Title of the Project

Serene (JOBBOX Management System)

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APPROVAL

This project titled "**JOBBOX Management System**", Submitted by **Ali Mohammad Sohel Rana,** IDNo:193-16-468,tothe Department of Computing & Information Systems, Daffodil International University, hasbeenacceptedassatisfactoryforthepartialfulfillmentoftherequirementsfo rthedegreeof B.Sc. in Computing & Information Systems and approved as to its style and contents. The presentation was held on 23/01/2024.

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DEDICATION

This work is dedicated to my father, Alhaj Mohammad Abul Bashar Sardar, and my mother, Jahanara Aktar. Their unwavering support and blessings have been the cornerstone of my ability to embark on this research and educational journey, enabling me to contribute positively to society.

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Acknowledgement:

It has been a rewarding experience to conduct research and successfully complete the "JOBBOX Management System" project. I am deeply thankful to Allah for His grace throughout my educational journey.

I extend my sincere gratitude to my supervisor, Associate Professor **Mr. Md Mehedi Hassan** from the CIS Department at Daffodil International University, for dedicating his valuable time, offering guidance, and inspiring me to accomplish this project, contributing significantly to my overall education. I express my thanks to him for his unwavering support, sound judgment, positive outlook, and understanding of various factors that played a crucial role in the realization of my project. His efforts have been instrumental in ensuring I possess the necessary knowledge to complete this undertaking.

I also wish to convey my respectful thanks to **Mr. Abdullah Bin Kasem Bhuiyan**, Lecturer in the CIS Department at Daffodil International University, and all my lecturers for their consistent assistance and patience throughout the process of completing this thesis work.

JOBBOX Management System

Executive Summary:

The JOBBOX Management System is a pioneering project designed to revolutionize the landscape of job recruitment. This innovative system, working seamlessly with organizational, non-organizational, and content-based job recruitment, stands out as a groundbreaking solution. Its primary focus is on creating a highly comprehensive and exceptionally user-friendly platform that caters to a diverse range of entities, including both organizational and non-organizational sectors. The system places a strong emphasis on content-based job recruitment, ensuring an efficient and seamless process for both job seekers and employers. With its state-of-the-art approach, the Job box Management System promises an unparalleled user experience, marking a significant advancement in the field of job recruitment.

Job box Management System Provided the Three Types of Jobs Facilities Non-Organizational Jobs Organizational Jobs And Video Resume or Content Base Jobs. Hole System Control By the Admiration Authority that means Admin role Account Holde

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Chapter 1-Introduction

Description of the Project:

Project name is JOBBOX management System, which is working with organizational, non-organizational, and content-based job recruitment. The JOBBOX Management System is a groundbreaking project aimed at creating a highly comprehensive and exceptionally user-friendly platform for job recruitment. This innovative system caters to a diverse range of entities, including both organizational and non-organizational sectors. Furthermore, it places a strong emphasis on content-based job recruitment, ensuring a seamless and highly efficient process for job seekers and employers alike. The JOBBOX Management System stands out as a state-of-the-art solution, offering an unparalleled user experience and revolutionizing the landscape of job recruitment.

Chapter 2-Initial Study

2.1Project

proposal: 1. Initial Conception

A. Brief description of the project:

JOBOX Management System is an innovative project aiming to simplify the job recruitment process. This user-friendly platform caters to both organizational and non-organizational entities, integrating content-based job recruitment for a seamless experience. Key features include diverse job opportunities, a well-designed interface, advanced job matching algorithms, an application tracking system, and robust security measures. Aligned with industry trends, the project utilizes MERN technology, AI, and chatbot APIs for enhanced functionality. Feasibility analyses confirm its viability, with potential revenue from advertisements and service selling. Deployment involves HTML, CSS, Tailwind, React.js, Node.js, Express.js, Redux.js, MongoDB, and Firebase, following an iterative development approach. JOBOX Management System signifies a significant advancement in job recruitment, offering an efficient solution for both job seekers and employers.

B. Proof of concept:

i. Prototype:

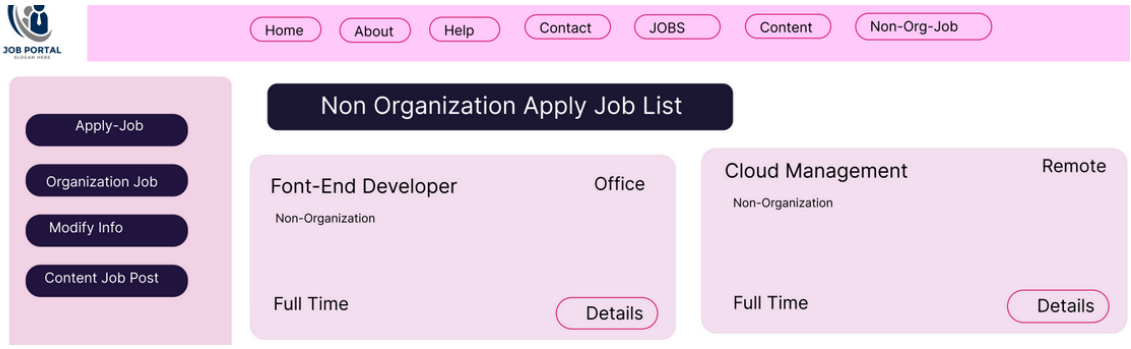


Fig 1: prototype of JOBBOX Management System

ii. Initial research:

Market Viability:

The market viability of the Job box Management System project is strong, given the evolving trends in the job recruitment industry. The project's comprehensive approach to organizational, non-organizational, and content-based job recruitment aligns well with the growing demand for efficient and user-friendly platforms. The incorporation of advanced features, such as content-based job matching, applicant tracking systems, and AI components, positions the Job box Management System as a competitive and innovative solution. The project's focus on reducing time and cost in the recruitment process, along with its user-friendly interface and emphasis on security and privacy, further enhances its market viability. The research indicates a favorable climate, with increasing digital transformation in companies, making the Job box Management System well-suited to meet the evolving needs of the job recruitment landscape. [1]

2. Feasibility Study

A. Operational Feasibility:

JOBBOX Management System is evident in its ability to effectively address the recruitment process's intricacies and meet the requirements of various stakeholders. The system's user-friendly interface ensures ease of navigation for both job seekers and employers, contributing to overall operational efficiency. The incorporation of advanced technologies, such as

- Artificial Intelligence-based
- quiz bots,
- chat bots,
- interview question prediction

enhances the system's usability providing a seamless and interactive experience.

Furthermore, the project's integration of AI in the organizational job application section, offering interview question predictions and providing insights on cracking interviews, contributes significantly to operational feasibility. The inclusion of an administrative control panel empowers the system to efficiently manage and track the entire recruitment process, ensuring smooth operations. Also support for different types of job opportunities, including organizational, non-organizational, and content-based, catering to a diverse range of users. Additionally, the project's use of JWT (JSON Web Token) for secure client-server communication and data encryption ensures the confidentiality and integrity of sensitive information, enhancing the operational robustness of the system.

B. Technical Feasibility:

Looking through the lens of the JOBOX Management System, our online platform harmoniously integrates with a singular computer and server setup. Users interact with the system through a client-side PC, which functions as the primary interface, while the server operates as the core repository for data storage. Each bit of data generated within the system finds its secure abode on the server, fostering a unified and systematic data reservoir. Communication adheres to a methodical pattern, ensuring the seamless transmission of information from the server to the client, thereby nurturing a fluid and prompt user interaction.

Table 1: JOBBOX Management System Equipment

Hardware	Computer/Laptop Maximum 4 GB RAM 256 SDD WIFI Connection Needed
Software	Visual Studio
	Firebase Console(Authentication)
	Mongo dB Database (Database)
	Browser
	Mongoose Compass
	Postman API Testing
	Node JS Installation Backed Component
	Vercel Backend Code Hosting
	No SQL Booster in Mongoose

C. Economic feasibility:

The system aims to operate within a cost-effective framework, utilizing online platforms for design and development, reducing expenses associated with traditional business models. The feasibility analysis involves evaluating budgets, equipment costs, labor expenses, server and maintenance costs, ensuring that the project is financially sound and justifiable. Here is the price report. [2]

Costs:

- Software cost
- Hosting cost
- Storage cost

Table 2: Economic Feasibility

Count	Using Element	Amount
1	Software	12000/=
2	Hardware	30000/=
3	Web Hosting	5000/=
	Total Cost	470000/=

D. Comparative analysis:

In Bangladesh's job management landscape, a notable void persists due to the prevalent dependence on manual procedures for internal record-keeping. However, the JOBBOX Management System distinguishes itself by obviating the necessity for manual interventions. It presents a holistic remedy, empowering users to oversee data packages, products, designer schedules, and report management seamlessly via an intuitive interface. Operations are streamlined with unparalleled efficiency, all achievable with a single click, revolutionizing the conventional workflow.

3. Foundation

A. Define Goal And Object Of the Project:

Goal: At the core of the JOBBOX Management System lies the objective of crafting a seamless and intuitive platform tailored for efficient job recruitment. This robust system is meticulously engineered to streamline and elevate the entire recruitment journey, catering to the needs of both corporate and non-corporate entities alike.

Objectives:

- **Simplify Job Recruitment**: Streamline and simplify the overall job recruitment process for both employers and job seekers.
- **User-Friendly Platform**: Create a user-friendly and intuitive platform that ensures ease of use for all stakeholders, including organizational and non-organizational entities.
- **Comprehensive Job Matching**: Incorporate content-based job recruitment algorithms to ensure precise and personalized job matching based on individual skills and preferences.
- **Time and Cost Efficiency**: Significantly reduce the time and cost associated with the recruitment process for both employers and job seekers.
- **Increased Job Visibility**: Enhance job visibility by enabling employers to reach a larger pool of potential candidates, while job seekers gain access to a wide range of opportunities.
- **Improved Candidate Matching**: Utilize content-based job matching to improve the accuracy of matching candidates with specific roles, leading to enhanced employee retention and performance.
- **Efficient Organization and Management**: Provide employers with tools to efficiently manage applications and track the hiring process, ensuring a seamless and organized recruitment journey.

- **Incorporate AI-Based Features**: Integrate artificial intelligence features such as Chat Bot, Interview Question Prediction, and AI-based Quiz Bot to enhance user interaction and experience.

- **Limited Access for Exclusive Use**: Restrict access to the JOBOX Management System to the Daffodil Family, ensuring exclusivity for Daffodil students, staff, and other associated entities.

- **Continuous Improvement**: Embrace an iterative and evolutionary development approach to continuously improve the system based on user feedback and emerging trends in job recruitment.

- **Generate Revenue**: Explore revenue streams through advertisements and service selling within the application, ensuring economic feasibility and sustainability.

Hight level features/requirement to achieve goals/objectives:

- Al Based Number Quiz Bot.
- Artificial Intelligence Based Chat Bot.
- Artificial Intelligence Based Interview Question Prediction.
- Artificial Intelligence Based Skilled Related Book Identification.
- Normal Chat Bot which is the using by the Candidate and Employer (Candidate Asked Only One Question but Employer no limitation provide Answer Section) .
- Only Employers Post the Job And Employer in feature playing Admin Role if Super Admin provides Opportunity.
- Only Daffodil Student Can be Access this Application.
- Candidate can be Access There Types of Job Application Opportunity.

Nonfunctional requirements:

- System Availability
- Response Time
- Scalability
- Security
- Compatibility
- Reliability
- Performance
- Compliance
- Usability
- Accessibility
- Backup and Recovery
- Interoperability
- Documentation
- Training
- Maintenance
- Disaster Recovery

4. Exploring And Engineering

A. Iterative development:

Listed below are the iterative development stages delineated

- Supervise Report
- Supervise All Tasks

Time Box:

Time-boxing for JOBOX Management System

Timebox is a tool for estimating time ,The priority list be prioritized us Moscow method

Table 3: Time Boxing for JOBBOX Management System

Task Name	Start Time	Duration	End-Time
1. Initial Study	23 July 2023	14 days	5 August 2023
1.1 Identify the Project All requirement		3	8 August 2023
1.2 Justify the Project		4	12 August 2023
1.3 Find out the solution		6	18 August 2023
1.4 The Aims and Objectives		2	20 August 2023
2 .Requirement Gathering and Analysis		**10**	30 August 2023
2.1 Feasibility Study		2	2 September 2023
2.2 Use Cases		2	4 September 2023
2.3 Functional Requirement		1	5 September 2023
2.4 Non Functional Requirement		1	6 September 2023
2.4 System Architecture		1	7 September 2023
2.5 ERD For (Database Management0		1	8 September 2023
2.6 Initial Class Diagram		2	10 September 2023
3. Design		**15**	**25 September 2023**

3.1 UI Design		5	30 September 2023
3.2 Database design		2	1 October 2023
3.3 Class Diagram		2	3 October 2023
3.4 Behavioral Model		2	5 October 2023
3.5 Collaboration Diagram		4	9 October 2023
4. Implementation		**20**	**29 October 2023**
4.1 Programming Language MERN		2	1 November 2023
4.2 Project Implementation		18	19 November 2023
5 Testing		**6**	**25 November**
6 Documentation		**15**	**9 December 2023**

Features wise development:

Prioritize the project's features first. It is necessary to set up the product, orders, blog, designer schedule, internship, report, packages, and so forth.

