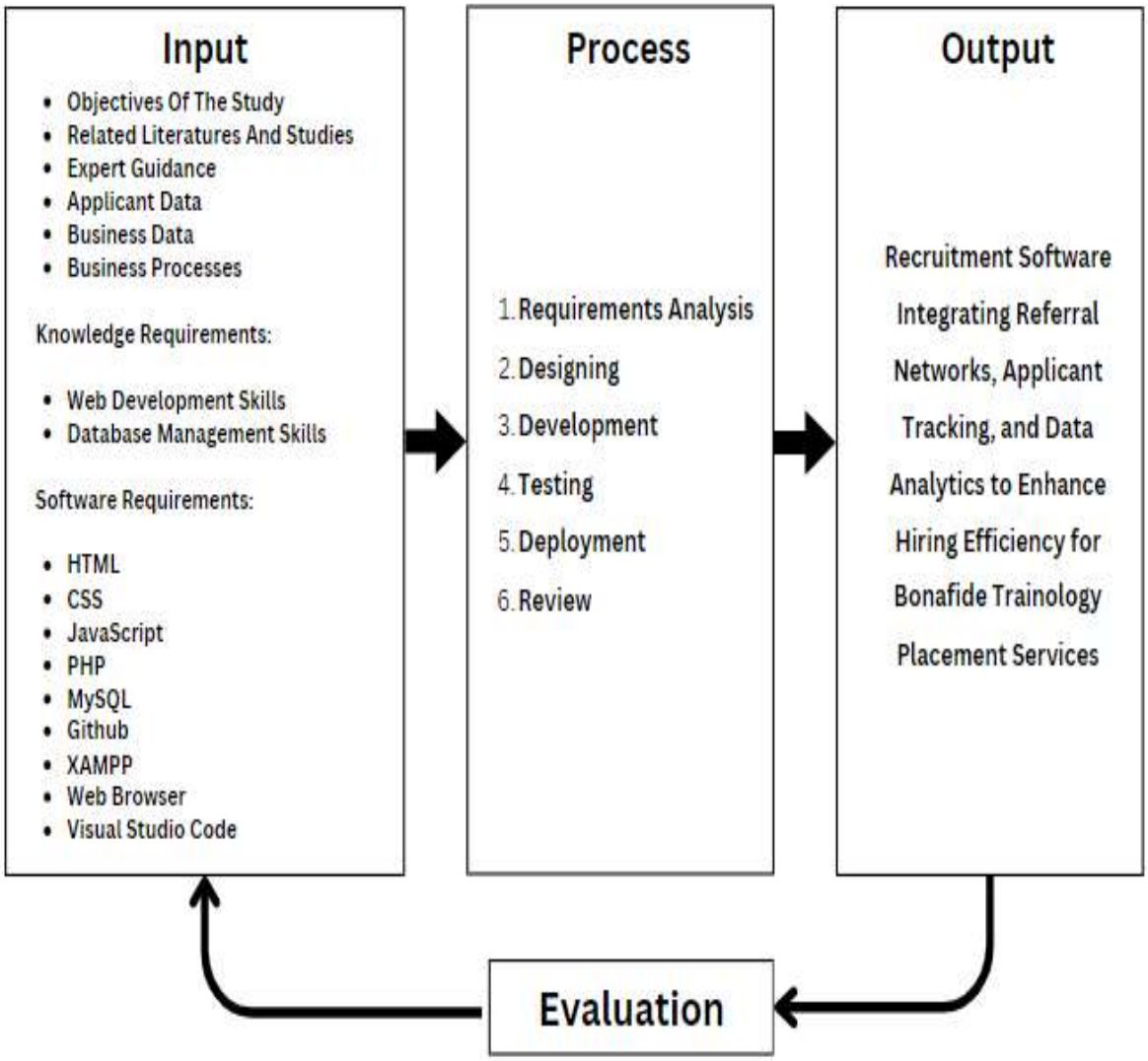


Figure 1. Conceptual Framework of the Study

The researchers used the Input-Process-Output (IPO) model, as represented in **Figure 1**.

In the Input Phase, the proponents gathered essential information and resources, including the study's objectives, related literature, and expert guidance. They identified the knowledge requirements such as web development and database management skills, and listed software requirements including HTML, CSS, JavaScript, PHP, MySQL, Github, XAMPP, a web browser, and Visual Studio Code. In addition, business data that Bonafide Placement Trainology Services collects from applicants as well as other data points.

In the Process Phase, the proponents systematically developed the Recruitment Software. This involved requirements analysis, designing the system, development, testing, deployment, and review.

In the Output Phase, the prototype software was presented, aimed at improving referral networks, applicant recommendations, and recruitment streamlining. Finally, the system underwent an evaluation to assess its effectiveness and identify areas for improvement.

Conceptual Paradigm

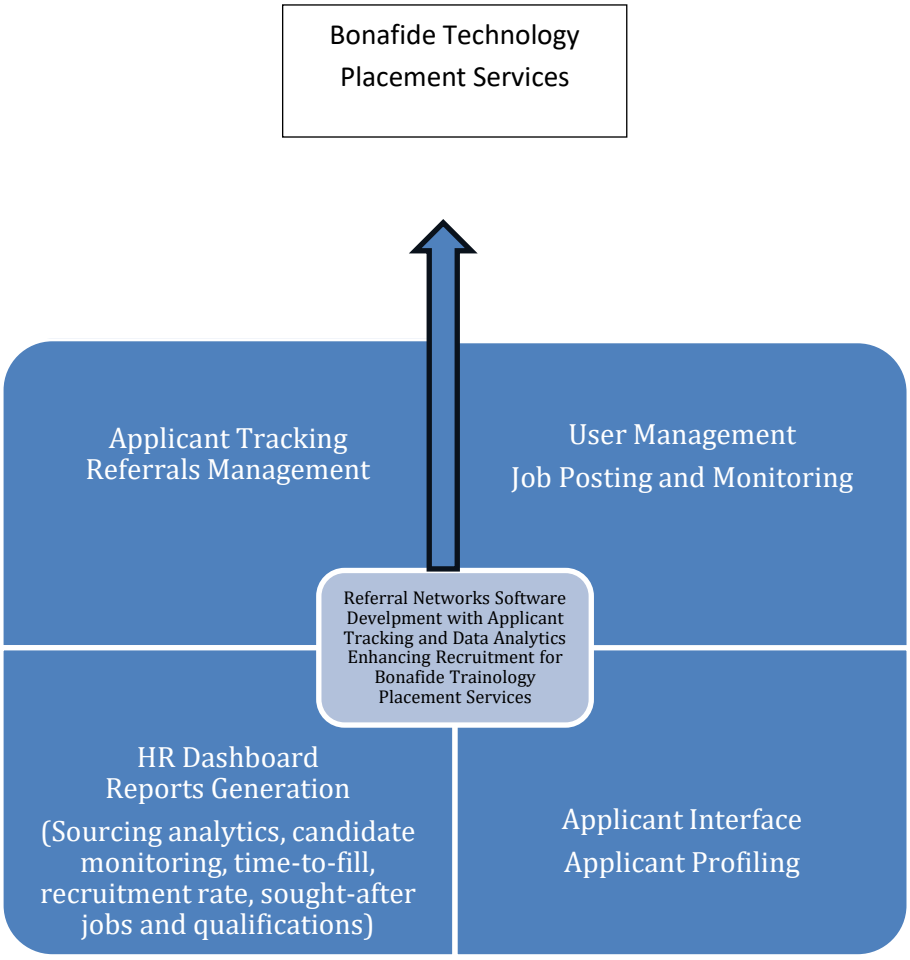


Figure 2. Conceptual Paradigm of the Study

The Conceptual paradigm illustrates the functionality and scope of the proposed recruitment software solution for Bonafide Technology Placement Services.

At the center of the diagram is the Recruitment Software, which serves as the core platform. Surrounding the Recruitment Software are four key functional areas: Applicant Tracking and Referrals Management, which handles the process of tracking job applicants and managing referral systems to streamline recruitment; User Management and Job Posting and Monitoring for a centralized management and viewing of user or applicants; Admin Dashboard and Reports Generation, which provides administrative tools for generating reports and dashboards for better management insights; and Applicant Interface and Applicant Profiling where applicants can manage their information and view job postings as well as applications status.

The conceptual paradigm demonstrates how the Recruitment Software integrates various functions to support the overall goals of Bonafide Technology Placement Services.

Synthesis

The literature review reveals a significant gap in the integration of recruitment software tailored specifically for MSMEs like Bonafide Trainology Placement Services. While recruitment technology offers extensive benefits in facilitating recruitment processes, the adoption among MSMEs is hindered by limited IT resources and the need for user-friendly solutions. Applicant Tracking Systems (ATS) streamline recruitment, yet the literature lacks comprehensive insights into the unique needs of MSMEs, particularly regarding ATS functionality and usability.

Key themes emerge, emphasizing the transformative potential of HR technologies, the challenges faced by MSMEs in adoption, and the critical role of recruitment in digital transformation.

Literature underscores the importance of user-friendly Recruitment Software and the alignment of IT functions with organizational objectives for successful technology adoption. Moreover, studies highlight the vital role of referral networks in recruitment, underscoring the need for tailored Recruitment Software solutions that integrate referral features.

Data-driven HR practices, including HR analytics, offer strategic insights into performance metrics and talent acquisition. However, existing literature lacks in-depth exploration of HR analytics tailored for MSMEs. Theoretical frameworks like the ensemble view of technology and social network theory provide valuable perspectives for HRMS development and integration, emphasizing the holistic approach and the significance of referral networks.

Given these gaps, the current study aims to develop a customized Recruitment software solution for Bonafide Trainology Placement Services, addressing the specific needs of MSMEs and leveraging referral networks and data analytics to optimize recruitment processes. By synthesizing existing literature and identifying key themes and gaps, this study seeks to contribute to the advancement of HR tech discourse, ultimately empowering MSMEs to thrive in the digital age.

CHAPTER III

METHODS AND PROCEDURES

This chapter presents the methods, procedures, and design used in conducting the research. It also includes a discussion of the research design, respondents of the study, statistical treatment of data, population and sampling, evaluation and scoring, ethical considerations, data gathering procedures, data analysis plan, system development, literature cited, and appendices.

RESEARCH DESIGN

The quantitative method is used in this research investigation. It uses a questionnaire as a research instrument. The major tool for data gathering was a questionnaire administered to the customer. The questionnaire was created to collect enough information on the study's purpose.

RESPONDENTS OF THE STUDY

The proponents focused on gathering the most reliable information to achieve the purpose of the study and to solve the problems in the study. Purposive sampling is the sampling method by the proponents of this study. Through this method, it selected the population of the study that evaluated the system.

Table 1. Respondents of the Study

Category	Number of Respondents
HR Professional	7
Job Seekers	52
IT Experts	3
Total	62

In Table 1. The HR professional staff are the primary beneficiaries of the system and would play an important part as respondents in finding out the functionalities of the system in terms of accuracy, effectiveness, efficiency, and security. For the HR professionals, the researchers decided to have seven (7) respondents, who are the HR staff in the department of Bonafide Trainology Placement Services. While for the job seekers, the researchers will find fifty-two (52) respondents who are looking for the right jobs. Lastly, three (3) IT experts will be consulted for critical system evaluation. The summation of the number of end users and web experts that will evaluate the study has a total of sixty-two (62) respondents.

The researchers used total population sampling to gather feedback from all 7 employees of Bonafide Trainology Placement Services. In addition, Slovin's formula was used to calculate the number of respondents needed from Job seekers using the services of Bonafide Trainology Placement Services. With the average number of applicants who underwent the entire recruitment pipeline being around 200 people along with an acceptable margin of error rate of .05%, fifty-two respondents are needed.

Below are the calculations for the sample size for the job-seekers:

Sample Size Calculator

Find Out The Sample Size

This calculator computes the minimum number of necessary samples to meet the desired statistical constraints.

Result

Sample size: **52**

This means 52 or more measurements/surveys are needed to have a confidence level of 70% that the real value is within ±5% of the measured/surveyed value.

Confidence Level:	70%	
Margin of Error:	5 %	
Population Proportion:	20 %	Use 50% if not sure
Population Size:	200	Leave blank if unlimited population size.

Calculate Clear

DATA GATHERING PROCEDURE

DATA GATHERING TOOLS

Data gathering tools describe how the data is obtained for the research. The proponents gathered data using library research, internet research, interviews, observations, and questionnaires.

Library & Internet research. The researchers collected data from the published thesis in the library and allowed researchers to access a wide range of information relevant to their study [28][29].

Interviews. The proponents conducted an interview with the head of the HR Department of Bonafide Trainology Placement Services to learn about their process in the human resources management system.

Observations. It is a way of gathering data without asking questions, relying on the researcher's judgment to record information [30]. The researchers observed initial client reactions towards the proposed mock-ups of the system.

Questionnaires. Used to gather information through predefined questions. They supply the information needed to complete a research study since it is conducted and can also be administered physically or digitally to collect both quantitative and qualitative data. It is inexpensive and accessible for researchers and participants [31]. The researchers plan to use questionnaires to gather feedback from the users.

EVALUATION AND SCORING

Effectiveness

Assesses whether the system's features enable users to accomplish their tasks accurately and completely. This attribute measures if the system provides the necessary tools for job application tracking, profile management, and referral management, ensuring that users can meet their goals without unnecessary complexity.

Reliability

Evaluates the stability and dependability of the system over time. It ensures that the system performs consistently without frequent crashes, errors, or unexpected downtimes, especially during peak usage. A reliable system provides users with confidence, allowing them to complete tasks without worrying about interruptions.

Performance Efficiency

Measures the speed and responsiveness of the system, especially under heavy load. This aspect evaluates if the system can handle multiple user requests quickly, with minimal delays when navigating, submitting applications, or updating profiles. High performance efficiency ensures users experience fast, seamless interactions with the platform.

Usability

Examines how easy it is for users to learn, navigate, and operate the system. This attribute focuses on whether the interface is intuitive, with clearly labeled sections and user-friendly workflows, making it easy for users to complete tasks without confusion. High usability reduces the learning curve and allows users to interact with the system comfortably and efficiently.

Total Score Calculation

To calculate the total score, sum up the scores of all the sub-criteria. Each sub-criterion is scored on a scale from 1 to 5, and the maximum possible total score is 115.

Total Score = ∑(all sub-criteria scores)

Interpretation of Scores

- **86-90**: Excellent - The system meets and exceeds most expectations.
- **71-85**: Very Good - The system performs well but has some areas for improvement.
- **51-70**: Good - The system is satisfactory but has significant limitations and may need enhancements.
- **31-50**: Fair - The system has many limitations and require improvements.
- **16-30**: Poor – The system does not meet the basic requirements and needs substantial improvement.

Table 2. Evaluation and scoring

DATA ANALYSIS PLAN

In order to evaluate the quality of a system based on effectiveness, reliability, performance efficiency, and usability, the researchers utilized the Likert Scale. This psychometric scale, frequently employed in research, features surveys with multiple-choice questions rated from “Strongly Agree” to “Strongly Disagree.” Each criterion is rated on a scale from 1 to 5, providing a structured and quantifiable approach to data collection and interpretation.

The primary objective of this study is to assess the quality of the system by evaluating its functionality, efficiency, and accessibility. This evaluation aims to identify the system's strengths and areas for improvement, ensuring that the system meets user needs effectively.

To achieve this objective, researchers will employ a structured survey form to gather ratings from relevant stakeholders or users. Each criterion is rated on a scale from 1 to 5, where 5 represents "Strongly Agree" and 1 represents "Strongly Disagree."

Once the data is collected, researchers will calculate the mean for each criterion to understand the overall sentiments of the users. By computing the mean, researchers can identify overall trends and patterns. This analysis will reveal how users perceive the system’s performance in each area, highlighting both strengths and potential areas for improvement.

Building on the descriptive statistics, researchers will conduct an analysis to pinpoint the system's strengths and weaknesses. By analyzing average ratings across different criteria, researchers can identify which aspects of the system perform well and which require enhancement. For instance, a higher average rating in "Usability" compared to "Performance Efficiency" might indicate that while the system provides great user experience and is user-friendly, the system could be further optimized to reduce delays.

Table 3. Likert Scale

Interpretation	Code
Strongly Agree (SA)	**5**
Agree (A)	**4**
Neutral (N)	**3**
Disagree (D)	**2**
Strongly Disagree (SD)	**1**

Survey Questionnaires

Table 4. Survey Questionnaire for Job Seekers and Applicants

EFFECTIVENESS	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
The system allows me to easily track the status of my job application.					
The platform provides relevant information about the recruitment process and my progress.					
The referral network feature is useful for maintaining and expanding my professional network.					
The referral network feature helps connect me with relevant job opportunities.					
Overall, the platform enhances my job search and application experience.					

RELIABILITY	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
I am able to access the system when I need to.					
The platform operates smoothly with minimal errors or interruptions.					
The system accurately reflects the status and details of my application.					
Notifications and updates from the system are timely and informative.					
The software provides user-friendly error messages when something goes wrong.					

PERFORMANCE EFFICIENCY	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
The platform generally loads quickly, allowing me to navigate without significant delays.					
The platform processes my application data and displays status updates without unnecessary delays.					
The platform performs effectively during peak usage times without long delays.					
The platform enables me to quickly apply to various jobs without significant delays.					
The system is responsive when filtering or sorting jobs based on various criteria.					

USABILITY	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
The system interface is easy to navigate and use.					
I can easily find the features I need.					
The platform is easy to understand, even for first-time users.					
I can perform necessary actions, such as checking application status or updating my profile, without assistance.					
The platform simplifies the application process, making it user-friendly.					

Table 5. Survey Questionnaire for HR Recruiters and IT Experts

EFFECTIVENESS	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
The system helps in tracking applicants throughout the recruitment process.					
The system provides useful insights and analytics for making recruitment decisions.					
The system allows for effective management of referral networks, improving talent pooling.					
The applicant tracking features align with the recruitment process of Bonafide Trainology Placement Services.					
The system's functionalities meet the recruitment and data analysis needs of the organization.					

RELIABILITY	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
I am able to access the system when I need to.					
The platform functions with minimal disruptions.					
The system allows for accurate job posting and candidate tracking throughout the recruitment process.					
The platform reliably tracks data related to referrals and applicant progress.					
The software provides user-friendly error messages when something goes wrong.					

PERFORMANCE EFFICIENCY	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
The platform generally loads quickly, allowing me to navigate without significant delays.					
The system can efficiently handle large volumes of applicant, job posting, and referral data.					
The platform performs effectively during peak usage times without long delays.					
The system is responsive when filtering or sorting applicants based on various criteria.					

USABILITY	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
The system interface is easy to navigate and use.					
I can easily find the features I need.					
The platform is easy to understand, even for first-time users.					
I can perform necessary actions, such as managing applicants or creating job posts, without assistance.					
The system helps the user in managing job posts, applicants, and talent pools more efficiently.					

SYSTEM DEVELOPMENT

The researchers used Agile Development. This model is an iterative and incremental approach to software development, focusing on delivering value to customers through small, incremental releases. It emphasizes adaptability, collaboration, and customer feedback throughout the development process.

Software Development

Figure 3. Agile Methodology

As Figure 3 shows, the logical structure of the Agile Development Model. The model gives guidelines for information systems development so that it assists to ensure the development teams complete the expected project on time and to monitor the progress through planning and analysis, design, developing, testing, deploying, and reviewing.

The researchers used the Agile Method Model because this software methodology was our team's preferences and strengths, also easy to manage since each phase has specific progress. This approach of software development is focused on customer/client needs; therefore, it can get feedback as soon as possible through communication between the development team and the product owner.

Plan

In this phase, the researchers gathered requirements, observations, and interviews to define the scope of the project, created user backlog stories, and break down the large pieces of the project into smaller to be manageable. Through planning information, the researchers can adapt to the changing requirements.

An interview was conducted with the HR head to establish initial requirements, the requirements were then taken into account and added to the backlog.

Design

An initial mock-up with the typography and color schemes of the client firm was used to design the initial interface mock-ups. The mock-ups were then presented to the client for further evaluation.

Develop

In the development phase, the researchers re-processed the iteration of the project first; UX/UI design, coding, and testing. This aims to deliver working software after each specific process of the sprint.

We develop the system by taking into account the previously gathered requirements and feedback from stakeholders to ensure the developed system aligns with organizational objectives and business processes. After the Design is completed through the user stories, the researchers must test it into the development cycle.

Test

In this phase, after the development, the system must undergo testing to ensure the functionality and quality if it is a friendly user or not. The researchers will conduct repetitive testing to check if previously working software still functions after changes. If any issues and errors are found, the system will be sent back to development to fix before the testing.

We the researchers aim to ensure the quality and functionality is good by testing the system how it works. Each sprint is required to test because through this it will ensure that the new iteration of the system is functional.

Deploy

Once the system is finished, the final stage of development will be the deployment. The researchers will deploy it to production so that is is accessible to the users.

Review

In review, the researchers collected client feedback by keeping in touch with our contact person within the client firm as well as panelist opinions. Various areas of improvement were discovered and will be considered for the next sprint.

Use Case Diagrams

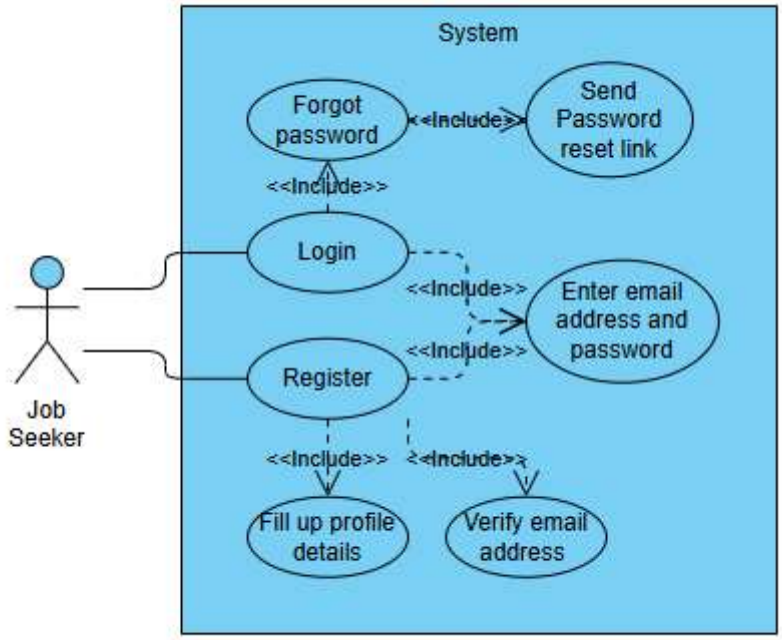


Figure 4. Use Case Diagram for Applicant Account Registration, Login, and Password reset

In figure 4. The case use diagram exposes the most and very essential functions and processes in a jobseeker system. It presents three main scenarios: recovery of password, log-in of a user, and registration. Within the Forgot Password use case, a user initiates recovery of their account by requesting a Password Reset Link sent to their registered email. Login requires the user to Enter his Email Address and Password to authenticate and log into the system. If the user of the platform is new, they will need to register through the Register use case which encompass steps as filling up personal information in the Fill Up Profile Details section and also verification of the account through the Verify Email Address step. These are tied together such that the user has a seamless and yet secure experience in setting up their account and logging into it.

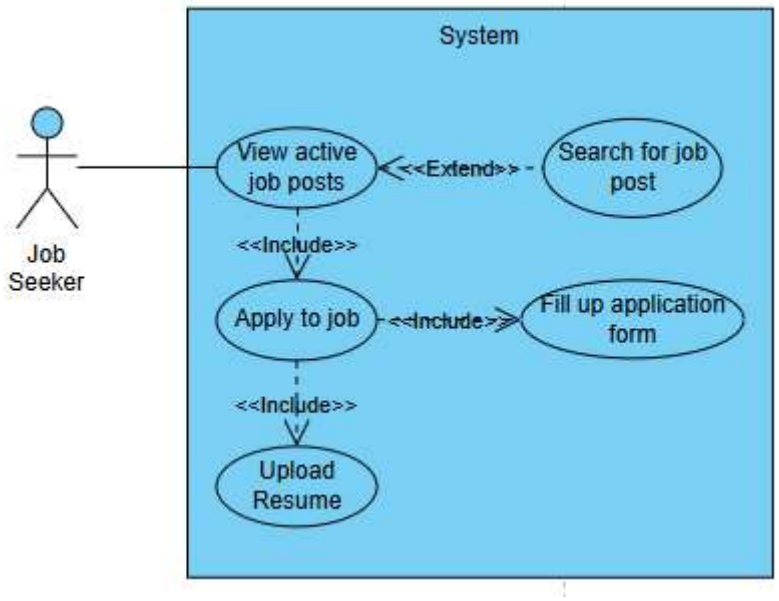


Figure 5. Use Case Diagram for Job Searching and Application

In figure 5. This use case shows the functionalities of job application system from the perspective of job seeker. The system allows the user to View Active Job Posts, which has a further extension by the Search for Job Post use case to help user in searching specific posting. After user finds the suitable job comes to Apply to Job, which consists of two important activities: Fill Up Application Form, in which user provides information regarding qualifications and preferences, and Upload Resume, which adds the user's professional document to be viewed by employers. These use cases complement each other in carrying out tasks of job application processes for users seeking jobs in an efficient and easy manner.

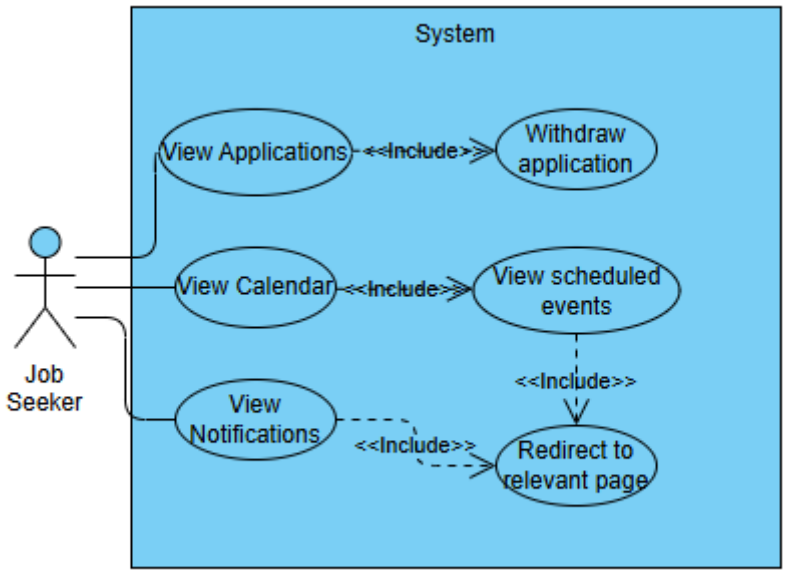


Figure 6. Use Case Diagram for viewing applications, calendar events, and notifications

In figure 6. This use case diagram identifies the functionalities conferred upon job seekers to manage their applications, events, and notifications in the system. The use case named View Applications allows users to view the job applications they had applied for as well as to withdraw an application if he/she chooses to cancel a particular submission. The View Calendar function will help users keep track of their scheduled events-like interviews or deadlines-for being prepared or timely. Another function is the View Notifications, which keeps the users updated on what is going on-such as alerts on newly posted jobs, application statuses, or event reminders. This use case also has the option Redirect to Relevant Page in case users want to get further details or take more actions. Together, these features provide a cohesive and user-friendly system to manage some of the key aspects of the job searching process.

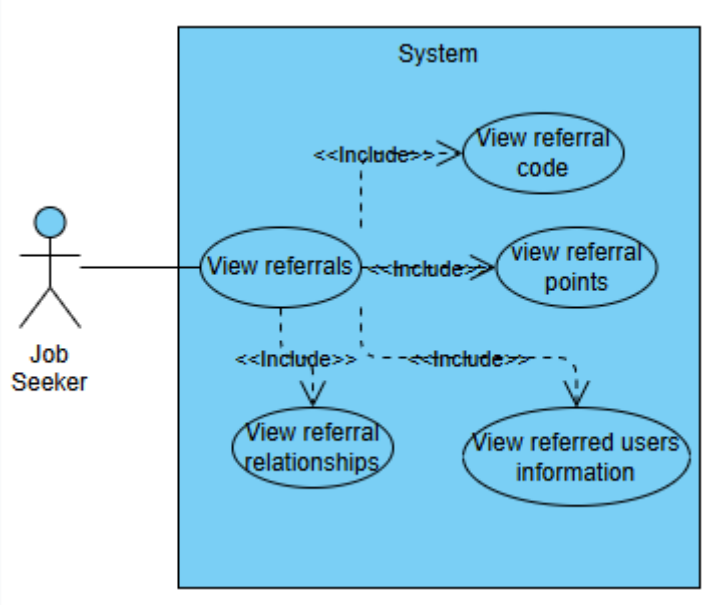


Figure 7. Use Case Diagram for viewing referrals

In figure 7. The View Referrals use case enables job seekers to access and manage information in respect to the referral feature of the system. It includes allowance for viewing an individual's unique referral code, monitoring accumulated referral points, an understanding of referral relationships, and checking information on referred users. Ensuring transparency and participation, the system allows the job seeker to easily track and view the progress of their referral program and any incentives that may be earned.

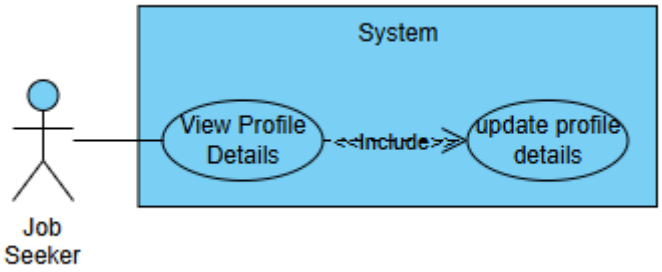


Figure 8. Use Case Diagram for viewing and updating profile details

In figure 8. The "View and Update Profile Details" use case describes a Job Seeker as one who goes through managing his/her personal profile in the system. Initially, the Job Seeker can view its own profile information (name, contact details, and qualifications). If any of these have to be updated, the Job Seeker can choose the option of "Update Profile Details" in order to modify and save the changes made. This ensures that the profile stays updated and accurate, which, in turn, creates better opportunities and communication levels within the system.

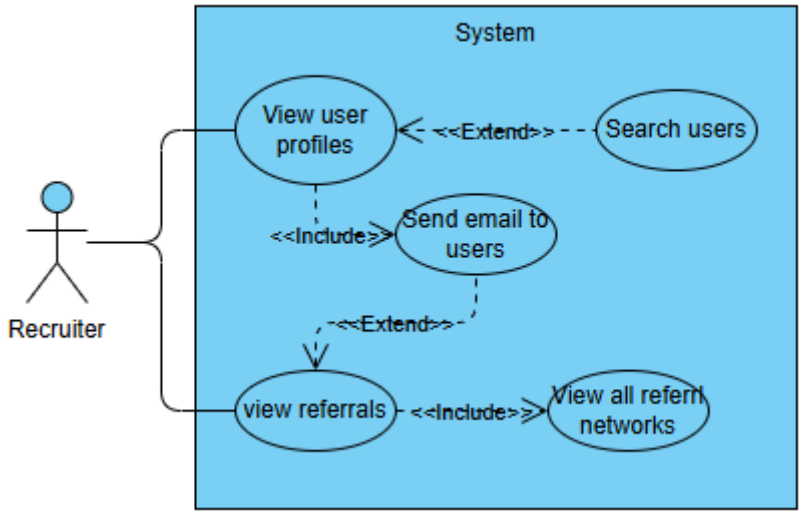


Figure 9. Use Case Diagram for recruiter viewing user profiles and referrals

In figure 9. As a Recruiter, this use case is able to go into the user's referral network and get detailed information about users. The Recruiter can search and see whatever user profile, including his skills, experience, and qualification, to get a relevant candidate. Another function includes analyzing the referral network of what connections and recommendations come with a user. This plays a vital role in assessing a candidate and making decisions more effective in recruitment. The system also allows the recruiter to send an email to the user directly from the site, thus becoming more effective during hiring.

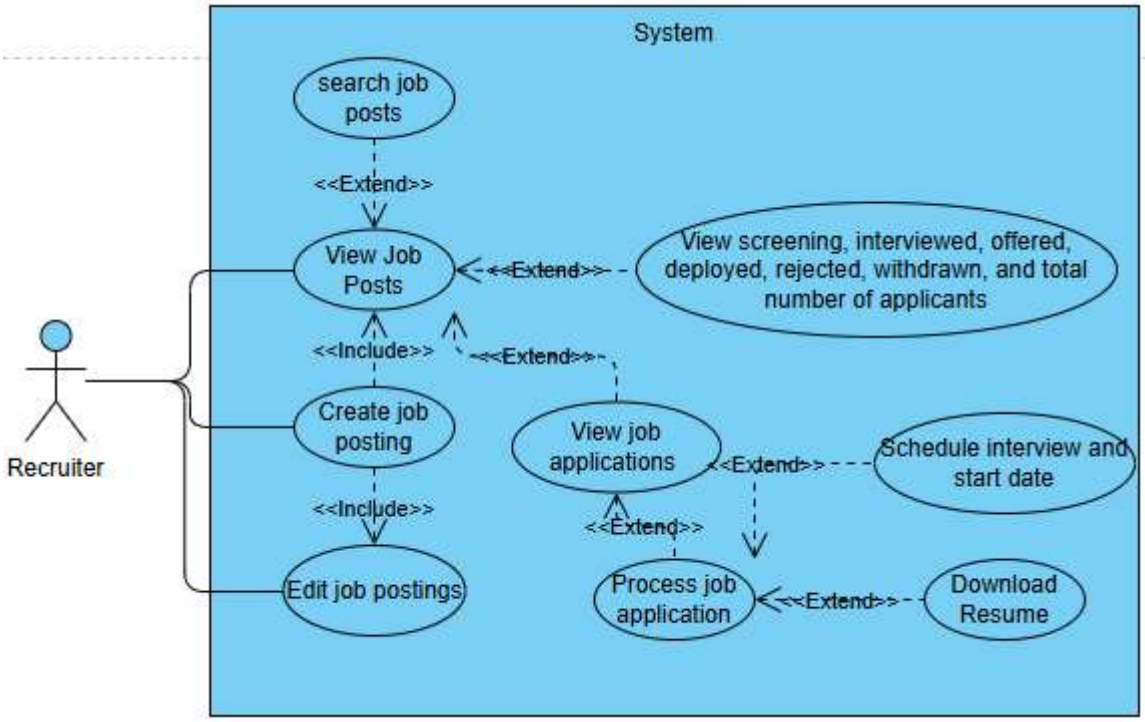


Figure 10. Use Case Diagram for recruiter creating, viewing, editing, and processing job applications

In figure 10. This use-case diagram for securing a position on the part of a recruiter to manage job posting and application. The recruiter could create job postings by entering its title, description, and qualifications and paving the way to attract an applicant. Through the view job posts use case, recruiters can search and review existing job postings to track their status. The Edit Job Postings use case allows the agents to clear such job information or deadlines, keeping postings accurate.

When applications come in, the recruiter would be processing the job applications, reviewing, headhunting, and processing the candidates through interview stages, offer stages, and so on. Interview scheduling, resume downloading, tracking the status of applicants, etc., are other use cases of such functionality. Together these use cases represent good process streamlining as far as recruitment is concerned from both an organizational and efficient discovery perspective.

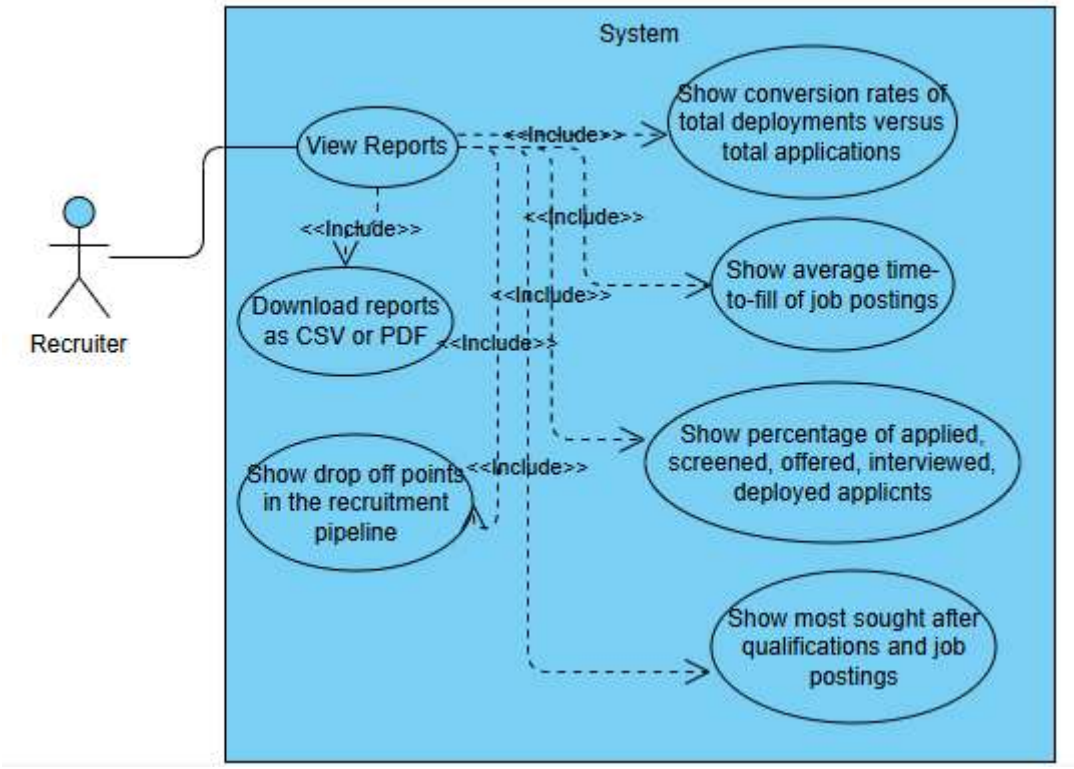


Figure 11. Use Case Diagram for recruiter reports viewing and exporting

In figure 11. The use case diagram helps the recruiter to analyze recruitment data by way of report viewing and exporting. For example, the user case "View Reports" could be accessed by a recruiter to get a thorough insight into the recruitment performance covering such parameters as the conversion rates of deployed versus applicants, the average time-to-fill of job postings, the percentage breakdown of applicants at various stages (applied, screened, interviewed, etc).

Recruiters further identify inefficiencies through functionalities like "Show Drop-Off Points in the Recruitment Pipeline" that indicate the specific stages where candidates tend to drop off. For in-depth analysis or sharing, the use case download reports as csv or pdf allows exporting these insights to become accessible offline or integrated with other tools. These functions, when put together, will assist in making informed decisions, optimize a recruitment strategy, and ensure that recruitment is based on data.

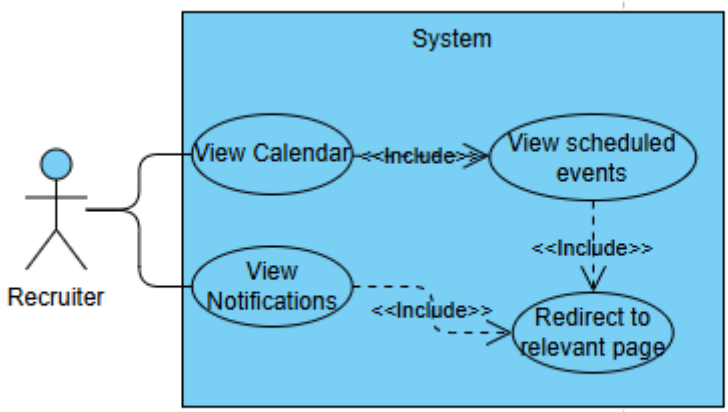


Figure 12. Use Case Diagram for recruiter calendar and notifications viewing

In figure 12. The use-case diagram specifically depicts how the recruiter can manage and stay up-to-date with the event involved through both calendar and notification facilities. In this case, the "View Calendar" use case will enable the recruiter to view different events planned in their calendar such as interviews, deadlines, onboarding, etc. Alongside that, by including "View Scheduled Events" use case, the system makes clear reference to planned activities within the system to promote efficient time utilisation.

Of course, the "View Notifications" is yet another functionality that will keep the recruiter alerts on critical updates, like new applications into the system, changes within their schedules, or just an alert on the system. The "Redirect to Relevant Page" functionality serves to direct recruiters directly and quickly to the right page of the whole system and thus helps to streamline the workflow so that the time taken to get a response reduces. These use cases will keep the recruiter on schedule and informed thus improving productivity with their timely delivery on critical tasks.

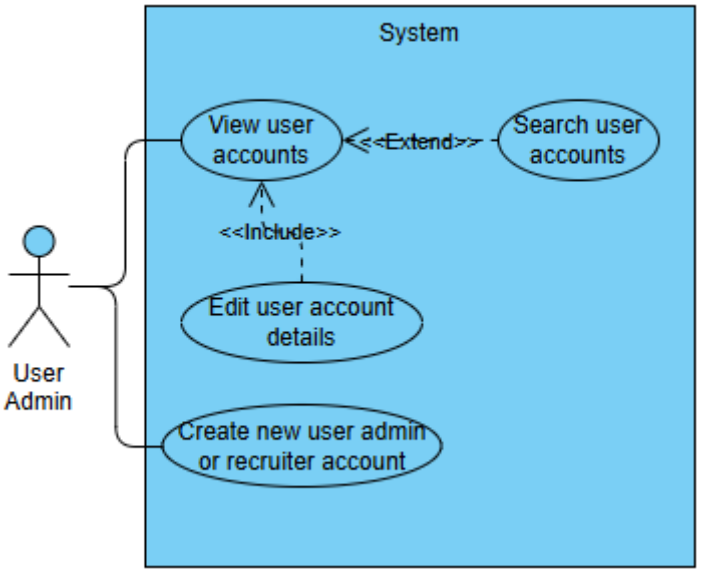


Figure 13. Use Case Diagram for user admin managing user accounts

In figure 13. This use-case diagram to define the important functionalities related to the User Admin managing user accounts in a system, as well as basic activities such as view, search, edit, and create user accounts. The core use case within this scenario is viewed user accounts and especially uses an extend relationship to form a Search User Accounts functionality to provide information for searching specific accounts. The Edit User Account Details use case is also included, as before the admin makes changes to the user account, he/she has to view the accounts first. Finally, Use Case Create New User Admin or Recruiter Account is to create a new account specifically for the role.

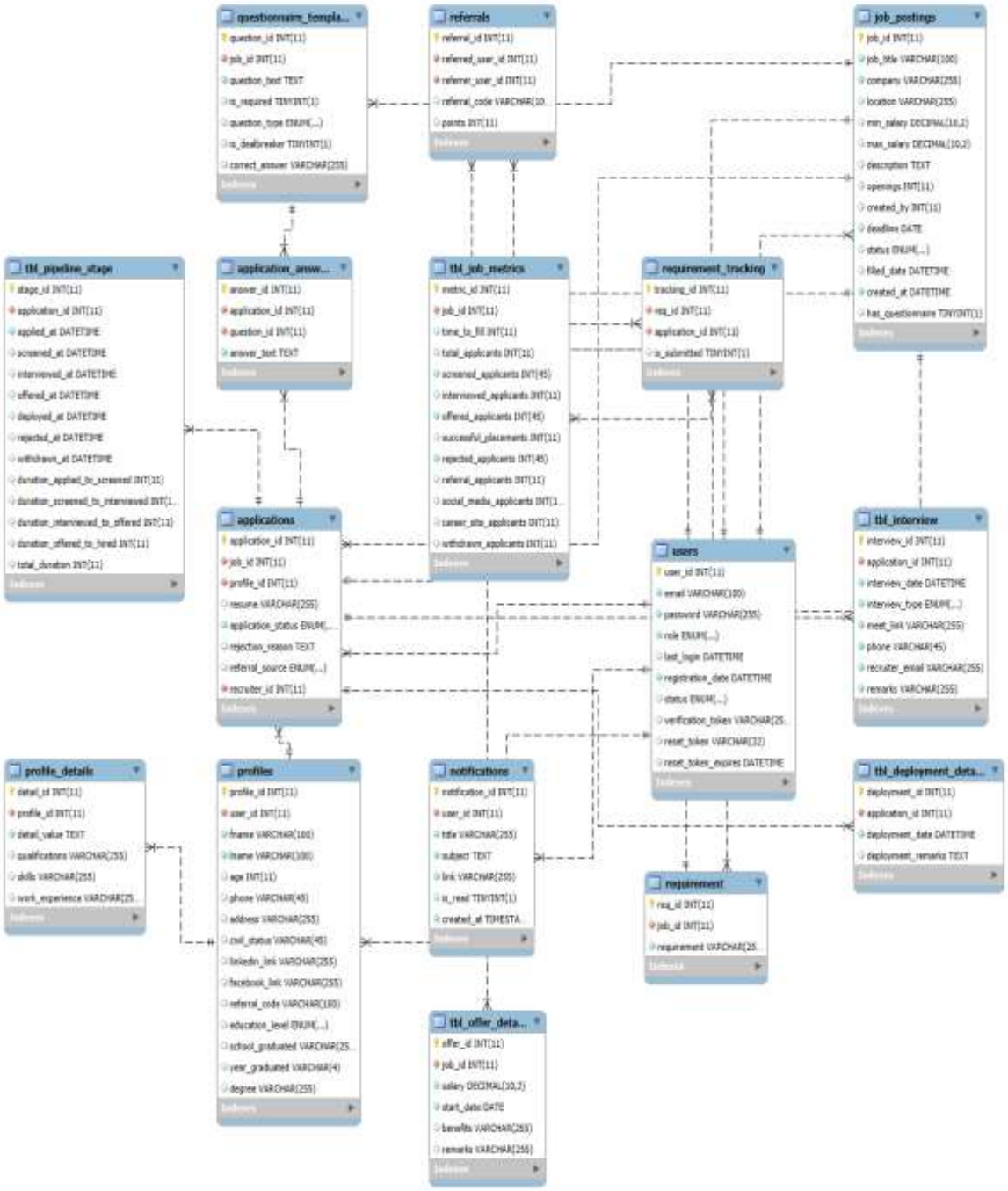


Figure 14. Entity Relationship Diagram of the system

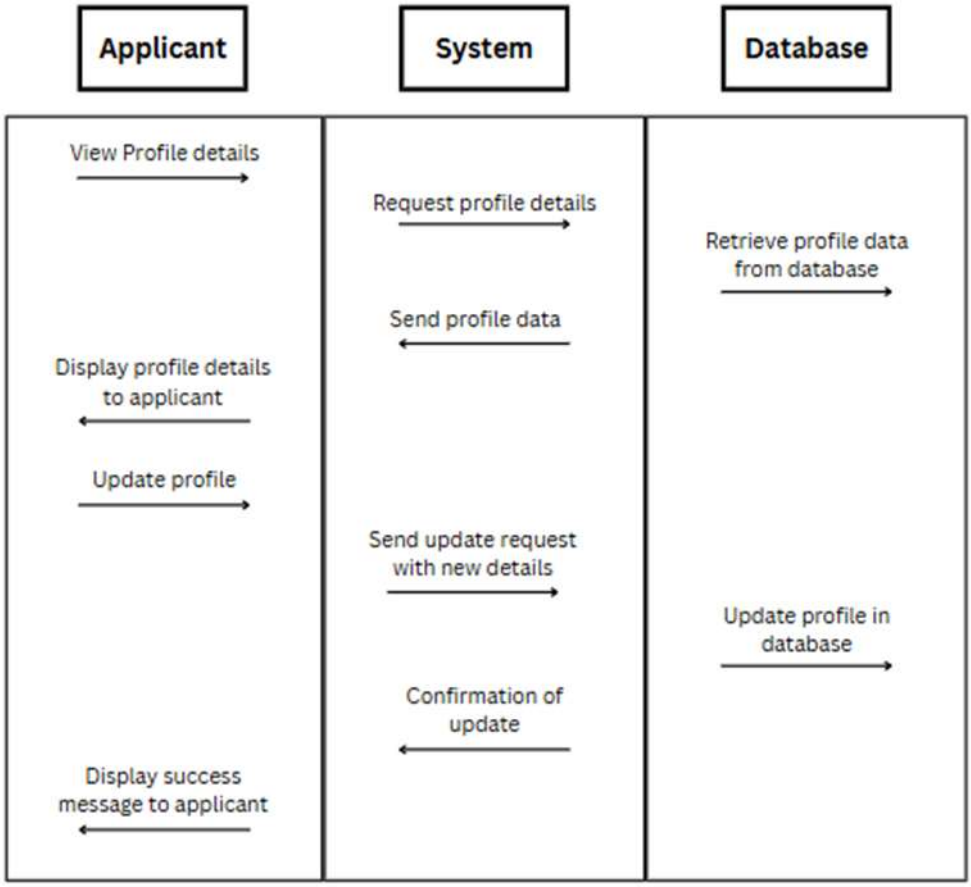


Figure 15. Sequence Diagram for Applicant Profile Viewing

In figure 15. This application View Profile sequence diagram illustrates how an applicant views and updates his or her profile detail. It initiates when an applicant requests to view his profile through the system interface. The system retrieves all the necessary database information and then displays an updated version of their profile information to the applicant.

If the applicant chooses to make amendments to their profile, he or she submits new details to the system. The system will then forward these changes to the database, whereby the old information is replaced with the new one. Finally, a confirmation is sent to the applicant that verifies that the profile has been updated to reflect their current status. This entire process promotes user engagement while at the same time ensuring and providing seamless reliability of the system.

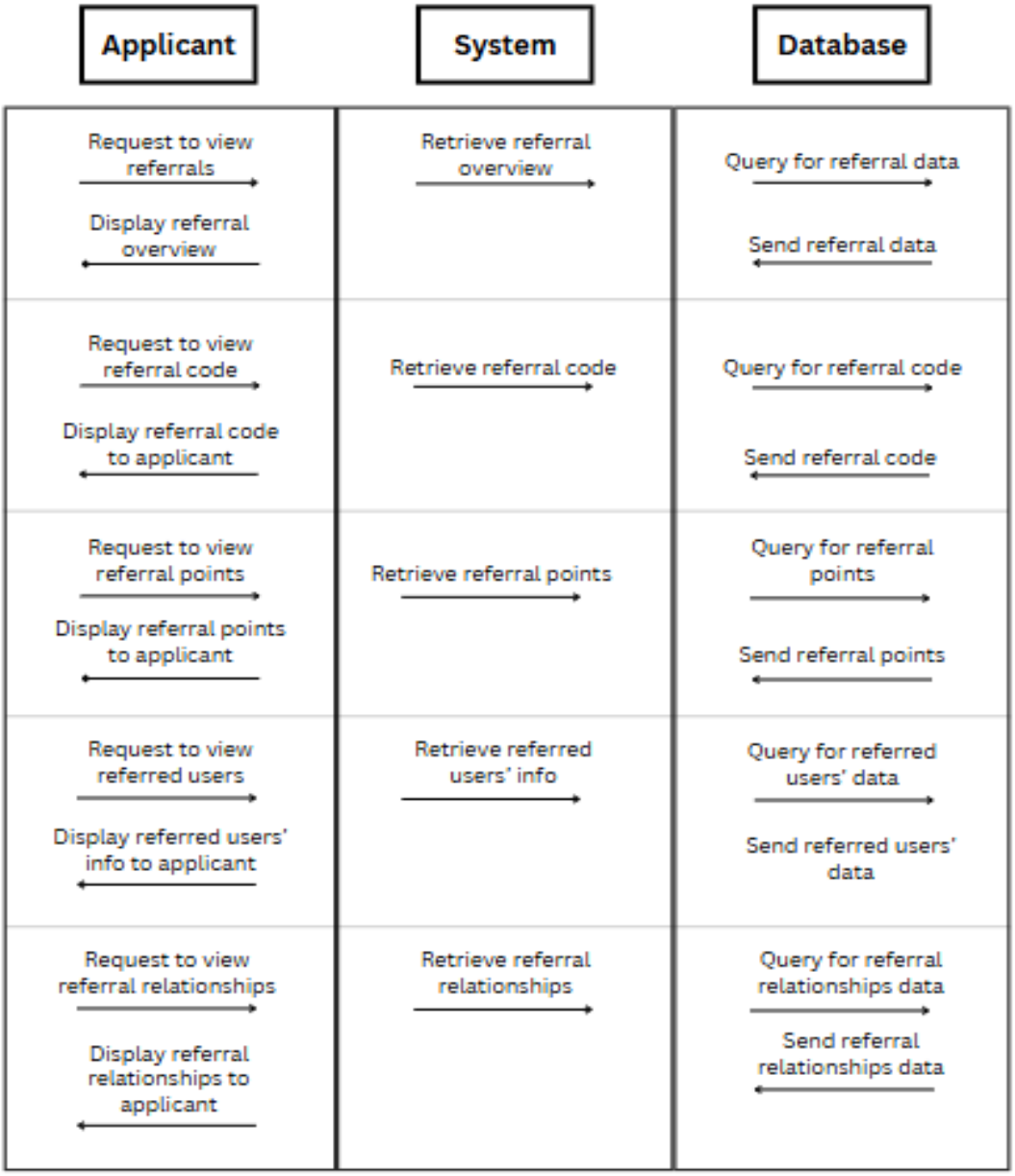


Figure 16. Sequence Diagram for Applicant Referrals Viewing

In figure 16. This sequence diagram highlights, at each step, how the Applicant can request different types of referral information and how the System interacts with the Database regarding fetching such information. So, the applicant can see all his referrals from different

angles of the referral code, referral points, user details of the referred users, and the referral relations. All queries are similar, Application sends a query to the System, The System forwards the query sent by the Application to the Database, and The, Database searches the data for the query and returns it to the System, The System then is going to presents the data to the Application.

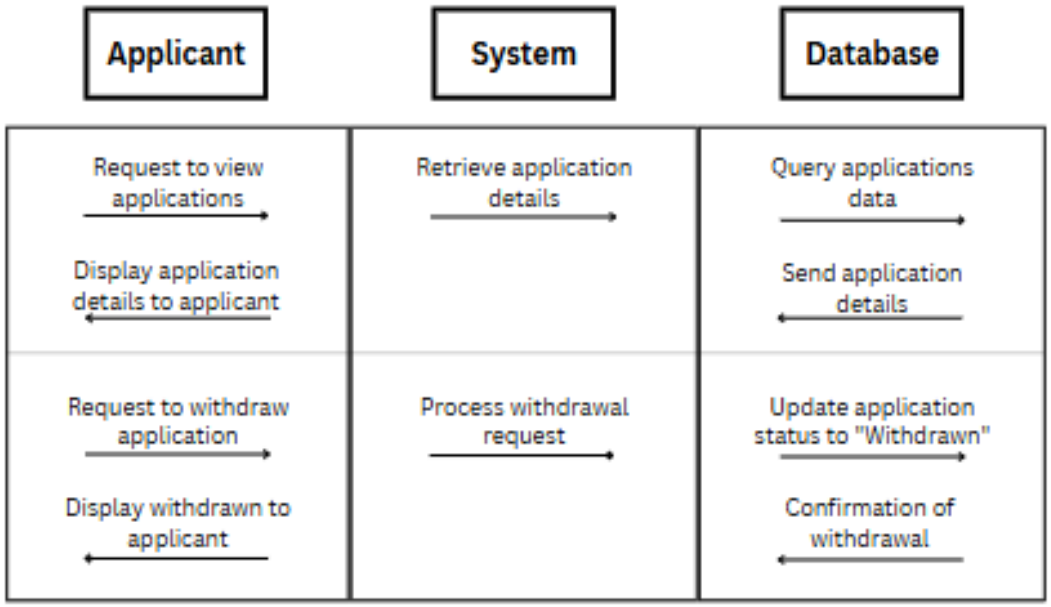


Figure 17. Sequence Diagram for Applications Viewing and Withdrawal

In figure 17. This procedure allows applicants to view their applications for jobs. It retrieves application details from the database to display for the applicant, offering a review of their status. If the applicant wishes to cancel an application, the system updates the status to "Withdrawn" in the database and sends a confirmation. Further, this automated procedure permits applicants to view and manage their applications while keeping them informed at every stage. It authorizes applicants to review the applications they submitted for jobs. The system retrieves application detail information from the database and displays them to the applicant for an overview of his or her application status. If the applicant decides to withdraw an application, it updates the status of the application in the database to Withdrawn, and confirms

the action with the applicant. An easy viewing and management of applications will therefore be possible for applicants, added by an update every time.

Which means, the procedure is that the applicants are able to view the applications they have submitted for jobs. The system retrieves applications detail information from the database and displays it to the applicant for a review about this application status. If the applicant proposes to withdraw an application, the application status in the database will be updated to Withdrawn, and the user will be informed about it. So, it will very simply be possible for applicants to view and manage their applications, besides an update each time.

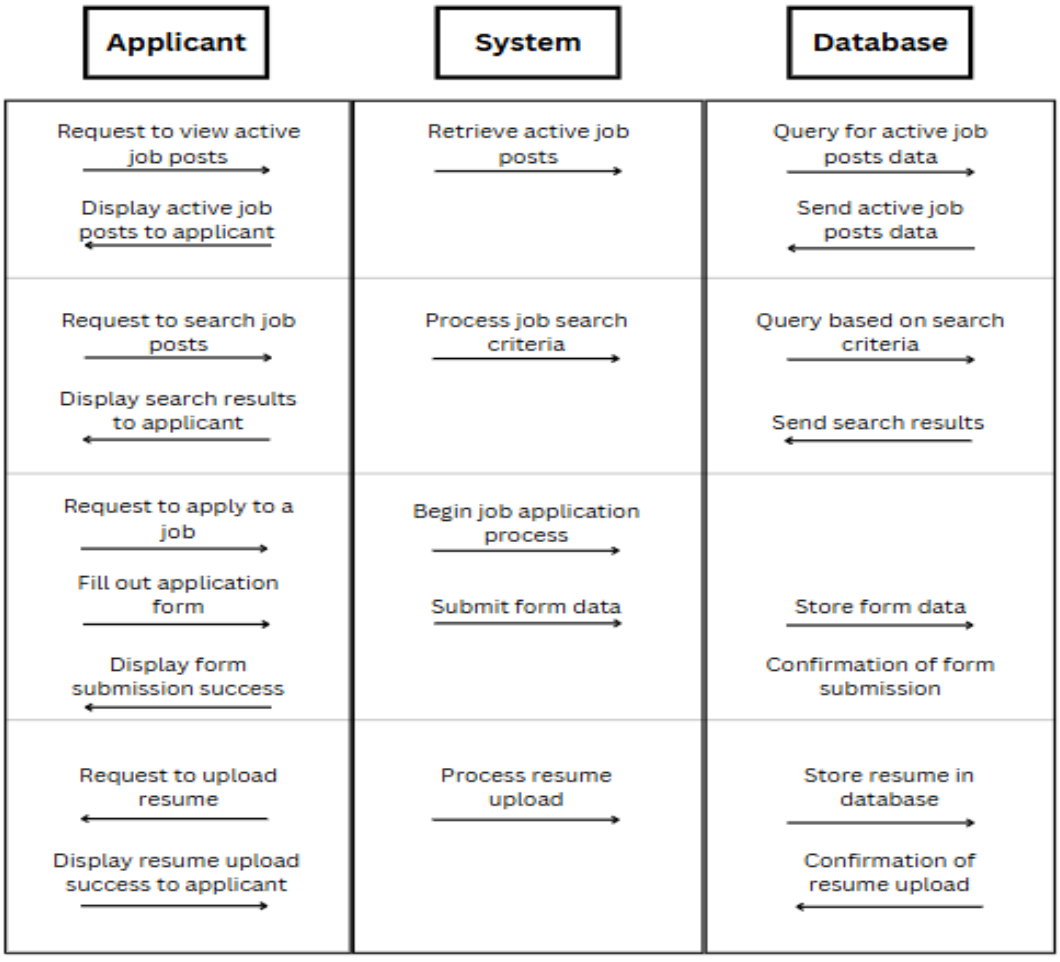


Figure 18. Sequence Diagram for Job Searching and Application

In figure 18. The sequence of activities "Applicant View Job Posts" explains the way the applicant views and applies for job openings. The process begins with an application request to see active job posts. The system would then retrieve such posts and display them. The applicant may then refine the request to the results filtered according to the specified criteria. After identifying a suitable job, an applicant activates the application process by filling out a form and attaching a resume. The system then stores the application and resume into the database and notifies the applicant of the submission.

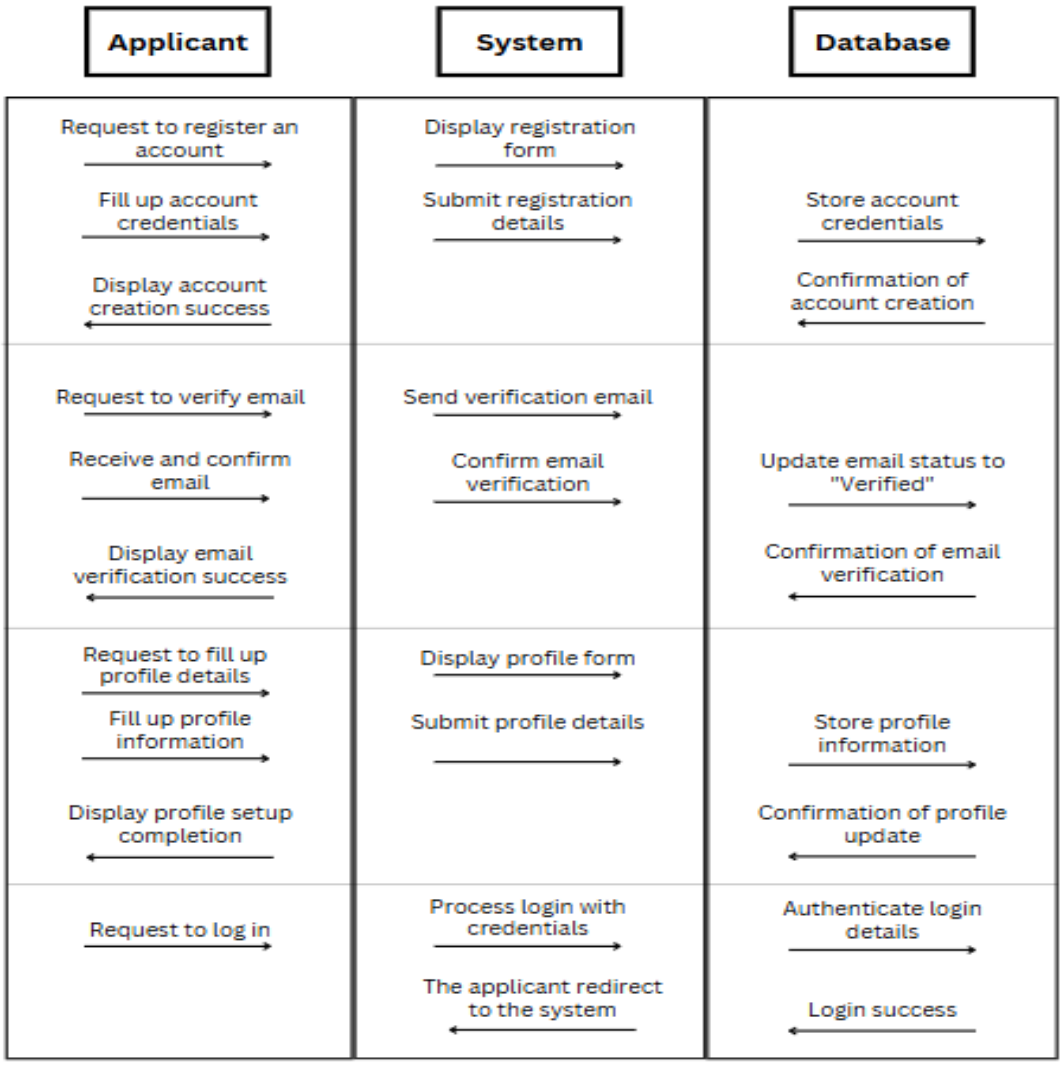


Figure 19. Sequence Diagram for Applicant Account Registration

In figure 19. This Sequence Diagram for Applicant Registration defines how to create an account, validate an email, fill in profile details, and then log in. The narrative begins with the applicant submitting basic account details, which the system stores in the database and acknowledges the successful creation of the account. An email verification link is sent by the system to the applicant and, once the applicant verifies it, the email status is updated as 'Verified'. Subsequently, the applicant fills profile details into the form, which the system saves into the database. Finally, the applicant logs in using their credentials, thus completely registering and setting up the account with little effort.

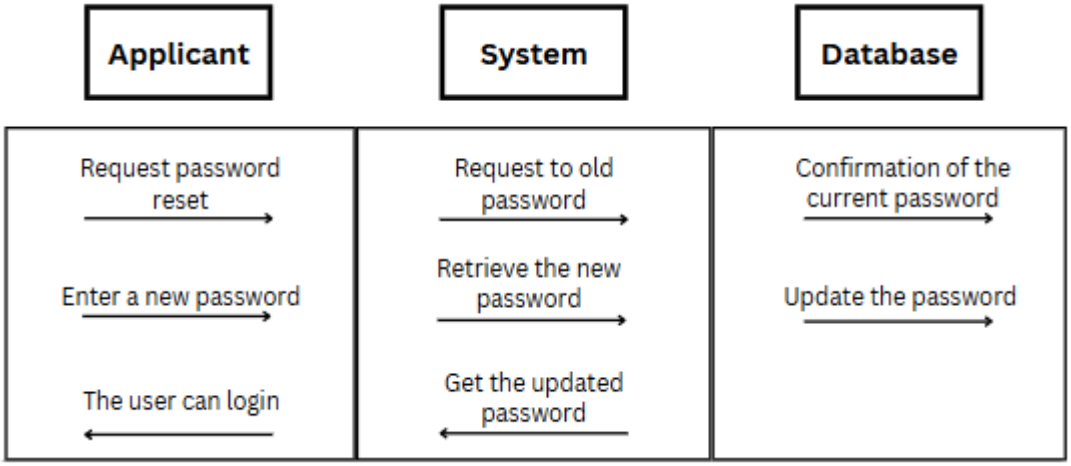


Figure 20. Sequence Diagram for Resetting Account Password

In figure 20. As the sequence diagram demonstrates, it elaborates on how the Applicant resets their password using the interactions of the Applicant, System, and Database. This step-by-step process assures that the password reset is safe along with updating the applicant's login credentials. It begins with a password-reset request initiated by the Applicant. The System receives the request and starts with verifying the old password from the Database. The Database checks the current password and thus authenticates that the request for a new password is genuine. Following verification, the System prompts the applicant to enter a new password. Upon entering a new password, the System retrieves this information and feeds it back to the Database. The Database then updates the password corresponding to the applicant's account by replacing the old password with the newly introduced one. Following this update, the Database sends a message back to the System that

such a change had been made. Lastly, the System has the capacity to communicate with the Applicant indicating that the process of reset of the password was successful, and applicant is able to log in using new password. The chain, therefore, ensures that all the interactions are secure since it checks the applicant's current password to ensure only the owner of the account would change the password to improve the account security of the applicant.

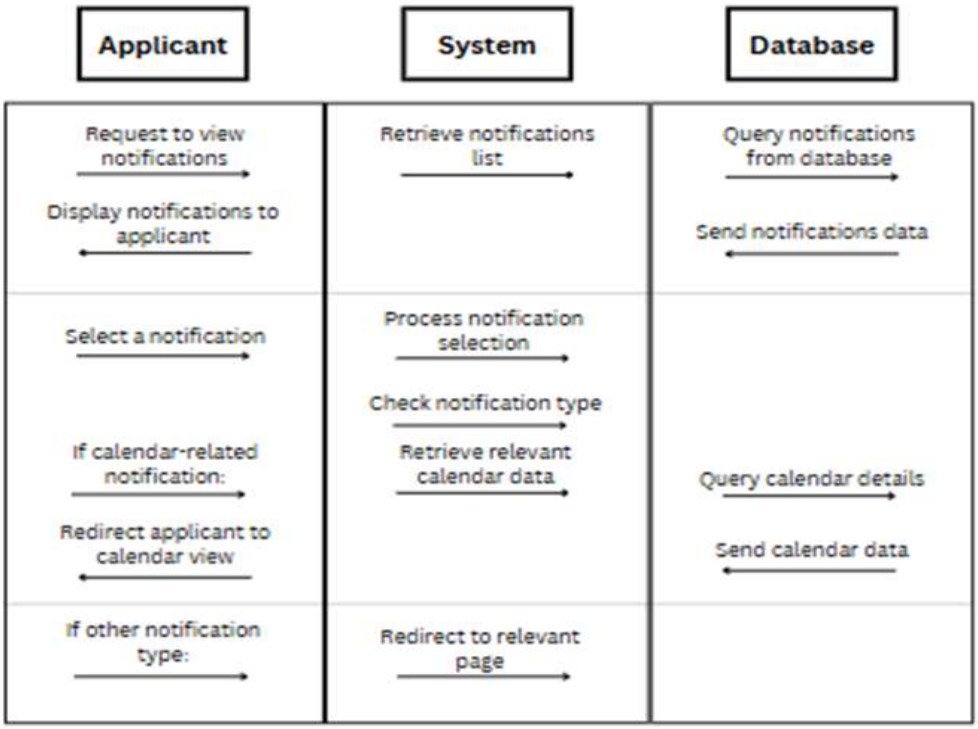


Figure 21. Sequence Diagram for Viewing Notifications

In figure 21. The Applicant View Notification sequence diagram illustrates the interaction flow when an applicant views and interacts with notifications. This process will allow the applicant to have timely information available and access to relevant details, such as calendar events or updates on specific pages. The sequence starts with Applicant's request to view their notifications. The System then responds to such a request and retrieves the list of notifications by using a query on the Database. Once the System has retrieved the data, it shows all the notifications to the applicant and therefore allows the applicant to see all the recent alerts.

When one notification is chosen, the System processes that choice by the type of notification. If the type of notification is an event or date event type, the System fetches all the details that may be required from the database and accordingly takes the applicant to the calendar view after printing out a description about an event. Alternatively, in case the notification has another form of update, say message or alert, that must be accessed on another page, then the System directs the applicant to the relevant page. This makes the usability of the notification system improve in a way by allowing applicants link seamlessly to information deemed to be relevant to any given notice.

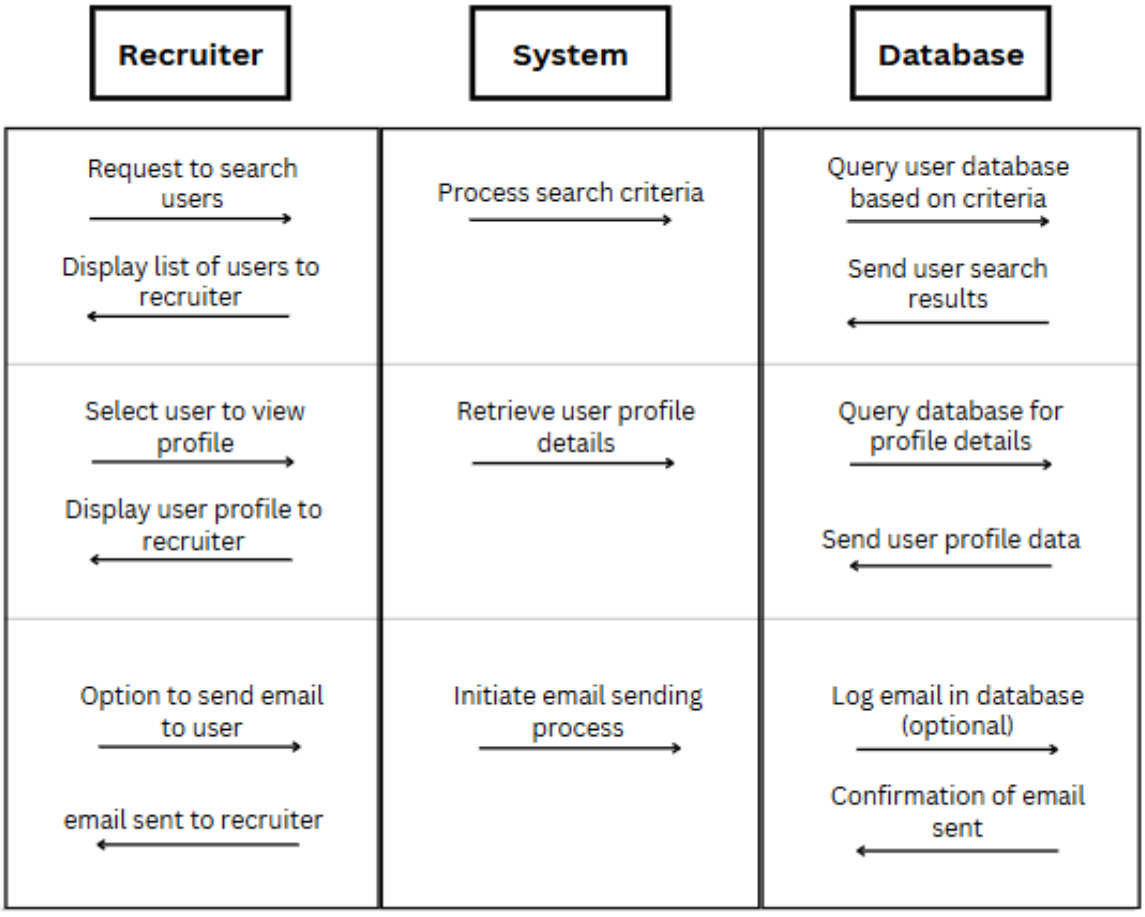


Figure 22. Sequence Diagram for User Management

In figure 22. This is how a recruiter searches for users, views their profiles, and communicates directly with them via emails if one wants to. This facilitates recruiters in finding candidates by filtering the user database with specific search criteria to conduct efficient reviews of candidate details and reaching out with interest. Here, the recruiter initiates in requesting to search for users after entering the required specific search criteria. The system processes these criteria and queries the database in search of matching users. From the database, it receives a list of matching users, which the system then displays to the recruiter.