Deployment:

The deployment of the JOBOX Management System involves utilizing HTML, CSS, and Tailwind for the frontend structure and design. React.js will be employed for frontend development to create reusable components and manage application state. On the backend, Node.js and Express.js, along with Redux.js for state management, will handle requests and ensure smooth server-side operations. The MongoDB database will store and manage data, providing flexibility and scalability.

JavaScript will play a vital role in implementing validation logic and maintaining data integrity. Integration of Ajax will enable seamless and responsive user interactions without page reloads. Following the Dynamic Systems Development Method (DSDM) approach, the development process will be iterative and incremental, aligning closely with user requirements.

For hosting, Firebase will be used for the JOBOX Management System, with Vercel providing routing API and hosting for the backend. Webpack and Babel will optimize the code, ensuring cross-browser compatibility and enhancing overall performance. This deployment strategy aims to deliver a user-friendly and efficient job recruitment platform.

2.2 Background of the Project:

The JOBBOX management System is an ambitious project aimed at transforming the job recruitment landscape. This innovative system addresses organizational, non-organizational, and content-based job recruitment, striving to create a comprehensive and user-friendly platform. The primary goal is to simplify and streamline the recruitment process for job seekers and employers alike.

The system's key features include time and cost-efficiency, increased job visibility, improved candidate matching, and enhanced organization and management. By incorporating content-based job

recruitment, the system aims to match individuals to jobs based on their skills and preferences, ensuring a seamless process.

In the initial stages, the project focused on market viability, considering the evolving nature of the job recruitment industry and the increasing demand for efficient platforms. Competitive analysis compared existing job recruitment platforms, highlighting the strengths and weaknesses of each, which informed the development strategy of the JOBOX Management System.

The feasibility study delves into operational, technical, and economic aspects. The system's operational feasibility ensures an easy-to-navigate website, supported by Artificial Intelligence features like interview question prediction. Technical feasibility involves MERN stack development, incorporating MongoDB, React, Express JS, Node JS, REDUX JS, and external APIs. Economic feasibility revolves around the application's earning sources, primarily through advertisements and service sales to specific organizations.

The project foundations outline the goals, objectives, and scope. The high-level features prioritize essential components such as AI-based quiz and chat bots, content-based matching, and feedback mechanisms. The Moscow method further categorizes these features based on their priority.

Exploration and engineering involve the PRL (Prioritized Requirements List), focusing on the final requirements such as security measures, JWT authentication, and Firebase integration. Time-boxes are established for each development phase, with a detailed timeline for tasks from initial study to documentation.

Feature-wise documentation outlines key aspects, including job seeker, employer, and candidate portals, an admin panel, content-based job matching, and an Application Tracking System. The deployment plan emphasizes the use of HTML, CSS, Tailwind, React.js, Node.js, Express.js, Redux JS, MongoDB, JavaScript, Ajax, and Firebase. The Dynamic Systems Development Method (DSDM) approach ensures iterative and incremental development, while tools like Webpack and Babel optimize code for successful deployment.

In summary, the JOBOX Management System represents a comprehensive and innovative solution to the complexities of job recruitment, leveraging advanced technologies to create an efficient and user-friendly platform. The project's detailed exploration and engineering phases, coupled with strategic deployment plans, aim to deliver a transformative tool for both job seekers and employers.

2.3 Problem areas:

- **Limited Accessibility:** Restricting access to the Jobox Management System only to the Daffodil Family may limit its impact in Bangladesh. The system should consider broader accessibility to benefit a larger audience, including individuals from various educational institutions and professional backgrounds.

- **Language and Cultural Adaptation**: The system should address language diversity and cultural nuances in Bangladesh to ensure inclusivity. Tailoring the platform to accommodate multiple languages and cultural preferences will enhance user engagement and acceptance.

- **Advertisement Revenue Dependency**: Relying solely on advertisement revenue may pose challenges, considering the economic dynamics of Bangladesh. Exploring diverse revenue streams, such as partnerships or premium services, could provide a more sustainable financial model.

- **Internet Connectivity Issues**: Bangladesh faces occasional challenges with internet connectivity, particularly in rural areas. The system should be optimized for varying internet speeds and offer offline functionalities to accommodate users in regions with limited connectivity.

- **Skillset and Training**: Ensuring that the targeted audience, especially Daffodil students, possess the necessary digital literacy and skills to effectively use the platform is crucial. Providing training or educational resources could bridge the potential gap in technological proficiency.

2.4 Possible solution:

Firstly, expanding access beyond the Daffodil Family by collaborating with other educational institutions and organizations will broaden the user base. Incorporating multilingual support and culturally sensitive features will enhance the platform's appeal to a diverse population. Diversifying revenue streams, such as introducing premium services or forging strategic partnerships, can reduce dependency on advertisement revenue. Additionally, optimizing the platform for varying internet speeds and incorporating offline capabilities will ensure usability across different regions, including those with intermittent connectivity.

Lastly, investing in digital literacy initiatives and providing user-friendly guides can empower users with the necessary skills to navigate the JOBBOX Management System effectively.

Chapter3–Literature Review

The literature review assumes a pivotal role in the system development journey, acting as a cornerstone for identifying the precise focal points. Across the developmental stages, it assists in pinpointing analogous practices within the domain. Consequently, it expedites the discernment of indispensable components that warrant integration into the envisaged system.. [3]

3.1Discussiononproblemdomainbasedonpublishedarticles:

- **Manage Cost:**

Cost control presents a formidable obstacle for companies operating in the job recruitment sector, spanning a spectrum of factors including project expenditures, promotional collateral, and monthly operational outlays. Prudent management is imperative to forestall the escalation of staffing expenses, particularly in instances where projects extend beyond their initial scope or undergo mid-project modifications.

- **Lack of Transparency:**

Transparency remains a challenge in the job recruitment industry due to its vast and continually expanding nature. Prices for services and resources can vary widely, making negotiations challenging for recruiters. The lack of standardized pricing puts pressure on recruiters to navigate through fluctuating costs and maintain consumer confidence amid constant price comparisons.

- **Frequent Changes by Clients:**

In the job recruitment industry, clients often embark on a once-in-a-lifetime project to secure their dream job. With easy access to ideas and information on the internet, clients seek perfection and may demand changes to the recruitment plan. Balancing client expectations, informing them of changes, and managing the impact on the recruitment process requires a delicate approach.

- **Schedule and Time Management:**

Effective time management is crucial for recruiters, considering the demanding nature of the job. Ensuring that recruiters and their teams utilize their time efficiently is essential for successful recruitment outcomes. Designing plans and strategies within a reasonable timeframe remains a consistent challenge for most recruiters.

- **Limited Talent Pool:**

Unlike job seekers who may undergo the job recruitment process a few times in their lives, recruiters face the task of finding suitable candidates almost every day. Access to a diverse and high-quality talent pool can be limited based on geographical location. Additionally, each recruitment project may require a unique skill set and style, posing challenges in finding candidates who align with the specific requirements.

- **Logistics Challenges:**

The job recruitment industry faces logistical challenges when it comes to accessing high-quality resources and coordinating the recruitment process. The lack of a well-regulated online market and the necessity for physical visits to different platforms contribute to the complexity of logistics in the recruitment domain.

Discussion Problem solutions bases on published articles

In ever-evolving realm job placement, companies constantly navigate a competitive market where recruiters endeavor to efficiently pair candidates with suitable positions. Here are some pivotal solutions addressing challenges within the job placement industry:

- **Effective Time Management:**

Time management is paramount in the job placement industry. Professionals need to efficiently allocate their time to handle numerous tasks throughout the day. Establishing a well-organized schedule allows for effective project prioritization and ensures timely completion of assignments.

- **Meeting Candidate Expectations:**

Job placement often involves working closely with candidates who have high expectations for their career paths. Professionals in this industry must adeptly manage client expectations by setting clear boundaries, adhering to budget constraints, and meeting project deadlines consistently.

- **Budget Management:**

Job placement agencies must vigilantly monitor their budgets to ensure optimal financial efficiency. Overruns or extended project durations can pose challenges, making it crucial for all aspects of the business to be streamlined to avoid unnecessary expenses during the candidate placement process.

- **Pitching Innovative Placement Ideas**:

A significant challenge in the job placement sector is effectively presenting innovative placement ideas. Recruiters often need to articulate and visually convey their vision for optimal candidate-job matches. Utilizing creative tools and methods helps to vividly communicate these ideas to clients.

- **Continuous Training and Skill Enhancement**:

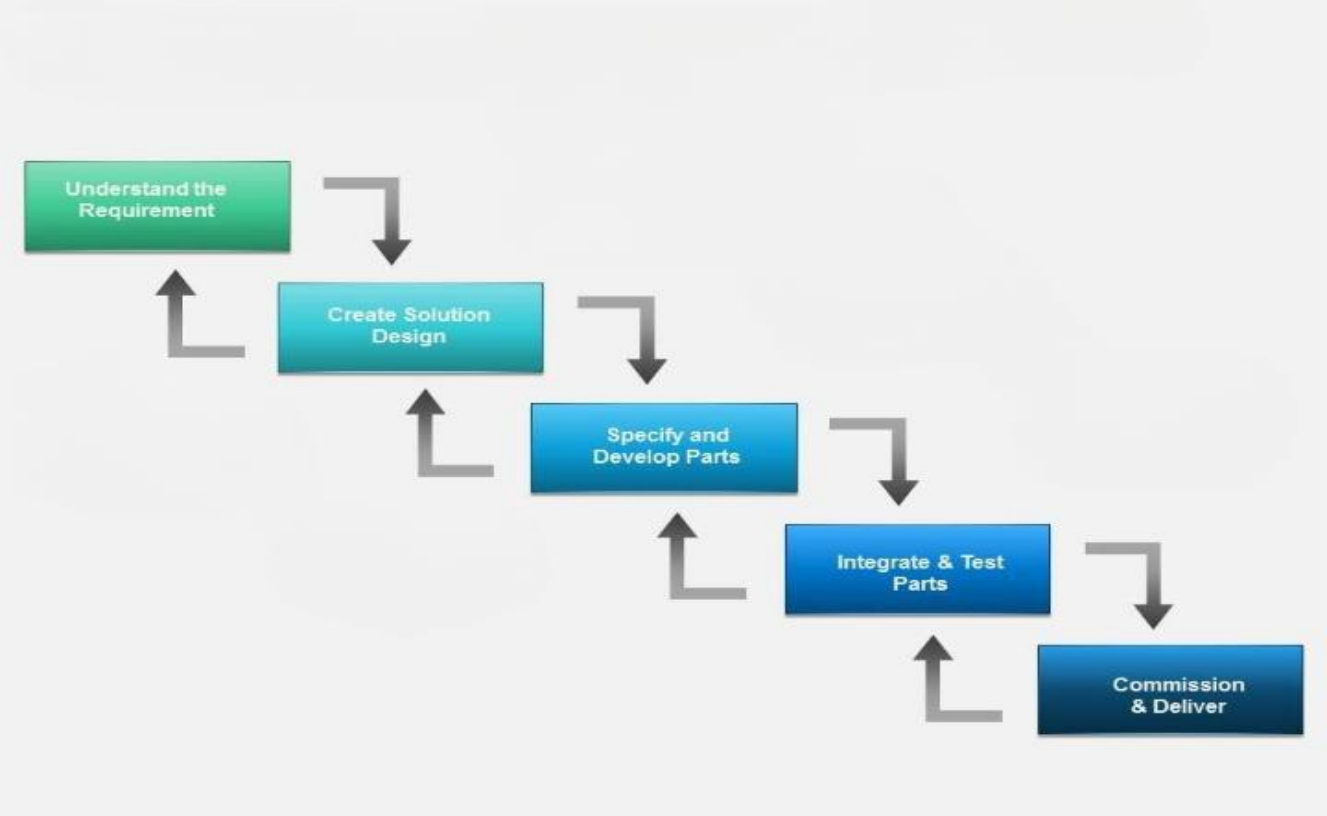
Ongoing training programs are instrumental in empowering professionals to navigate the intricacies of the job placement industry. Accessible training resources facilitate seamless collaboration between administrators and recruiters, promoting a dynamic and informed approach to the placement process.

3.2Recommendedapproach:

A multitude of methodologies are utilized worldwide for software application development. However, the crux lies in discerning the most optimal approach for a particular project. I'll delve into three methodologies, elucidating their merits and shortcomings, to enable informed decision-making for endeavor.

Waterfall Model:

An essential component of conventional software development processes is the waterfall paradigm., characterized by a linear progression through predefined phases. Renowned for itssimplicity, it is often dubbed the "sequential" or "direct" life cycle model. In the waterfall model, each phase must be finalized before transitioning to the subsequent one, with no provisions for revisiting completed stages. Its structured nature offers a lucid depiction of the software development journey, rendering it accessible and comprehensible. Despite its inherent inflexibility, the waterfall model retains its status as one of the foremost Software Development



Life Cycle

Fig 2: waterfall model development process [4]

Advantages:

- The waterfall model boasts a straightforward conceptualization.
- It advances through stages in a sequential manner.
- Development is time-efficient when compared to alternative methods.
- Testing and inspection procedures are uncomplicated.
- Managing the waterfall model is a breeze.
- It offers ease of understanding and utilization.