When the recruiter opens the results of the search, then the recruiter can choose a particular user profile to be accessed. The System will extract the required profile details by questioning the Database, and then it will display the recruiter with the profile of the user. So, the recruiter can evaluate the background, the skills, or relevant information presented in the user's profile. If the recruiter wants to communicate directly with the user, the recruiter can choose to send a message to the user. This is a step that the recruiter performs, and the System fulfills this by sending the e-mail. In addition, the System records this communication in the Database to record it. After the System sends the e-mail, the System confirms that action to the recruiter.

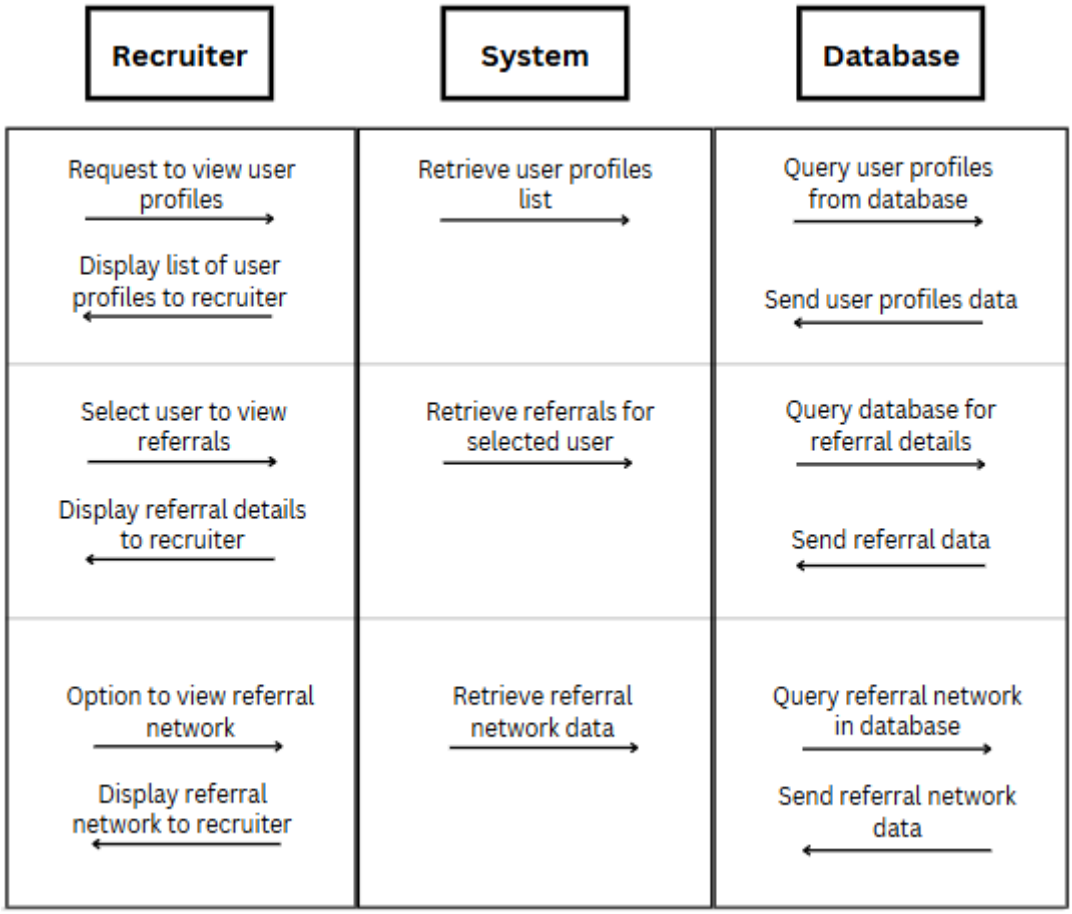


Figure 23. Sequence Diagram for Recruiters Referrals Viewing

In figure 23. This sequence diagram for Recruiter View Referrals defines steps to access the user's profile, referrals, and overall referral network. The sequence starts when the recruiter requests user profiles and displays the records after querying the database. When a particular user is selected, the recruiter can view their referrals to assess that user's connections and their influence. The recruiter can further browse the entire referral network of the user he or she is viewing to understand their reach and connections better. This framework will enable recruiters to assess the professional and social influences of the user effectively.

Figure 24. Sequence Diagram for Job Postings Creation, Editing, and Searching

In figure 24. The Recruiter View Job Posts Sequence Diagram portrays the functional flow of actions involved in managing job postings, seeing applications, and tracking statuses of applicants. The recruiter requests to view job posts with which the system will pull from the database to display a listing of posts. Recruiters may also filter searches to particular job posts with the system returning matched results.

When recruiters select a job post, they may view applications associated with it. The system holds verified applicant information along with their resumes for each application to enable decision-making. In fact, the applicants are also monitored for statuses such as screening, interviewed, or rejected through an overview application pipeline. The recruiter can additionally manage job postings for edits and new job postings. New postings are going to be added with automatic confirmation from the system when edits are made. These exemplary processes best ensure quality recruitment and effective decision-making.

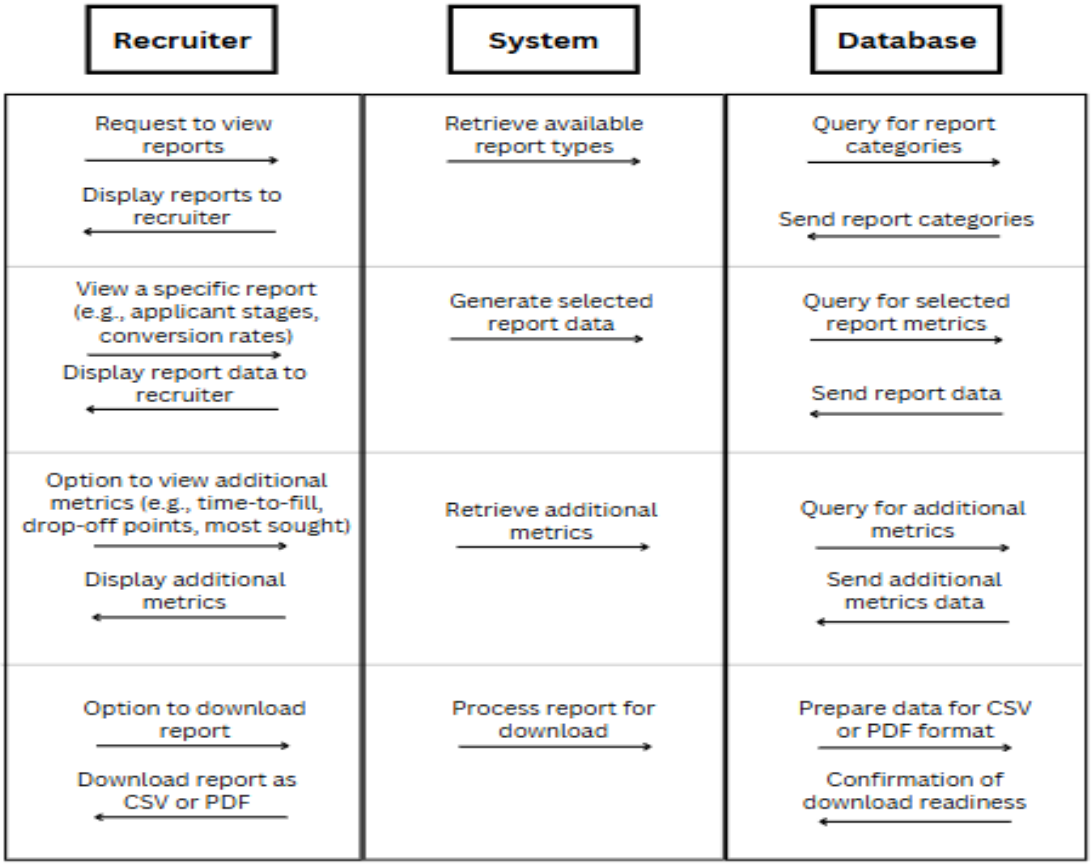


Figure 25. Sequence Diagram for Reports Viewing

In figure 25. The Recruiter View Reports sequence diagram shows the activities of the recruiter for viewing and downloading reports in arguably as diverse a way as there are reports. This way, the recruiter is able to gain minute details regarding different phases of the hiring process, thereby allowing them to assess their recruitment strategies. Here, the sequence begins with the request made by the Recruiter to view available reports. The System will query the Database to fetch the list of report categories and display these options to the recruiter. Standard report options will be metrics of percentages of applicants at different stages-for example, applied, screened, and offered, conversion rates, sought qualifications, average time-to-fill job postings, and drop-off points in the recruitment pipeline. The recruiter selects one of the predefined reports and it could be an application stage distribution, conversion rates, and then the System will generate

data for that report; the query is passed on to the Database, which sends back to the recruiter the report data. Other metrics provided can be time-to-fill or drop-off points, and the recruiter can see them in order to really give a comprehensive analysis of the recruitment trends. Once the recruiter has reviewed the data, the recruiter may decide to download the report. The System processes the request, generates report data in either CSV or PDF and gets it ready for retrieval. The Database returns confirmation once the report is ready, the System notifies the recruiter with message of readiness to enable downloading the report file.

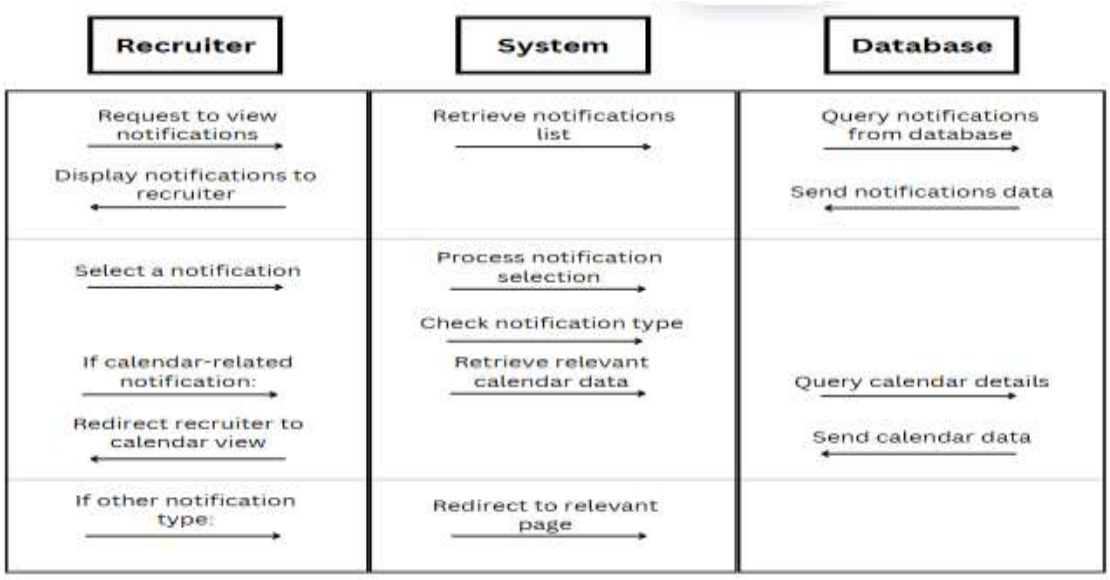


Figure 26. Sequence Diagram for Viewing Notifications

In figure 26. The Figure below describes the Recruiter View Notifications flow, which indicates whatever happens whenever the recruiter interacts with notifications through the system. Begin When The recruiter requests to view notifications After this, the system will retrieve a list of notifications by querying the database which will send the notifications data back to be displayed to the recruiter. In this scenario, as the recruiter selects an exact notification, the System makes a process of the selection determining what type of notification it is. Whether the kind of notification is a calendar event, then the System fetches corresponding data from the calendar view from the Database and sends the recruiter there to see details of the particular event. If the notification falls in some other category, then the System directs the recruiter to the page assigned to that type of notification.

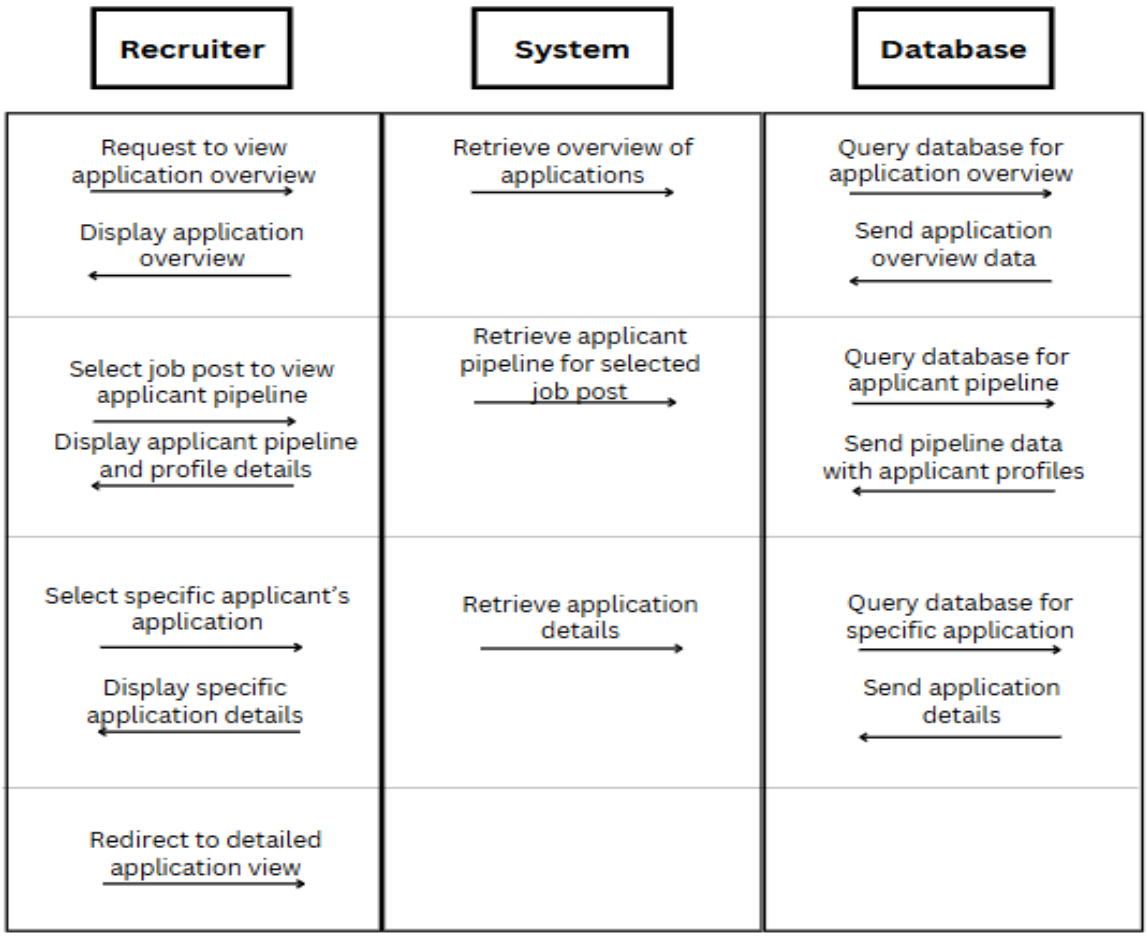


Figure 27. Sequence Diagram for Applicant Tracking

In figure 27. The usability instance, "View User Profiles and Referrals," provides the recruiter with a view of user profiles and a corresponding referral network. The recruiters can search and view in detail all the qualifications and experiences for potential candidates. They can also explore their referral networks to understand the candidate's connecting circles better. This mode enables the recruiters to make informed decisions in the recruitment process. They can also instruct the system to mail users from within the application to facilitate smooth and efficient recruitment.

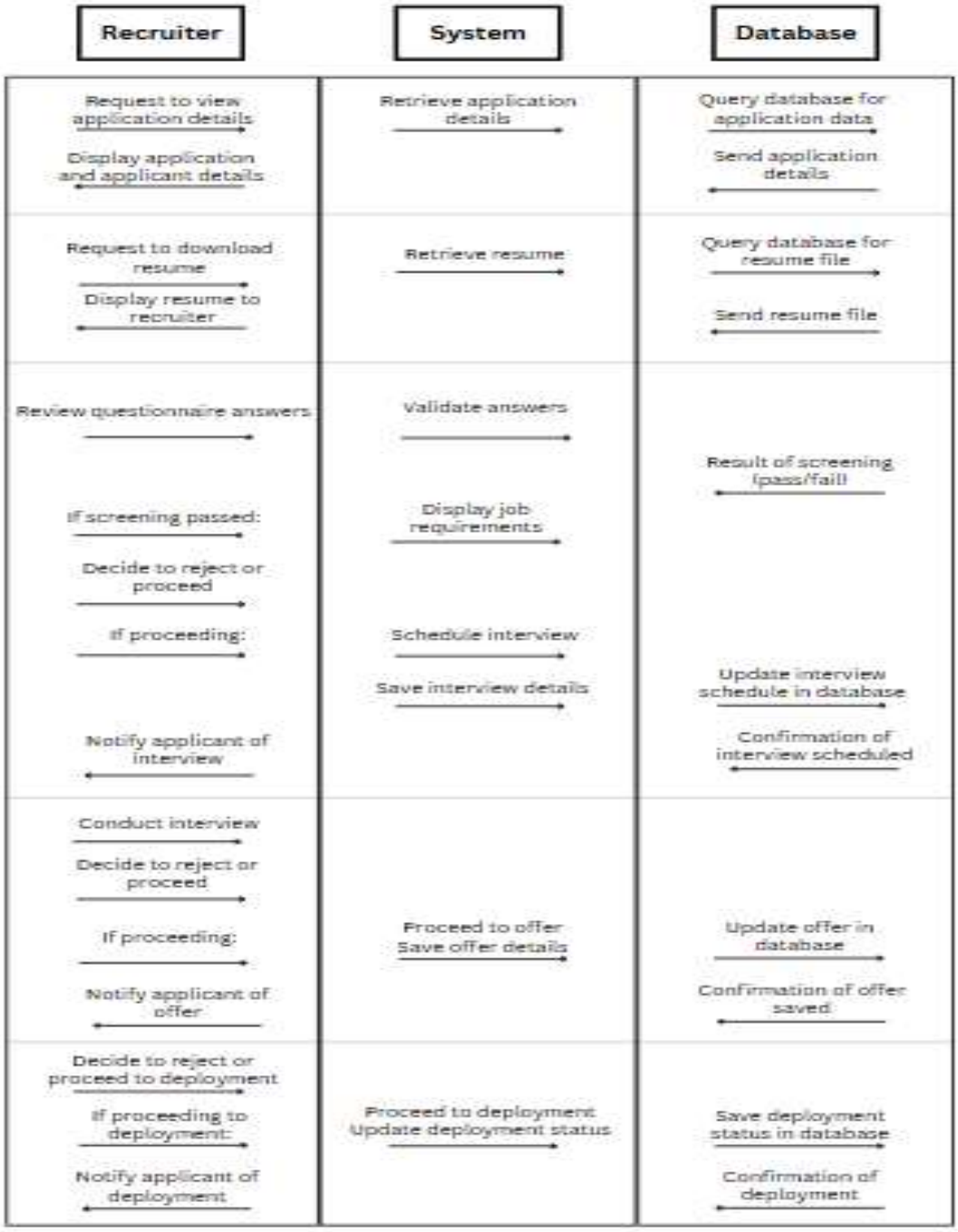


Figure 28. Sequence Diagram for Application Processing

In figure 28. The process begins with the Recruiter reviewing the application details. The System retrieves applicant data from the Database and shows this information, including a facility to download the applicant's resume. Reviewing the downloaded resume and after going through the questionnaire answered by the applicant, the recruiter will determine if the applicant meets the screening criteria.

When the applicant clears the screening, the System displays the requirements of the job. Then the recruiter proceeds to either reject the applicant or further into scheduling an interview. In case he or she is to proceed to schedule an interview, the System schedules the interview by updating the details in the Database and contacting the applicant with the scheduled date and time. After an interview, the Recruiter makes a choice whether to accept or reject the candidate. If one has decided to accept him/her, the System then saves details of the offer into the Database and notifies the candidate of the decision. The last option is to either reject him or commit to deployment. If one has decided to continue deploying, the System updates the applicant's deployment status in the Database and notifies the applicant of their deployment.

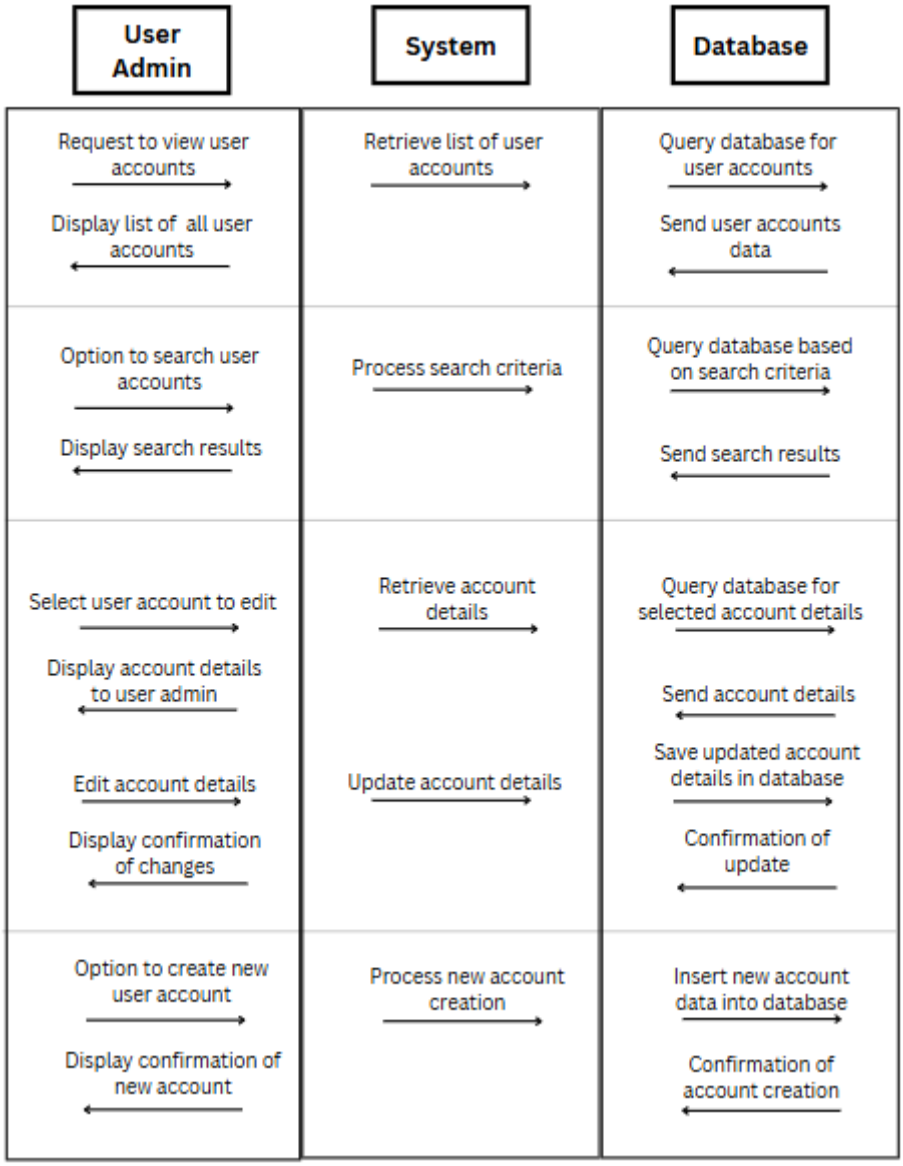
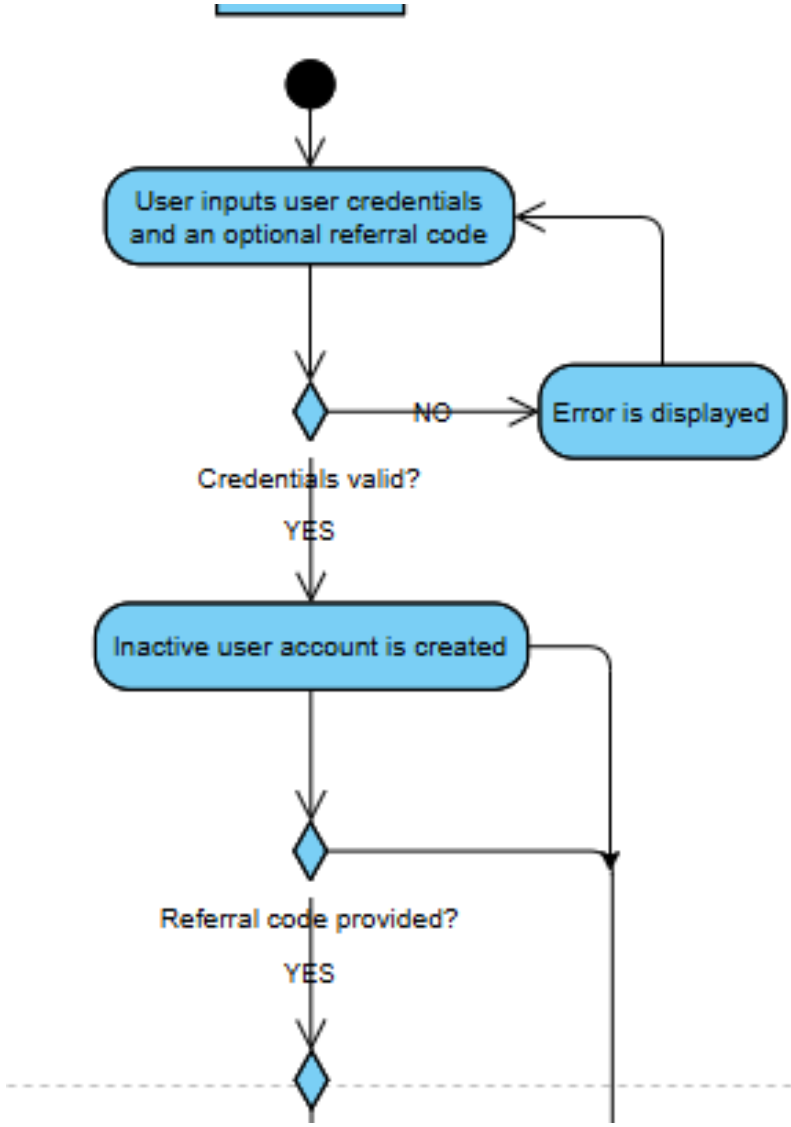


Figure 29. Sequence Diagram for User Admin User Management

In figure 29. User Admin Managing User Accounts sequence diagram The steps that a user admin would like to view all the user accounts, search for certain ones, edit some other, and create new ones are depicted in the given User Admin Managing User Accounts sequence diagram. As a result, this process allows the admin to easily manage all his user and recruiter accounts. The process begins when the User Admin requests to view all user accounts. The System retrieves the list by asking the Database to return the data for display. This summary helps the admin preview all active user accounts within the system. In this scenario, it allows the user admin to browse through the list to find particular accounts. The System accepts the search parameters and submits them to the Database in order to display relevant results back based on the search for the admin to easily locate a particular user. Editing of account is done by the user admin selecting an account to be changed from the list. The System fetches the account details through a query placed in the Database and shows it to the admin for editing purposes. The admin edits the details; the System updates the details of the account in the Database; confirmation of the changes is done. Further, user admin can add a new user or a recruiter account. The System processes the new account data and inserts them in the Database. Upon successful creation of the account, the system shall send a confirmation message to the admin.


User inputs user credentials and an optional referral code
NO
Error is displayed
Credentials valid?
YES
Inactive user account is created
Referral code provided?
YES

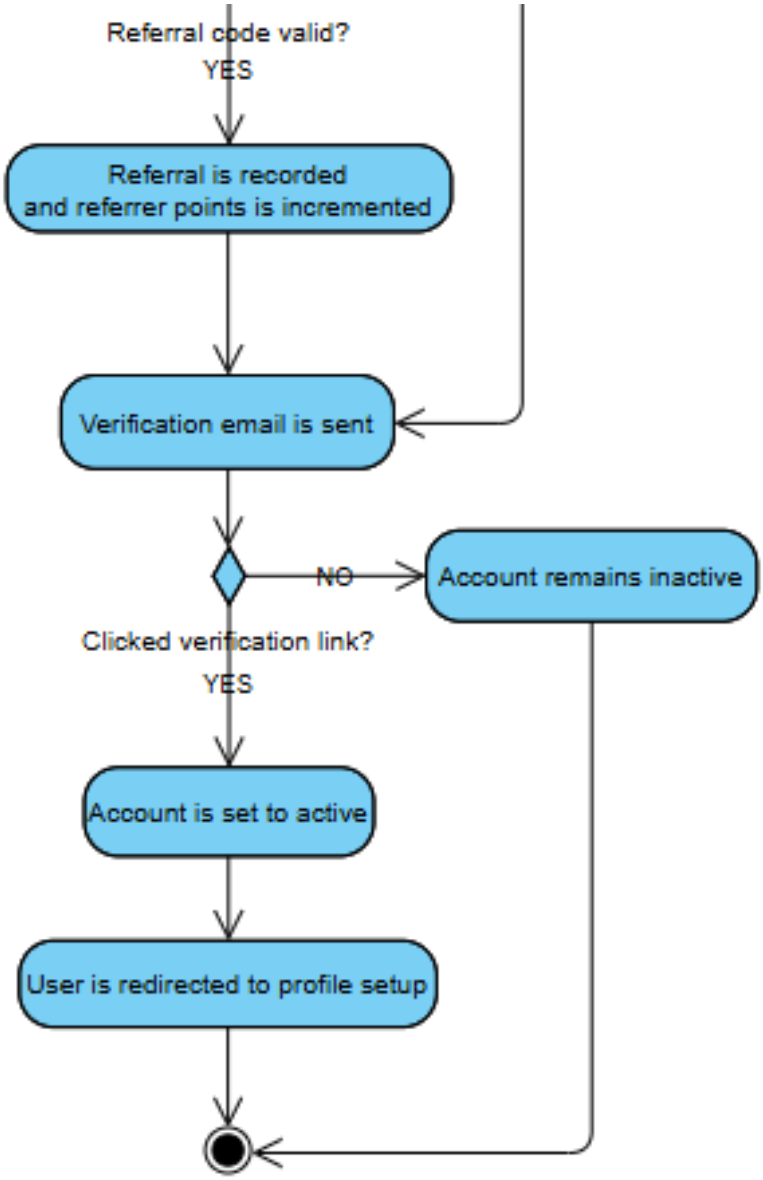


Figure 30. Activity Diagram for User Registration

In figure 30. This illustrates the steps of enrolling for system users. It commences if a user inputs the credentials along with an optional referral code. This earns the display of an error message terminating the process if any of them state failing validity tests. Otherwise, an inactive user account is created by the process. In this case, the system checks for a supplied referral code. Alternatively, in the case that no referral code is entered, it is skipped to sending a verification email. If a referral code were indeed entered, then its validity would be checked and, if referral validates, increment the referrer's scores before proceeding to sending the verification email. The user must now click on the verification link sent to his email. Not verifying would imply that the account remains inactive. The successful verification activates the user account and redirects the user to a profile setup page. These conditional flows are thus shown in the diagram based on the input validity checks and referral mechanisms, with account security ensured through email verification.

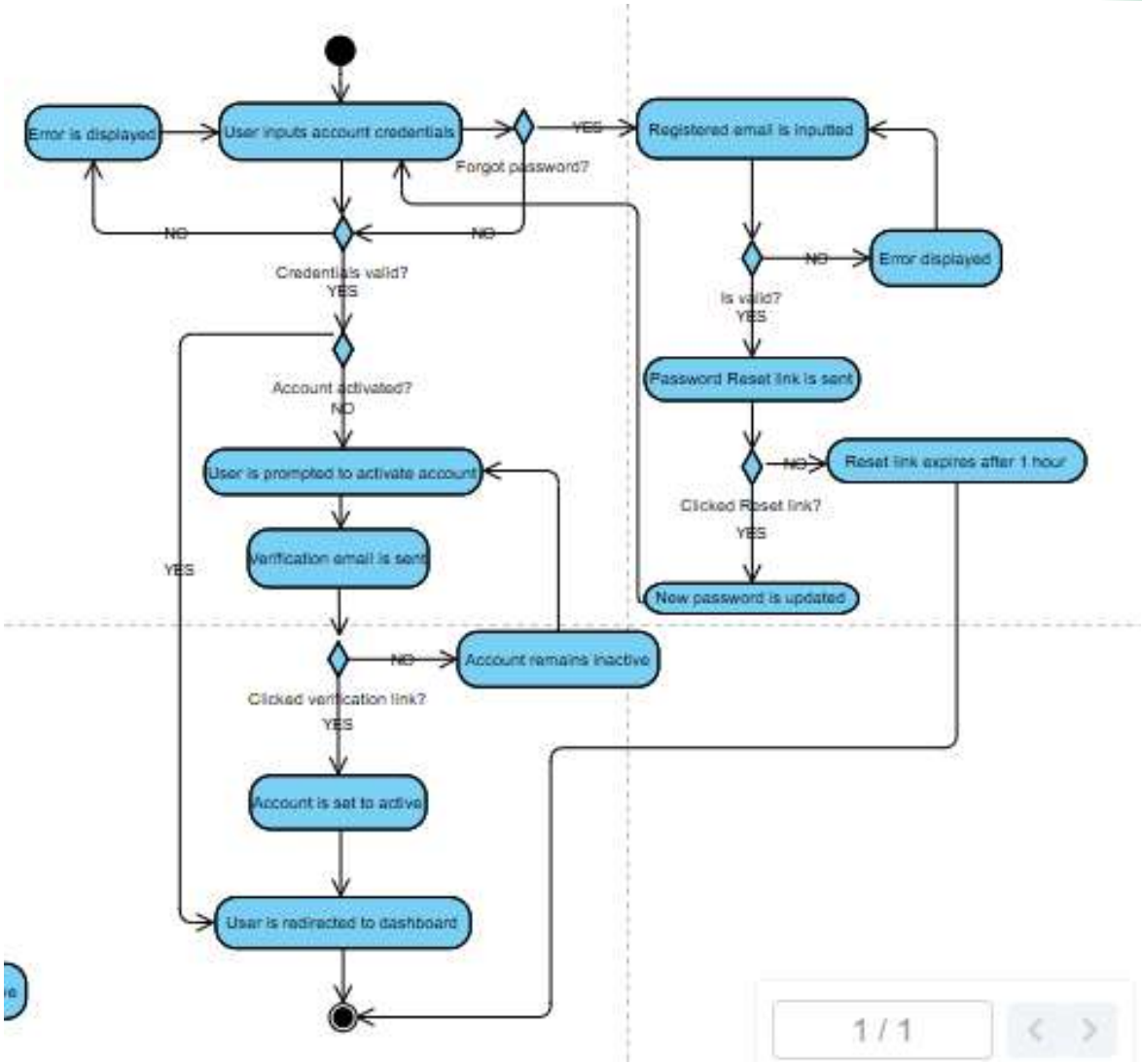


Figure 31. Activity Diagram for User Login

In figure 31. User login processes for account recovery where a user inputs his account credentials, invalid credentials result in an error message else, if valid, the system would check whether the account is activated. In the case not activated, the user will be prompted to activate via a verification email. The user should click on the link in the email to activate his account to access the dashboard.

If by chance the user selects forgot password, he has to enter his registered email. If that email is valid, it can send the user a link so he can reset his password. The user has to click that link within the hour, or it will expire. After clicking it, he may change his password and attempt to log in again. The diagram should represent a process, thereby ensuring unambiguous conditions for logging into accounts or recovering them while adhering to some security measures such as email verification and password reset expiration.

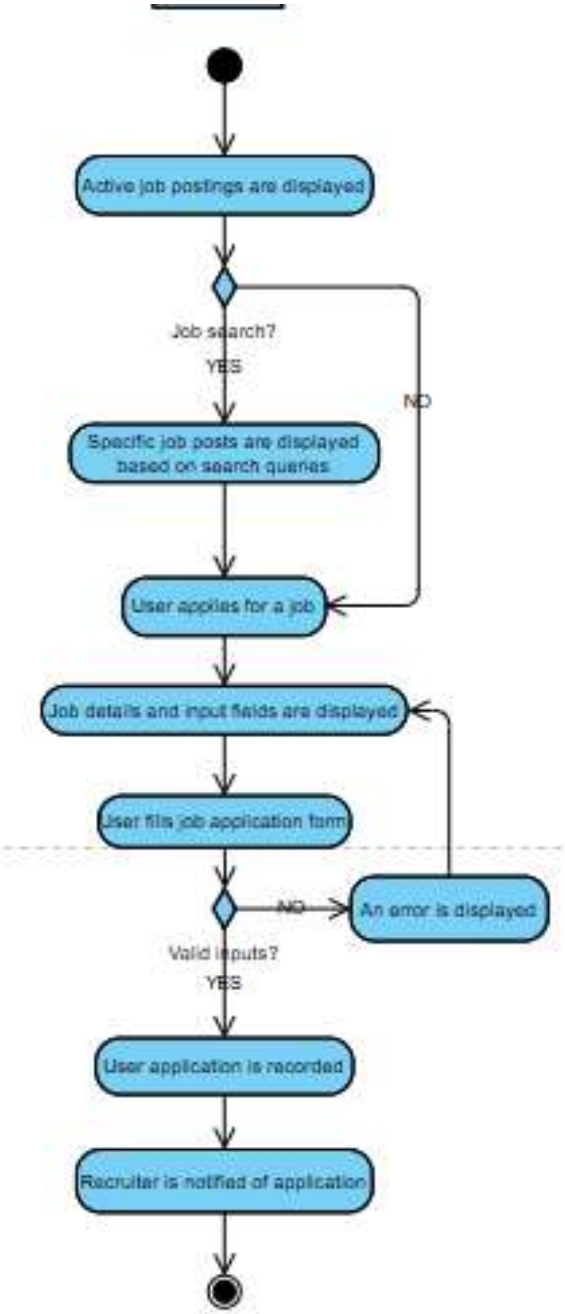


Figure 32. Activity Diagram for Job Search and Application

In figure 32. The activity of searching for a job and applying for it in a system; it begins with a display of possibly active job openings listed to a user. If the user opts for a job search, some job postings will now be reflected that matches the search criteria. The user can then apply for the job, after which it presents details of the job and a job application form, which the user completes, and puts it through to the system for validation of the inputs. Invalid input will raise an error and return to the stage for corrections while valid submissions file themselves with the system and notify recruiters about new applicants. This way, applications are done in a well-organized and error-checked manner.

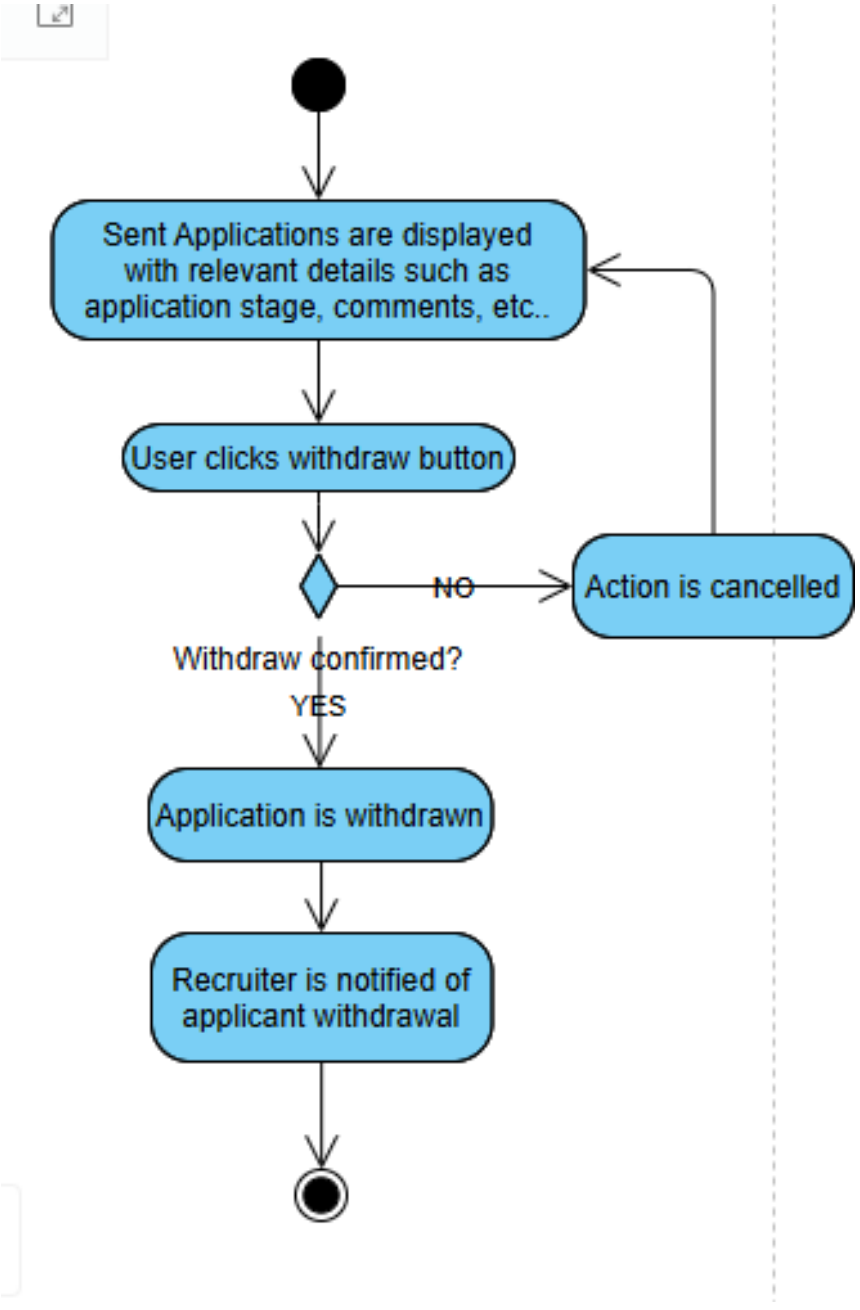


Figure 33. Activity Diagram for Applications Viewing and Withdrawal

In figure 33. Using this system, you can view and withdraw applications that you have sent. Initially sent applications will be displayed to you, along with their application stages and any comments made. To withdraw an application, the user clicks the 'withdraw' button; the system will then ask the user to confirm the action with a prompt. In case the user canceled the action, the withdrawal will not be cared for. However, if the user confirms, it will withdraw the application and inform the recruiter. This workflow is characterized by the users managing their applications with an all-important confirmation stage to prevent unintended withdrawal.

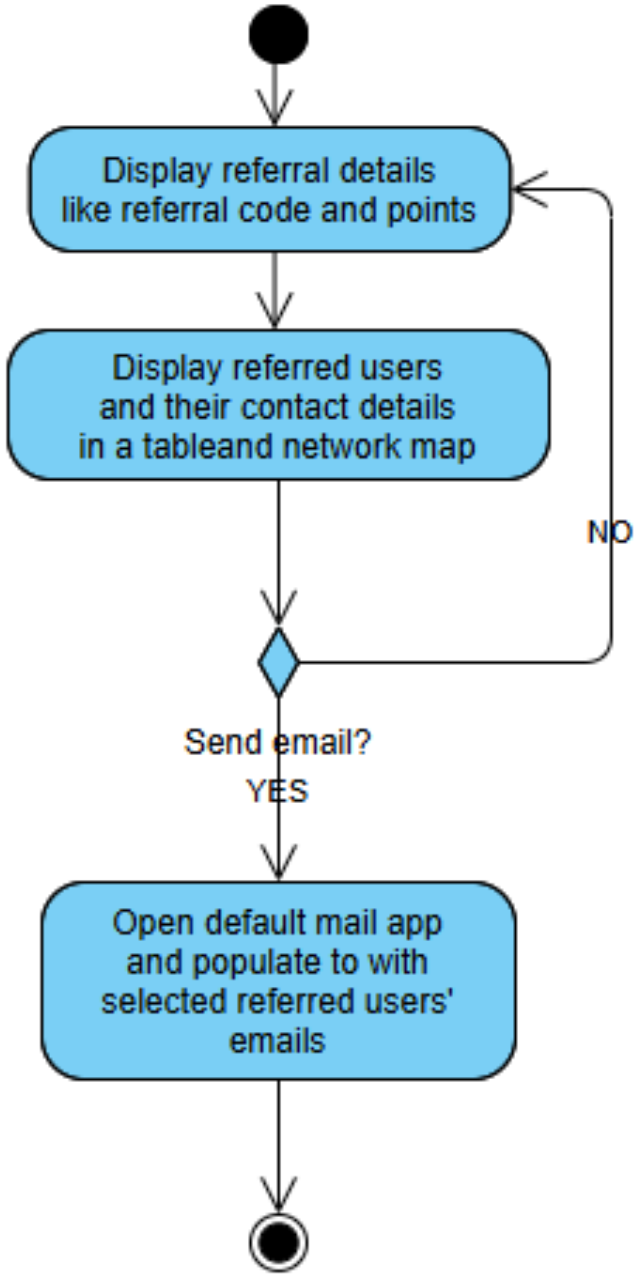


Figure 34. Activity Diagram for Referrals

In figure 34. The referral process within the system is highlighted. The process begins with results being fetched with the referral detail like referral code and points. Subsequently, the system would show a list of referred users and their contact information in a tabular format or network map. In case the user prefers sending an email, then it will trigger the default email application and prefetch the selected emails for the referral users, otherwise, the user might refuse to go through the entire process- this flow makes the whole referral tracking and communication with referred users smooth.

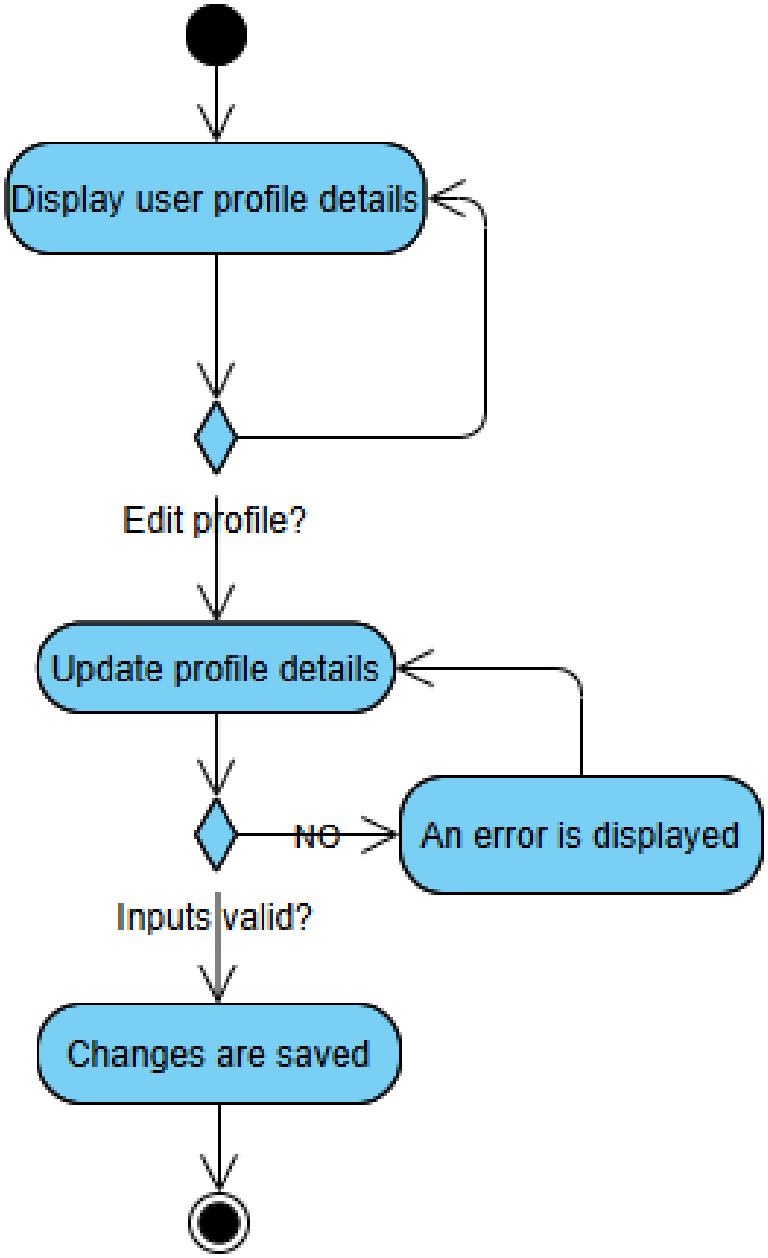


Figure 35. Activity Diagram for Viewing and Updating Profile

In figure 35. Exhibits how one accesses and later updates the user account profile. Initially, the system displays the details of that user's profile and gives options to edit that profile. In case the user wants to edit the current profile, they will then proceed to update their profile details. The system validates entries made by the user. If the inputs are invalid, an error message is shown, and the user is corrected. If the entries are valid, the changes are saved, thus completing the process. The flow ensures that the profile update is both user-friendly and error checked.

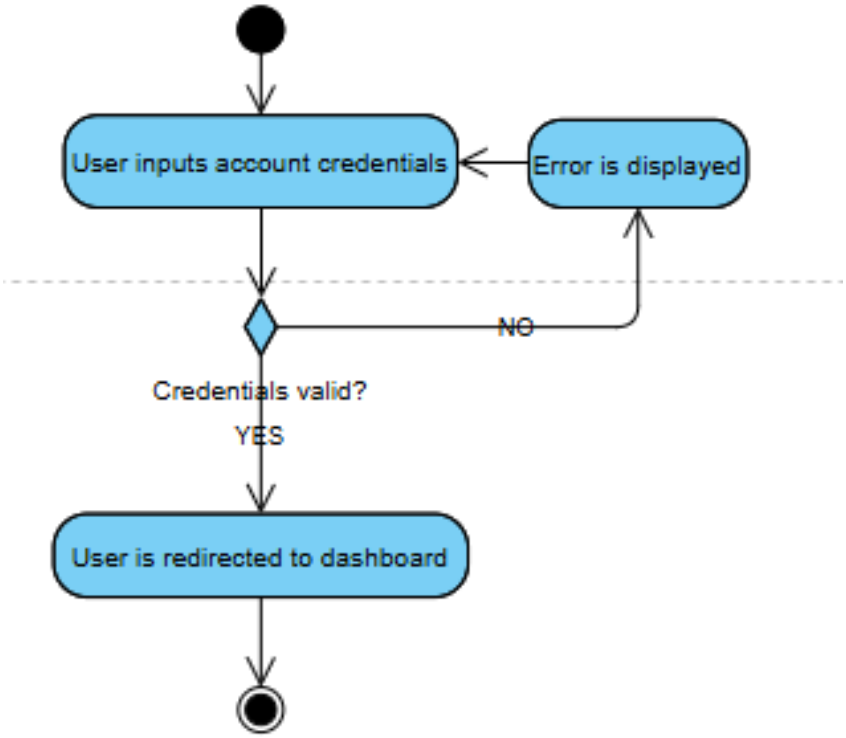


Figure 36. Activity Diagram for Recruiter Login

In figure 36. Depicts the scenario where a recruiter logs into the system. The process starts with the input of the account credentials by a user. This system checks if the given credentials are accurate. If they are false, an error message will pop up, prompting the user to input their credentials again. Only when the credentials are valid, one will be successfully directed to the dashboard. Such a flow enables secure access, and error handling becomes user-friendly during login events.

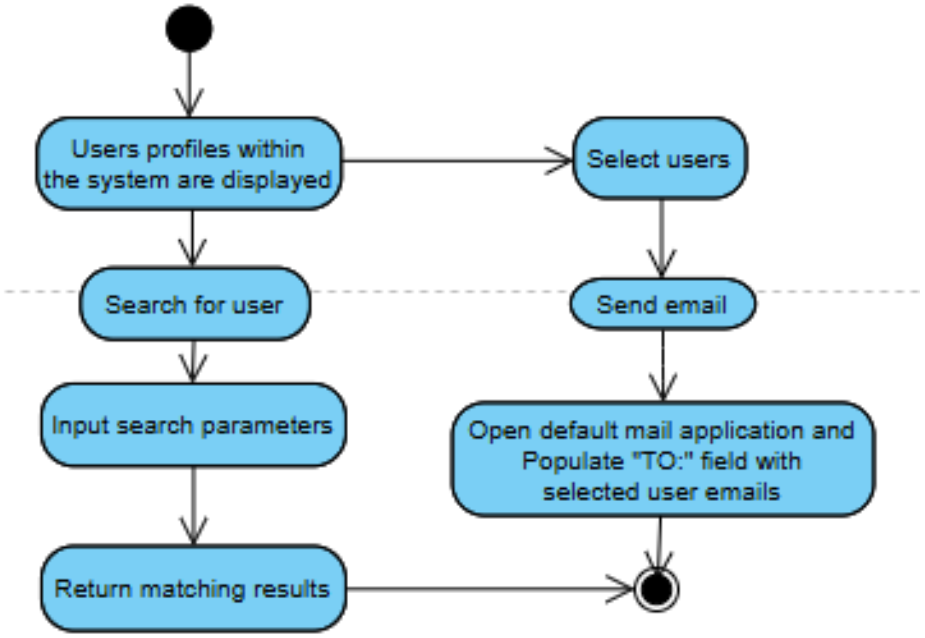


Figure 37. Activity Diagram for User Management

In figure 37. This activity illustrates the process of managing users in a system. It starts off by illustrating the user profile available in the system. There are provisions for users to search for specific profiles by entering search parameters, thus returning results with matches. Additionally, they can select certain profiles to perform other actions, such as sending an email to the selected users, in which case the default mail application loads and the "TO" field is automatically populated with the email addresses of those users. This diagram purports to show a simple approach to user profile management and interaction within a system.

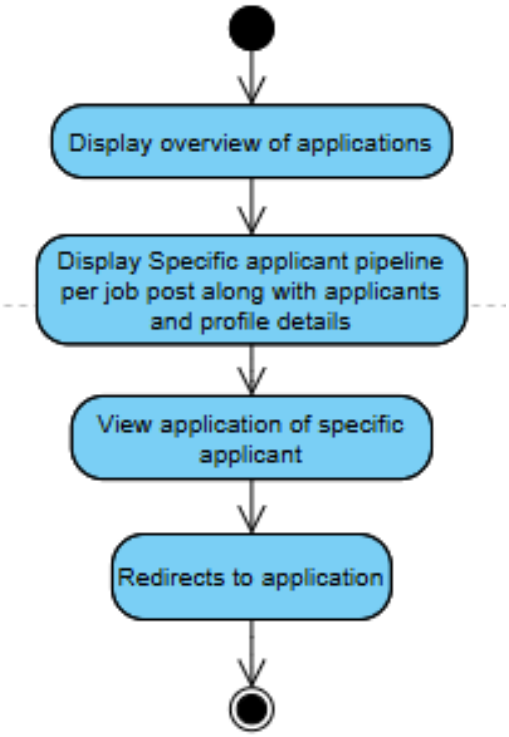


Figure 38. Activity Diagram for Applicant Tracking

In figure 38. The whole procedure of tracking application would have been included in an applicant tracking system. The first point is an overview of all applications, where the users will be able to view candidate summaries along with their posts. The next would allow users to go to a specific applicant pipeline linked with a job post, giving them specific information about that particular applicant and their profile. This system allows the user to view the application in detail after selecting that specific applicant. And finally, it's a reroute right into the application itself for further actions or decisions. The process of applicant tracking is very well represented using the diagram, which also makes everything clear about how the applicant tracking system works.

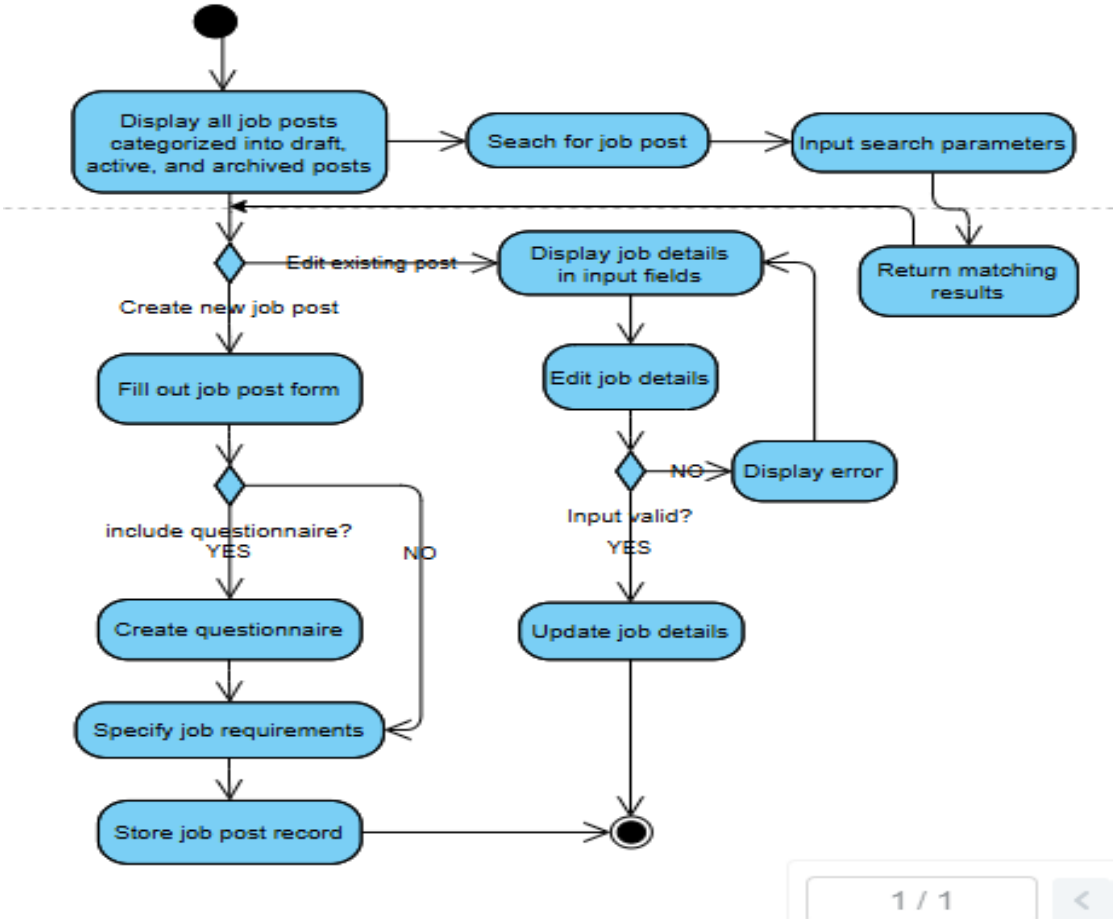


Figure 39. Activity Diagram for Job Posting Creation, Editing, and Searching

In figure 39. It describes the workflow that can go through creating, editing, and searching jobs in the system. Initially, all jobs can be displayed under three categories: draft, active, and archive. A user will either create a new job or edit a previous post. For example; if the user is creating a new job, he/she would fill a job post form in which the user would have an option whether to include a questionnaire. The questionnaire is defined along with specifying job requirements before storing the job post record. Editing is done by bringing job details into input fields for user updating. Any incorrect inputs would prompt an error message by the system. It also shows searching the parameter under which the users will find and return the matching job posts. That would be full job management from creation to searching for all phases.

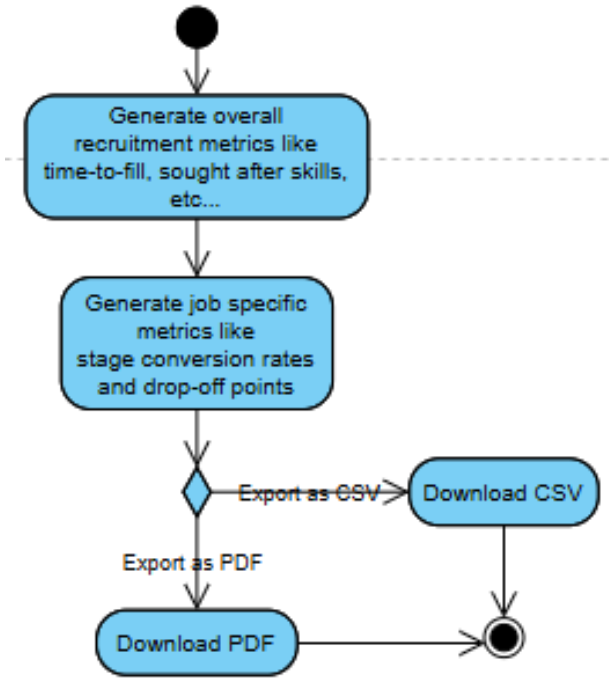
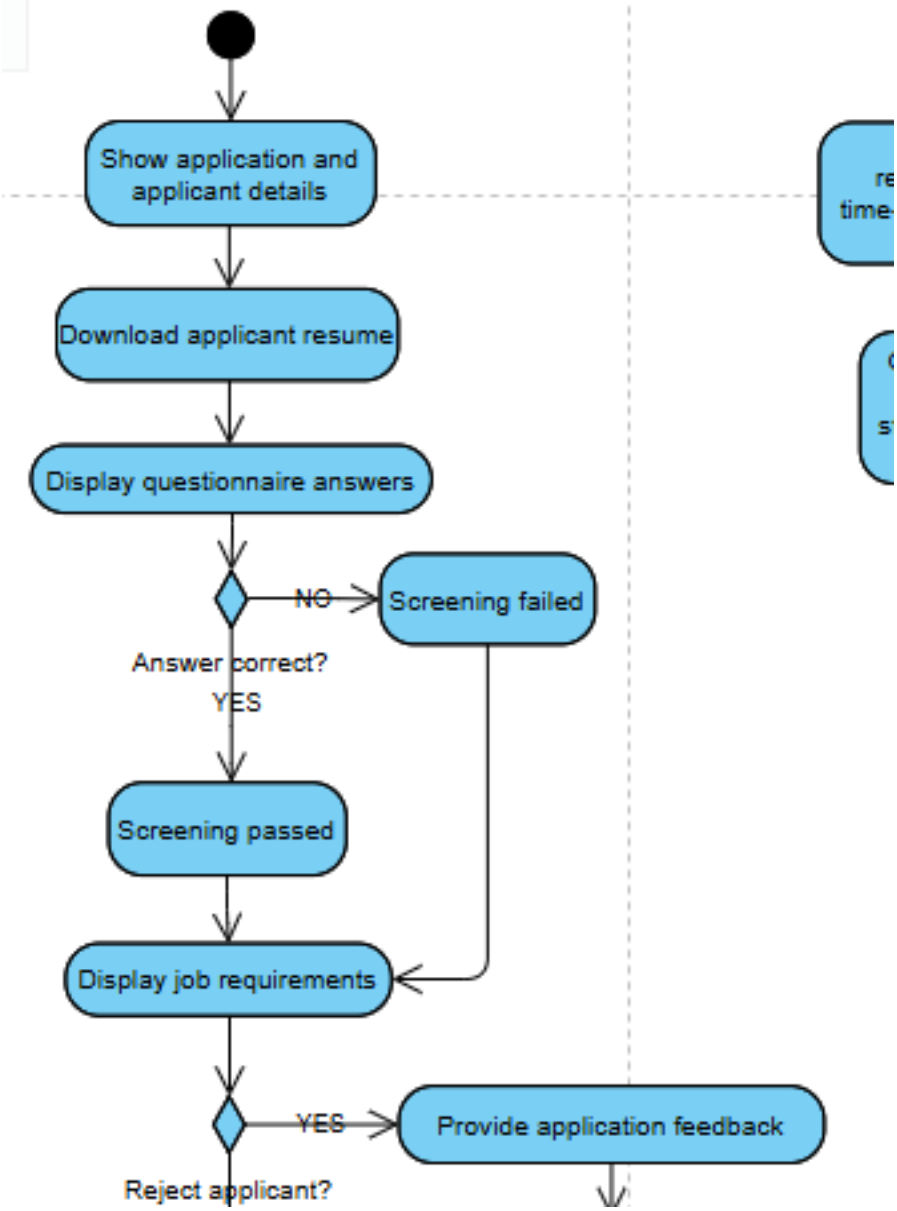
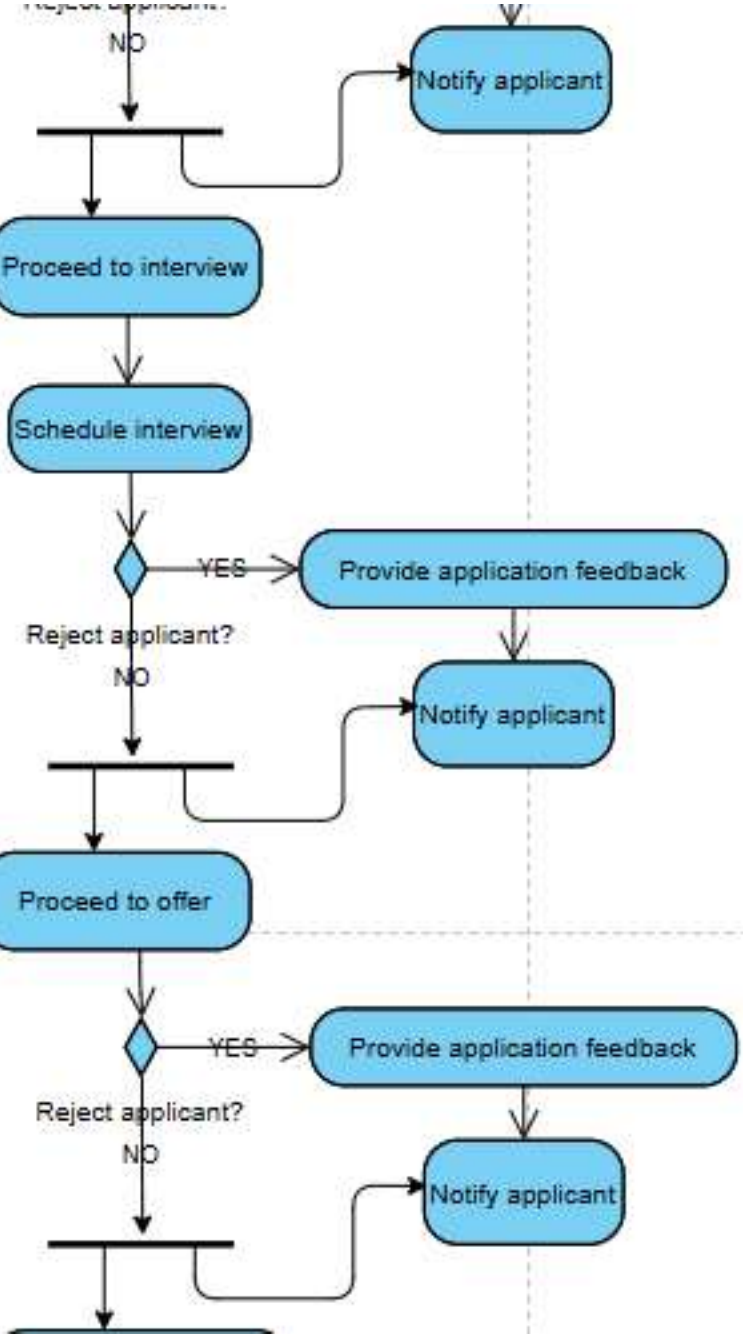


Figure 40. Activity Diagram for Reports Generation and Exporting

In figure 40. It illustrates the generating and exporting reports. The next step to getting recruitment metrics is to produce general ones, such as time-to-fill metrics and wanted skills. Then, there are job-specific metrics, such as conversion for each stage and drop-offs. The next step will be to generate required data. Now add exporting: one can export this report in CSV or PDF format. Depending on the format chosen, the system enables the user to download either a CSV file or a PDF file. It illustrates the entire work process involved in generating and exporting recruitment reports efficiently.


Show application and applicant details
Download applicant resume
Display questionnaire answers
NO
Screening failed
Answer correct?
YES
Screening passed
Display job requirements
YES
Provide application feedback
Reject applicant?


NO
Notify applicant
Proceed to interview
Schedule interview
YES
Provide application feedback
Reject applicant?
NO
Notify applicant
Proceed to offer
YES
Provide application feedback
Reject applicant?
NO
Notify applicant

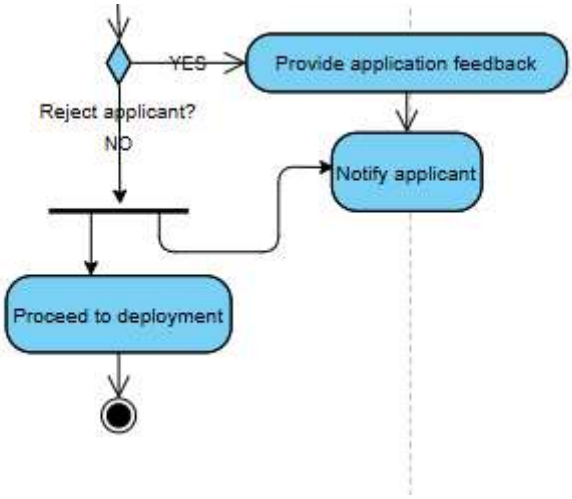


Figure 41. Activity Diagram for Application Processing

In figure 41. It provides the workflow for assessing job applications and managing applicants. Things start to operate by introducing the application and applicant information, then downloading that specific applicant's CV and reviewing questionnaire answers. If the answers are not correct, the applicant is notified that screening fails. If they are correct, then screening passes, and job requirements are then displayed. Next decision concern whether the applicant is rejected. If it is not, the very next step is scheduling an interview. Afterward, feedback is provided, and again another decision is made concerning rejection. If yet again, the applicant does not get rejected, the process proceeds to offer the position. All along the way, rejected applicants receive feedback and are notified. This systematic approach guarantees all applicants a thorough evaluation in every stage, with timely communication of the update.

ETHICAL CONSIDERATIONS

During the process of the study, the researchers will attach to the following ethical considerations in the process of conducting the study. The researchers will provide consent forms to all the participants, such as Bonafide Trainology Placement Services and others, briefing before conducting the interview. To uphold the standard of ethics for all the participants of the research and also to protect the information that is provided during the interviews. The information collected will be used for research purposes only. It may be analyzed, summarized, and included in research reports or publications. It will treat any data provided during the interview and process are confidential. Also, it will only be accessible to authorized members of the study team and by keeping it secure from any third party without authorization from the researchers. The data will be securely stored and accessible only to authorized individuals.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

This chapter presents the results and insights gained from the implementation of the recruitment management system for Bonafide Trainology Placement Services. By aligning with the objectives of the study, the analysis focuses on system performance, user engagement, and the overall impact on operational efficiency. The chapter outlines the structured assessment, highlighting the system's effectiveness in addressing the company's recruitment challenges, such as managing applicant data, streamlining candidate tracking, and enhancing reporting capabilities. Through a combination of quantitative data analysis from users, the system's functionality, usability, and operational reliability were evaluated, providing a comprehensive view of its benefits and areas for improvement. This evaluation serves as a basis for understanding the system’s practical implications in enhancing recruitment processes for micro, small, and medium enterprises (MSMEs).

Presentation and discussion of results

In implementing a recruitment management system for Bonafide Trainology Placement Services, various outcomes have been observed, highlighting both the strengths and areas for improvement within the system. The system was developed to address specific recruitment challenges faced by the organization, such as inefficiencies in tracking applicant data, managing candidate referrals, and utilizing analytics to optimize hiring strategies. The results, based on user feedback and system testing, reflect a balanced perspective on its performance and impact.

One of the main strengths of the system lies in its ability to streamline recruitment workflows. Key features like the recruiter dashboard, applicant tracking system (ATS), and integrated data analytics have proven to be effective in simplifying complex tasks. For example, the recruiter dashboard provides an overview of key metrics, such as the

number of jobs posted and application success rates, which allows recruitment staff to stay organized and make informed decisions. The ATS further enhances this by offering detailed insights into the status of applicants at each stage of the hiring process, reducing manual tracking efforts.