Disadvantages:

- The Waterfall model lacks backward compatibility upon completion.
- Once a level is completed, problem-solving becomes impossible
- No flexibility to revert to a previous level after completion.
- Not suitable for project launches.
- Magnitude of differences varies in some cases.
- Adding or deleting requests during the project is not possible.

Agile Methodology:

The agile methodology represents a proactive approach, especially advantageous in software development, fostering iterative delivery and collaborative engagement among cross-functional teams and stakeholders. Crafted as a response to conventional methodologies like the Waterfall model, it harmonizes with the ethos of the Agile Manifesto. In the dynamic landscape of software, regular updates are imperative. Engineers must continually hone components to remain competitive, rendering the rigid structure of the waterfall model insufficient for the demands of this ever-evolving industry.

Fig 3: Agile Development Methodology [5]

Advantages:

- Prompt and comprehensive delivery of educational materials can be achieved using the agile methodology.
- Emphasis on people and interactions over actions and tools is a key aspect, allowing for effective collaboration among customers, developers, and testers.
- Regular interactions between customers, developers, and testers are facilitated.
- Business software can be delivered on a regular basis.
- Face-to-face communication, promoting effective interaction, is encouraged.
- Daily interaction between entrepreneurs and developers is supported.
- The methodology promotes good design practices.

Disadvantages:

- Challenges may arise in establishing the scope of work, particularly for sizable software endeavors.
- There's a risk of incomplete project requirements and documentation.
- Project progress might stall if user representatives are unable to articulate desired outcomes effectively.
- Innovation may be stifled unless critical decisions involve younger developers, unless considerations.

Dynamic System Development Methodology (DSDM)

DSDM is inspired by the 80/20 rule, with project progress typically occurring in increments of 20% until reaching full completion (100%). This iterative development methodology adheres to 80% of essential principles for each cycle to facilitate collaborative progress. Subsequent analysis typically follows a thorough review of numerous transactions, aimed at identifying and implementing any necessary adjustments.

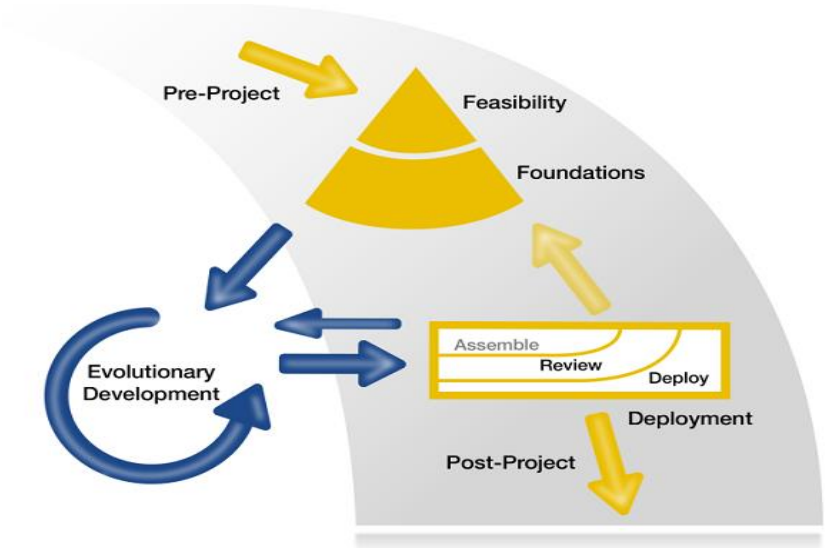


Fig 3: DSDM Methodology Process [6]

Advantages:

- Focus on timeframes.
- DSDM methodology is cost-effective.
- It provides adaptability.
- Users have the opportunity for active participation throughout development.
- The methodology can result in time savings.

Disadvantage:

- The methodology involves substantial implementation expenses.
- Small organizations may encounter difficulties in embracing this methodology.
- DSDM methodology has yet to gain widespread adoption.
- It may pose challenges in comprehension on certain occasions.

The development of the JOBBOX management system constitutes an internal project within the scope of my research endeavor, posing challenges in adhering to a singular approach. With not all facets of the study predefined or consolidated simultaneously, my initial emphasis lies in data collection, analysis, and prioritizing system development tasks. As the sole developer overseeing the project, devoid of a team or development unit, a tailored methodology that seamlessly integrates aspects of both waterfall and DSDM models proves advantageous. While the waterfall methodology aids in requirement gathering, the DSDM model excels in facilitating continuous development processes.

4.2 Why to Use:

The academic project's primary objective was to address issues associated with the specified activity. I am confident that the stacking process aligns with the system requirements, contributing to the business's growth and prosperity. Among the various advertising options available, I chose this method as it fulfills the system requirements. The exact methodology for the route is currently unavailable. Here are some reasons for this: [7]

- The system facilitates interaction with customers and end-users.
- It possesses interactive capabilities.
- The proposed system can establish projected functionalities.
- It guarantees prompt assistance when needed.
- The project can be concluded within the assigned timeframe.

Pre-project:

This phase involves initial requirements and solutions, focusing on maintaining time, budget, and risk factors as mentioned in this section.

Feasibility study:

Market research serves as a pivotal tool in assessing the viability of an investment. Feasibility analysis delves into the legality and efficacy of potential investments for the company, evaluating their potential benefits across technological, business, and operational realms. It scrutinizes various facets to determine if the investment aligns with the company's objectives and is economically sound. Furthermore, both thoroughly evaluated to gauge its overall feasibility and potential impact.

Requirements gathering:

This section consolidates prerequisites for initiating action or abstaining from it. Diverse methodologies, such as interviews, feedback, inquiries, and value propositions, are utilized for gathering assertions. Additionally, several recommended platforms are accessible

Requirement's analysis and implantation Steps :

Are compiled, the next step involves prioritizing them based on their significance and impact. High-priority demands take precedence over low-priority ones, ensuring that critical aspects are addressed promptly. This stage entails a thorough examination of the requirements to understand their intricacies and implications fully. Additionally, it involves categorizing the needs based on urgency, feasibility, and potential benefits, enabling effective allocation of resources and efforts.

Exploration and Engineering:

These initial steps, commonly regarded as foundational, entail a vital review and audit process to assess the workflow. Upon completion, the project undergoes scrutiny by a technology company for potential advancement. Any desired modifications to the terms are incorporated during the exploration phase at the user's request.

Post-Project:

Upon wrapping up the project, the team is furnished with detailed operational systems. This segment delineates the benefits and features my Project.

4.4 Implementation Plan:

Becomes available to users as project nears completion. During this phase, system approaches operational readiness. If any obstacles arise at this point, project may revert to development phase. After addressing any issues, system's configuration is finalized to ensure smooth operation, leading to eventual deployment of system for use in post-project phase.

Chapter 5–Planning

5.1 Project Plan:

Strategic serves as cornerstone any undertaking, encompassing the identification of work prerequisites, formulation of plans, evaluation of risk factors, time management, budget allocation, and structuring of work processes. This holistic strategy empowers developers to grasp their requirements and execute them proficiently. The design seamlessly aligns with the principles delineated in this section. The project is compartmentalized into numerous subsections, each meticulously planned to optimize resource utilization. This platform serves as the epicenter and catalyst for all decision-making processes within this domain.

5.1.1 Work Backdown Structure (WBS)

Remains committed to meeting deadlines for every project they undertake. The work breakdown structure acts as a guiding roadmap for deconstructing crafted the layout of 'multi-tiered emergency area' as part of their development efforts. Facilitates the identification of potential improvements and delineates steps for refining team operations. Each work level undergoes a meticulous breakdown, progressing from primary to subsequent stages. Utilizing the work breakdown structure block guarantees optimal results. The framework of this structure seamlessly harmonizes with the meticulously planned breakdown structures.

Table 4: Gantt Chart JOBBOX Management System

A	B	C	D
Gantt Chart Jobbox Management System 2023			
Task Name	Starting Date	Ending Date	Duration
Initial Study	23-Jul-23	5-Aug-23	14
Identify the Project All requirement	6-Aug-23	8-Aug-23	3
Justify the Project	9-Aug-23	12-Aug-23	4
Find out the	13-Aug-23	18-Aug-23	6
Feasibility Study	9-Sep-23	11-Sep	2
Use Cases	12-Sep	13-Sep	2
Functional Requirement	14-Sep	14-Sep	1
Non Functional Requirement	15-Sep	15-Sep	1
System Architecture	16-Sep	16-Sep	1
ERD For (Database Management0	17-Sep	17-Sep	1
Initial Class	18-Sep	20-Sep	2
UI Design	25-Sep	29-Sep	5
Database design	30-Sep	1 Octobor	2
Class Diagram	2 Octobor	3 Octobor	2
Behavioral Model	4 Octobor	5 Octobor	2
Collaboration Diagram	6 Octobor	9 Octobor	4
Implementation	29-Oct-23		20
Programming Language MERN SetUp	1-Nov-23	2-Nov-23	2
Project Implementation	3-Nov-23	20 November 2023	18
Testing	21-Nov-23	26-Nov-23	6
Documentation	1 December	14 December	15

5.1.2 Time Duration/Time Boxing

Time duration approach facilitates the timely delivery of orders within specified timeframes, ensuring projects stay on schedule. Selecting the appropriate time frame is crucial for project completion. Below is the time-box schedule for the project:

Table 5: Time Duration for JOBBOX Management System Execution

Task Name	Acting Role	Duration
Initial Study	Analyst	14
Feasibility Study	Analyst and developer	2
Foundation	Analyst and developer	2
Literature Review	Analyst	11
Methodology	Analysis	20
Planning	Analysis And Developer	20
Exploration	Analyst and Developer	11
Engineering	Developer	40
Testing	Developer and Tester	6
Development Phases	Developer and Tester	22
Implementation Phase	Developer	20
Lesson Learned	Analyst And developer And Tester	21
Critical Appraisal	Analyst	4
Conclusion	Analyst	1

5.1.3 Gantt Chart :[8]

The functions as a graphical depiction, offering a holistic view of all tasks, their start and end dates, and their respective durations. This visualization tool plays a crucial role in keeping stakeholders informed about the timing and sequence of project elements, enabling them to grasp when specific tasks are slated to occur. With its clear and structured presentation, the Gantt chart facilitates efficient management of project timelines, aiding in the achievement of project objectives within predetermined deadlines. Below is the Gantt chart for the project, provided for your reference:

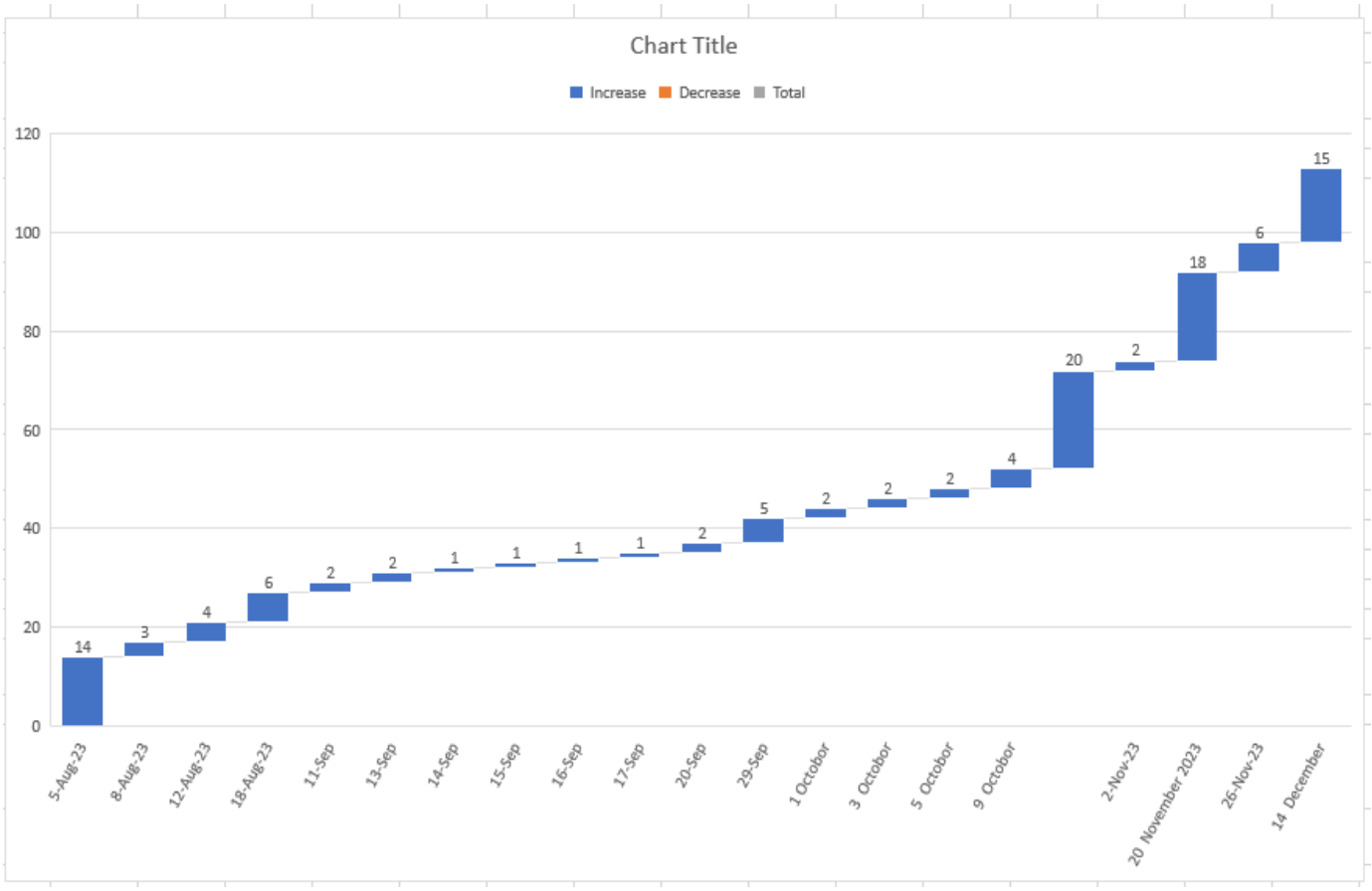


Fig 4: Gantt Chart

5.2 Test plan:

Testing holds a pivotal role in software development, serving as a critical mechanism to identify malfunctions and errors within the software. Through tests, we analyze and compare actual results against expected outcomes, ensuring the software meets specified standards and program implementation guidelines.[11]

5.2.2 Required Test:

Ascertaining system functionality and identifying areas for improvement, tests are indispensable in addressing system challenges and delineating strengths and weaknesses. Below are key tests imperative for ensuring system robustness:

Functional Testing

- **Unit Testing:**

Various segments and elements of the project. Comprehensive testing is conducted to ensure their functionality and precision. Moreover, these tests contribute to regulatory compliance and aid in coding activities.