Despite these strengths, some challenges remain. Users have reported occasional delays in the system's responsiveness, particularly during peak usage. These performance issues, while not widespread, can disrupt workflow and create minor inconveniences for both recruiters and applicants. Additionally, while the interface has been praised for its user-friendliness, some respondents suggested adding a dark mode feature to improve accessibility and accommodate user preferences. Addressing such concerns would further enhance the system's usability.

Feedback from applicants has been generally positive, emphasizing the platform's efficiency in tracking job applications and managing referrals. However, a few users noted that occasional lags in loading times affected their experience, particularly when navigating between sections or applying for jobs. Such delays can detract from an otherwise seamless user interface. Suggestions from IT experts included implementing multi-factor authentication (MFA) to improve account security, highlighting a need to strengthen the system's protections for sensitive user data.

The system's reporting and analytics tools have been a success. Features like sourcing channel performance, time-to-fill metrics, and application funnel analysis provide recruiters with actionable insights to optimize their strategies. These tools allow for more data-driven decision-making, which is particularly valuable in competitive recruitment environments. However, recruiters have expressed a desire for further enhancements to analytics, such as more granular filtering options and improved visualization of key performance indicators.

Overall, the recruitment management system has demonstrated its potential to significantly improve recruitment efficiency and organization. By centralizing applicant data, enabling real-time tracking, and incorporating powerful analytics, the system addresses many of the challenges faced by Bonafide Trainology Placement Services. While there are areas that require refinement, such as performance during high demand and security features, the system has laid a solid foundation for further development. Future updates that incorporate user feedback will help ensure that the platform continues to meet the evolving needs of its users, ultimately supporting the company's goal of building an efficient and effective hiring pipeline.

Feature of the Proposed System

The researchers aim to develop a recruitment management system with an integrated applicant tracking and data analytics component tailored for Bonafide Trainology Placement Services. This system is designed not only to streamline recruitment processes and improve operational efficiency but also to empower Bonafide in building a more organized and effective hiring pipeline.

The system provides specific functionalities for both HR staff and management, each with customized levels of access and permissions. The purpose of this system is to help Bonafide efficiently manage candidate information and recruitment stages by centralizing data in an online system that is user-friendly and minimizes manual tasks. This solution is especially beneficial for small recruitment firms, allowing them to maintain accurate records, and leverage referral networks to attract quality candidates over time.

Figure 42. Login for Recruiter

Figure 42 illustrates the login interface specifically designed for recruiters within the Bonafide Trainology Placement Services system. This interface provides a secure access point where recruiters enter their email and password to log in, allowing them to access the recruitment platform. As all recruiter accounts are managed by user admins, account creation and password resets are handled exclusively by the user admin team. Recruiters must request any account modifications, including password changes, from the user admin.

The straightforward design eliminates unnecessary elements, providing a focused experience that reinforces Bonafide's role in facilitating employment connections. This dedicated login screen ensures that only authorized recruitment staff can access applicant information and recruitment tools, thereby maintaining stringent data security and user-specific access control within the system.

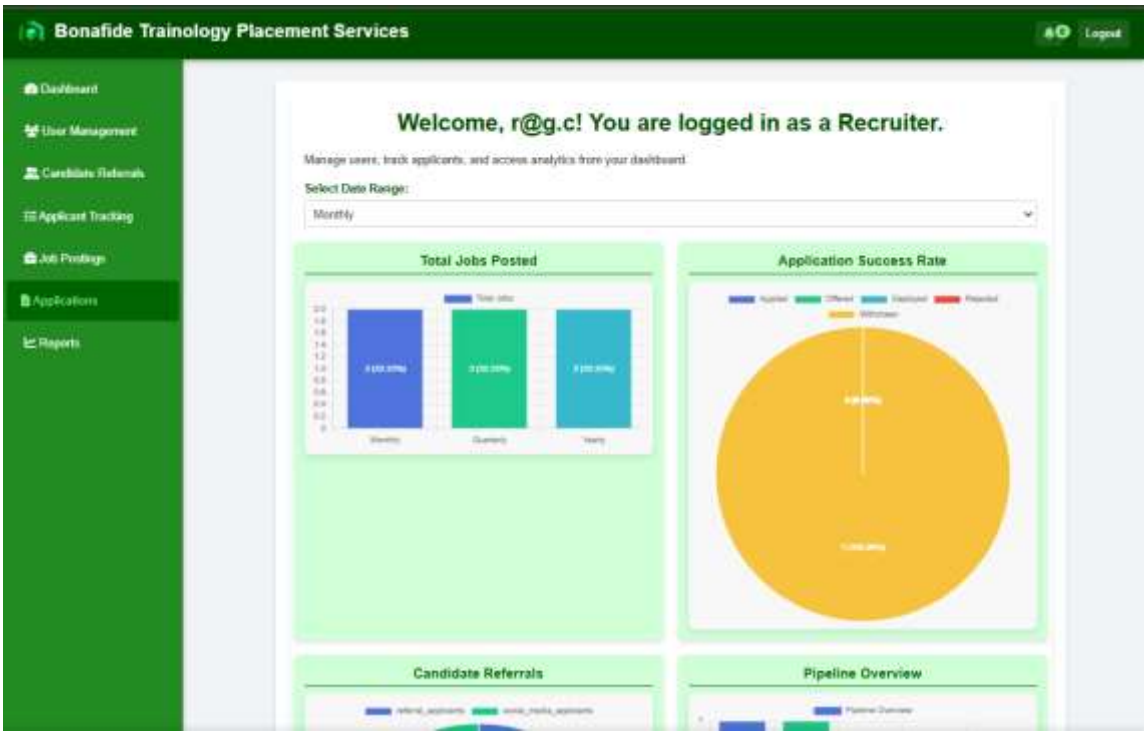


Figure 43. Dashboard for Recruiter

Figure 43 illustrates the recruiter dashboard in the Bonafide Trainology Placement Services system, designed to streamline the management and analysis of recruitment data. This dashboard provides an at-a-glance overview of all key reports and a calendar to handle important dates, such as interview schedules and job posting deadlines, enabling recruiters to stay organized and proactive.

The Total Jobs Posted widget tracks the number of job postings across different timeframes, allowing recruiters to monitor posting frequency and adjust recruitment strategies based on demand. The Application Success Rate section provides insights into application outcomes—such as offers extended, interviews scheduled, and rejections—enabling recruiters to assess the efficiency of their recruitment pipeline.

A Candidate Referrals section displays data on referral sources, helping recruiters understand which channels, like social media or employee recommendations, are most effective for attracting candidates. The Pipeline Overview visually represents applicants' progress through recruitment stages, making it easy to track each candidate's status and optimize applicant flow. Additionally, Sourcing Analytics highlights the performance of different sourcing channels, supporting data-driven decisions on where to focus recruitment efforts.

The Upcoming Deadlines and Interviews calendar feature consolidates key dates, helping recruiters manage interview schedules and application deadlines efficiently. This integrated overview of deadlines and tasks reduces the risk of missed dates and supports better time management.

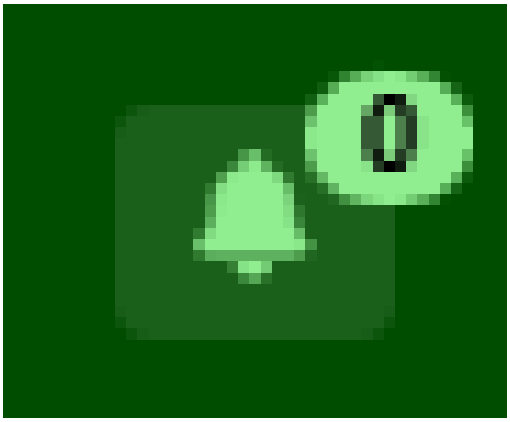


Figure 44. Notification for Recruiter

Figure 44 illustrates the notification icon within the Bonafide Trainology Placement Services system, designed to streamline notification management for recruiters. The bell icon shows a badge with a count of pending notifications, alerting recruiters to important updates such as new applications, interview schedules, or status changes. This functionality ensures that recruiters can stay informed in real-time without navigating away from their current tasks.

By providing a centralized alert system, the notification icon helps recruiters manage updates efficiently, enhancing responsiveness and improving overall workflow.

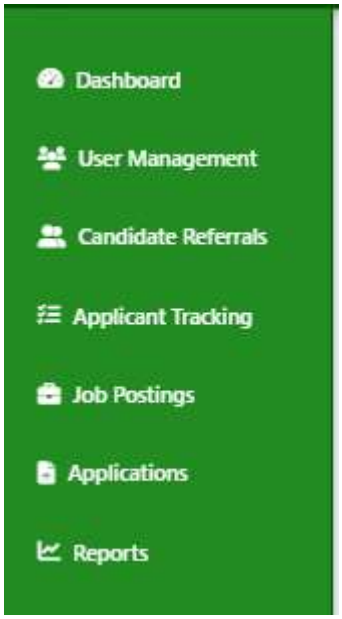


Figure 45. Sidebar for Recruiter

Figure 45 illustrates the sidebar navigation menu for recruiters within the Bonafide Trainology Placement Services system, designed to streamline access to essential recruitment tools and data. The sidebar includes links to key sections: Dashboard provides an overview of recruitment metrics and updates, while User Management allows for managing user accounts and profiles. Candidate Referrals displays referral networks, helping recruiters identify potential candidates through connections, and Applicant Tracking enables monitoring of applicants' progress through different stages of the recruitment process.

The Job Postings section allows recruiters to view, edit, and manage job listings, while Applications provide access to review and update the status of all job applications. Finally, the Reports section offers tools for generating performance and recruitment analytics.

This organized sidebar layout simplifies navigation, enabling recruiters to quickly switch between tasks and manage recruitment activities efficiently without unnecessary backtracking.

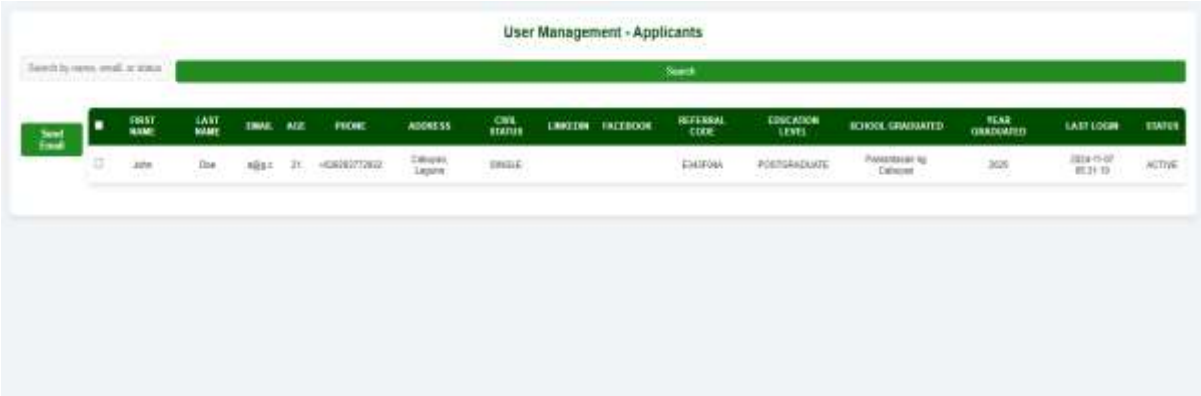


Figure 46. User Management for Recruiter

Figure 46 illustrates the User Management interface for recruiters in the Bonafide Trainology Placement Services system, designed to simplify applicant management. The search bar enables quick filtering by name, email, or status, while the table provides essential details about each applicant, such as contact info, education, and account status. A "Send Email" button allows recruiters to directly contact applicants from the interface. This streamlined setup helps recruiters efficiently track, organize, and manage applicants, enhancing recruitment efficiency.

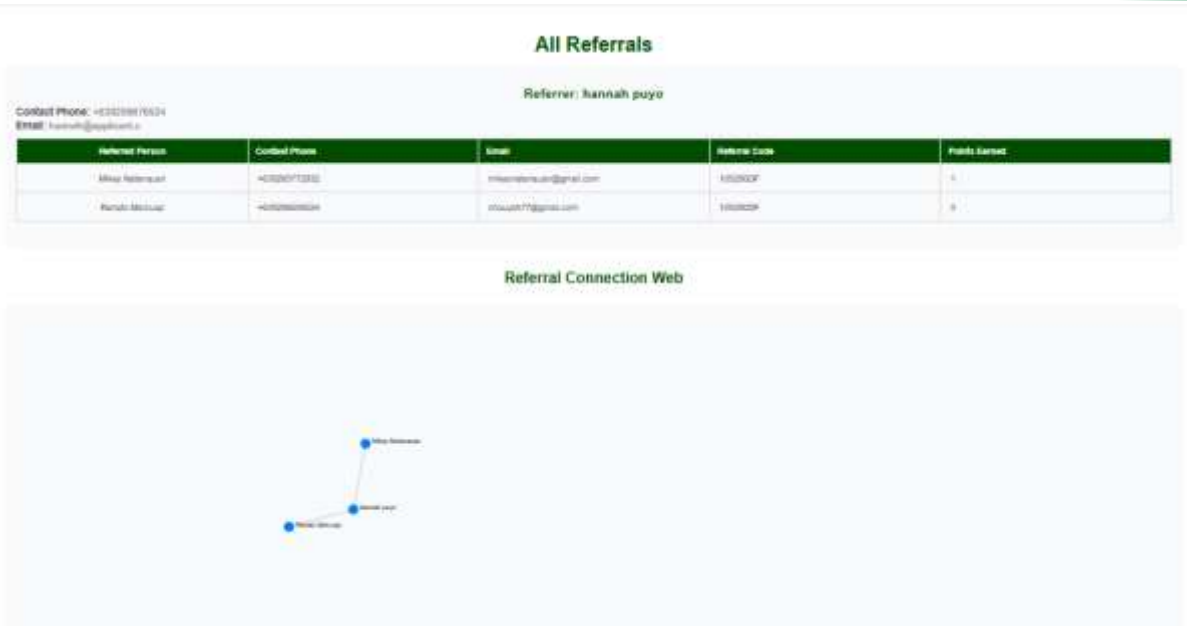


Figure 47. Candidate Referrals for Recruiter

Figure 47 illustrates the Candidate Referrals interface within the Bonafide Trainology Placement Services system, designed to enhance recruiters' management of referral-based applicant networks. The "Referral Connection Web" feature allows recruiters to view and track referral connections visually, providing a network map of referred candidates. This tool enables recruiters to manage talent pools effectively by identifying and leveraging key referral sources and agents that attract qualified applicants. By tracing referral pathways, recruiters can assess and prioritize candidates from trusted networks, optimizing their recruitment strategy through referral insights.

Figure 48. Applicant Tracking System for Recruiter

Figure 48 presents the Applicant Tracking System (ATS) interface within the Bonafide Trainology Placement Services system, designed to streamline applicant tracking for recruiters. This interface offers a comprehensive summary of application statuses across various recruitment stages, such as initial applications, screening, interviews, offers, deployments, rejections, and withdrawals.

Each status category displays a count of applicants, allowing recruiters to quickly assess the volume and progression of candidates through each stage. For more detailed tracking, the "Show Applicant Information" button lets recruiters view individual applicant details within each category, including application specifics per job role. This real-time view of the applicant pipeline helps recruiters efficiently monitor and manage candidates, easing the overall recruitment tracking process.

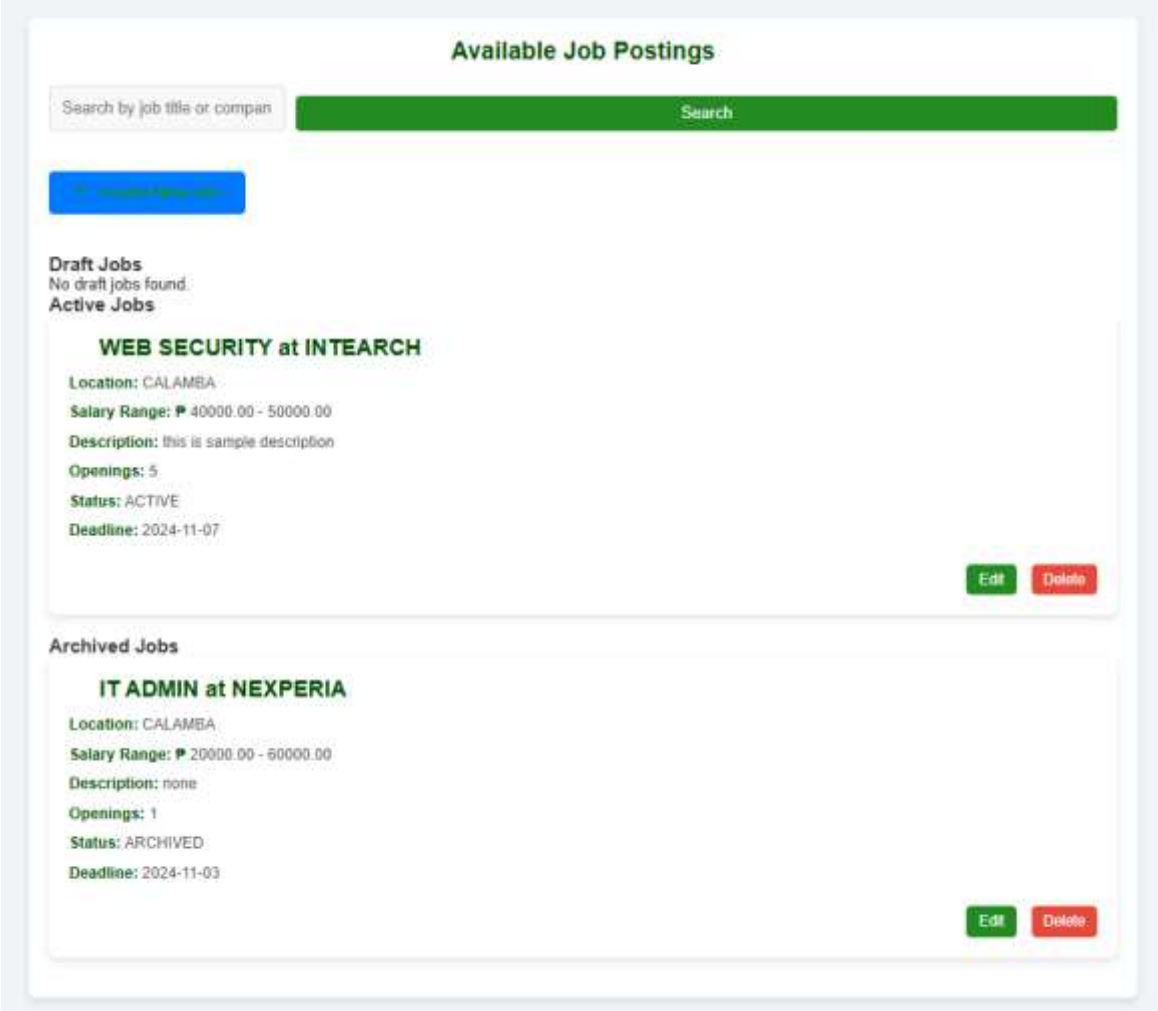


Figure 49. Job Postings for Recruiter

Figure 49 illustrates the Job Postings interface for recruiters within the Bonafide Trainology Placement Services system. This interface is designed to provide recruiters with a streamlined view of all available job listings, organized into sections for "Draft Jobs," "Active Jobs," and "Archived Jobs." Recruiters can easily manage job postings by creating new positions through the "Create New Job" button or by searching existing listings using the search bar at the top of the interface.

Each job posting displays essential details such as job title, location, salary range, description, number of openings, current status (e.g., active or archived), and the application deadline. The interface also provides "Edit" and "Delete" options next to each job listing, enabling recruiters to update or remove listings as needed. This job postings management feature ensures that recruiters can efficiently oversee the lifecycle of each job listing, keeping job opportunities up-to-date and accurately categorized for potential applicants.

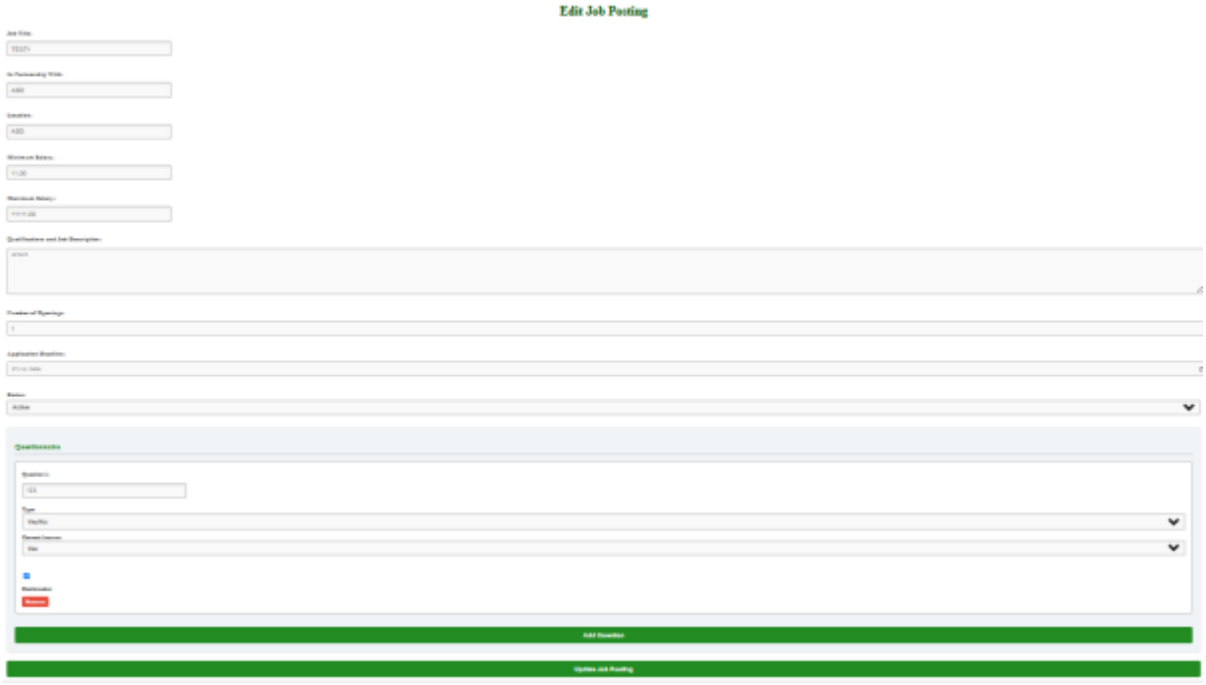


Figure 50. Edit Job Posting for Recruiter

Figure 50 displays the "Edit Job Posting for Recruiter" interface within the Bonafide Trainology Placement Services system. This interface allows recruiters to update job details for a specific position. Fields are provided for entering or modifying information such as the job title, company name, location, salary, and the number of vacancies.

Recruiters can also update the qualifications and job description to ensure clarity and accuracy for applicants.

Additional sections allow recruiters to set requirements like the employment type, application deadline, and application status. A questionnaire section enables recruiters to add custom questions for applicants, with options for different response types (e.g., text or yes or no). A "Submit Job Posting" button at the bottom allows recruiters to save the updated information. This interface is designed to help recruiters manage and keep job postings current within the Bonafide Trainology Placement Services system.

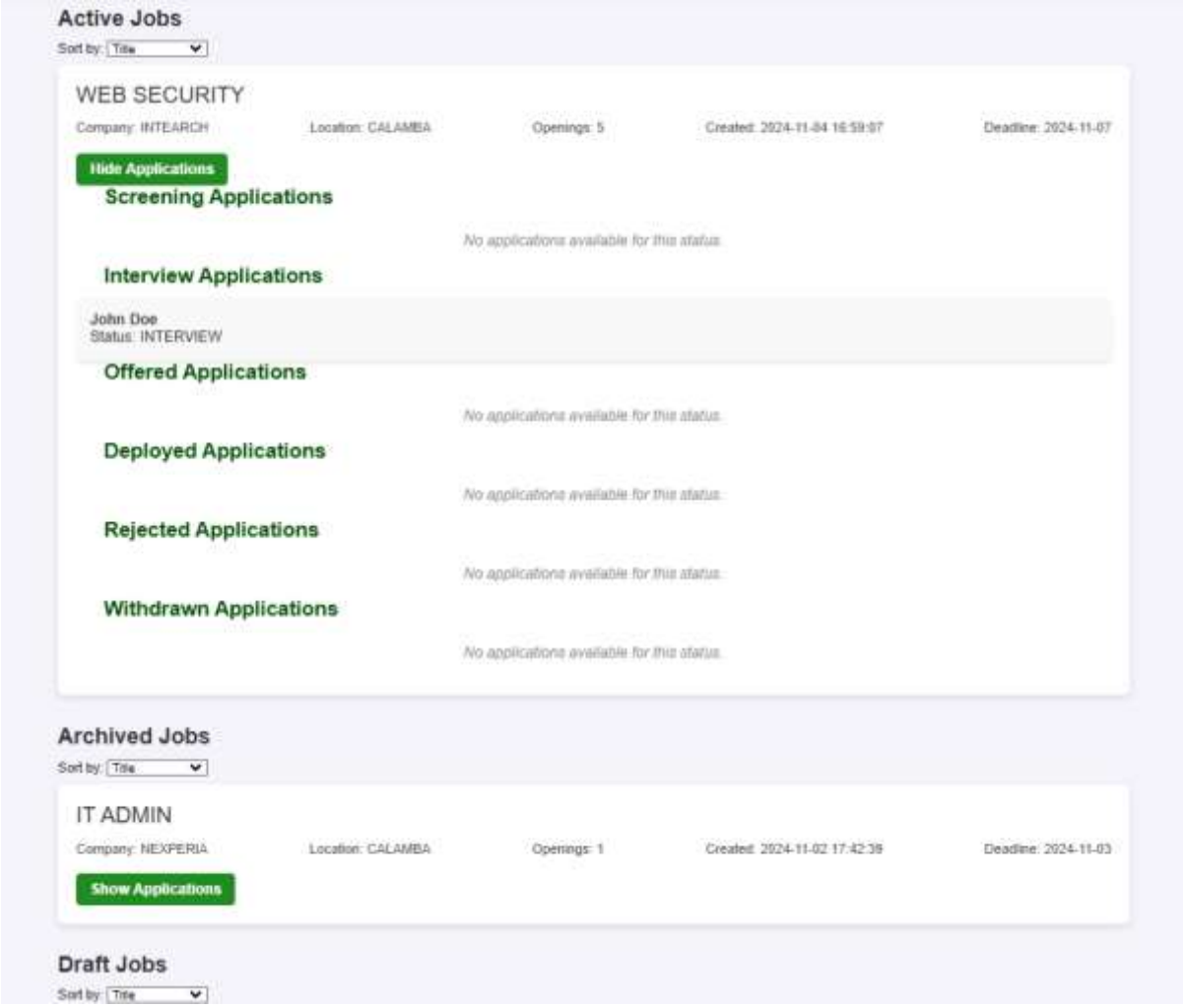


Figure 51. Applications for Recruiter

Figure 51 shows the Applications interface within the Bonafide Trainology Placement Services system, designed to help recruiters manage job applications across various stages for active and archived postings. The interface categorizes applications into stages such as Screening, Interview, Offer, Deployed, Rejected, and Withdrawn, giving recruiters a clear overview of each applicant's position in the hiring process.

Recruiters can expand or collapse each category to focus on relevant stages, simplifying navigation and making it easier to find and manage applicants based on current recruitment needs. This organized layout streamlines the process, enabling recruiters to efficiently track candidates' progress and maintain a structured approach to application management, from initial screening to final deployment or rejection.

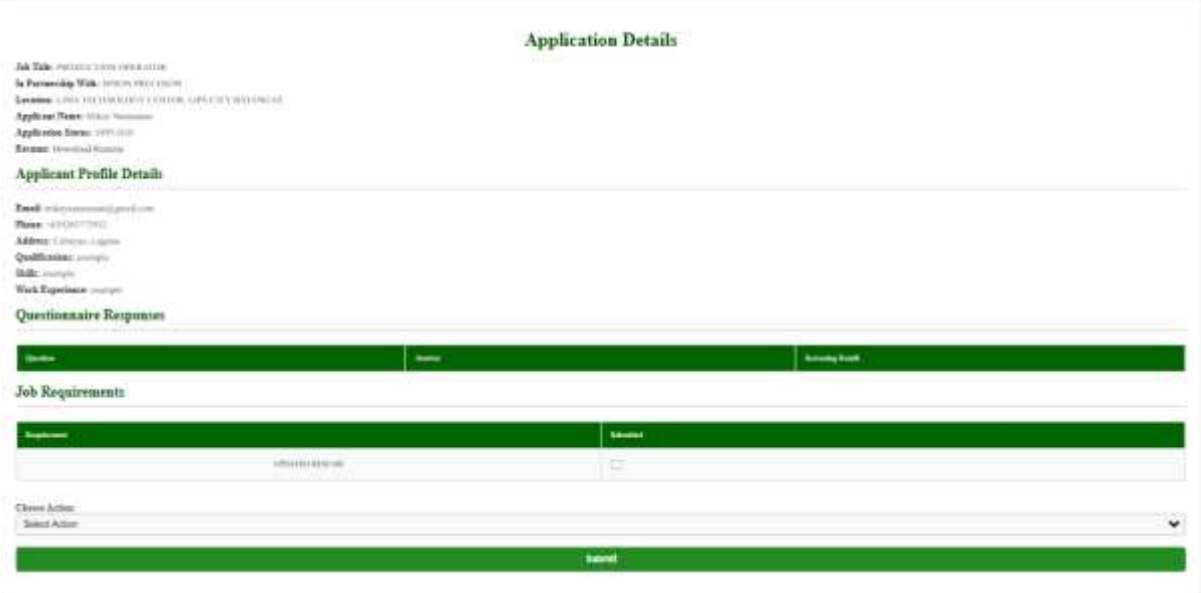
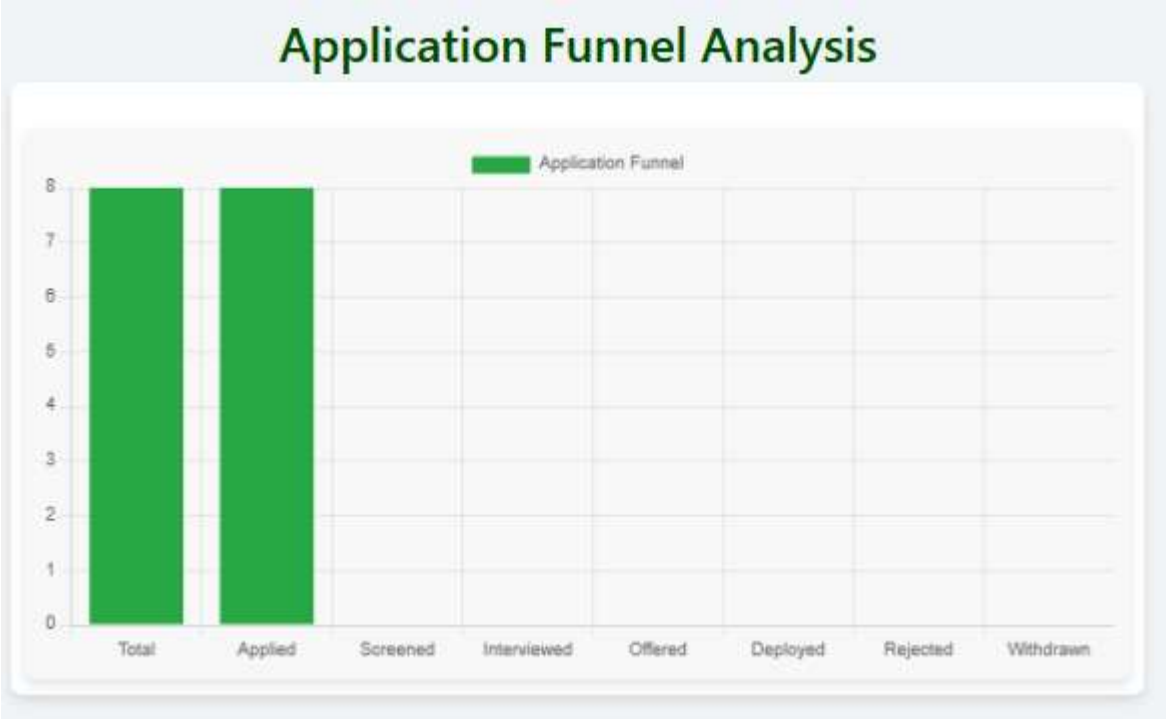


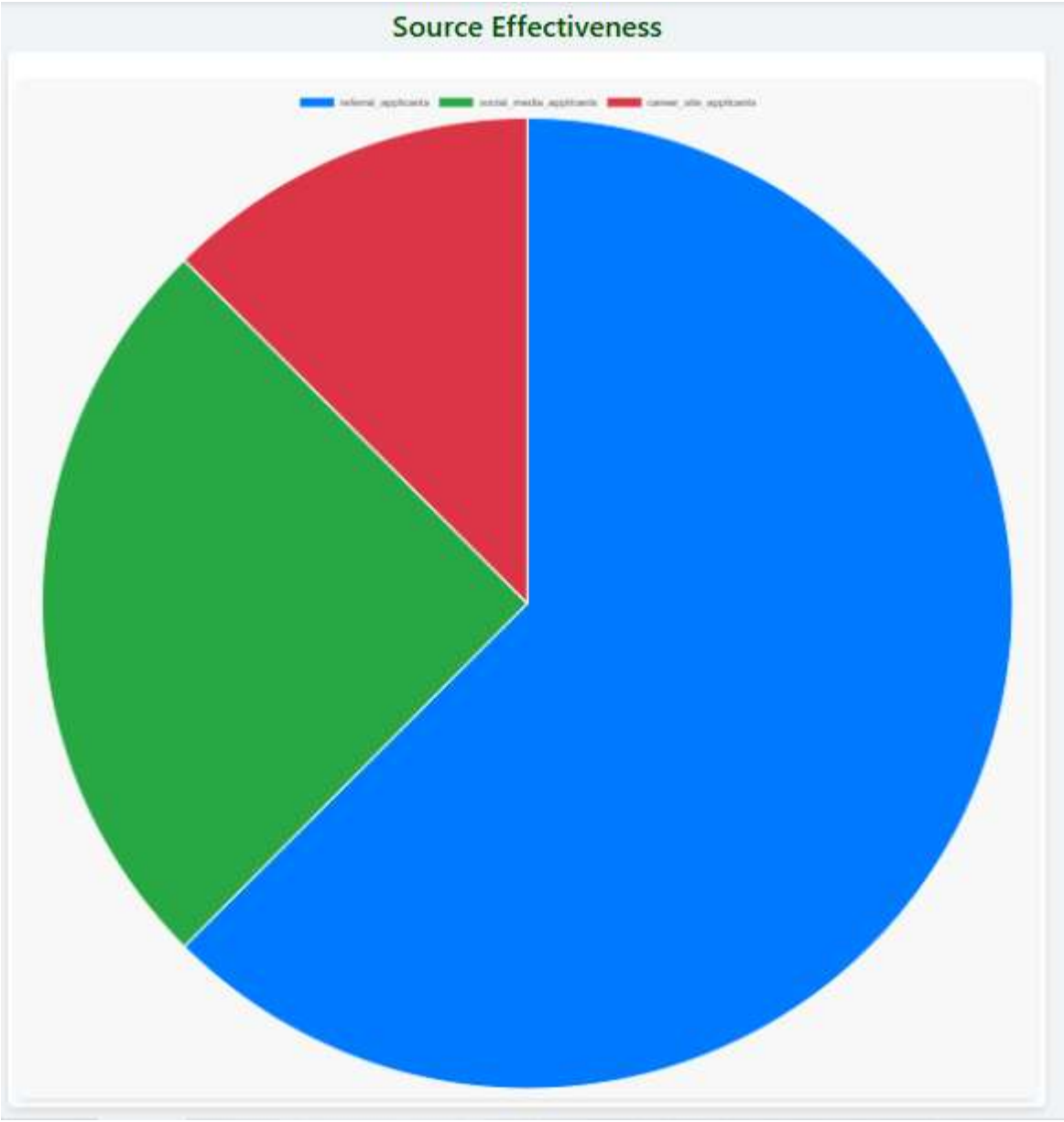
Figure 52. Application Details for Recruiter

Figure 52 displays the Application Details interface for recruiters within the Bonafide Trainology Placement Services system, designed to streamline the applicant management process. This interface allows recruiters to view and assess each applicant's profile, including personal details, qualifications, skills, and work experience, which supports thorough candidate evaluation.

Key functionalities include a Job Requirements section where recruiters can verify if applicants have met required criteria, such as document submission. The Questionnaire Responses section highlights whether applicants passed or failed specific dealbreaker questions, providing immediate insights into their suitability for the role.

The interface also includes an Action Menu with options to advance applicants through recruitment stages, such as proceeding to interviews, extending offers, moving to deployment, or rejecting applications as necessary. This organized and detailed view simplifies the applicant review process, helping recruiters make informed decisions efficiently and track each applicant's status within the recruitment pipeline


Application Funnel Analysis
Application Funnel
8
7
6
5
4
3
2
1
0
Total
Applied
Screened
Interviewed
Offered
Deployed
Rejected
Withdrawn


Source Effectiveness

Most Sought After Skills

Most Sought After Jobs

- IT ADMIN (4 applications)
- REGISTERED NURSE (2 applications)
- ELECTRICIAN (1 applications)
- PRODUCTION OPERATOR (1 applications)

Average Time Taken per Stage (Days)

- **Applied to Screened:** 0 days
- **Screened to Interviewed:** 0 days
- **Interviewed to Offered:** 0 days
- **Offered to Hired:** 0 days

IT ADMIN - Detailed Report

Stage Conversion Rates

Drop-Off Points

Figure 53. Reports for Recruiter

Figure 53 illustrates the Reports interface in the Bonafide Trainology Placement Services system, designed to streamline report management for recruiters. This interface provides key metrics and analytics, helping recruiters evaluate recruitment efficiency and track performance across different job postings.

The Historical Average Time to Fill chart displays how long it takes on average, to fill positions, allowing recruiters to gauge recruitment speed over time. Application Funnel Analysis tracks applicants' progression through stages like screening, interviewing, and deployment, helping recruiters identify bottlenecks. Source Effectiveness shows the effectiveness of various sourcing channels, such as referrals, social media, and career sites, enabling recruiters to focus on the best-performing sources.

The Drop-Off Points chart highlights stages where applicants disengage, while the Average Time Taken per Stage section breaks down the time spent at each recruitment phase, supporting recruiters in streamlining the process. The Most Sought-After Skills and Most Sought-After Jobs sections reveal trends in candidate skills and job demand.

For efficient report sharing, recruiters can download detailed reports in CSV or PDF format, making it easy to analyze data offline or share insights with stakeholders. This comprehensive reporting interface equips recruiters with actionable insights, enabling better recruitment decisions, performance monitoring, and data-driven improvements in their hiring strategy.

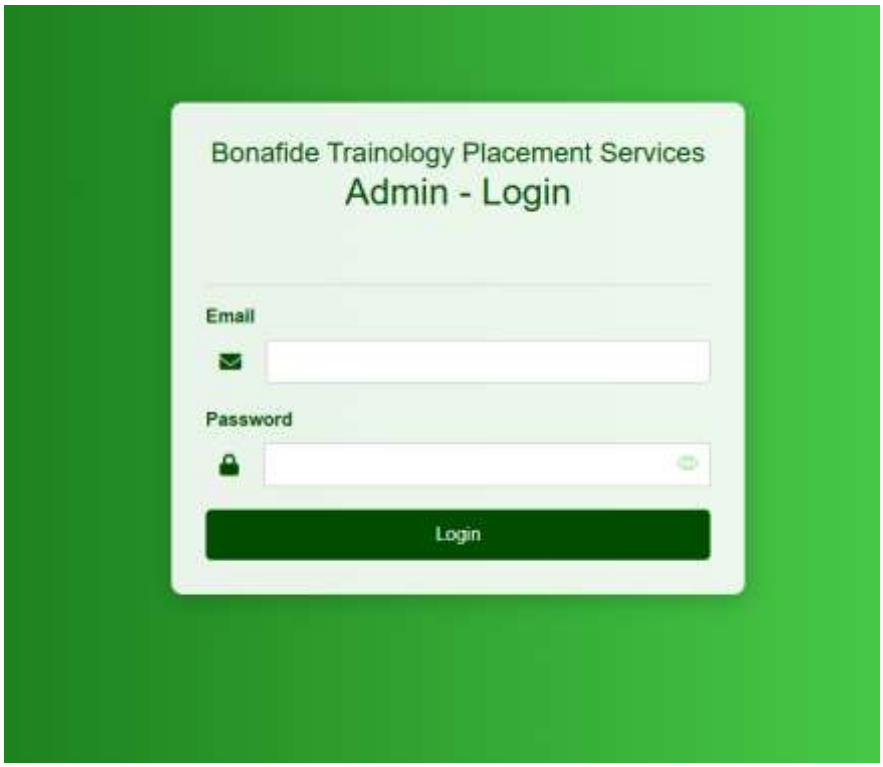


Figure 54. Login for User Admin

Figure 54 illustrates the login interface for admin users of the recruitment management system, focusing on secure and efficient access. This interface provides fields for entering the admin's email and password, ensuring that only authorized personnel can access sensitive recruitment data and management tools. The clean, minimalistic layout allows admins to log in quickly without unnecessary distractions, prioritizing ease of access and security. This streamlined design supports admin users in swiftly logging in to manage system settings, user permissions, and oversee recruitment activities efficiently.

Figure 55 Dashboard for User Admin

Figure 55 illustrates the admin dashboard in the Bonafide Trainology Placement Services recruitment management system, focusing on user management functionality. This dashboard enables the admin to efficiently oversee and control different user categories, streamlining the management of applicants, recruiters, and other admins.

In the Applicants section, the admin can view and edit applicant details, and activate or deactivate accounts as needed, ensuring accurate tracking and status updates throughout the recruitment process. The Recruiters section provides tools for adding, editing, and managing recruiter accounts, including activation and deactivation, allowing the admin to align recruitment team access with staffing needs.

The User Admins section allows for similar management of other admin accounts, enabling the admin to control who has access to critical system functions. This organized and comprehensive interface simplifies user management, supporting efficient oversight and quick adjustments to account access within the system.

Figure 56. Account Creation for User Admin

Figure 56 illustrates the "Create New User" interface within the admin section of the Bonafide Trainology Placement Services system. This functionality allows user admins to efficiently create new accounts by entering essential information, including the user's email, password, and role. The Role dropdown menu provides options to assign specific roles, such as "Recruiter" or "User Admin," aligning permissions with the user's intended function within the system.

This streamlined form includes fields for setting and confirming the password, ensuring secure account setup. Action buttons, such as Create User for saving the new account and Back for returning to the previous page, enhance usability. This account creation tool simplifies and speeds up the onboarding process for new users, allowing the admin to maintain a well-organized and secure user management system with appropriate access controls for each role.

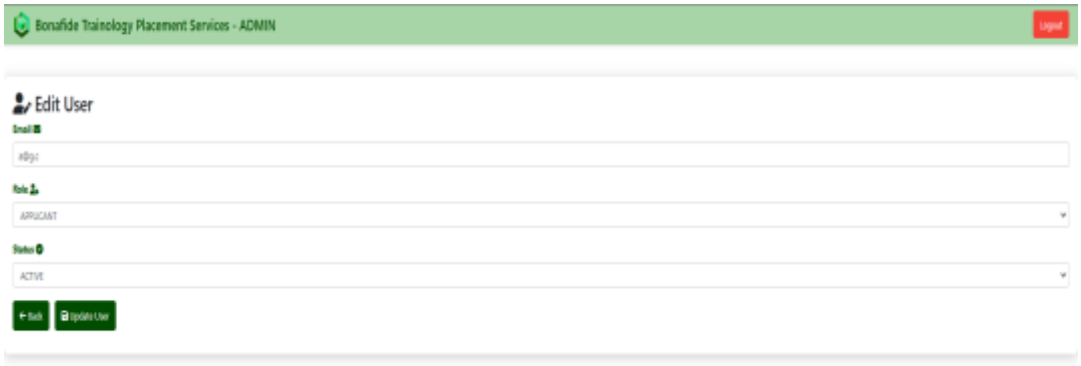


Figure 57. Edit User for User Admin

Figure 57 illustrates the "Edit User" functionality within the admin interface of the Bonafide Trainology Placement Services system, designed to streamline user role and status management. This feature enables the admin to update key user information, including email address and system role (e.g., Applicant, Recruiter, or Admin), ensuring that user permissions align with their responsibilities.

Additionally, the admin can control the user's account status with options like "Active," "Inactive," or "Banned," allowing for easy management of access levels. Action buttons such as "Update User" and "Back" provide a seamless experience for saving changes or navigating back to the user list. This functionality simplifies the process of maintaining accurate user records, securing system access, and effectively managing roles and permissions within the recruitment system.

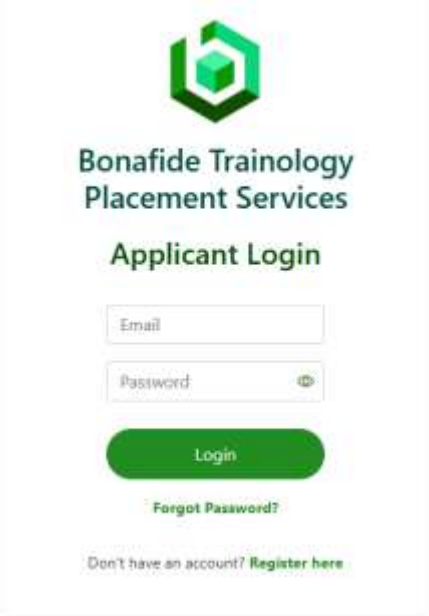


Figure 58. Login for Applicant

Figure 58 illustrates the login interface for applicants within the Bonafide Trainology Placement Services system, designed to provide a secure and straightforward entry point for candidates accessing their application portal. The interface includes fields for email and password, enabling applicants to log in and view personalized recruitment details. For new users, a registration link is provided to guide them through account creation. This functionality simplifies access to the system, It also includes "Forgot Password" option for those needing to reset their password.

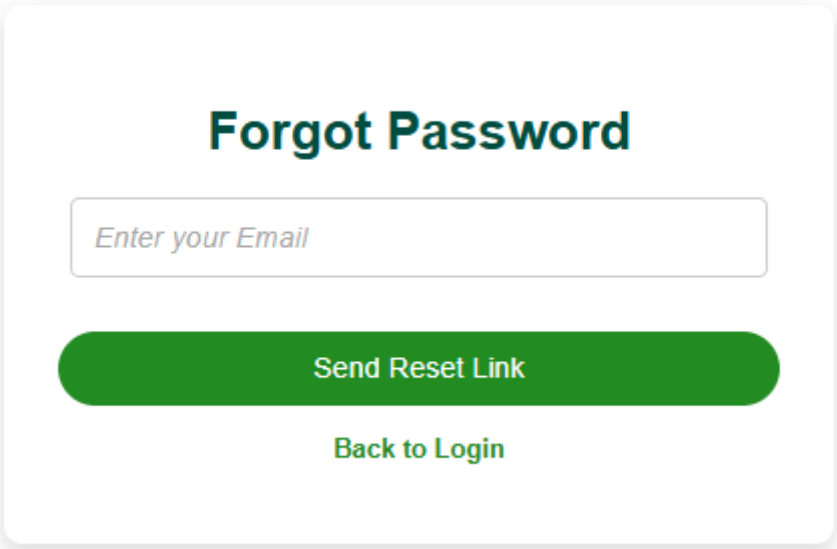


Figure 59. Forgot Password for Applicant

Figure 59 illustrates the "Forgot Password" interface within the Bonafide Trainology Placement Services system, designed to facilitate password recovery for users. Applicants can enter their email address in the provided field and click the Send Reset Link button to receive an email with instructions to reset their password. The interface also includes a Back to Login link, allowing users to return to the login page if they remember their password. This straightforward functionality enhances user experience by providing a quick and secure way to regain access to their account in case of forgotten credentials.

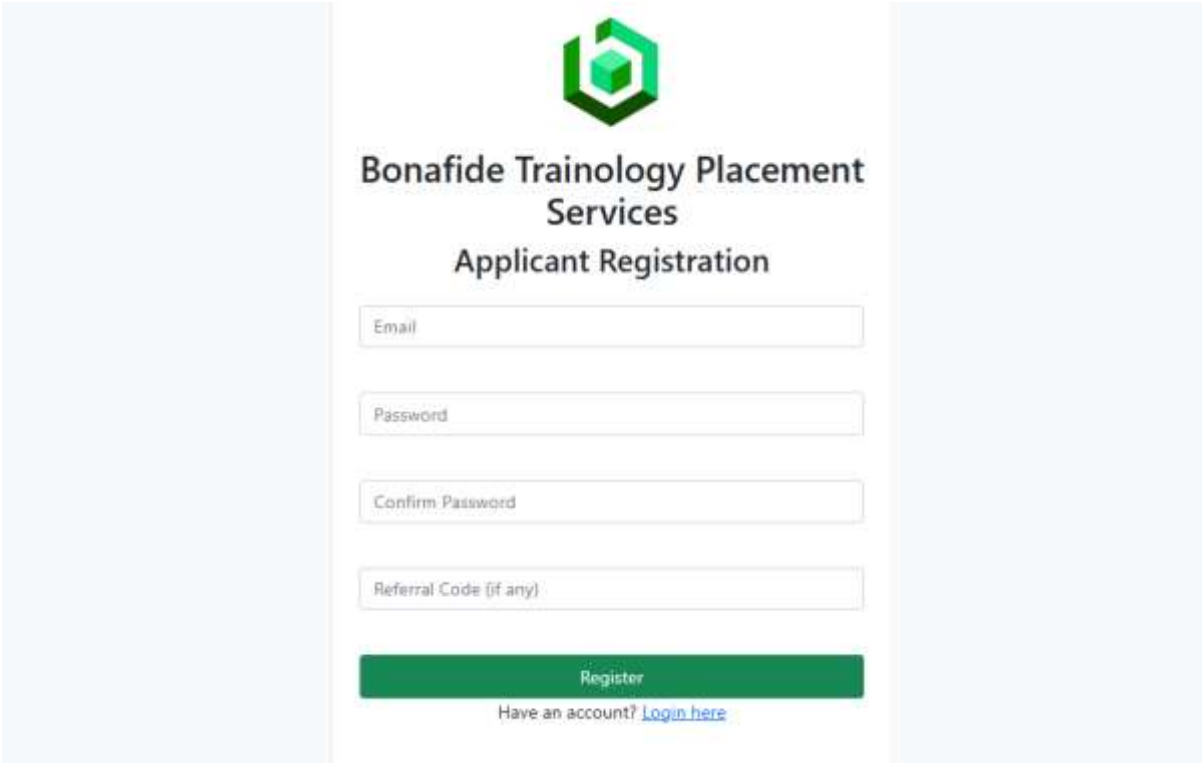


Figure 60. Register for Applicant

Figure 60 displays the registration interface for applicants within the Bonafide Trainology Placement Services system. The registration form enables new users to create an account by providing their email, password, and a confirmation of the password. There is also an optional field for entering a referral code. The registration page includes a "Register" button to submit the details, and a link for existing users to log in, labeled as "Login here."

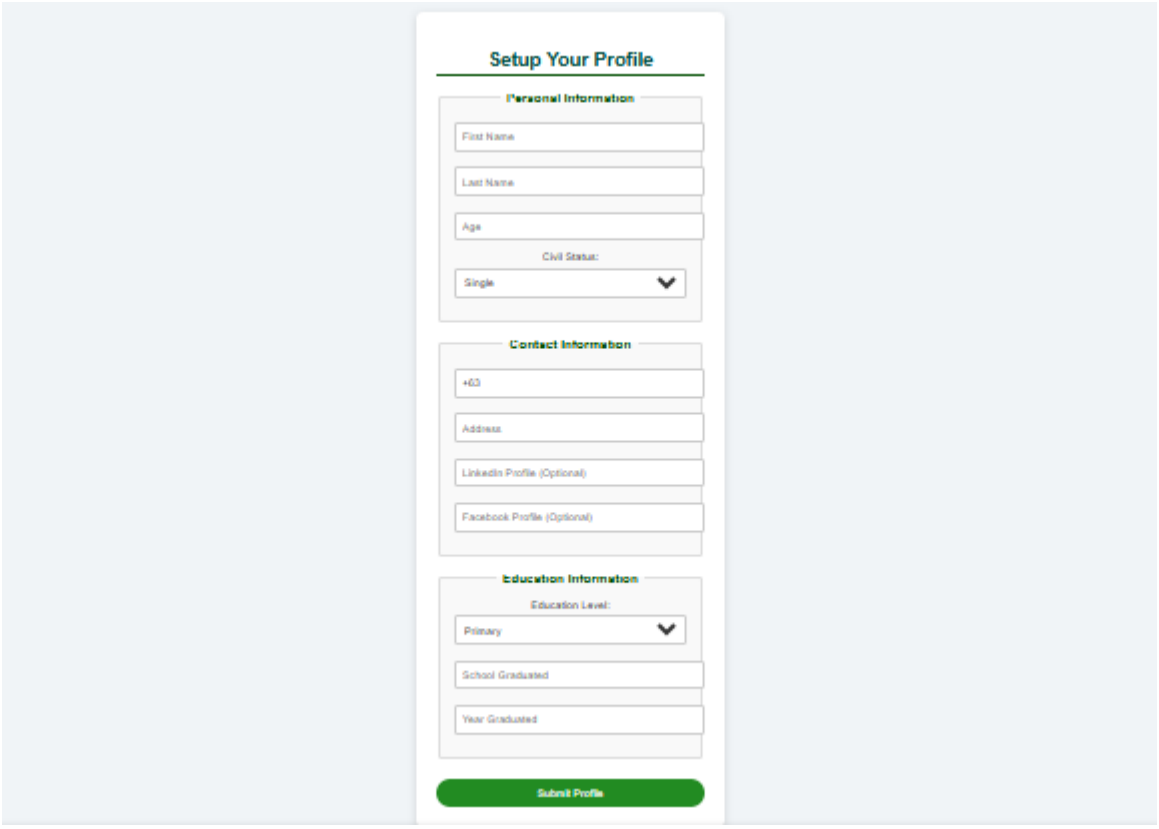


Figure 61. Setup Profile for Applicant

Figure 61 illustrates the profile setup interface for applicants within the Bonafide Trainology Placement Services system. This page offers a structured form for applicants to provide essential personal, contact, and educational information, which aids in creating a complete and professional profile.

In the Personal Information section, applicants can enter their first name, last name, age, and civil status, offering basic demographic details. The Contact Information section includes fields for a contact number, address, and optional links to LinkedIn and Facebook profiles, allowing applicants to provide additional avenues for recruiters to view their professional and social presence.

The Education Information section enables applicants to select their education level, specify the school they attended, and indicate their graduation year, outlining their academic background.

The interface includes a "Submit Profile" button at the bottom, which allows applicants to save and submit their profile information. This organized profile setup process ensures that applicants present a comprehensive view of their background, enhancing their visibility to potential employers within the Bonafide Trainology Placement Services system.

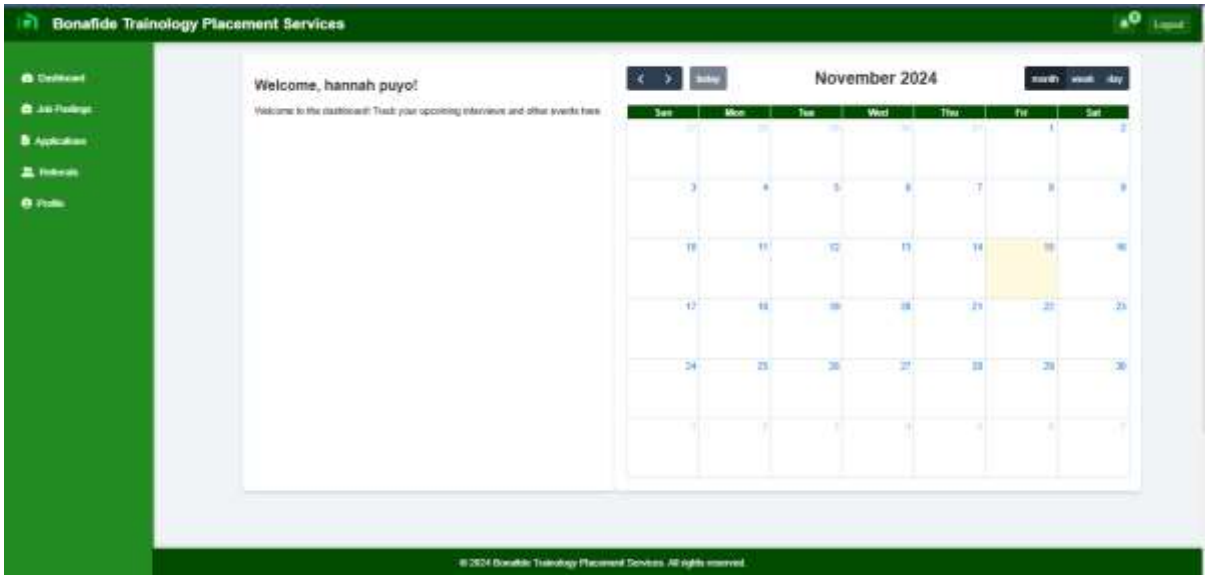


Figure 62. Dashboard for Applicant

Figure 62 illustrates the applicant dashboard within the Bonafide Trainology Placement Services system, designed to streamline applicants' access to essential recruitment tools and information. The dashboard provides a left-hand navigation panel with quick links to sections such as Dashboard, Job Postings, My Applications, Events, and Profile, enabling applicants to easily navigate through different aspects of their job search.

In the central area, applicants are welcomed with a personalized message and introductory information, enhancing user experience and guiding them on how to maximize the platform's features. To the right, an Upcoming Events calendar displays scheduled job interviews, allowing applicants to view and organize important dates related to their recruitment journey. This calendar functionality supports time management and helps applicants stay prepared for upcoming events, providing a comprehensive hub for tracking applications, viewing job opportunities, and managing schedules efficiently.

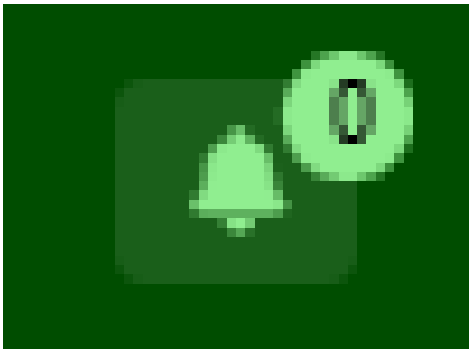


Figure 63. Notification for Applicant

Figure 63 illustrates the notification icon in the Bonafide Trainology Placement Services system, designed to keep users updated on their application status. The bell icon shows a badge with the number of unread notifications, alerting users to changes in their application process, such as being interviewed, offered a position, deployed, or rejected. This real-time notification functionality helps users stay informed about each stage of their recruitment journey, improving transparency and eliminating the need for constant manual status checks. The notification icon thus enhances user experience by providing quick, at-a-glance updates directly on the dashboard.

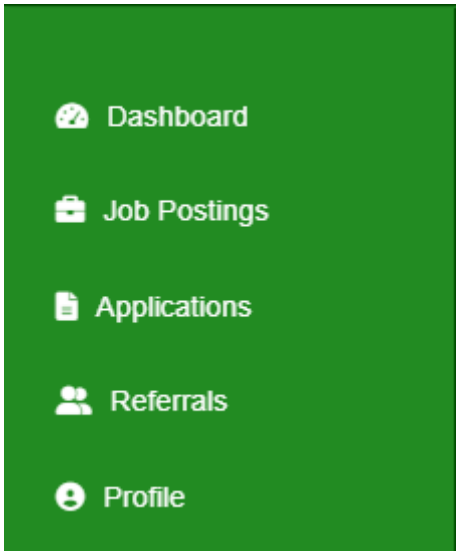


Figure 64. Sidebar for Applicant

Figure 64 illustrates the sidebar navigation menu available to applicants within the Bonafide Trainology Placement Services system, designed to streamline access to essential features and enhance ease of navigation. The menu includes options such as Dashboard, where applicants can view an overview of their recruitment activities and receive key updates; Job Postings, which provides access to browse and apply for job postings; and Applications, where applicants can track the status and details of their submitted applications. Additionally, the Referrals section allows applicants to manage and monitor their referral network, while Profile enables them to view and update their personal and professional information and also allows them to edit it. This organized and intuitive layout allows applicants to efficiently switch between sections, creating a smoother job search and application management experience.

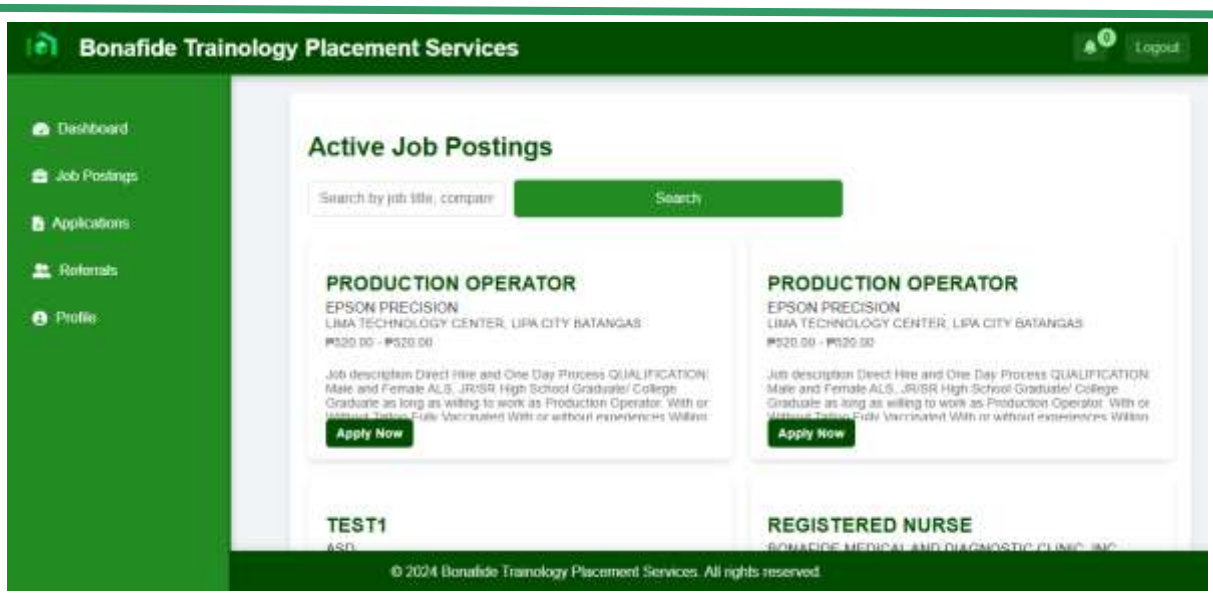


Figure 65. Job Posting for Applicant

Figure 65 illustrates the job posting interface for applicants within the Bonafide Trainology Placement Services system. This interface provides applicants with essential details about available job listings, such as the job title, company name, location, salary range, and a job description., with salary details and a short job description. The system also indicates the application status by showing a button “Apply” if the said job posting is still available and, "Already Applied," status informing the applicant that they have previously submitted an application for this position.

The interface includes a search bar at the top enables users to search for specific job titles or companies, location, salary range, streamlining the process of finding relevant job opportunities. This job posting feature enhances the applicant's experience by providing clear job information and tracking application status, helping them manage their job search efficiently.

Figure 66. Apply Job for Applicant

Figure 66 illustrates the "Apply Job for Applicant" interface within the Bonafide Trainology Placement Services system, designed to simplify the job application process for applicants. This interface includes fields for uploading a resume, entering qualifications, skills, and work experience, and selecting how the applicant learned about the job. The page also provides detailed information on job requirements, qualifications, benefits, and the salary range, giving applicants a clear understanding of the role and its incentives. At the bottom, a Submit Application button enables applicants to finalize and submit their application seamlessly. This structured layout streamlines the application process, allowing applicants to easily provide relevant information and apply for positions efficiently.

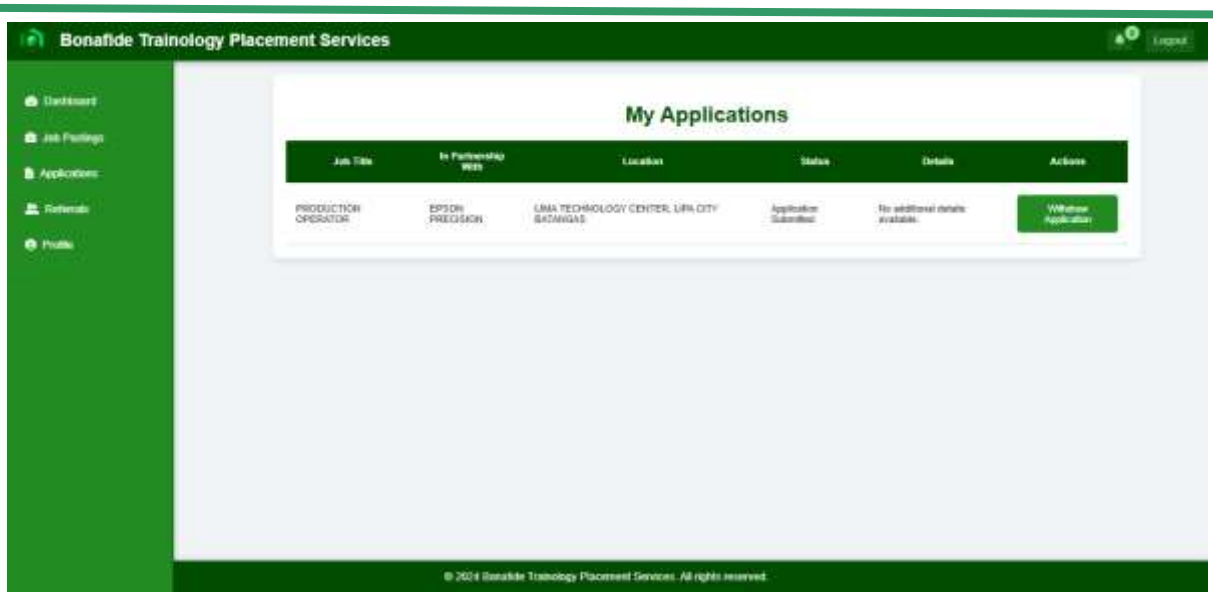


Figure 67. Applications for Applicant

Figure 67 illustrates the applications interface for applicants in the Bonafide Trainology Placement Services system. This section provides a comprehensive view of the applicant's job applications, including details about each position they have applied for. Key information displayed includes the job title, company name, location, and current application status "Screened," "Interview Scheduled," "Offered," "Deployed," and "Rejected".

The "Details" column provides further specifics, such as the interview date, time, type (e.g., online), and a direct "Join Interview" link for easy access to the meeting. An action button labeled "Withdraw Application" allows the applicant to retract their application if needed. This interface enhances the user experience by keeping applicants informed about their application progress and providing them with easy access to interview details and actions related to their applications.

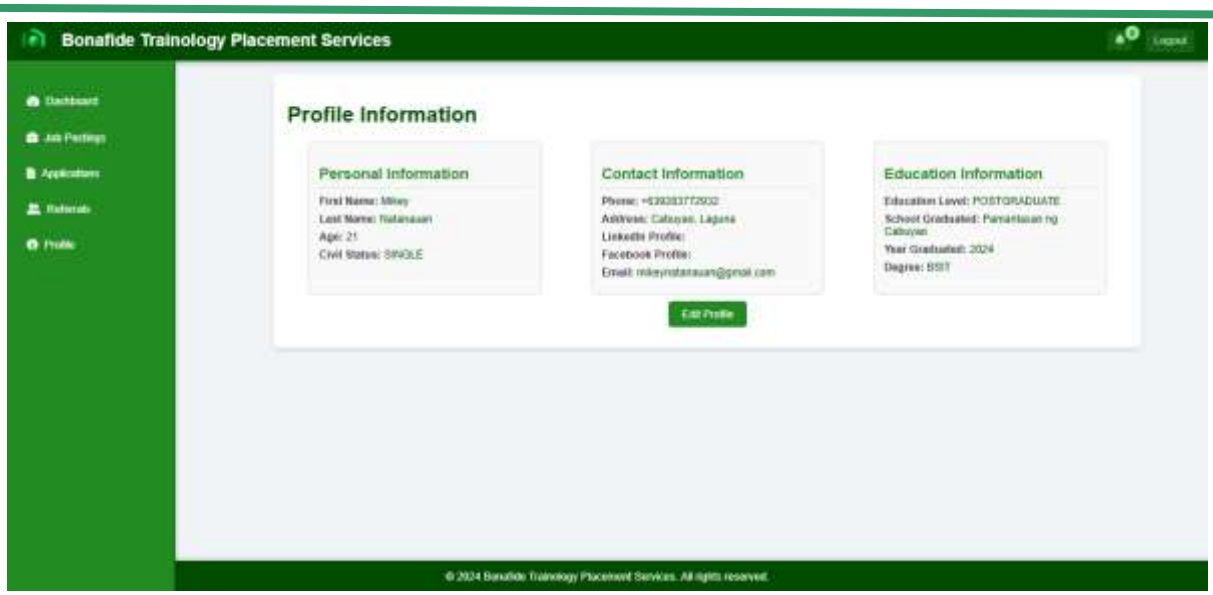


Figure 68. Profile for Applicant

Figure 68 illustrates the Profile interface for applicants within the Bonafide Trainology Placement Services system, designed to help applicants view and manage their personal, contact, and educational details. The profile is divided into three main sections: Personal Information, Contact Information, and Education Information.

The Personal Information section displays essential details such as first and last name, age, and civil status. Contact Information provides a comprehensive view of the applicant's phone number, address, LinkedIn profile, and email address, ensuring all communication details are readily accessible. In the Education Information area, applicants can view their education level, the school they attended, graduation year, and the degree obtained.

An Edit Profile button at the bottom allows applicants to update their information as needed, ensuring that their details are accurate and relevant. This profile management feature simplifies the process of maintaining up-to-date information, supporting an organized and efficient application experience.

Figure 69. Edit Profile for Applicant

Figure 69 displays the "Edit Profile" interface for applicants within the Bonafide Trainology Placement Services system, designed to simplify the process of updating personal information. This page allows applicants to modify key profile details, including their first name, last name, age, address, and contact information. Fields for LinkedIn and Facebook profiles enable applicants to provide updated social media links, and the Education Information section allows adjustments to education level, school attended, and graduation year.

An Account Settings section at the bottom lets applicants update their email and password, ensuring they can securely manage their login credentials. Once changes are made, applicants can save their updates by clicking the Update Profile button. This interface provides a user-friendly way for applicants to keep their profile information current, supporting a more efficient and accurate application experience within the system.

Assessment of Users/Experts

System Evaluation

The system was evaluated across essential quality attributes to ensure it meets user needs and expectations effectively. The assessment focuses on key areas such as functionality, reliability, performance, and usability to determine how well the system supports both End Users and Web Experts.

Where:

- **Effectiveness**: Assesses whether the system's features enable users to accomplish their tasks accurately and completely. This attribute measures if the system provides the necessary tools for job application tracking, profile management, and referral management, ensuring that users can meet their goals without unnecessary complexity.
- **Reliability**: Evaluates the stability and dependability of the system over time. It ensures that the system performs consistently without frequent crashes, errors, or unexpected downtimes, especially during peak usage. A reliable system provides users with confidence, allowing them to complete tasks without worrying about interruptions.
- **Performance Efficiency**: Measures the speed and responsiveness of the system, especially under heavy load. This aspect evaluates if the system can handle multiple user requests quickly, with minimal delays when navigating, submitting applications, or updating profiles. High performance efficiency ensures users experience fast, seamless interactions with the platform.
- **Usability**: Examines how easy it is for users to learn, navigate, and operate the system. This attribute focuses on whether the interface is intuitive, with clearly labeled sections and user-friendly workflows, making it easy for users to complete tasks without confusion. High usability reduces the learning curve and allows users to interact with the system comfortably and efficiently.

Assessment of end users (applicants):

Table 6. System Evaluation Effectiveness

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	33	16	4	0	3	100%	4.36
Q2	32	19	1	1	3	100%	4.36
Q3	30	23	0	0	3	100%	4.38
Q4	32	20	2	0	2	100%	4.43
Q5	36	17	0	0	3	100%	4.48

Table 6 presents the responses regarding the system's Effectiveness in supporting the job application process and professional networking for applicants and job seekers. In Question 1, which assesses whether the system allows users to easily track the status of their job applications, 33 respondents indicated Strongly Agree (SA), and 16 selected Agree (A), making up 87.5% of positive feedback. These responses suggest that most users find the application tracking feature effective and easy to navigate, allowing them to monitor their progress through the recruitment stages. However, 4 respondents selected Neutral (N), and 3 selected Strongly Disagree (SD), indicating that a small portion of users might find the tracking feature less intuitive or comprehensive. This divergence hints at minor challenges some users may face, despite the system's notification and update capabilities.