- **Integration Testing:**

These procedures primarily apply to software testing. The organization holds certification as a software entity.

Integration testing involves testing multiple units concurrently, incorporating inspirational features or groups as necessary. Verification ensures seamless operation of all software modules before initiating successful test calls.

- **System Testing:**

This phase typically focuses on integration testing, where capabilities, features, and system requirements are thoroughly assessed. It ensures proper control over workload management, emphasizing the importance of adopting the correct.

- **Acceptance Testing:**

Operational signifies the final phase of step my step Testing., featuring active user participation. Its core aim is to evaluate customer satisfaction and guarantee alignment with business prerequisites.

Non-functional

- **Security testing:**

This section focuses on ensuring the security of web applications and software, both internally and externally. It involves conducting assessments for vulnerabilities such as SQL injection to fortify the system against potential security breaches. External and internal security measures are thoroughly examined to mitigate risks and safeguard sensitive information.

- **Usability testing:**

This segment oversees usability testing, affirming the software's user-friendliness and intuitive navigation. It places a premium on user convenience and efficacy, ultimately elevating the overall user experience within the software ecosystem.

- **Reliability testing:**

In this section, users can engage in testing activities focused on evaluating software durability, resilience to failure, and reliability.

Chapter-6 Feasibility

Feasibility study

If self-defense proves feasible, accessible, and compliant with legal regulations, it emerges as a central aspect of the feasibility assessment. This facilitates an evaluation of the endeavor's viability. This section delves into various methodologies for conducting feasibility studies, encompassing specialized courses, practical evaluations, and thorough feasibility analyses.

6.1 All Possible types of Feasibility:

- Hardware Expenditure
- Hosting Expenses
- Technical Viability
- Operational Viability

6.1.1 Economic Viability:

The Applications implementation is straightforward, with additional charges such as installation being contingent upon specific requirements. Additionally, I offer complimentary system maintenance for six months following implementation. However, the company reserves the right to discontinue the service in case of any modifications or new requirements. To avail the service, a server and domain name purchase are necessary. Here economic feasibility table are given be low:

Table 5: Economic Feasibility

Serial no	Sector	Cost(BDT)
1	Software	50,000/=
2	Hardware	25,000/=
3	Hosting	5,000/=
4	Others	6,500/=
Total prices		86500/=

Software cost:

Table 6: Software/Application Cost

Serial Number	Name	License	Price(Each Year)	Total Cost
	M S World	1 Year		20,000/=
1	Operating	free	10,000/=	00/=
2	system	1 year	00/=	20,000/=
3	Mongoose		25,000/=	
4	React (VS Code)	Free	00/=	00/=
5		1 year	15,000/=	10,000/=
6	Figma		15,000/=	12,000/=
				53,000/=

Hardware cost:

Table 6: Project Hardware Costing

Serial Number	Name	Quantity	Price(Each Year)	Total Price(BDT)
1	Dell laptop	1	93,000/=	93,000/=
2	Router	1	2,000/=	2,000/=
Total=				95,000/=

Hosting cost:

Table 7: Hosting Cost

Serial Number	Name	All Packages	Price (Each Year)	Total Cost (BDT)
1	Domain	1 year	2000/=	2000/=
2	Business Shared hosting	Business Shared hosting	25,000/=	25,000/=
Total=				27,000/=

6.1.2 Technological Feasibility:

The automated system is constructed using PHP and JavaScript, presenting notable advantages over manual procedures, particularly in reducing the risk of data and file loss. Since its recent deployment, operational efficiency has markedly improved through automation. I have engineered a versatile program accessible through web browsers and featuring a user-friendly control panel interface. These initiatives address the technical factors detailed below, which are pivotal for the project's success.

Software:

- Google Workspace
- Cloud-based Operating System
- Firebase
- MongoDB with Mongoose
- Editing Dreamweaver

Hardware:

- Dell laptop (Core i7, 8GB RAM, 1TB Storage)
- Router

6.1.3 Operational Feasibility:

This system empowers diverse organizations to effectively oversee their interior design operations with dynamism. It incorporates an admin user endowed with extensive capabilities. The admin possesses the authority to oversee customers, upload, delete, edit, and manage product descriptions, foster customer engagement through blogs and comments, showcase intern CVs, manage designer schedules, process product orders, handle packages, and make all decisions pertinent to the interior design company. I am committed to augmenting the operational functionalities of the system to ensure smooth management and optimal functionality:

- "Effortlessly add De Dall products.
- Ensure system accessibility is seamless.
- Simplify Interface for batter user.
- Use Can be Easily Understand."

6.2 Cost Benefit Analysis

This data underscores the inherent fluctuations within the present industry environment. At present, every online task requires an entire day for fulfillment. Embracing this arrangement is set to deliver significant advantages for the user. Presented redirected is an assessment of the expenses and advantages linked with the suggested framework:

Table 8: Cost Benefit Analysis [9]

SL No	Sector expenditure	Year 1	Year 2	Year 3	Year 4	Total
1	Software Cost	45000/= -	-	-		50,000/=
2	Hardware Cost	79,000/= -	-	-		78,000/=
3	Hosting	15,000/=	15,00	15,00	15,00	6,000/=
4	Office cost	20,000/=	20,000	20,000	20,000	80,000/=
5	Staff cost	30,000/=	30,000	30,000	30,000	120,000/=
6	Development Cost	5,000/=	5,000	5,000	5,000	20,000/=
7	Others cost	18,000/=	18,000	18,000	18,000	90,000/=
	Total	202,500/=	74,500	74,500	74,500	444,000/=

Total revenue:

Table 8: Toal Revenue Analysis

SL No	Sector expenditure	Year 1	Year 2	Year 3	Year 4	Total
1	Total Earning	140,000/=	170,000/=	250,000/=	300,000/=	890,000/=
2	Total expenditure	202,500/=	74,500/=	74,500/=	74,500/=	444,000/=
	Total revenue	**342,500**	**244,500**	**324,500**	**374,500**	**1,335,000**

After conducting a thorough cost analysis, it becomes apparent that a collective effort can generate significant annual revenue, with projections indicating an upward trajectory each year. Upon careful examination of the projects, it is projected that within four to five years, the revenue will escalate to 1,335,000/=. Consequently, I am assured that this program demonstrates robust profitability.

6.3 DSDM is Good or Not For the Project:

In the implementation stages, protocols are intricately synchronized with the tenets of the a rule set to endure. The inception of this technique by the original developers has greatly eased integration with end-users. Given the educational focus of my project, DSDM emerges as invaluable, aligning seamlessly with the project's objectives. The functionalities inherent in DSDM closely mirror the systems I am implementing, rendering it a fitting choice for the project.

Chapter 7-Foundetion

7.1 Over All Requirement List

Software engineering encompasses two main categories of requirements: functional requirements and non-functional requirements. Presented below are examples of these requirements.:

7.1.1 List of functional requirements:

- **Service Installation:**

Administrator has capability to oversee service details, including adding, deleting, and editing services, updating service information, and reviewing available services. Additionally, customers have access to view all available services.

- **Employer And Candidate setup their Information:**

Users, both candidates and employers, can effortlessly navigate the platform, selecting their desired product through job postings, with candidates being able to apply for positions. The administrator holds complete authority over the entire application.

The administrator manages the employer, candidate, and admin sections, where they can monitor employer and candidate activity, view all complaint records, access organizational and non-organizational job listings, as well as content-based job listings. Ultimately, the administrator has access to all activities within the application and serves as the authoritative figure of the JobBox Management System.

- **Employer And Candidate Activity setup:**

The admin possesses the authority to oversee the entire activity of candidates and employers. They can review and update all user information, remove users as necessary, and assign admin roles. Additionally, they have the capability to update company details or provide additional information. Furthermore, the admin can engage with candidates through chatbot comments, leveraging their unrestricted access to the platform.

.

- **Report Checked:**

The admin can review monthly reports, showcasing profits and losses, and maintain company financial records.

- **Services setup:**

Admin can manage Three Types of Job Holder User Here is my user Types Candidate , Employer and Admin But Candidate User Accessible Three Types of job opportunity .Employer provide this three types of JOB Opportunity

Job box User get Many Advantages, The Reaction Many types of Job Opportunity Access At a time, Employer Can be Identify his Company and Authority Handel bale Candidate

- **Rating**

I have to user Rating System in my JOBBOX Application. My Application Types of JOBSECTION that why Rating System I have to use Content base Job Application Section. The Rating Provide Only Employer Account Holder. At a time provide Interview Calling System.

With the project now completed, I've gained invaluable insights into gathering information, addressing challenges, and overcoming obstacles. Though the initial tasks presented challenges, they provided an excellent opportunity to refine my skills. Through effective time and cost management, I successfully delivered the assignment. I'm grateful for the knowledge acquired during this experience, which I believe will be instrumental in my future endeavors. My gratitude extends to the Almighty for granting me strength and intelligence, as well as to the supportive individuals who contributed to the project's success.

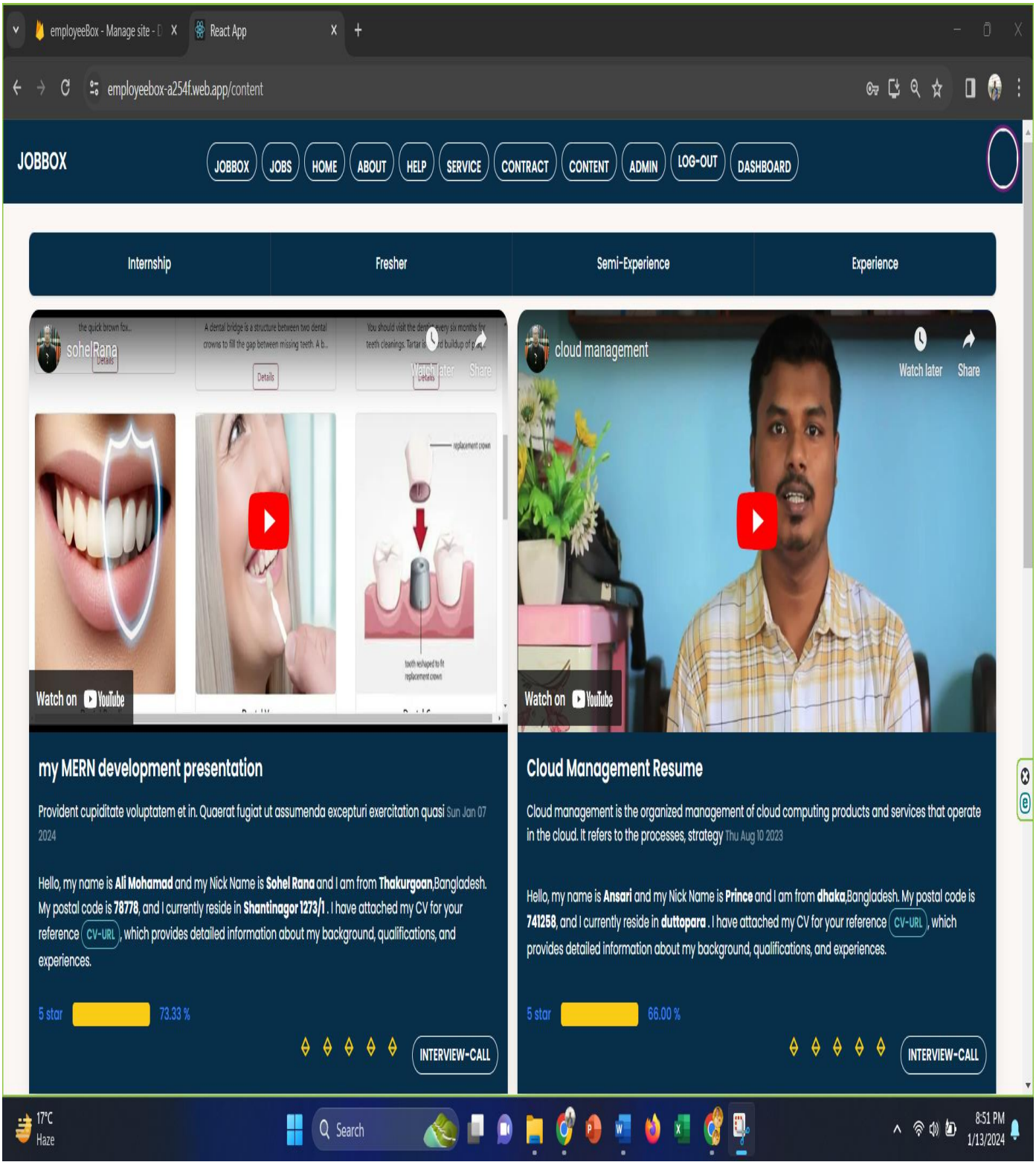


Fig 4: Prototype of JOBBOX Management System Content Bases Jobs

- **Search:**

Candidate And Employer Can Search Four Types of JOB Like Internship, Fresher ,Semi -Experience And Proper Experience Candidate Account Holder Can be Search Organizational And Non Organizational Job Also Search Employer Account Holder Content Base Job Searching Facilities exists in my Job box Applications

- **Portfolio:**

Every Candidate And Employer and Admin that means all user Portfolio Account Information Exists in my job box Applications

7.1.2 List of Not Functional Requirement:

- **Verifications:**

Customers are prompted to input their information, which undergoes validation procedures to verify its accuracy and authenticity.