In Question 2, which evaluates the relevance of information provided about the recruitment process, responses remained largely positive, with 32 users selecting Strongly Agree and 19 selecting Agree. This high proportion (91%) of favorable responses implies that the system succeeds in delivering necessary and relevant recruitment information, such as interview schedules, application feedback, and start dates.

These details appear to enhance users' confidence and understanding of their recruitment journey. However, a few respondents selected Neutral (1), Disagree (1), or Strongly Disagree (3), suggesting that a small subset may find the recruitment information less accessible or sufficiently detailed, even with the system's structured approach.

Question 3 addresses the referral network feature's usefulness in maintaining and expanding professional networks. Here, 30 respondents indicated Strongly Agree, and 23 selected Agree, showing that 94% of users view the referral feature as beneficial for networking and professional growth. This positive reception indicates that the feature effectively aligns with users' expectations of building connections within their industry, which can lead to broader job opportunities. However, the 3 Strongly Disagree responses suggest that a small portion of users may find this feature less impactful or may not utilize it fully for network expansion.

In Question 4, which examines the referral network's effectiveness in connecting users with relevant job opportunities, 32 respondents selected Strongly Agree, and 20 selected Agree, making up 92% of positive responses. This high level of agreement suggests that the referral network serves its purpose of facilitating job discovery through professional connections, a key component of network-based recruitment. Meanwhile, 2 Neutral and 2 Strongly Disagree responses hint at a slight variance in user experiences, with some users possibly perceiving the connection to relevant job opportunities as less direct or beneficial.

Question 5 explores the overall enhancement of the job search and application experience provided by the platform. This question yielded the highest level of agreement, with 36 respondents selecting Strongly Agree and 17 selecting Agree, totaling 95% of positive feedback. The strong mean rating of 4.48 underscores users' overall satisfaction, as they perceive the system as significantly improving their job search process through integrated tracking, recruitment information, and referral networking.

Despite this overwhelmingly positive feedback, the presence of 3 Strongly Disagree responses indicates that a minor group of users may not experience the same level of enhancement in their job search, potentially due to isolated usability or functional concerns.

Overall, the survey data reflects a positive user experience with high satisfaction across key system features. The system is perceived as effective in its main functions—tracking job applications, providing comprehensive recruitment information, and facilitating professional networking through referrals. The strong agreement on these features supports the system's alignment with user needs, enhancing the recruitment experience for job seekers and applicants alike.

Table 7. System Evaluation Reliability

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	35	16	3	0	2	100%	4.46
Q2	25	22	5	0	4	100%	4.14
Q3	32	21	1	0	2	100%	4.45
Q4	34	19	0	0	3	100%	4.45
Q5	27	22	4	1	2	100%	4.27

The survey results in **Table 7** reflect users' perceptions of the **Reliability** of the system. This assessment focuses on the system's accessibility, stability, accuracy, responsiveness in notifications, and the clarity of error messages. Each question evaluates a different aspect of reliability, which is essential in ensuring a smooth user experience in a recruitment management platform.

In Question 1, respondents were asked if they were able to access the system when needed. A significant number of users expressed high satisfaction, with 35 selecting Strongly Agree (SA) and 16 selecting Agree (A), totaling 93% of positive responses. This strong agreement, reflected by a mean score of 4.46, suggests that the system is accessible to users, meeting their expectations for availability. However, a small subset indicated some issues with accessibility, with 3 Neutral (N) and 2 Strongly Disagree (SD) responses. This could suggest occasional accessibility challenges, though the high overall agreement points to a reliable level of system availability for most users.

Question 2 addresses whether the platform operates smoothly with minimal errors or interruptions. Here, 25 respondents selected Strongly Agree, while 22 chose Agree, resulting in 84% positive feedback and a mean score of 4.14. While most users seem satisfied with the system's stability, the 5 Neutral and 4 Strongly Disagree responses indicate that some users may have encountered occasional disruptions. These responses suggest that, while generally stable, the platform may experience isolated instances of performance issues or interruptions, impacting a small portion of users.

In Question 3, the system's accuracy in reflecting the status and details of applications was evaluated. Positive feedback was high, with 32 users selecting Strongly Agree and 21 choosing Agree, contributing to a mean score of 4.45. The 94% of respondents who agreed or strongly agreed that the system accurately conveys their application status suggests that users trust the platform's ability to provide reliable and up-to-date information. However, 1 Neutral and 2 Strongly Disagree responses highlight a minority who may have experienced discrepancies in application details, though such instances appear to be rare.

Question 4 examines the timeliness and informativeness of notifications and updates from the system. Responses were strongly positive, with 34 indicating Strongly Agree and 19 choosing Agree, resulting in 96% of users affirming satisfaction in this area.

This high level of agreement, supported by a mean score of 4.45, underscores the system's reliability in delivering timely notifications, which is crucial for keeping applicants informed of their application progress, interview schedules, and other key milestones. The presence of 3 Strongly Disagree responses suggests that, in rare cases, users may experience delays or insufficient notification details, though the overall satisfaction remains high.

Finally, Question 5 addresses whether the system provides user-friendly error messages when issues arise. The responses reflect generally positive feedback, with 27 Strongly Agree and 22 Agree, totaling 88% of favorable responses. This question received a mean score of 4.27, indicating that users generally find error messages helpful and clear. However, a small number of respondents—4 Neutral, 1 Disagree, and 2 Strongly Disagree—suggest that, in some cases, error messages may not fully meet user expectations for clarity or guidance on troubleshooting.

In summary, the survey results demonstrate that the system is perceived as largely reliable, meeting users' needs for accessibility, stability, and accuracy in application tracking and notifications. High levels of satisfaction in areas like system access, smooth operation, and timely notifications reflect positively on the platform's reliability. Minor variances in responses suggest occasional challenges with system availability, error handling, or notification consistency, though these instances are relatively infrequent.

Table 8. System Evaluation Performance Efficiency

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	33	18	1	0	4	100%	4.36
Q2	26	23	4	1	2	100%	4.25
Q3	26	24	3	0	3	100%	4.25
Q4	31	19	3	1	2	100%	4.36
Q5	33	18	2	0	3	100%	4.39

The results in **Table 8** present users' perceptions of the **Performance Efficiency** of the system. This aspect evaluates the system's speed, responsiveness, and ability to handle tasks during peak usage without delays, all critical factors in ensuring a smooth user experience, especially for applicants navigating multiple applications and recruitment updates.

In Question 1, respondents were asked whether the platform generally loads quickly, enabling easy navigation without significant delays. Responses were largely favorable, with 33 selecting Strongly Agree (SA) and 18 choosing Agree (A), resulting in 91% positive feedback and a mean score of 4.36. These responses suggest that most users experience quick loading times, facilitating seamless navigation through the platform. However, 4 respondents selected Strongly Disagree (SD), indicating that a small group may occasionally experience slower load times.

Question 2 focuses on the platform's efficiency in processing application data and displaying status updates without unnecessary delays. Positive feedback remained high, with 26 selecting Strongly Agree and 23 selecting Agree, totaling 86% of users expressing satisfaction with this feature and yielding a mean score of 4.25. The positive responses indicate that most users find the platform reliable in updating application statuses promptly, which is essential for tracking progress.

However, there were 4 Neutral (N), 1 Disagree (D), and 2 Strongly Disagree responses, suggesting that a minority of users may experience occasional delays in data processing.

In Question 3, the system's performance during peak usage times was evaluated. The responses show 26 Strongly Agree and 24 Agree, indicating that 89% of users perceive the system as capable of handling high traffic without long delays, with a mean score of 4.25. This strong agreement suggests that the platform maintains efficiency even under heavy usage, which is crucial for applicants who rely on timely responses during peak activity. Nevertheless, 3 Neutral and 3 Strongly Disagree responses indicate that a small group of users may have encountered slower performance during peak times.

Question 4 asked respondents if the platform allows them to apply for various jobs quickly, without significant delays. Responses were favorable, with 31 indicating Strongly Agree and 19 Agree, resulting in 91% positive feedback and a mean score of 4.36. These results imply that the majority of users experience minimal delays when submitting applications, supporting an efficient job application process. However, 1 Disagree and 2 Strongly Disagree responses point to isolated instances of delays, which could stem from temporary system lags.

Finally, Question 5 addresses the responsiveness of the system when filtering or sorting jobs based on different criteria. This feature is important for users who wish to refine job searches to find positions that best match their skills or preferences. The responses were highly positive, with 33 selecting Strongly Agree and 18 choosing Agree, resulting in 91% favorable feedback and a mean score of 4.39. This indicates that most users find the system responsive and efficient in processing search filters, enhancing their experience in locating relevant job opportunities. The presence of 3 Strongly Disagree responses suggests that a small number of users might face occasional delays when using these functions.

In summary, the survey data demonstrate that users generally perceive the system as highly efficient in terms of performance, with favorable responses across questions related to loading times, data processing, peak-time stability, application speed, and search responsiveness. Minor variances in responses indicate occasional delays experienced by a small subset of users. However, these delays may not solely reflect the system's performance but could also be influenced by external factors, such as users' internet connectivity. The results reflect a positive user experience in terms of the platform's speed and responsiveness, supporting efficient navigation and application management for job seekers.

Table 9. System Evaluation Usability

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	33	20	0	0	3	100%	4.43
Q2	29	24	0	1	2	100%	4.38
Q3	35	18	0	0	3	100%	4.46
Q4	35	17	1	0	3	100%	4.45
Q5	35	15	3	0	3	100%	4.41

The results in **Table 9** illustrate user feedback on the **Usability** of the applicant tracking and job board system, specifically in terms of ease of navigation, accessibility of features, understandability, independence in performing actions, and user-friendliness in the application process. Usability is critical in ensuring that applicants and job seekers can efficiently and effectively interact with the system to accomplish their objectives, such as job searching and application tracking.

In Question 1, which assesses whether the system interface is easy to navigate and use, responses were overwhelmingly positive. A total of 33 respondents selected Strongly Agree (SA) and 20 selected Agree (A), resulting in a mean score of 4.43 and indicating that 95% of users find the interface intuitive. The 3 responses of Strongly Disagree (SD), however, suggest that a minor group of users may have faced some difficulty navigating the interface. Overall, the high level of positive feedback reflects that the majority of users are able to navigate the platform comfortably, which is essential for supporting applicants in their recruitment activities.

Question 2 evaluates the ease with which users can locate the features they need. Here, 29 respondents selected Strongly Agree and 24 selected Agree, giving a mean score of 4.38. This high percentage of positive responses suggests that the platform effectively organizes and presents its features, allowing users to quickly access essential functions like application tracking and referral management. The presence of a few neutral or disagreeing responses (1 Disagree and 2 Strongly Disagree) indicates that some users may experience occasional challenges in locating specific features, though this appears to be a relatively rare occurrence.

In Question 3, the platform's understandability, even for first-time users, was assessed. With 35 respondents selecting Strongly Agree and 18 selecting Agree, the mean score reached 4.46, the highest in this usability evaluation. These results indicate that 96% of users feel the platform is easy to understand and navigate, which is particularly beneficial for first-time users who might otherwise require additional support. The 3 Strongly Disagree responses suggest that a very small group may have found certain aspects initially confusing, though overall feedback indicates that the platform is accessible for new users.

Question 4 asked users if they could perform necessary actions, such as checking their application status or updating their profile, without assistance. Responses were strongly positive, with 35 users selecting Strongly Agree, 17 selecting Agree, and 1 Neutral response, resulting in a mean score of 4.45.

This high level of satisfaction demonstrates that users feel empowered to independently perform key functions on the platform. The ability to complete tasks without external help underscores the platform's user-centric design, which facilitates self-sufficiency and minimizes reliance on support.

Finally, Question 5 examined whether the platform simplifies the application process, making it user-friendly. The feedback was positive, with 35 users selecting Strongly Agree and 15 selecting Agree, resulting in a mean score of 4.41. This high level of agreement suggests that users perceive the platform as streamlining the application process, enhancing usability through clear steps and a straightforward interface. The presence of 3 Strongly Disagree responses indicates that a small subset of users may have encountered complexities in the application process, though these experiences are not reflective of the general sentiment.

In summary, the survey responses indicate a high degree of usability within the applicant tracking and job board system. Most users find the interface easy to navigate, the features accessible, and the overall experience intuitive, even for first-time users. The platform empowers users to perform essential tasks independently, and it effectively simplifies the application process, supporting a positive user experience. Minor variances in feedback suggest isolated instances where a small group of users may have faced usability challenges, though these are limited and do not detract from the overall positive perception of the system's usability.

For end users (Recruiter and user admin):

Table 10. System Evaluation Effectiveness

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	1	5	1	0	0	100%	4
Q2	2	4	1	0	0	100%	4.14
Q3	3	4	0	0	0	100%	4.43
Q4	3	2	2	0	0	100%	4.14
Q5	2	3	2	0	0	100%	4

The survey results displayed in **Table 10** evaluate the **Effectiveness** of the applicant tracking and job board system, specifically designed for recruiters to create job posts and process applicant applications. This assessment focuses on the system's ability to track applicants, provide valuable analytics, manage referral networks, align with recruitment workflows, and meet organizational requirements. The feedback from recruiters highlights the system's role in optimizing the hiring process and addressing their specific needs.

In Question 1, which evaluates whether the system helps in tracking applicants throughout the recruitment process, 1 respondent selected Strongly Agree (SA), and 5 selected Agree (A), leading to a mean score of 4. This indicates that most recruiters perceive the applicant tracking feature as effective in monitoring candidates' progress across different stages of recruitment. The single Neutral (N) response suggests that one respondent may not have fully utilized the tracking functionality or experienced difficulty in specific scenarios. Overall, the data shows that the majority of recruiters find the tracking system beneficial in streamlining applicant management.

Question 2 examines whether the system provides useful insights and analytics for making recruitment decisions. Responses were largely positive, with 2 recruiters selecting Strongly Agree and 4 selecting Agree, resulting in a mean score of 4.14. This suggests that recruiters value the platform's analytical capabilities, which likely include metrics such as applicant flow, hiring timelines, and sourcing effectiveness. The single Neutral response indicates that one recruiter may have found the analytics features less comprehensive or applicable to their specific needs, though no negative feedback was recorded.

In Question 3, which addresses the system's ability to allow for effective management of referral networks to improve talent pooling, feedback was particularly favorable. With 3 respondents selecting Strongly Agree and 4 selecting Agree, this question received the highest mean score of 4.43. These results highlight the importance of the referral management feature, which recruiters perceive as instrumental in expanding talent pools and identifying strong candidates through trusted networks. The absence of neutral or negative responses suggests that this feature is widely regarded as effective and aligns with the recruiters' needs.

Question 4 evaluates whether the applicant tracking features align with the recruitment process of Bonafide Trainology Placement Services. Responses included 3 Strongly Agree, 2 Agree, and 2 Neutral, with a mean score of 4.14. While most recruiters agree that the system aligns with their organizational recruitment workflows, the Neutral responses suggest that some recruiters may have faced challenges in fully integrating the system into their existing processes. Despite this, the lack of negative feedback indicates general satisfaction with this functionality.

Finally, Question 5 assesses whether the system's functionalities meet the recruitment and data analysis needs of the organization. Feedback was consistent, with 2 respondents selecting Strongly Agree, 3 selecting Agree, and 2 Neutral responses, leading to a mean score of 4. This indicates that most recruiters find the system's features adequate for addressing their recruitment and analytical requirements.

The Neutral responses suggest that a small subset of recruiters may feel that certain functionalities could better meet their specific needs, but no negative responses were provided, reflecting overall satisfaction.

In summary, the survey results suggest that recruiters perceive the system as highly effective in supporting their recruitment efforts. The platform excels in applicant tracking, analytics, and referral management, with high levels of satisfaction across these areas. While minor variances in responses highlight some challenges in aligning features with workflows or meeting specific needs, the system is generally regarded as a valuable tool for streamlining recruitment processes and supporting data-driven decision-making within the organization.

Table 11. System Evaluation Reliability

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	2	3	2	0	0	100%	4
Q2	0	2	5	0	0	100%	3.29
Q3	3	3	1	0	0	100%	4.29
Q4	1	6	0	0	0	100%	4.14
Q5	2	3	2	0	0	100%	4

The survey results in **Table 11** evaluate the **Reliability** of the system from the perspective of recruiters. Reliability focuses on the system's ability to provide consistent access, minimal disruptions, accuracy in job posting and applicant tracking, reliable data tracking for referrals, and clarity in error handling. These attributes are essential for ensuring smooth operations within the recruitment process and fostering confidence in the system's dependability.

In Question 1, which assesses whether users are able to access the system when needed, 2 respondents selected Strongly Agree (SA), 3 selected Agree (A), and 2 chose Neutral (N), resulting in a mean score of 4. This indicates that a majority of recruiters perceive the system as accessible and available when required. The Neutral responses suggest that some users may have encountered occasional access challenges, though no negative feedback (Disagree or Strongly Disagree) was recorded. This overall positive feedback highlights the system's reliability in terms of accessibility.

Question 2 examines whether the platform functions with minimal disruptions. This question received relatively lower scores, with 0 Strongly Agree responses, 2 Agree, and 5 Neutral responses, resulting in a mean score of 3.29. The significant number of Neutral responses indicates that many recruiters might have experienced minor disruptions or inconsistencies during system usage. While no outright negative feedback was recorded, the relatively lower mean score highlights room for improvement in ensuring uninterrupted platform performance.

In Question 3, which evaluates whether the system allow for accurate job posting and candidate tracking, feedback was strongly positive. A total of 3 respondents selected Strongly Agree, 3 selected Agree, and 1 chose Neutral, resulting in a mean score of 4.29. This indicates that most recruiters trust the system's functionality in maintaining accuracy for both job postings and tracking applicant progress. The single Neutral response suggests a minor instance where the system may not have fully met expectations, though the overall feedback reflects strong reliability in this area.

Question 4 focuses on the system's ability to reliably track data related to referrals and applicant progress. Responses included 1 Strongly Agree, 6 Agree, and no Neutral or negative feedback, resulting in a mean score of 4.14. The high percentage of positive responses suggests that recruiters find the system dependable for managing referral networks and monitoring the progress of applicants throughout the hiring process. The absence of Neutral or negative feedback highlights the consistency of this feature.

Finally, Question 5 evaluates whether the software provides user-friendly error messages when something goes wrong. Responses were favorable, with 2 Strongly Agree, 3 Agree, and 2 Neutral, resulting in a mean score of 4. This feedback indicates that most recruiters find error messages clear and helpful in guiding them to resolve issues. However, the Neutral responses suggest that some users might find error messages less intuitive or detailed in certain scenarios.

In summary, the survey results indicate that recruiters generally perceive the system as reliable in its key functions, including accessibility, accurate job posting and tracking, and data reliability for referrals and applicant progress. While the platform received high marks in most areas, the relatively lower mean score for minimal disruptions (Question 2) suggests that some users may experience occasional inconsistencies or interruptions. Despite these isolated concerns, the overall feedback reflects a dependable platform that supports recruiters in streamlining their hiring processes and managing key recruitment data effectively.

Table 12. System Evaluation Performance Efficiency

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	1	2	4	0	0	100%	3.57
Q2	3	1	3	0	0	100%	4
Q3	1	1	5	0	0	100%	3.43
Q4	3	2	2	0	0	100%	4.14

The survey results in **Table 12** assess the **Performance Efficiency** of the applicant tracking and job board system. Performance efficiency examines the system's ability to load quickly, manage large volumes of data, handle peak usage times, and respond effectively to user actions such as filtering or sorting.

These factors are critical in ensuring the platform supports recruiters in conducting their tasks efficiently without delays or disruptions.

In Question 1, which evaluates whether the platform generally loads quickly, 1 respondent selected Strongly Agree (SA), 2 selected Agree (A), and 4 chose Neutral (N), resulting in a mean score of 3.57. While the majority of responses indicate no significant issues with platform loading times, the relatively high number of Neutral responses suggests that some recruiters might perceive occasional delays, particularly in scenarios involving slower internet connections or larger datasets. However, there were no negative responses, which indicates that overall, the platform is considered adequate in terms of loading speed.

Question 2 examines whether the system efficiently handles large volumes of data, including applicants, job postings, and referrals. Responses were favorable, with 3 Strongly Agree and 1 Agree, resulting in a mean score of 4. These results reflect a high level of confidence among recruiters in the system's ability to manage large-scale operations without significant performance issues. The 3 Neutral responses, however, suggest that a subset of users may have experienced occasional slowdowns or challenges, potentially tied to specific high-volume activities.

In Question 3, which assesses the platform's performance during peak usage times, feedback was slightly less positive. Responses included 1 Strongly Agree, 1 Agree, and 5 Neutral, yielding a mean score of 3.43. The predominance of Neutral responses indicates that many recruiters may have encountered noticeable slowdowns or system inefficiencies during high-demand periods. While no respondents provided outright negative feedback, this result highlights that the system may not always perform optimally under peak usage conditions, which could impact recruiters' ability to manage time-sensitive tasks.

Finally, Question 4 evaluates the responsiveness of the system when filtering or sorting applicants based on various criteria. Feedback was positive, with 3 Strongly Agree, 2 Agree, and 2 Neutral responses, resulting in a mean score of 4.14.

The high percentage of positive responses suggests that most recruiters find the system responsive and efficient in processing sorting and filtering commands. This feature is particularly important for recruiters needing to refine applicant pools quickly. The Neutral responses indicate isolated cases where performance may not have met expectations, though these are relatively infrequent.

In summary, the survey results suggest that while the system is generally perceived as performing adequately, there are areas where performance efficiency could be more consistent. Recruiters acknowledge the platform's ability to manage large datasets and perform tasks like filtering and sorting effectively, particularly outside of peak usage times. However, Neutral responses across several questions highlight potential challenges with system responsiveness and performance during high-demand scenarios. Despite these variances, the overall feedback suggests that the system supports recruiters in their key tasks while providing a baseline level of performance efficiency.

Table 13. System Evaluation Usability

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	2	2	3	0	0	100%	3.86
Q2	2	4	1	0	0	100%	4.14
Q3	2	3	2	0	0	100%	4
Q4	0	6	1	0	0	100%	3.86
Q5	2	4	1	0	0	100%	4.14

The survey results in **Table 13** assess the **Usability** of the job board and applicant tracking system as perceived by recruiters. Usability focuses on how intuitive, navigable, and accessible the platform is, as well as how well it supports users in independently performing tasks such as managing applicants, creating job posts, and handling talent pools. These attributes are critical in ensuring that recruiters can efficiently use the system without requiring extensive support or training.

In Question 1, which evaluates whether the system interface is easy to navigate and use, 2 respondents selected Strongly Agree (SA), 2 selected Agree (A), and 3 chose Neutral (N), resulting in a mean score of 3.86. While positive responses indicate that many recruiters find the interface intuitive, the higher number of Neutral responses suggest that some users may find certain navigation elements less straightforward. No negative responses (Disagree or Strongly Disagree) were recorded, implying that the interface is generally functional but could present minor challenges to specific users.

Question 2 examines whether users can easily find the features they need. Responses were more favorable, with 2 Strongly Agree and 4 Agree, resulting in a mean score of 4.14. This indicates that the majority of recruiters perceive the platform's features as well-organized and accessible, making it easier for them to locate tools necessary for job posting, applicant tracking, and referral management. The single Neutral response suggests that one recruiter may have found some features less immediately accessible or intuitive, though this appears to be an isolated case.

In Question 3, which assesses whether the platform is easy to understand, even for first-time users, feedback was largely positive. A total of 3 respondents selected Strongly Agree, 2 selected Agree, and 2 chose Neutral, yielding a mean score of 4. This suggests that most recruiters find the platform easy to understand, with its design and workflows supporting a smooth onboarding experience for new users. The Neutral responses indicate that some users might have required additional time or guidance to fully grasp all functionalities, though no dissatisfaction was reported.

Question 4 evaluates whether recruiters can perform necessary actions, such as managing applicants or creating job posts, without assistance. Responses included 6 Agree and 1 Neutral, with no Strongly Agree or negative responses, leading to a mean score of 3.86. The predominance of Agree responses indicates that most recruiters are able to work independently within the platform, performing key functions without requiring external support. However, the lack of Strongly Agree responses and the presence of 1 Neutral response suggest that certain tasks might require slight adjustments to ensure complete autonomy for all users.

Finally, Question 5 addresses whether the system helps users manage job posts, applicants, and talent pools more efficiently. Responses were again favorable, with 2 Strongly Agree, 4 Agree, and 1 Neutral, resulting in a mean score of 4.14. This highlights the system's role in streamlining recruitment tasks and providing tools that simplify complex processes. The Neutral response indicates a single instance where the system might not have fully met a user's expectations, though overall, recruiters perceive the platform as enhancing their efficiency in managing recruitment workflows.

In summary, the survey results indicate that recruiters generally perceive the system as user-friendly, intuitive, and supportive of their key tasks. The platform is regarded as easy to navigate, with accessible features and workflows that allow users to work independently. Minor variations in responses, particularly in Questions 1 and 3, suggest that some recruiters may encounter occasional challenges in navigation or understanding specific functionalities, but these instances are limited. Overall, the system supports recruiters in efficiently managing job posts, applicants, and talent pools, contributing to a positive user experience.

For IT Experts

Table 14. System Evaluation Effectiveness

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	2	1	0	0	0	100%	4.67
Q2	2	1	0	0	0	100%	4.67
Q3	2	1	0	0	0	100%	4.67
Q4	2	1	0	0	0	100%	4.67
Q5	2	1	0	0	0	100%	4.67

The survey results presented in **Table 14** assess the **Effectiveness** of the applicant tracking and job board system based on feedback from recruiters. The focus of this evaluation is on the system's ability to track applicants, provide analytics for decision-making, manage referral networks, align with organizational recruitment processes, and meet recruitment and data analysis requirements. Effectiveness is a crucial metric in determining the system's overall utility and impact on streamlining recruitment workflows.

For Question 1, which evaluates whether the system helps in tracking applicants throughout the recruitment process, 2 respondents selected Strongly Agree (SA), and 1 selected Agree (A), resulting in a high mean score of 4.67. This indicates that recruiters overwhelmingly perceive the system's applicant tracking feature as effective in providing clear and detailed progress tracking for candidates. The absence of Neutral (N) or negative responses reflects a consistent and positive user experience in this area.

Question 2 examines whether the system provides useful insights and analytics for making recruitment decisions. Feedback was similarly positive, with 2 Strongly Agree and 1 Agree responses, maintaining the mean score at 4.67.

These results highlight that recruiters find the analytics tools valuable for supporting data-driven decisions in hiring. The complete absence of Neutral or negative feedback suggests that all respondents agree on the utility of these insights in optimizing the recruitment process.

In Question 3, which addresses whether the system allows for effective management of referral networks to improve talent pooling, responses were identical, with 2 Strongly Agree and 1 Agree responses. This yielded another mean score of 4.67. These results emphasize the importance of the referral management feature, which recruiters recognize as a critical tool for expanding and maintaining talent pools. The absence of dissenting opinions suggests that the system effectively supports referral-based recruitment strategies.

Question 4 evaluates whether the applicant tracking features align with the recruitment process of Bonafide Trainology Placement Services. Feedback remained consistent, with 2 Strongly Agree and 1 Agree responses, reflecting a mean score of 4.67. This uniformity indicates that recruiters find the system well-aligned with the organization's specific recruitment workflows, ensuring that the platform supports rather than disrupts their existing processes.

Finally, Question 5 assesses whether the system's functionalities meet the recruitment and data analysis needs of the organization. Responses continued to follow the same pattern, with 2 Strongly Agree and 1 Agree, maintaining the mean score of 4.67. This indicates that recruiters find the platform comprehensive and capable of addressing both recruitment and analytical requirements effectively.

In summary, the survey results demonstrate that recruiters view the system as highly effective across all evaluated aspects. The uniformity of positive feedback and the consistently high mean scores indicate that the platform excels in tracking applicants, providing analytics, managing referral networks, aligning with workflows, and meeting organizational needs. The lack of Neutral or negative responses reflects strong user satisfaction and confidence in the system's ability to support recruitment activities efficiently and effectively.

Table 15. System Evaluation for Reliability

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	2	1	0	0	0	100%	4.67
Q2	2	1	0	0	0	100%	4.67
Q3	1	2	0	0	0	100%	4.33
Q4	1	2	0	0	0	100%	4.33
Q5	2	1	0	0	0	100%	4.67

The survey results in **Table 15** assess the **Reliability** of the applicant tracking and job board system from the perspective of recruiters. Reliability focuses on the system's accessibility, consistent performance, accuracy in tracking and posting, dependability in managing referral data, and clarity in error handling. These attributes are crucial in ensuring recruiters can rely on the system to perform essential tasks without unexpected disruptions or inaccuracies.

In Question 1, which evaluates whether users can access the system when needed, 2 respondents selected Strongly Agree (SA) and 1 selected Agree (A), resulting in a high mean score of 4.67. This indicates that recruiters generally find the system accessible and available whenever required. The absence of Neutral (N) or negative responses reflects a consistent level of satisfaction among users regarding system availability.

Question 2 examines whether the platform functions with minimal disruptions. Responses followed the same pattern as Question 1, with 2 Strongly Agree and 1 Agree responses, maintaining a mean score of 4.67. This demonstrates that recruiters perceive the platform as stable and reliable, with minimal instances of errors or interruptions during use.

In Question 3, which assesses whether the system allow for accurate job posting and candidate tracking throughout the recruitment process, 1 respondent selected Strongly Agree and 2 selected Agree, resulting in a mean score of 4.33. While the responses are positive overall, the slightly lower mean compared to the previous questions suggests that some recruiters may find room for improvement in the precision of job posting or tracking features. However, the lack of Neutral or negative responses indicates that the system's accuracy is still highly valued.

Question 4 evaluates whether the platform reliably tracks data related to referrals and applicant progress. Feedback mirrored Question 3, with 1 Strongly Agree and 2 Agree responses, leading to another mean score of 4.33. This result highlights the system's effectiveness in managing referral networks and monitoring applicant progress, though the slightly lower mean indicates a possibility of occasional inconsistencies or challenges in this area.

Finally, Question 5 assesses whether the software provides user-friendly error messages when something goes wrong. Responses returned to the same pattern as Questions 1 and 2, with 2 Strongly Agree and 1 Agree responses, resulting in a mean score of 4.67. This reflects that recruiters appreciate the clarity and helpfulness of error messages, which are likely to assist them in resolving issues quickly without extensive technical support.

In summary, the survey results demonstrate that recruiters view the system as highly reliable across all evaluated aspects. The platform is consistently accessible, functions with minimal disruptions, and provides accurate tracking of job postings and referrals. While Questions 3 and 4 show slightly lower mean scores compared to other areas, the overall feedback highlights strong user confidence in the system's dependability and support for recruitment activities. The clarity of error messages further enhances the system's reliability, ensuring that users can address any issues effectively when they arise.

Table 16. System Evaluation Performance Efficiency

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	3	0	0	0	0	100%	5
Q2	3	0	0	0	0	100%	5
Q3	3	0	0	0	0	100%	5
Q4	1	2	0	0	0	100%	4.33

The survey results in **Table 16** evaluate the **Performance Efficiency** of the job board and applicant tracking system as perceived by recruiters. Performance efficiency examines the system's ability to load quickly, manage large volumes of data, maintain responsiveness during peak usage times, and process filtering and sorting tasks effectively. These attributes are essential for ensuring that recruiters can efficiently perform their tasks without delays or performance issues.

In Question 1, which assesses whether the platform generally loads quickly and allows for seamless navigation, all 3 respondents selected Strongly Agree (SA), resulting in a perfect mean score of 5. This indicates that recruiters experience no significant delays when navigating the system, reflecting its capacity to handle standard operations swiftly and without interruptions.

Question 2 evaluates the system’s ability to efficiently handle large volumes of data, including applicant information, job postings, and referrals. All 3 respondents again selected Strongly Agree, maintaining a mean score of 5. This uniformity highlights that recruiters find the system highly capable of processing and managing extensive datasets, ensuring a smooth and efficient workflow even when handling large amounts of information.

In Question 3, which focuses on the platform’s performance during peak usage times, all 3 respondents selected Strongly Agree, yielding another mean score of 5.

This indicates that the system remains reliable and responsive, even under high-demand conditions, such as when multiple users interact with the platform simultaneously. Consistent feedback underscores the platform's ability to maintain optimal performance during critical periods.

Question 4 examines the system's responsiveness when filtering or sorting applicants based on various criteria. Responses were slightly more varied, with 1 respondent selecting Strongly Agree and 2 selecting Agree (A), resulting in a mean score of 4.33. While the majority of users perceive the filtering and sorting functionality as responsive, the slight drop in the mean score compared to other questions suggests that there may be occasional delays or inefficiencies when handling more complex filtering tasks. However, the absence of Neutral or negative responses indicates that these occurrences are minimal and do not significantly impact user satisfaction.

In summary, the survey results demonstrate that recruiters view the system's performance efficiency as excellent across most evaluated aspects. The platform excels in providing fast load times, handling large datasets, and maintaining responsiveness during peak usage periods. While filtering and sorting functions received slightly lower scores, the overall feedback indicates that the system effectively supports recruiters in performing key tasks efficiently, contributing to a positive user experience. The consistently high scores reflect strong satisfaction with the platform's ability to optimize recruitment processes and streamline operational workflows.

Table 17. System Evaluation Usability

Questions	SA	A	N	D	SD	TOTAL PERCENTAGE	MEAN
Q1	3	0	0	0	0	100%	5
Q2	3	0	0	0	0	100%	5
Q3	2	1	0	0	0	100%	4.67
Q4	1	2	0	0	0	100%	4.33
Q5	2	1	0	0	0	100%	4.67

The survey results in **Table 17** evaluate the **Usability** of the applicant tracking and job board system as perceived by recruiters. Usability focuses on the system's ease of navigation, accessibility of features, intuitive design, and its ability to support recruiters in performing essential tasks such as managing applicants, creating job posts, and organizing talent pools. These aspects are critical to ensuring an efficient and user-friendly experience for recruiters who rely on the platform for their daily operations.

In Question 1, which assesses whether the system interface is easy to navigate and use, all 3 respondents selected Strongly Agree (SA), resulting in a perfect mean score of 5. This indicates that recruiters find the platform highly intuitive, with clear and logical navigation paths that enable them to access required features effortlessly. The absence of Neutral (N) or negative responses reflects consistent satisfaction with the interface design.

Question 2 evaluates whether recruiters can easily find the features they need within the platform. Similar to Question 1, all 3 respondents selected Strongly Agree, maintaining a mean score of 5. This feedback underscores that the system's features are well-organized and accessible, reducing the time recruiters spend searching for specific functionalities.

In Question 3, which assesses whether the platform is easy to understand, even for first-time users, 2 respondents selected Strongly Agree and 1 selected Agree (A), resulting in a mean score of 4.67. This highlights that the system's design and workflows are intuitive enough for new users to grasp quickly. The single Agree response suggests that while most users find the platform straightforward, some may require minimal time to familiarize themselves with its features.

Question 4 examines whether recruiters can perform necessary actions, such as managing applicants or creating job posts, without assistance. Responses were slightly more varied, with 1 Strongly Agree and 2 Agree, resulting in a mean score of 4.33. This indicates that the majority of users are able to perform key tasks independently, although some may encounter minor challenges that could require occasional clarification or support.

Finally, Question 5 evaluates whether the system helps users in managing job posts, applicants, and talent pools more efficiently. The results were consistent with Question 3, with 2 Strongly Agree and 1 Agree responses, yielding a mean score of 4.67. This feedback highlights that the platform effectively supports recruiters in organizing and optimizing recruitment processes, enabling them to manage workflows efficiently without unnecessary complexity.

In summary, the survey results demonstrate that recruiters view the system as highly usable, with its intuitive design, accessible features, and ability to support independent task completion. The consistently high scores across all questions reflect strong satisfaction with the platform's user experience. While minor variations in Question 4 suggest occasional challenges, the overall feedback indicates that the system meets the usability expectations of recruiters and enhances their efficiency in managing recruitment activities.

Table 18. Comments collected from respondents

Respondent	Comment
Job Seeker/Applicant	"i want dark mode"
	"Please improve the delays. Ty"
	"The site is very convenient and useful"
	The overall UI is great! It literally exceeds my expectations. The UX is also great, very user friendly. Keep it up!
	"All goods"
	"The system is well structure and good for the applicant"
	"ui improvements"
IT Expert	"Add MFA or 2FA for secured authentication. Either TOTP or SMS or Email based authentication."