- **Security:**

The website operates with a focus on security, providing customers with a trustworthy online environment. Security is of paramount importance for any website, ensuring a safe and secure experience for users.

- **Responsive:**

Website responsiveness is of utmost importance. Without it, users may encounter various issues. A responsive website can be accessed seamlessly across multiple devices, including mobile phones, laptops, and other devices.

- **Reliability:**

The inadvertent pressing of keys may lead to unforeseen outcomes within the system. Conversely, reliability is defined by the system's capacity to provide uninterrupted services round the clock, seven days a week. Consequently, the evaluation of our system places a primary focus on ensuring optimal reliability..

- **Flexibility:**

The system is required to exhibit flexibility, enabling users to interact with it seamlessly. Furthermore, all information within the system must be presented in a comprehensive and detailed manner..

- **Testability:**

The proposed system must be designed to be testable, allowing for easy verification of all its features. This ensures that administrators, designers, and customers can seamlessly interact with the system.

7.2What Technology Implemented:

During this period of high demand, numerous optimizations are implemented to enhance platform performance. These improvements are introduced to achieve a variety of objectives..

Client/Server Applications

A noteworthy innovation in software applications involves the creation of client-server and web applications. These applications are designed to organize records systematically and facilitate standard exchanges within organizations or groups. The integration of client-server applications proves especially beneficial for organizations aiming at streamlined data management. Clients often select and deploy these applications according to their unique requirements. Furthermore, the adaptability of this software enables users to access it seamlessly across different devices concurrently. It is worth highlighting the software's efficient performance and its capacity to operate with minimal security concerns. The features and functionalities of client/server applications are elaborated upon below.:

- Initially installed on the user's computer.
- At this stage, it cannot accommodate a large number of users.
- Capable of handling multiple types of users simultaneously.
- Resilient

Web application:

Web applications operate on personal computers and utilize a web application framework. The application can be accessed and utilized on alternative devices within a matter of seconds.

Key Features:

- The application functions independently without the need for additional software to perform basic operations.
- Operates swiftly without user constraints, ensuring quick functionality.
- The application is accessible through a drive URL.

- No installation is required for using the application.
- Provides easy and convenient access.
- Facilitates faster performance in various tasks.

7.3RecommendationsandJustifications:

In the JOBBOX Management System, we have thoroughly examined different applications and their corresponding responsibilities to identify the most suitable solution for the proposed system. By opting for a web server, we ensure compatibility of the web application with our system. This enables accessibility from any location with an internet connection, offers cost-effectiveness, eliminates the requirement for installation on specific devices, facilitates rapid and seamless updates, among other advantages. Therefore, it's evident that a web server application is the optimal choice to align with our recommended system.

In the JOBBOX Management System, extensive analysis of various applications and their respective roles has been conducted to determine the most fitting solution for our proposed system. Selecting a web server application ensures that our web application is compatible with our system, allowing access from any location with internet connectivity. This choice proves to be cost-effective, eliminating the need for installation on specific devices and enabling swift and seamless updates. It's evident that opting for a web server application aligns perfectly with our recommended system, offering numerous advantages for efficient operation and accessibility.

Chapter 8-Explorations

8.1 Old System Use Cases:

The exploration phase entails the utilization of crucial tools such as diagrams, diagrams, and Replica Application Among these, Replica Application Structure plays a pivotal role in delineating the entire system structure, offering a comprehensive overview of website functionality and user interactions. Below, we present the use case diagram delineating essential system components and user actions for the preceding system:

During the exploration phase, essential tools like diagrams and Replica Application are utilized to map out the system structure. Among these, the Replica Application Structure holds significant importance as it provides a comprehensive overview of website functionality and user interactions. Below, we showcase the use case diagram, detailing critical system components and user actions for the preceding system. This visualization aids in understanding the system's functionalities and user interactions, facilitating efficient development and deployment.

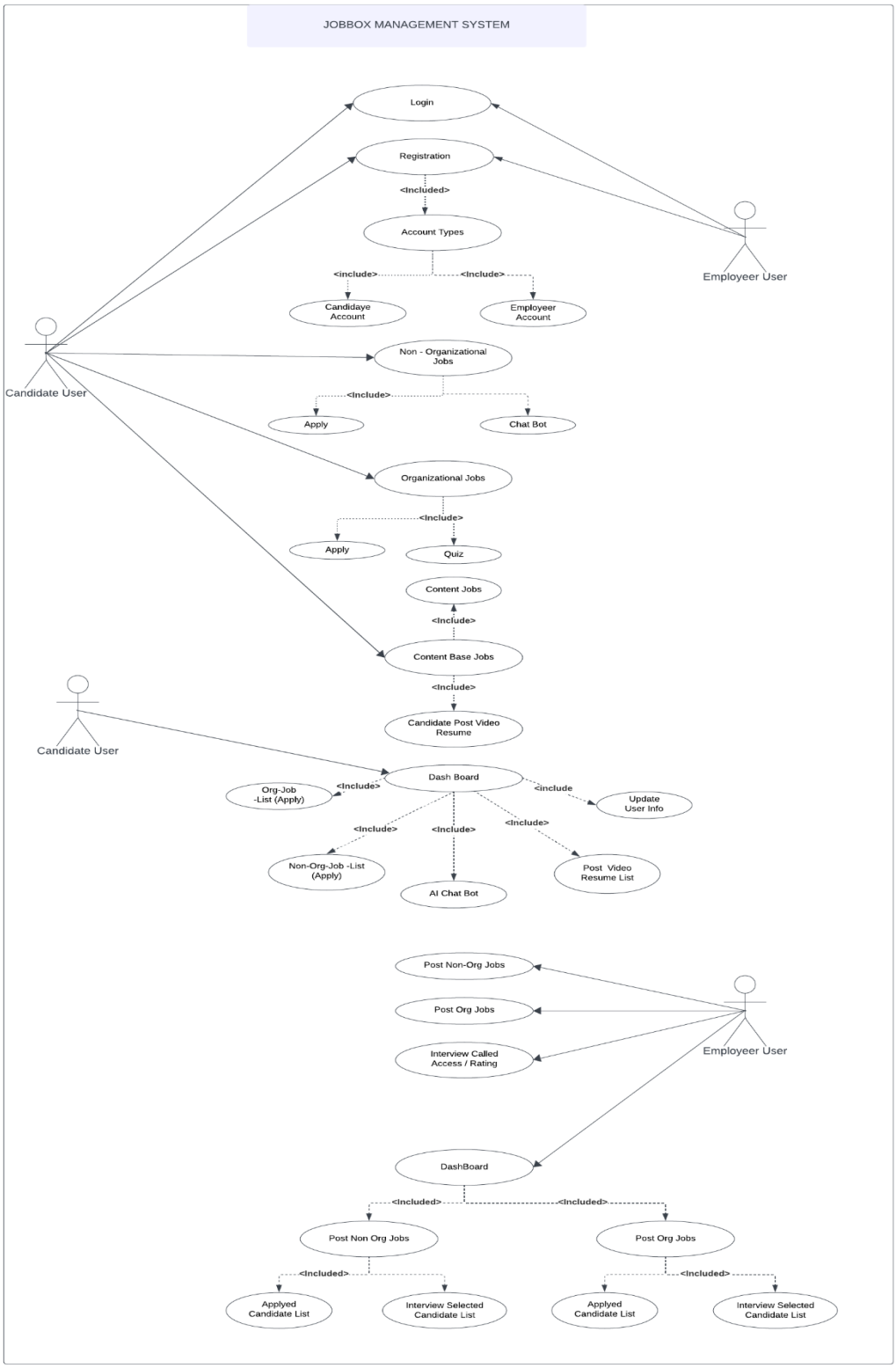


Fig 5: Use Case Diagram for JOBBOX Management System

8.2 New System Use Case Diagram:

Activity diagrams play a crucial role in illustrating system workflows, capturing the operational dynamics and state transitions within the system. Their unique functionality distinguishes them from other documentation methods, offering a visual representation of complex processes. Therefore, the activity diagram serves as an invaluable visual guide to system workflow, aiding in comprehension and analysis.

Below, you'll find the activity diagram depicting the workflow of the previous system, providing insights into the sequential steps and interactions within the system. various tasks and transitions involved in system operation, facilitating effective communication and analysis during the development and maintenance phases.

Activity diagrams are indispensable tools for illustrating system workflows, capturing operational dynamics and state transitions comprehensively. Their unique functionality distinguishes them from other documentation methods, offering a visual representation of complex processes. Therefore, the activity diagram serves as an invaluable visual guide to system workflow, aiding in comprehension and analysis.

Below, you'll find the activity diagram depicting the workflow of the previous system. This diagram provides insights into the sequential steps and interactions within the system, showcasing various tasks and transitions involved in system operation. It facilitates effective communication and analysis during both the development and maintenance phases.

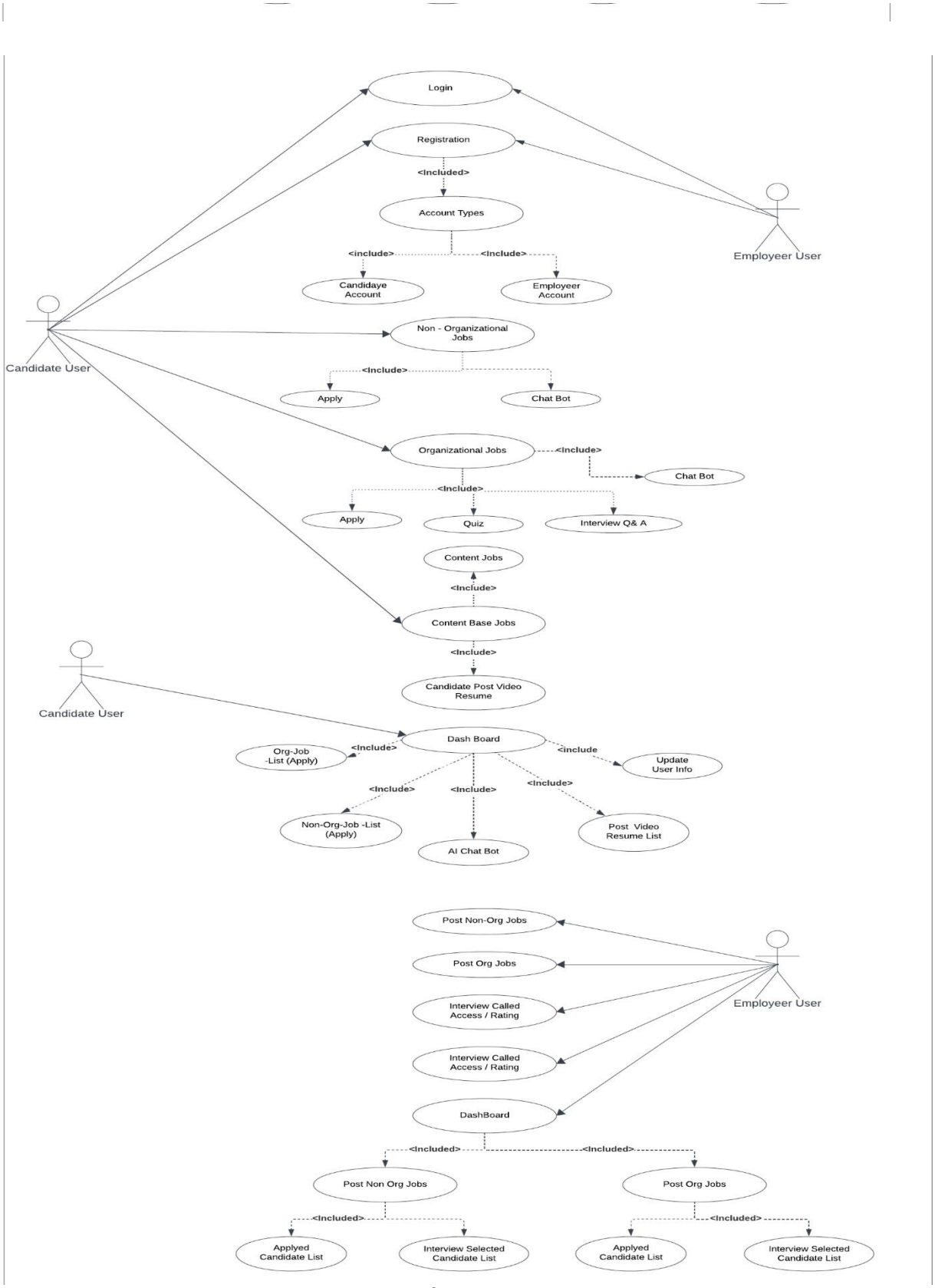


Fig 6: Use Case Diagram for New System

8.2New system full activity diagram:

Activity diagrams serve as powerful tools for shaping system workflows, capturing the performance dynamics and illustrating the migration from one system to another. Their unique capability to portray system performance is unparalleled and distinguishes them from other documentation methods. Activity diagrams provide a visual representation of complex processes, making them an essential component of system design and analysis.