Job seekers expressed high satisfaction with the system's overall usability and user interface. Comments such as "The site is very convenient and useful" and "The overall UI is great! It literally exceeds my expectations" reflect positive user experiences, highlighting that the platform is user-friendly and meets their expectations. Feedback such as "The system is well structured and good for the applicant" further supports the sentiment that the platform aligns with its intended purpose of aiding job seekers.

However, some respondents suggested enhancements. Requests like "I want dark mode" point to the growing demand for customizable interface options to cater to different user preferences and improve visual comfort. Additionally, the comment "Please improve the delays" indicates that while users find the system functional, occasional lags may detract from their overall experience. Such feedback may reflect connectivity issues on the user's end or system-related performance factors.

The IT expert's feedback emphasized the need to enhance security through the implementation of multi-factor authentication (MFA) or two-factor authentication (2FA). The suggestion to include TOTP, SMS-based, or email-based authentication methods highlights a priority in safeguarding user accounts and sensitive data. This recommendation underscores the importance of additional security measures for a platform handling personal and professional data.

In summary, the comments collected through the survey reveal that users appreciate the system's usability and structure while also identifying specific improvements, such as adding dark mode, optimizing performance, and strengthening security. These insights reflect the diverse needs of users and provide a foundation for enhancing the platform further.

Table 19. Summary Mean Table For End Users (Applicants And Job Seekers)

Category	Mean
Effectiveness	4.40
Reliability	4.35
Performance Efficiency	4.32
Usability	4.43
Overall Mean	4.38

Table 19 shows strong system performance, with an overall score of 4.38. Usability (4.43) and Effectiveness (4.40) highlight the platform's user-friendly design and support for job seekers. Reliability (4.35) and Performance Efficiency (4.32) suggest some room for improvement in stability and responsiveness. Overall, the platform is well-received, with opportunities to enhance performance.

Table 20. Summary Mean Table For End Users (Recruiters And User Admins)

Category	Mean
Effectiveness	4.14
Reliability	3.94
Performance Efficiency	3.79
Usability	4
Overall Mean	3.97

Table 20 reflects the system's performance for recruiters and user admins, with an overall mean score of 3.97. Usability (4.00) and Effectiveness (4.14) highlight strong design and functionality. However, lower scores in Reliability (3.94) and Performance Efficiency (3.79) indicate areas for improvement, such as system responsiveness and stability. Enhancing these aspects could further optimize the user experience.

Table 21. Summary Mean Table for IT Experts

Category	Mean
Effectiveness	4.14
Reliability	3.94
Performance Efficiency	3.79
Usability	4
Overall Mean	3.97

Table 21 summary mean table reflects IT experts' evaluation of the system, with an overall mean score of 3.97. Usability achieved the highest score of 4.00, highlighting the system's intuitive design and ease of use for technical users. Effectiveness (4.14) indicates the system's capability to meet functional requirements, such as managing referrals and supporting recruitment processes. Reliability scored 3.94, suggesting stable performance but with some room for improvement, particularly in minimizing disruptions. Performance Efficiency (3.79), the lowest score, points to challenges in responsiveness and handling peak workloads. Overall, while the system performs well, enhancing performance and reliability could further improve its effectiveness for IT experts.

Chapter V

Summary of Findings, Conclusion and Recommendations

Introduction

This chapter presents a summary of the research findings, along with conclusions drawn from the analysis and recommendations for Bonafide Trainology Placement Services. The study aimed to develop and implement a recruitment management system to enhance efficiency, streamline the recruitment process, and address specific challenges faced by Bonafide's recruitment team. Through analyzing system functionality and user feedback, this research highlighted the effectiveness of various features, such as applicant tracking, candidate referrals, and job posting management, in meeting the company's recruitment needs.

The insights gathered in the previous chapters provide a foundation for evaluating the system's impact on recruitment operations, assessing its usability for recruiters and applicants, and identifying areas for improvement. This chapter synthesizes these findings to offer a comprehensive overview of the system's contributions to Bonafide's recruitment process, concludes on its effectiveness, and provides actionable recommendations to optimize and further enhance the system's functionality and user experience.

Summary of Findings

This study developed and assessed a recruitment management system tailored to support Bonafide Trainology Placement Services in addressing its recruitment challenges. The evaluation was conducted across four main quality criteria: effectiveness, reliability, performance efficiency, and usability, with feedback collected from job seekers, recruiters, and IT experts.

1. The system demonstrated strong effectiveness, achieving a mean score of 4.40 for job seekers and 4.14 for recruiters and IT experts. Job seekers highlighted features such as applicant tracking and referral management as enabling accurate and efficient task completion. For recruiters, the system effectively managed referrals and provided actionable analytics, though some users faced challenges integrating specific functionalities into existing workflows. IT experts validated the system's operational effectiveness, emphasizing the alignment of features with recruitment objectives.
2. The system's reliability, with mean scores of 4.35 (job seekers) and 3.94 (recruiters and IT experts), underscored consistent performance. Most users reported dependable access and stability, though occasional errors and notifications inconsistencies were observed. IT experts noted the need for enhanced error handling and robust infrastructure to improve stability under varied demands.
3. Performance efficiency received the lowest mean scores—4.32 for job seekers and 3.79 for recruiters and IT experts. Users praised the system's responsiveness in typical scenarios but cited delays during peak usage and heavy data processing. Job seekers appreciated fast navigation for applications and job searches, while recruiters noted occasional inefficiencies in filtering and sorting tasks.
4. Usability was the highest-rated criterion, with scores of 4.43 (job seekers) and 4.00 (recruiters and IT experts). The system was generally viewed as intuitive and easy to use, even for first-time users. Respondents highlighted well-structured navigation and accessible features, though some users suggested interface enhancements like dark mode and improved responsiveness.
5. Additional Insights: User comments reinforced the importance of addressing minor delays and implementing security features such as multi-factor authentication (MFA) to protect sensitive data.

IT experts prioritized system reliability and responsiveness improvements, particularly under high-demand scenarios.

The system achieved an overall mean score of 4.38 for job seekers and 3.97 for recruiters and IT experts. While usability and effectiveness were highly rated, addressing identified gaps in performance efficiency and reliability will be critical for further enhancing the platform's utility and user satisfaction.

Conclusions

Based on the findings of the study, the following conclusions can be drawn regarding the recruitment management system developed for Bonafide Trainology Placement Services:

1. The recruitment management system has demonstrated its ability to address key challenges in managing applicant data, tracking candidates through various stages, and leveraging referral networks. Features like the applicant tracking system (ATS), recruiter dashboard, and real-time analytics have proven effective in organizing workflows and enabling data-driven decision-making. Overall, the system supports Bonafide's recruitment operations by improving efficiency and reducing manual tasks.
2. Feedback from both applicants and recruiters highlights the system's intuitive design and user-friendly interface. Features such as real-time notifications, profile management, and referral tracking have been well-received, simplifying complex recruitment tasks. High usability scores indicate that users are generally satisfied with the platform, though minor adjustments could further enhance the experience, such as the addition of dark mode and performance optimizations.
3. While the system has largely performed reliably, occasional delays during peak usage have been noted. These challenges suggest the need for further performance optimization to ensure responsiveness under high traffic. Additionally, IT experts recommend implementing advanced security features, such as multi-factor authentication (MFA) and timed one-time passwords (TOTP), to better protect sensitive user data
4. The inclusion of additional features, such as a blog for career advice and professional networking capabilities, could further increase user engagement and establish the platform as a comprehensive recruitment ecosystem. Enhancing the referral system with a rewards component could also motivate greater participation and expand talent sourcing opportunities.

5. The system aligns well with Bonafide Trainology Placement Services' objective of streamlining recruitment for micro, small, and medium enterprises (MSMEs). By centralizing operations and leveraging analytics, the platform enables the organization to build an efficient and effective hiring pipeline.

In conclusion, the recruitment management system has successfully addressed the majority of Bonafide's recruitment challenges and offers a strong foundation for future development. Addressing performance and security enhancements, alongside introducing additional engagement features, will further solidify the system's role as a valuable tool in modern recruitment practices.

Recommendations

Based on the findings of the study, several recommendations can be made to enhance the functionality and user experience of the recruitment management system for Bonafide Trainology Placement Services. These suggestions aim to address the identified challenges, improve system performance, and introduce features that promote engagement and operational efficiency.

1. The researchers recommend optimizing the system to address occasional delays reported by users, particularly during peak usage. This can be achieved by implementing server-side optimizations such as caching, load balancing, and database query tuning. Additionally, infrastructure scaling should be planned to accommodate increasing user traffic and larger datasets, ensuring the system remains responsive and reliable.
2. To improve data protection and user account security, it is recommended to implement multi-factor authentication (MFA) using methods such as time-based one-time passwords (TOTP), SMS, or email-based authentication.
3. Refining the referral feature by integrating a rewards system can incentivize users to actively participate in the platform's referral network. Users could earn points, discounts, or monetary rewards for successful referrals that lead to hires.

This addition would encourage engagement and expand the talent pool for recruiters.

4. The platform could benefit from integrating a blog section where recruiters and applicants can access career advice, industry trends, and company updates. Furthermore, introducing social networking features, such as professional profiles, messaging, and group discussions, would enable users to connect and collaborate, creating a vibrant and interactive recruitment ecosystem.
5. To cater to diverse user preferences, a dark mode option should be included. This feature would enhance usability for individuals working in low-light environments and reduce eye strain during prolonged use. Accessibility testing should also be conducted to ensure the platform is inclusive for all users.
6. It is recommended to expand the system's analytics capabilities by adding granular filtering options and advanced data visualizations. Features such as real-time dashboards and trend analysis would empower recruiters to make data-driven decisions, improving the overall efficiency of recruitment strategies.
7. The notification system should be upgraded to provide instant and clear updates regarding application statuses, interview schedules, and other critical milestones. Additionally, integrating direct messaging between recruiters and applicants would streamline communication and reduce reliance on external tools.
8. Future researchers could explore integrating additional technologies, such as AI-driven candidate matching and automatic resume screening, to further enhance the recruitment process. Moreover, ongoing user feedback should be collected and analyzed to ensure the platform continues to evolve in alignment with user needs.

By implementing these recommendations, the recruitment management system can become a more robust and engaging platform, effectively supporting recruiters and job seekers while addressing current limitations and expanding its capabilities for future growth.

LITERATURE CITED

References:

[1] H. H. Hamadamin and T. Atan, “The Impact of Strategic Human Resource Management Practices on Competitive Advantage Sustainability: The Mediation of Human Capital Development and Employee Commitment,” Sustainability, vol. 11, no. 20, p. 5782, Oct. 2019, Available:

[2] G. Anwar and N. N. Abdullah, “The impact of Human resource management practice on Organizational performance,” International Journal of Engineering, Business and Management, vol. 5, no. 1, pp. 35–47, 2021, doi: https://doi.org/10.22161/ijebm.5.1.4.

[3] E. G. Margherita and I. Bua, “The Role of Human Resource Practices for the Development of Operator 4.0 in Industry 4.0 Organisations: A Literature Review and a Research Agenda,” Businesses, vol. 1, no. 1, pp. 18–33, Apr. 2021, doi: https://doi.org/10.3390/businesses1010002.

[4] N. Gani, None Degdo Suprayitno, None Diky Wardhani, A. Imran, and N. Kusuma, “Optimising Human Resource Information Systems in the Context of MSME Technology Management,” Jurnal Informasi dan Teknologi, pp. 302–309, Mar. 2024, doi: https://doi.org/10.60083/jidt.v6i1.519.

[5] P. Y. Abdullah, S. R. M. Zeebaree, K. Jacksi, and R. R. Zeabri, “AN HRM SYSTEM FOR SMALL AND MEDIUM ENTERPRISES (SME)S BASED ON CLOUD COMPUTING TECHNOLOGY,” International Journal of Research -GRANTHAALAYAH, vol. 8, no. 8, pp. 56–64, Aug. 2020, doi: https://doi.org/10.29121/granthaalayah.v8.i8.2020.926.

[6] M. Lalanne, “Social Networks and Job Referrals in Recruitment,” 2020. Accessed: Nov. 23, 2022. [Online]. Available: https://www.carloalberto.org/wp-content/uploads/2021/05/no.652.pdf

[7] A. Chandrasekhar et al., "NBER WORKING PAPER SERIES NETWORK-BASED HIRING: LOCAL BENEFITS; GLOBAL COSTS," 2020. Accessed: Apr. 03, 2022. [Online]. Available: https://www.nber.org/system/files/working_papers/w26806/w26806.pdf

[8] S. Khan, "An efficient human resource management system model using web-based hybrid technique," Problems and Perspectives in Management, vol. 20, no. 2, pp. 220–235, May 2022, doi: https://doi.org/10.21511/ppm.20(2).2022.18.

[9] I. Schmutte, "Job Referral Networks and the Determination of Earnings in Local Labor Markets," SSRN Electronic Journal, 2010, doi: https://doi.org/10.2139/ssrn.1727374.

[10] R. Pillai and B. Sivathanu, "Adoption of Artificial Intelligence (AI) for Talent acquisition in IT/ITeS organizations," Benchmarking: an International Journal, vol. 27, no. 9, Aug. 2020, doi: https://doi.org/10.1108/bij-04-2020-0186.

[11] A. Gillis, "What is operational efficiency? Definition from SearchBusinessAnalytics," SearchBusinessAnalytics, Oct. 2021. https://www.techtarget.com/searchbusinessanalytics/definition/operational-efficiency

[12] Senate of The Philippines, "At A Glance The MSME Sector," 2012. Available: https://legacy.senate.gov.ph/publications/AG%202012-03%20-%20MSME.pdf

[13] A. Margherita, "Human resources analytics: A systematization of research topics and directions for future research," Human Resource Management Review, vol. 32, no. 2, p. 100795, Jan. 2021, doi: https://doi.org/10.1016/j.hrmr.2020.100795

[14] N.-K. Bhalgat and M. Ghahremanzamaneh, “An exploration of how Artificial Intelligence is impacting Recruitment and Selection process Dissertation Submitted In Partial Fulfillment of the Requirements for the Degree of Master of Business Administration in Information Systems (MBA) at Dublin Business School Student Number -10395028,” 2019. Available: https://esource.dbs.ie/server/api/core/bitstreams/e57f43cd-e8f2-4c4b-98c0-70387574764f/content

[15] I. Nikolaou, “What Is the Role of Technology in Recruitment and Selection?,” The Spanish Journal of Psychology, vol. 24, no. 2, Feb. 2021, Available: https://www.cambridge.org/core/journals/spanish-journal-of-psychology/article/what-is-the-role-of-technology-in-recruitment-and selection/451DF5C763B110A845EEAD50F5BAF851

[16] K. Priyanka, K. Sree, B. Akhila, Fathima, and Chaitanya, “STAFF MANAGEMENT SYSTEM.” Accessed: Apr. 09, 2024. [Online]. Available: https://www.journal-dogorangsang.in/no_2_Book_21/13.pdf

[17] Mhd. D. Mendoza and T. T. A. Putri, “Payroll System Design With SDLC (System Development Life Cycle) Approach,” Jurnal Mantik, vol. Volume 4, no. Number 1, pp. 27–32, May 202AD, Accessed: May 20, 2024. [Online]. Available: https://iocscience.org/ejournal/index.php/mantik/article/view/656/420

[18] Katarina Milošević, I. Katić, and Nemanja Tasić, “ACCELERATED DIGITALIZATION OF HUMAN RESOURCES IN THE POSTPANDEMIC ERA,” Jan. 2023, doi: https://doi.org/10.24867/is-2023-t6.1-6_10741.

[19] A. Margherita, “Human resources analytics: A systematization of research topics and directions for future research,” Human Resource Management Review, vol. 32, no. 2, p. 100795, Jan. 2021, doi: https://doi.org/10.1016/j.hrmr.2020.100795.

[20] S. Kim, Y. Wang, and C. Boon, "Sixty years of research on technology and human resource management: Looking back and looking forward," Human Resource Management, vol. 60, no. 1, Nov. 2020, doi: https://doi.org/10.1002/hrm.22049.

[21] M. LAKHWANI, O. DASTANE, N. S. M. SATAR, and Z. JOHARI, "The Impact of Technology Adoption on Organizational Productivity," Journal of Industrial Distribution & Business, vol. 11, no. 4, pp. 7–18, Apr. 2020, doi: https://doi.org/10.13106/jidb.2020.vol11.no4.7.

[22] P. M. Gilch and J. Sieweke, "Recruiting Digital talent: the Strategic Role of Recruitment in Organisations' Digital Transformation," German Journal of Human Resource Management: Zeitschrift für Personalforschung, vol. 35, no. 1, p. 239700222095273, Sep. 2020.

[23] O. T. Adeosun and A. S. Ohiani, "Attracting and recruiting quality talent: Firm perspectives," Rajagiri Management Journal, vol. 14, no. 2, pp. 107–120, 2020, doi: https://doi.org/10.1108/RAMJ-05-2020-0016.

[24] I. Schmutte, "Job Referral Networks and the Determination of Earnings in Local Labor Markets," SSRN Electronic Journal, 2010, doi: https://doi.org/10.2139/ssrn.1727374.

[25] P. Y. Abdullah, S. R. M. Zeebaree, K. Jacksi, and R. R. Zeabri, "AN HRM SYSTEM FOR SMALL AND MEDIUM ENTERPRISES (SME)S BASED ON CLOUD COMPUTING TECHNOLOGY," International Journal of Research -GRANTHAALAYAH, vol. 8, no. 8, pp. 56–64, Aug. 2020, doi: https://doi.org/10.29121/granthaalayah.v8.i8.2020.926.

[26] W. J. Orlikowski and C. S. Iacono, "Research Commentary: Desperately Seeking the ``IT'' in IT Research—A Call to Theorizing the IT Artifact," Information Systems Research, vol. 12, no. 2, pp. 121–134, 2001, Accessed: Jul. 13, 2022. [Online]. Available: https://www.jstor.org/stable/23011075

[27] W. Liu, A. Sidhu, A. M. Beacom, and T. W. Valente, “Social Network Theory,” The International Encyclopedia of Media Effects, vol. 1, pp. 1–12, Mar. 2017, doi: https://doi.org/10.1002/9781118783764.wbieme0092.

[28] QuestionPro, "Qualitative Data Collection Methods," Accessed: May 20, 2024. [Online]. Available: https://www.questionpro.com/blog/qualitative-data-collection-methods/

[29] SurveyCTO, "Data Collection Methods Guide," Accessed: May 20, 2024. [Online]. Available: https://www.surveycto.com/resources/guides/data-collection-methods-guide/

[30] SafetyCulture, "Data Collection Techniques," Accessed: May 20, 2024. [Online]. Available: https://safetyculture.com/topics/data-collection/data-collection-techniques/

[31] JotForm, "Data Collection Methods," Accessed: May 20, 2024. [Online]. Available: https://www.jotform.com/data-collection-methods/

APPENDICES

CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

Republic of the Philippines
University of Cabuyao
(PAMANTASAN NG CABUYAO)
College of Computing Studies
Katapatan Mutual Homes, Brgy. Banay-banay, City of Cabuyao, Laguna 4025

PNC: AA-LE-290.22
May 16, 2024

MR. RENZON JOSHUA G. BOA, CHRA
HR Head
Bonafide Trainology Placement Services
Block C3 Lot 2 Hongkong Village, Barangay Banay-Banay, Cabuyao City Laguna, Cabuyao, Philippines

Dear Mr. Boa:

In accordance with the Data Privacy Act of 2012, we, the undersigned students of University of Cabuyao (Pamantasan ng Cabuyao), hereby pledge to safeguard and maintain the confidentiality of all confidential information obtained during our research endeavors. We commit not to share or disclose this information with any third parties without proper consent.

Furthermore, upon completion of our study, we agree to furnish the Bonafide Trainology Placement Services with the Ethics Review Clearance issued by the Ethics Review Board as evidence of our compliance with all ethical review procedures mandated by law.

Sincerely,

RAMOS, JOSHUA M.
Student Researcher

BAYLOSIS, ERIC GLENN D.
Student Researcher

NATANAUAN, LUCKY D.
Student Researcher

Noted by:

ASST. PROF. EVANGELINA A. MAGALING
Research Adviser, College of Computing Studies

DR. LUVIM M. EUSEBIO
Research Teacher, College of Computing Studies

DR. ALICE M. LACORTE
Dean, College of Computing Studies

jmm05162024

Dangal ng Bayan
ISO 9001

VALIDATED RESEARCH INSTRUMENT

INFORMED CONSENT FORM

Research Project Title				
Proponents	**Name**	**Email Address**	**Contact Number**	**Department**
Research Lead	Joshua M. Ramos	ramosjoshua0605@gmail.com	09065978961	CCS
Member/s	Eric Glenn D. Baylosis	baylosisericglenn53@gmail.com	09296675422	CCS
	Lucky D. Natanauan	natanauanlucky38@gmail.com	09632730643	CCS
Thesis Adviser (for student research)	Evangelina Magaling			

You are being invited to participate in a research study. Before you decide whether to participate, it is important that you understand why the research is being done and what your participation would involve. Please read the following information carefully and take time to ask any questions that you may have. You are free to choose whether or not to participate in this study. If you do not want to participate, you do not have to give a reason, and your decision will not affect any relationship you may have with the researchers or the institution.

Purpose of the Study	
Risks, Benefits, or Discomforts of the Study	The following are the potential risks, benefits, or discomforts of participating in this study: Risks. There may be risks associated with participating in this study. We will take all necessary precautions to minimize these risks. ☐ Physical risks include physical discomfort, pain, injury, illness or disease brought about by the methods and procedures of the research. A physical risk may result from the involvement of physical stimuli such as noise, electric shock, heat, cold, electric magnetic or gravitational fields, etc. Engaging a subject in a social situation which could involve violence may also create a physical risk. ☐ Psychological risks include the production of negative affective states such as anxiety, depression, guilt, shock and loss of self-esteem and

	altered behavior. Sensory deprivation, sleep deprivation, use of hypnosis, deception or mental stresses are examples of psychological risks. ☐ Social/Economic risks include alterations in relationships with others that are to the disadvantage of the subject, including embarrassment, loss of respect of others, labeling a subject in a way that will have negative consequences, or in some way diminishing those opportunities and powers a person has by virtue of relationships with others. Economic risks include payment by subjects for procedures not otherwise required, loss of wages or other income and any other financial costs, such as damage to a subject's employability, as a consequence of participation in the research. ☐ Loss of confidentiality ☐ Legal risks exist when the research methods are such that the subject or others will be liable for a violation of the law, either by revealing that the subject or others have or will engage in conduct for which the subject or others may be criminally or civilly liable, or by requiring activities for which the subject or others may be criminally or civilly liable. Benefits. You may benefit from this research. However, we cannot guarantee that you will receive any benefits from participating in this study. ☐ Contribute to the advancement of scientific knowledge ☐ Develop participants' new skills or learn more about themselves. ☐ Receive access to resources, such as support groups or educational materials, that may be beneficial to their health or well-being. ☐ Receive access to interventions or treatments that could improve their health outcomes. ☐ Receive compensation. Discomforts There may be discomfort associated with participating in this study. We will take all necessary precautions to minimize these discomforts. ☐ Time Commitment: Participating in this study may require a significant amount of time and effort on your part, including attending appointments and completing questionnaires or other assessments. ☐ Emotional Distress: Some participants may find that discussing sensitive topics or answering personal questions can cause emotional distress or discomfort. ☐ Physical Discomfort: Depending on the nature of the study, there may be physical discomfort associated with participating, such as experiencing side effects from medication or undergoing a medical procedure.

	☐ Confidentiality Concerns: While we will take all reasonable steps to protect your confidentiality, there is always a risk that your information could be inadvertently disclosed. ☐ Unforeseen Risks: Despite our efforts to minimize risks and discomforts, there may be unforeseen risks or discomforts associated with participating in this study that we cannot anticipate
Duration of Participation:	Your participation in this study will take approximately six months to one year to complete.
Confidentiality:	We will take all reasonable steps to ensure that your information is kept confidential. However, there are certain circumstances where we may be required to disclose your information, such as if we suspect that you or someone else may be at risk of harm. In addition, your de-identified data may be used in future research.
Voluntary Nature of Participation:	Participation in this study is entirely voluntary, and you have the right to withdraw from the study at any time without penalty or loss of benefits to which you are otherwise entitled. If you choose to withdraw from the study, any data that you have provided up to that point will still be used in the study, unless you specifically request that it be deleted.
Contact Information:	If you have any questions or concerns about the study, you can contact the researchers at [Insert Contact Information]. If you have any concerns about your rights as a participant, you can contact the Research Ethics Review Committee (RERC) at rdd@pnc.edu.ph
Consent:	By signing below, you indicate that you have read and understood the information provided above and that you voluntarily agree to participate in this study.

Name of the Research-Participant	Signature	Date

RESEARCH ETHICS REVIEW COMMITTEE EVALUATION

SHORT REPORT OF PLAGIARISM SOFTWARE

StrikePlagiarism.com — Pamantasan ng Cabuyao (University of Cabuyao) — Report date 5/20/2024 — Edit date —

Report has not been evaluated.

Metadata

Title
Chapter-1-3-ITB9

Author(s)
Joshua Ramos, Eric Baylosis, Lucky Natanauan

Coordinator
Evangeline Magaling

Organizational unit
CCS

Alerts

In this section, you can find information regarding text modifications that may aim at temper with the analysis results. Invisible to the person evaluating the content of the document on a printout or in a file, they influence the phrases compared during text analysis (by causing intended misspellings) to conceal borrowings as well as to falsify values in the Similarity Report. It should be assessed whether the modifications are intentional or not.

Characters from another alphabet	B	0
Spreads	A	0
Micro spaces		58
Hidden characters		138
Paraphrases (SmartMarks)	a	18

Record of similarities

SCs indicate the percentage of the number of words found in other texts compared to the total number of words in the analysed document. Please note that high coefficient values do not automatically mean plagiarism. The report must be analyzed by an authorized person.

4.30% (4.30%) SC1	3.79% (3.79%) SC2	4.48% (4.48%) QC
10	**7836**	**55980**
The phrase length for the SC 2	Length in words	Length in characters

Active lists of similarities

This list of sources below contains sources from various databases. The color of the text indicates in which source it was found. These sources and Similarity Coefficient values do not reflect direct plagiarism. It is necessary to open each source, analyze the content and correctness of the source crediting.

The 10 longest fragments — Color of the text

NO	TITLE OR SOURCE URL (DATABASE)	NUMBER OF IDENTICAL WORDS (FRAGMENTS)	
1	Introduction to the Debate on the Core of the Information Systems Field Paul Gray;	30	0.38 %
2	https://www.hindawi.com/journals/am/2021/9370027/	29	0.37 %
3	https://ideas.repec.org/a/sae/sagope/v10y2020i4p2158244020969383.html	28	0.36 %
4	Internet platform for job search with a hub for sharing information about organizations and vacancies [redacted] 5/9/2024 International IT University (Информационные системы)	24	0.31 %
5	Controlling Segregation in Social Network Dynamics as an Edge Formation Game Vikram Krishnamurthy,Rui Luo,Buddhika Nettasinghe;	20	0.26 %

6	https://dlib.uni-svishtov.bg/bitstream/handle/10610/4787/ff8ba4dd1f44ff28da9c04db24bbb215b.pdf?sequence=1	20	0.26 %
7	https://www.emerald.com/insight/content/doi/10.1108/MD-12-2020-1581/full/pdf?title=bridging-the-gap-why-how-and-when-hr-analytics-can-impact-organizational-performance	18	0.23 %
8	How do Teacher Preparation and Infrastructural Facilities Impact on The Implementation of Lower Basic Education Curriculum in Nigeria? Emmanuel E. Achor,Esther O. Ejeh,Benjamin O. Olokwu;	17	0.22 %
9	https://koreascience.kr/article/JAKO202105450669451.pdf	17	0.22 %
10	https://link.springer.com/chapter/10.1007/978-3-030-79457-6_23	17	0.22 %

from RefBooks database (1.14 %)

NO	TITLE	NUMBER OF IDENTICAL WORDS (FRAGMENTS)	
Source: Paperity			
1	Introduction to the Debate on the Core of the Information Systems Field Paul Gray;	**30 (1)**	**0.38 %**
Source: https://arxiv.org/			
1	Controlling Segregation in Social Network Dynamics as an Edge Formation Game Vikram Krishnamurthy,Rui Luo,Buddhika Nettasinghe;	**20 (1)**	**0.26 %**
Source: RePEC			
1	How do Teacher Preparation and Infrastructural Facilities Impact on The Implementation of Lower Basic Education Curriculum in Nigeria? Emmanuel E. Achor,Esther O. Ejeh,Benjamin O. Olokwu;	**17 (1)**	**0.22 %**
2	Job Satisfaction: What factors in the Coal Mining Industry will lead to Higher Satisfaction? Tracey Tshivhase,Lethukuthula Vilakazi;	**15 (1)**	**0.19 %**
3	Assessment of the Efficiency and Effectiveness of the Reforestation Program of the Department of Environment and Natural Resources Lintag, Jeffrey H.,Israel, Danilo C.;	7 (1)	0.09 %

from the home database (0.00 %)

NO	TITLE	NUMBER OF IDENTICAL WORDS (FRAGMENTS)

from the Database Exchange Program (0.31 %)

NO	TITLE	NUMBER OF IDENTICAL WORDS (FRAGMENTS)	
1	Internet platform for job search with a hub for sharing information about organizations and vacancies [redacted] 5/9/2024 **International IT University (Информационные системы)**	**24 (1)**	**0.31 %**

from the Internet (2.86 %)

NO	SOURCE URL	NUMBER OF IDENTICAL WORDS (FRAGMENTS)	
1	https://www.hindawi.com/journals/am/2021/9370027/	**29 (1)**	**0.37 %**
2	https://ideas.repec.org/a/sae/sagope/v10y2020i4p2158244020969383.html	**28 (1)**	**0.36 %**
3	https://koreascience.kr/article/JAKO202105450669451.pdf	**23 (2)**	**0.29 %**

4	https://dlib.uni-svishtov.bg/bitstream/handle/10610/4787/f6ba4dd1f44ff28da9c04db24bbb215b.pdf?sequence=1	20 (1)	0.26 %
5	https://www.emerald.com/insight/content/doi/10.1108/MD-12-2020-1581/full/pdf?title=bridging-the-gap-why-how-and-when-hr-analytics-can-impact-organizational-performance	18 (1)	0.23 %
6	https://aipublications.com/ijebm/detail/the-impact-of-human-resource-management-practice-on-organizational-performance/	18 (2)	0.23 %
7	https://link.springer.com/chapter/10.1007/978-3-030-79457-6_23	17 (1)	0.22 %
8	https://apps.dtic.mil/sti/pdfs/AD1132859.pdf	16 (2)	0.20 %
9	https://www.studymode.com/essays/Capstone-Project-Guidelines-525214.html	16 (1)	0.20 %
10	https://saarj.com/wp-content/uploads/ACADEMICIA-OCTOBER-2020-FULL-JOURNAL.pdf	15 (1)	0.19 %
11	https://trymachinelearning.com/data-analytics-can-be-defined-as/	14 (2)	0.18 %
12	https://www.knowledgehut.com/blog/agile/agility-vs-agile	10 (1)	0.13 %

List of accepted fragments (no accepted fragments)

NO	CONTENTS	NUMBER OF IDENTICAL WORDS (FRAGMENTS)

REPORT OF LANGUAGE SOFTWARE

grammarly Report: Chapter-1-3-ITB9

Chapter-1-3-ITB9

by Ramos, Joshua

General metrics

54,494	7,658	660	30 min 37 sec	58 min 54 sec
characters	words	sentences	reading time	speaking time

Score

82

This text scores better than 82% of all texts checked by Grammarly

Writing Issues

335	66	269
Issues left	Critical	Advanced

Writing Issues

66	**Correctness**
7	Determiner use (a/an/the/this, etc.)
3	Misspelled words
11	Faulty subject-verb agreement
10	Confused words
7	Comma misuse within clauses
1	Misuse of modifiers
7	Wrong or missing prepositions

Report was generated on Tuesday, May 21, 2024, 11:47 AM

grammarly Report: Chapter-1-3-ITB9

5	Pronoun use	
6	Incorrect verb forms	
3	Incorrect noun number	
5	Conjunction use	
1	Improper formatting	
2	**Clarity**	
2	Wordy sentences	

Unique Words

Measures vocabulary diversity by calculating the percentage of words used only once in your document

19%
unique words

Rare Words

Measures depth of vocabulary by identifying words that are not among the 5,000 most common English words.

44%
rare words

Word Length

Measures average word length

5.5
characters per word

Sentence Length

Measures average sentence length

11.6
words per sentence

CURRICULUM VITAE OF STUDENT RESEARCHERS

PROFILE

CONTACT ME

09296675422
baylosiseriglenn53@gmail.com
Blk21 L2 Ph2, Celestine Homes, Brgy. Marinig, Cabuyao, Laguna

PERSONAL BACKGROUND

Date of Birth: August 28, 2002
Place of Birth: Cabuyao, Laguna
Gender: Male
Religion: Christian
Nationality: Filipino

SKILLS

- Computer Literate
- Problem Solving
- Knowledgeable in PHP, HTML, CSS, JavaScript, Java, C#, C++, MySQL,
- Knowledgeable with Microsoft Office
- Troubleshooting and Technical
- Web Design

ERIC GLENN D. BAYLOSIS

BSIT

OBJECTIVE

I want to excel in this field with hard work, perseverance and dedication. To obtain a position that will enable me to use my organizational skills, educational background, experience and ability to work well with people.

EDUCATION

Tertiary

PAMANTASAN NG CABUYAO
Bachelor of Science in Information of Technology
2021-2024

Secondary

PAMANTASAN NG CABUYAO - SHS
E-STEM
2019-2021

ARISE & SHINE ACADEMY
GRADE 7 - 10
2015-2019

CERTIFICATION

Creative Web Design (CWD) - TESTA
2024

Java And C++ And PHP Crash Course For Beginners - UDEMY
2024

PROFILE

CONTACT ME

0963273643
luckynatanauan38@gmail.com
Niugan, Cabuyao, Laguna

PERSONAL BACKGROUND

Date of Birth: February 28, 2003
Place of Birth: Cabuyao, Laguna
Gender: Male
Religion: Catholic
Nationality: Filipino

SKILLS

- Computer Literate
- Problem Solving
- Knowledgeable in PHP, HTML, CSS, JavaScript, Java, C#, C++, MySQL,
- Ability to collaborate and work effectively in team settings.

LUCKY D. NATANAUAN

BSIT

OBJECTIVE

As a BSIT student, my objectives are to excel academically, master IT skills through hands-on projects, and gain practical experience via internships. I aim to enhance my problem-solving and communication abilities, work well in teams, uphold ethical standards, and build a strong professional network for a successful IT career.

EDUCATION

Tertiary

PAMANTASAN NG CABUYAO
Bachelor of Science in Information of Technology
2021-2024

Secondary

CABUYAO INSTITUTE OF TECHNOLOGY
E-STEM
2019-2021

CABUYAO, INTEGRATED NATIONAL HIGH SCHOOL
2015-2019

Primary

NIUGAN, ELEMENTARY, SCHOOL
2009-2015

CERTIFICATION

Creative Web Design (CWD) - TESTA

PROFILE

CONTACT ME

09065978961
ramosjoshua0605@gmail.com
Cabuyao City, Laguna

PERSONAL BACKGROUND

Date of Birth: September 18, 2002
Place of Birth: Cabuyao, Laguna
Gender: Male
Religion: Christian
Nationality: Filipino

SKILLS

- Computer Literate
- Problem Solving
- Knowledgeable in PHP, HTML, CSS, JavaScript, Java, C#, C++, MySQL,
- Knowledgeable with Microsoft Office
- Troubleshooting

JOSHUA M. RAMOS

BSIT

OBJECTIVE

As a college IT student, master core concepts, achieve high grades, gain practical experience, develop soft skills, and build a network. Stay updated, balance life, pursue lifelong learning, and enhance your resume with projects and hackathons.

EDUCATION

PAMANTASAN NG CABUYAO
Bachelor of Science in Information of Technology
2021-2024

UNIVERSITY OF PERPERTUAL HELP -SYSTEM DALTA
2018-2020

INSTITUTE FOR FOUNDATIONAL LEARNING INC.
2014-2018

INSTITUTE FOR FOUNDATIONAL LEARNING INC.
2008-2014

CERTIFICATION

Creative Web Design (CWD) - TESTA