This specific usage, capturing the migration process, sets activity diagrams apart in the realm of system documentation. The diagram not only outlines the sequential steps and interactions within the system workflow but also elucidates the performance aspects and the transition from one state to another.

Below, you will find the activity diagrams depicting the workflow of the previous system. These diagrams offer a comprehensive view of the system's operational dynamics, facilitating a better understanding of the intricate processes involved. They act as visual guides, aiding in both system comprehension and effective communication among stakeholders:

Admin activity diagram:

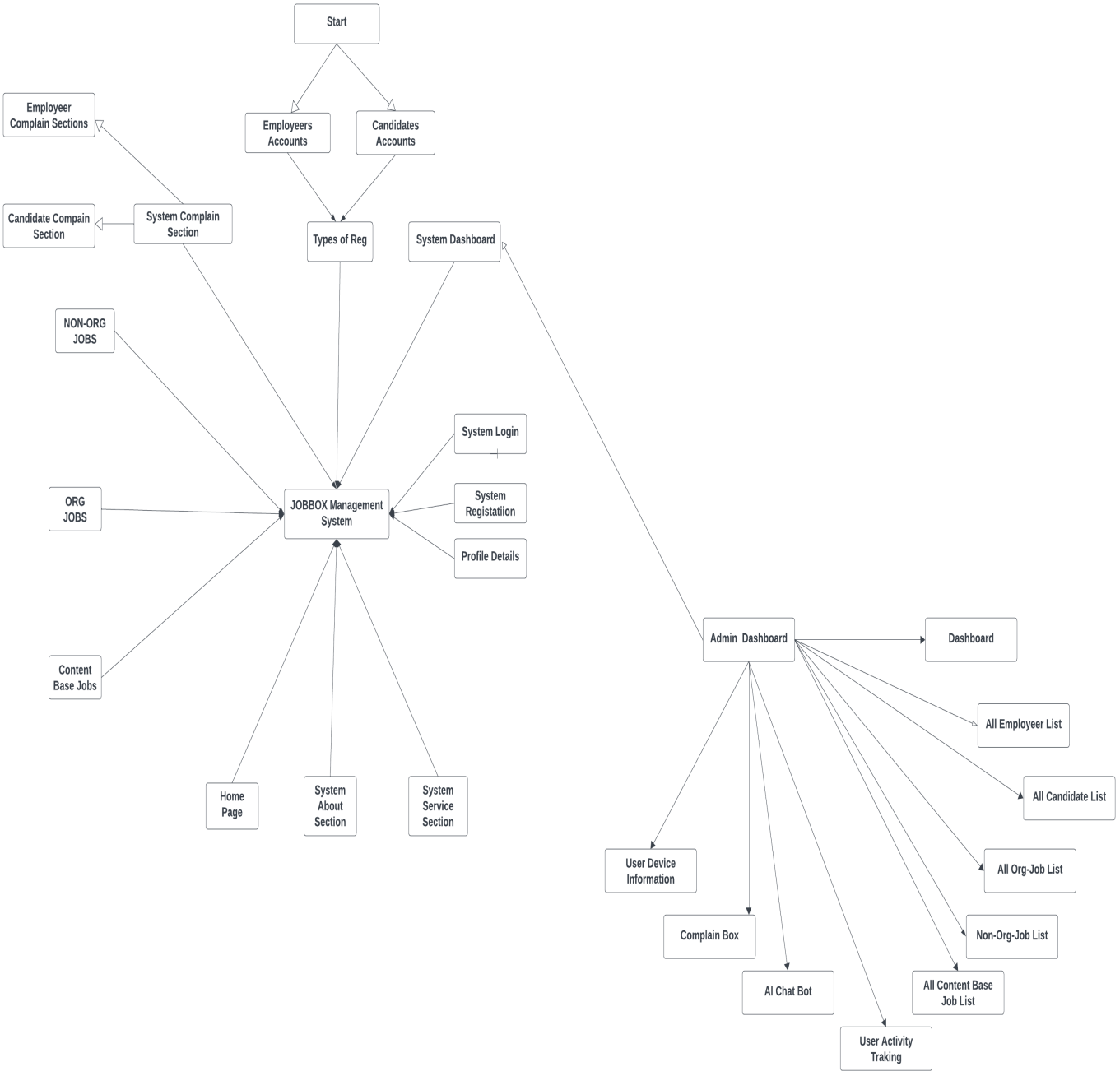


Fig 7: Admin Activity Diagram

Candidate activity diagram:

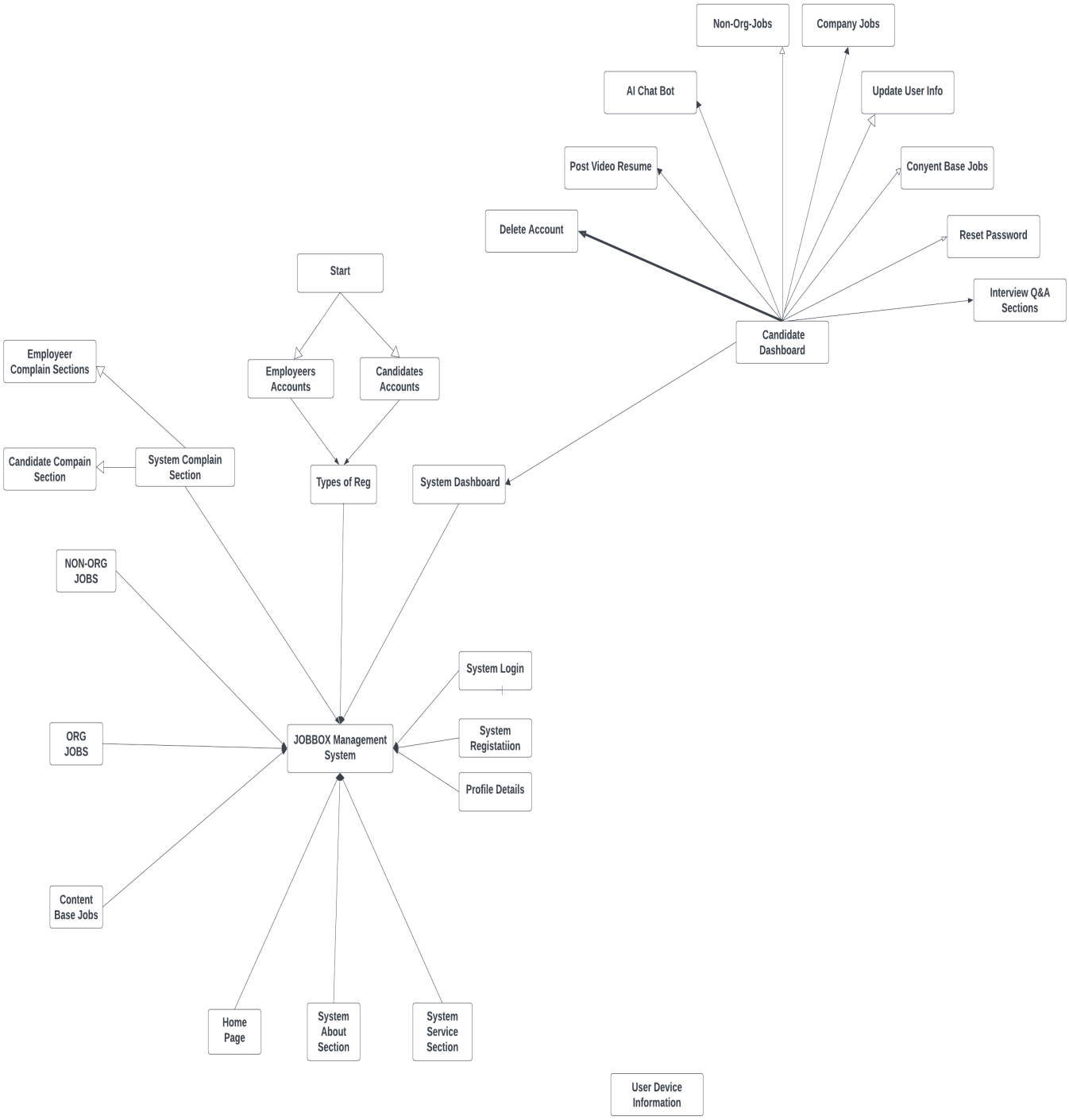


Fig 8:Candidate Activity Diagram

Employer activity diagram:

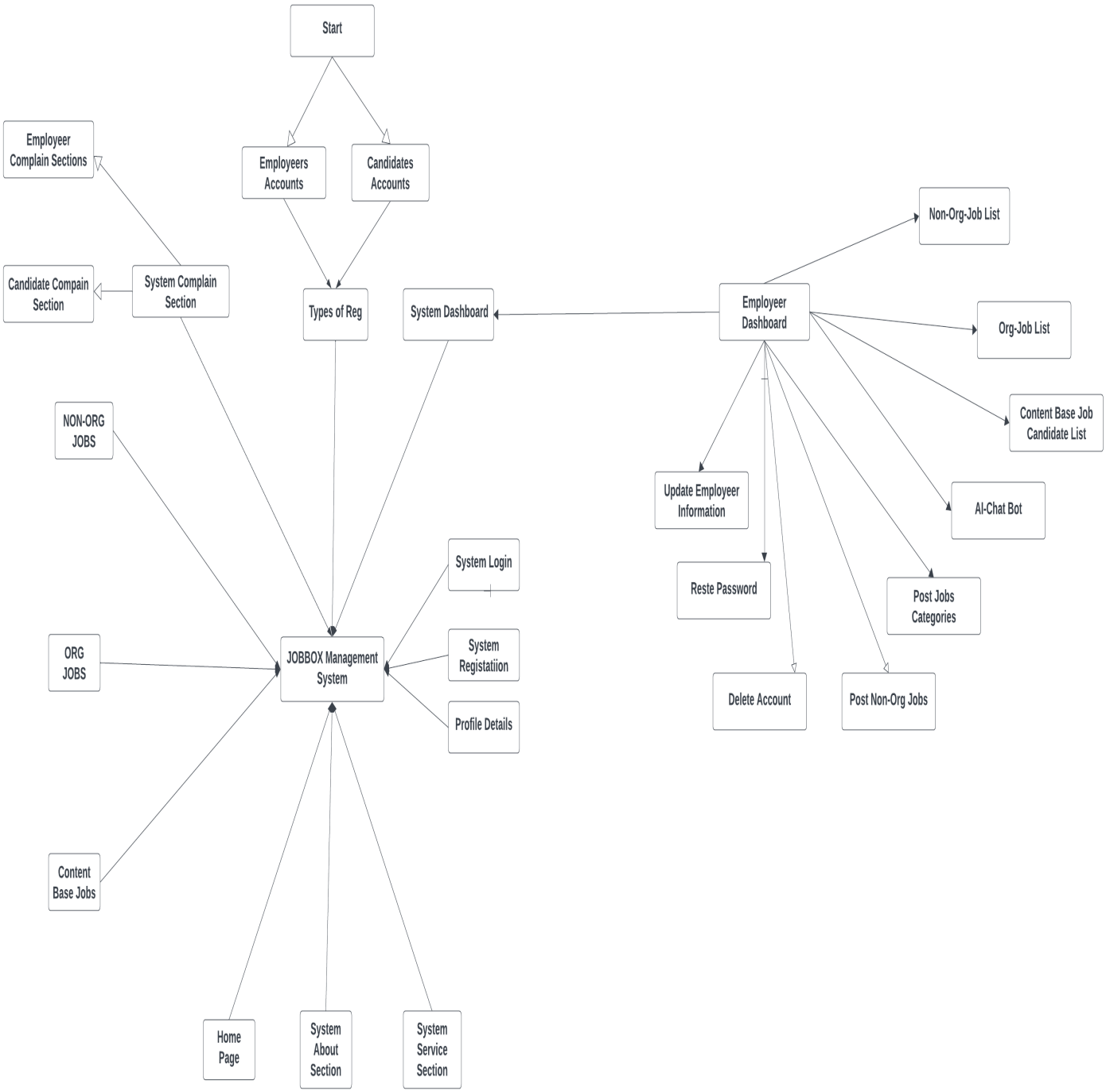


Fig 9: Employer Activity Diagram

JOBBOX Management System activity diagram

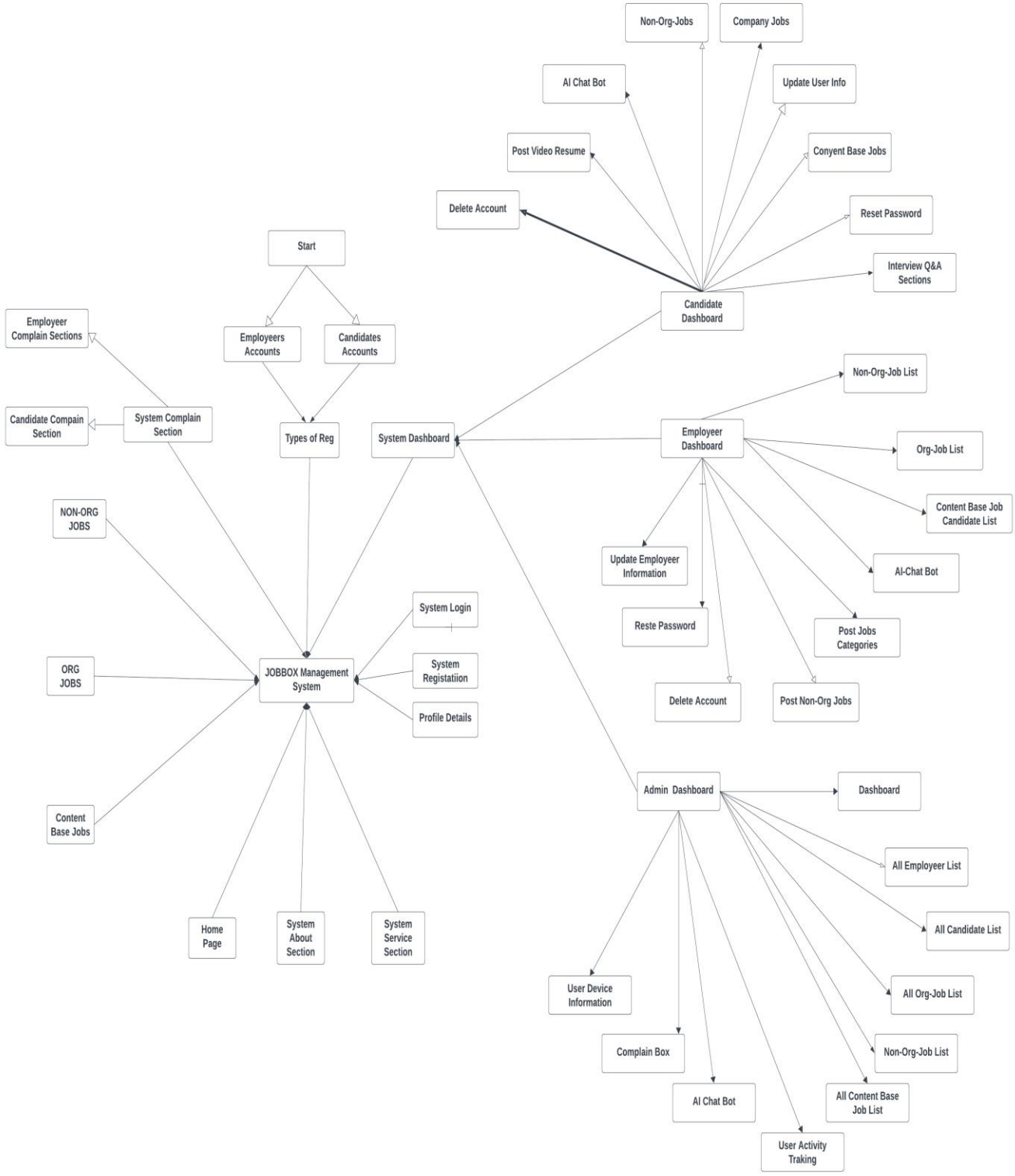


Fig 10: JOBBOX System Hole Agriculture

8.3 Prioritization Requirement List (PRL):

Moscow:

The Moscow technique is fundamental to the Requirements List, and. This methodology assists in prioritizing functionalities and comprehending requirements efficiently. The Process of Application

Moscow stands for Mandatory, Recommended, Optional, and Wished-for characteristics. Below are the Moscow attributes.:

Table 9: Prioritized Requirement

Requirement No	Requirement Name	Priority
R-01	The System will be able to JOB Type Management l, storage, and security	Must Have
R-02	The System will be able to Register for the Job Box management System	Must Have
R-03	The System will be Able to Login / Social Media Login for the Job box Management System	Must Have
R-04	The System Will be Able to there are Two Type of Account Create first one is Candidate Account and Second one is Employer Account	Must Have
R-05	The System Will be Able to There are three types of Job Opportunity first on is Organizational , second one is Non-Organizational and Third one is content base Job	Must Have
R-05	The System Will be able to Help , contract and system documentation provide	Should Have
R-06	The System Will be Able to provide Two types of Job posting facilities also provide candidate tracking system	Must Have
R-07	The System Will be Able to provide general Chat Bot System , which is the use only candidate and employer	Must Have
R-08	The System Will be Able to provide Maximum One question asked candidate and UnLimited Replay provide Employer , Not only specific Job Employer , same Organizational other employer can be reply	Must Have
R-09	The System Will be Able to use Artificial Intelligent which is the only accessible Organizational Job Application	Must Have
R-10	The System will be Able to use Artificial Intelligent which is the only accessible candidate account holder people	Must Have
R-11	The System will be Able to provide use feedback	Could Have

R-12	The System will be Able to use JWT (JSON WEB TOKEN) which is the provide client site to server site data communication Authentication (Security)	Must Have
R-13	The System will be provide maximum 5 time request client side to server site data communication at a time (11MIN) each features	Must Have
R-14	The System Will be use Firebase Authentication System which is the more secure , Firebase is the Google Authentication service	Must Have
R-14	The System will be provide data encryption and decryption hash Algorithm , Not only hole database encryption, More Confidential Data encryption and description with using hash algorithm	Must Have
R-15	The System will be Able to provide Maximum Three device connected this Application if you have to use more then three device you Account is Automatically deactivated	Must Have

8.4 Prototype of the new System:

Exploring its advantages, crucial to clarify the concept of a prototype. A prototype functions as an advanced design model, preceding the final iteration of the design. Its role goes beyond merely showcasing the visual appearance of the future website; it also outlines the website's structure and its integration within the broader framework. Prototyping is a strategic approach aimed at optimizing website development by emphasizing vital marketing elements. Below, you'll discover the prototype for the new system:

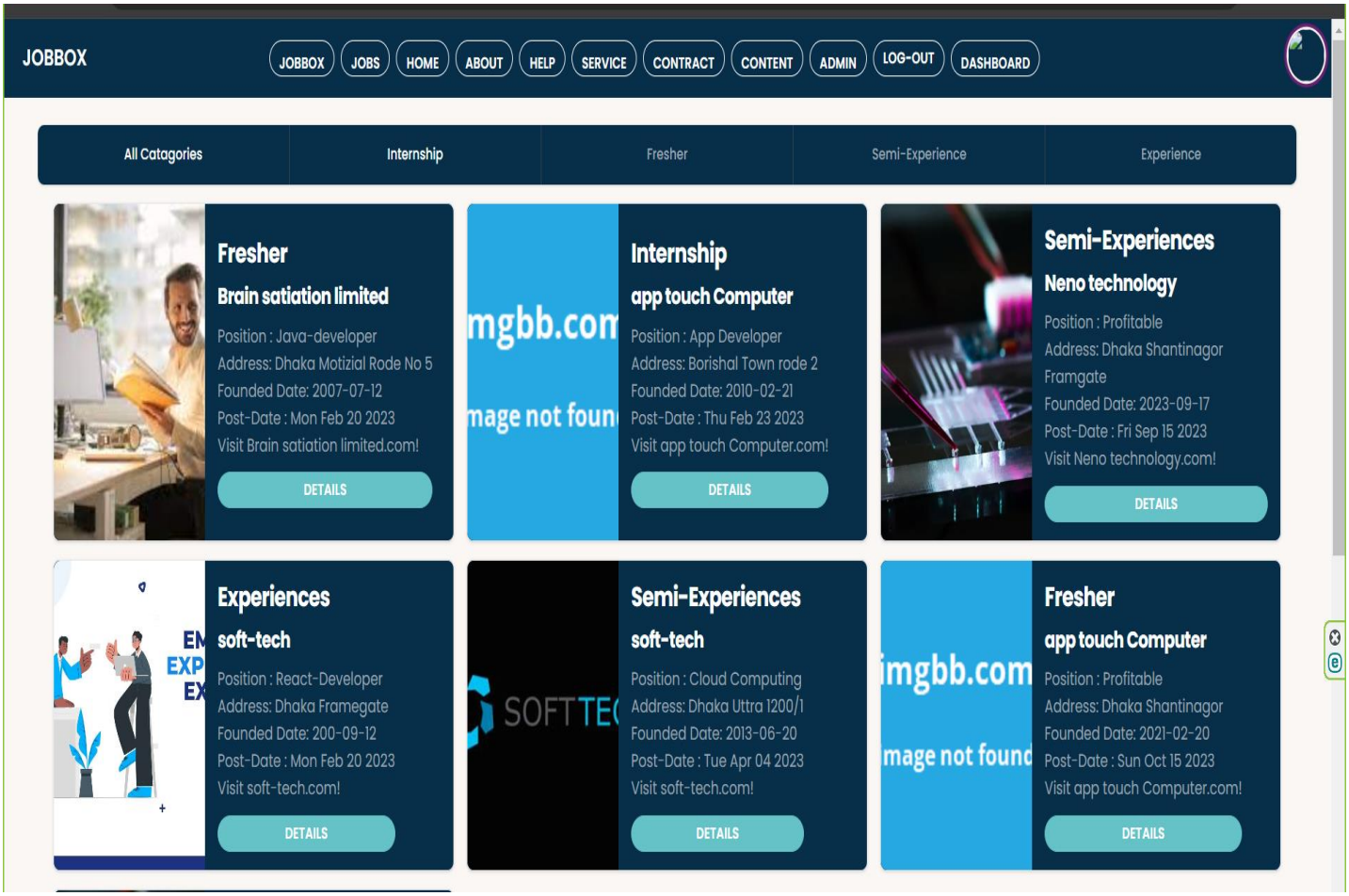


Fig 11: Prototype of New System (JOBBOX Management System)

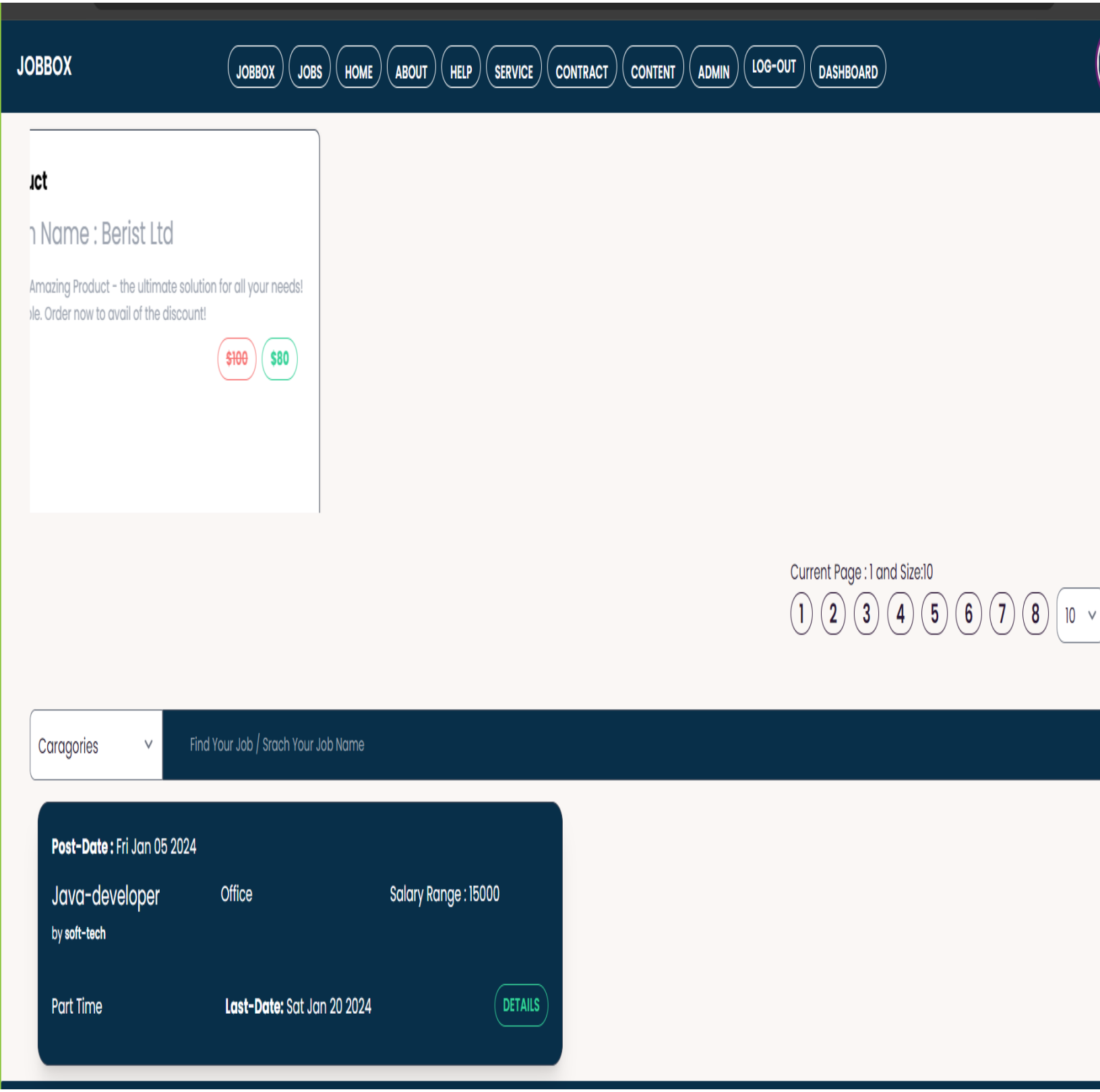


Fig 12: Prototype of New System (JOBBOX Management System)

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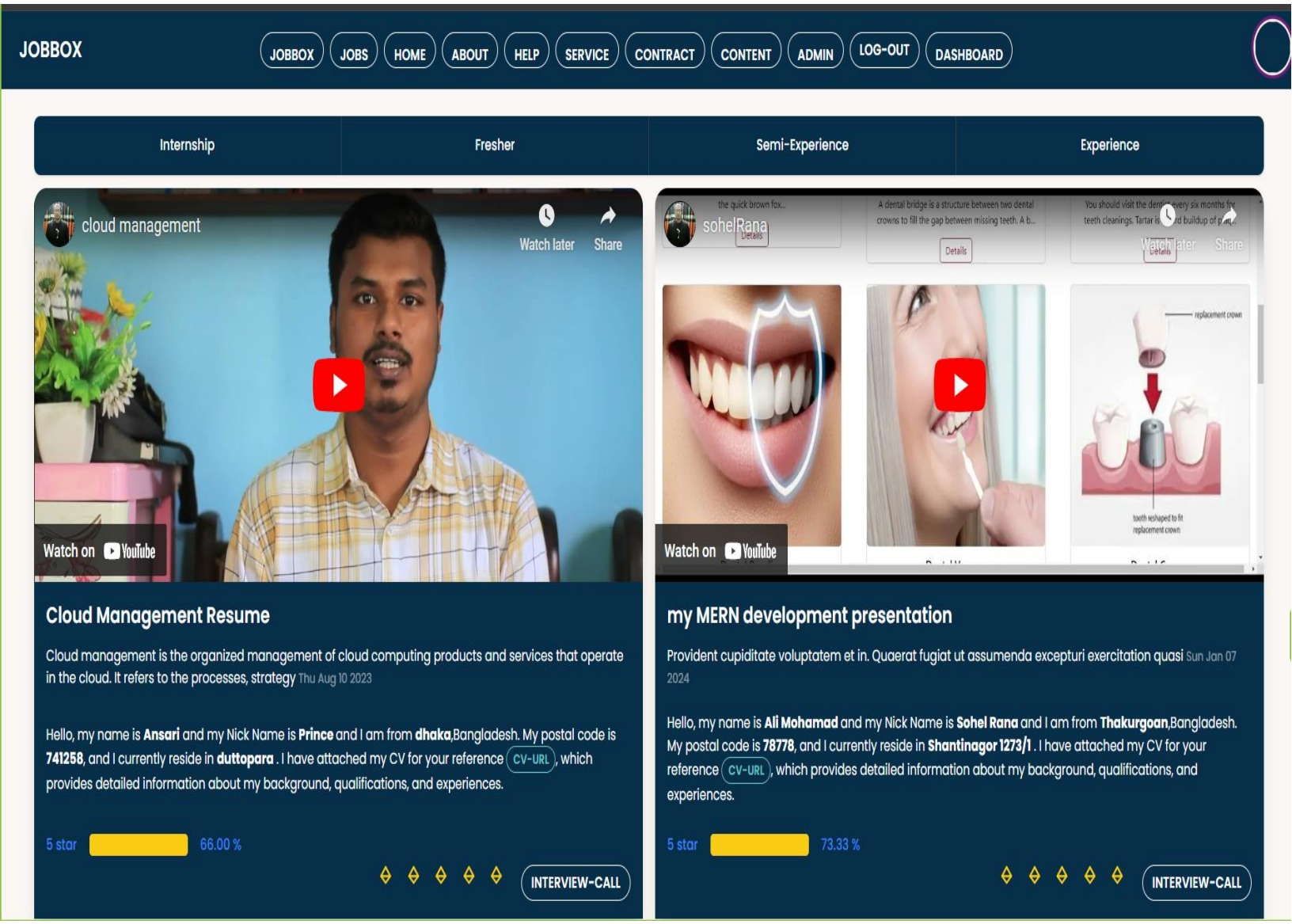
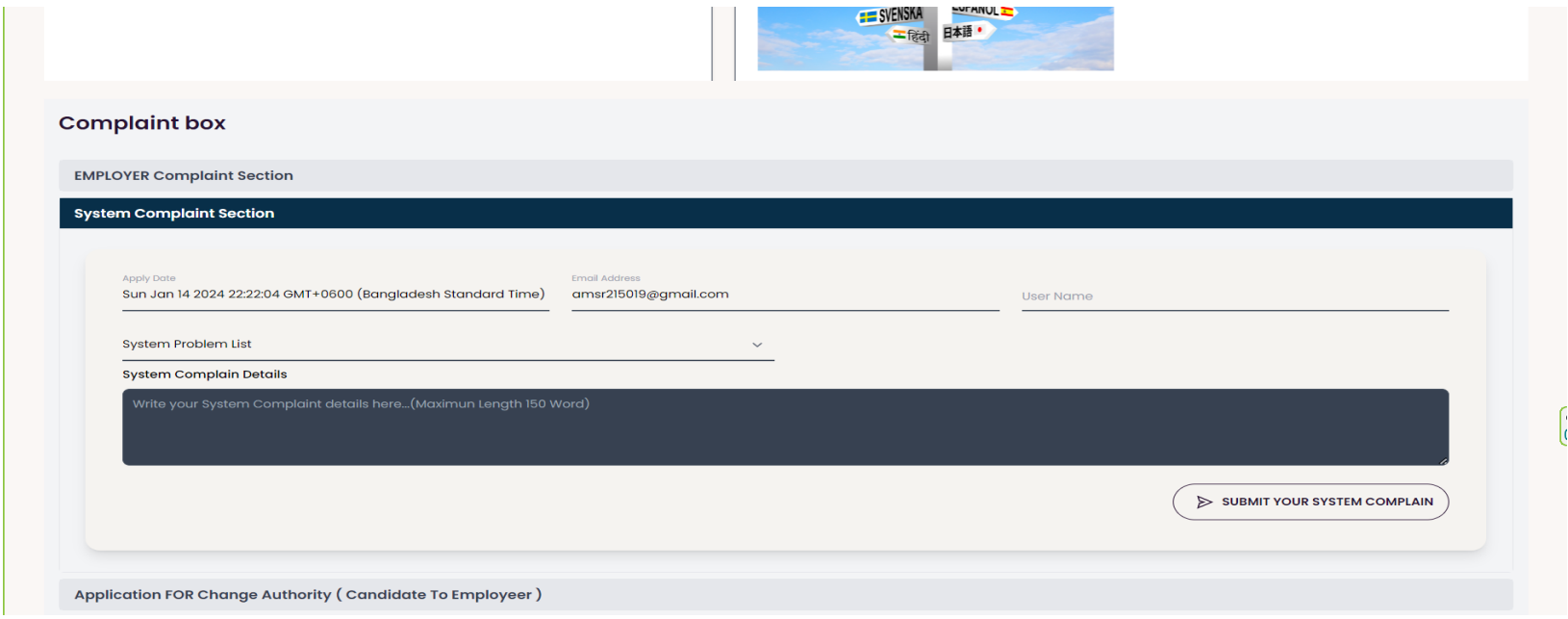


Fig 13: Prototype of New System (JOBBOX Management System)



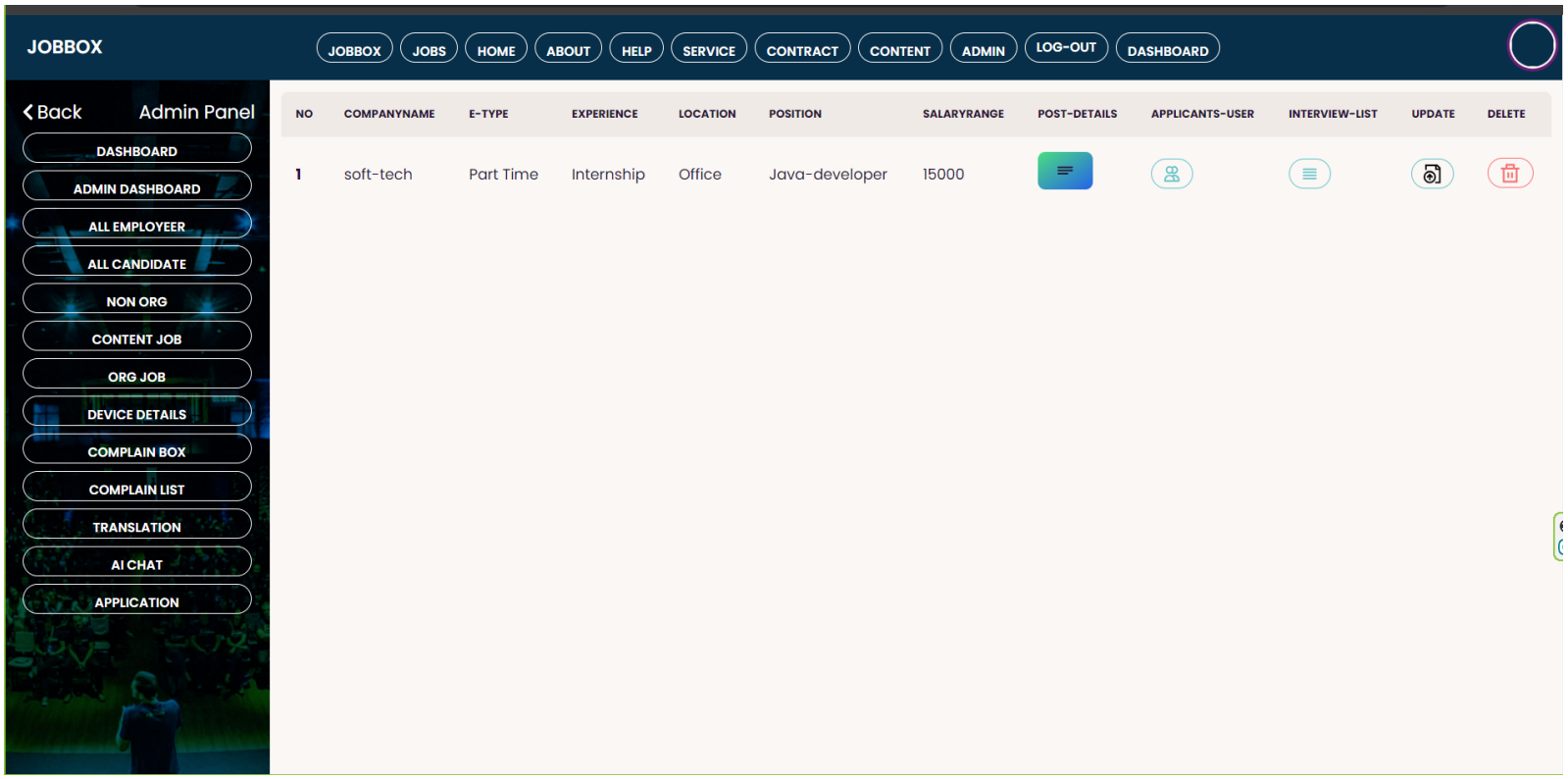


Fig 14: Prototype of New System (JOBBOX Management System)

Chapter 9-Enginnering

9.1 New System Modules:

Propose offers a comprehensive suite meticulously crafted to address user needs effectively. These modules are designed to cater to a wide range of requirements, ensuring versatility and flexibility in usage. Below, I outline the primary trends and models of the proposed system, showcasing its standout features and unique capabilities.

In today's rapidly evolving technological landscape, users demand systems that are not only functional but also adaptable to changing needs. With this in mind, the proposed system incorporates cutting-edge trends and models to stay ahead of the curve. From modular design principles to agile development methodologies, every aspect of the system is geared towards maximizing efficiency and user satisfaction.

Furthermore, the system embraces the latest advancements in technology, such as cloud computing and artificial intelligence, to deliver unparalleled performance and scalability. By harnessing these innovations, users can benefit from enhanced functionality and seamless integration with their existing workflows.

Overall, the proposed system represents a forward-thinking approach to meeting user requirements, offering a robust and flexible platform that can evolve alongside the ever-changing demands of the modern business landscape.

9.2 New System Use Case

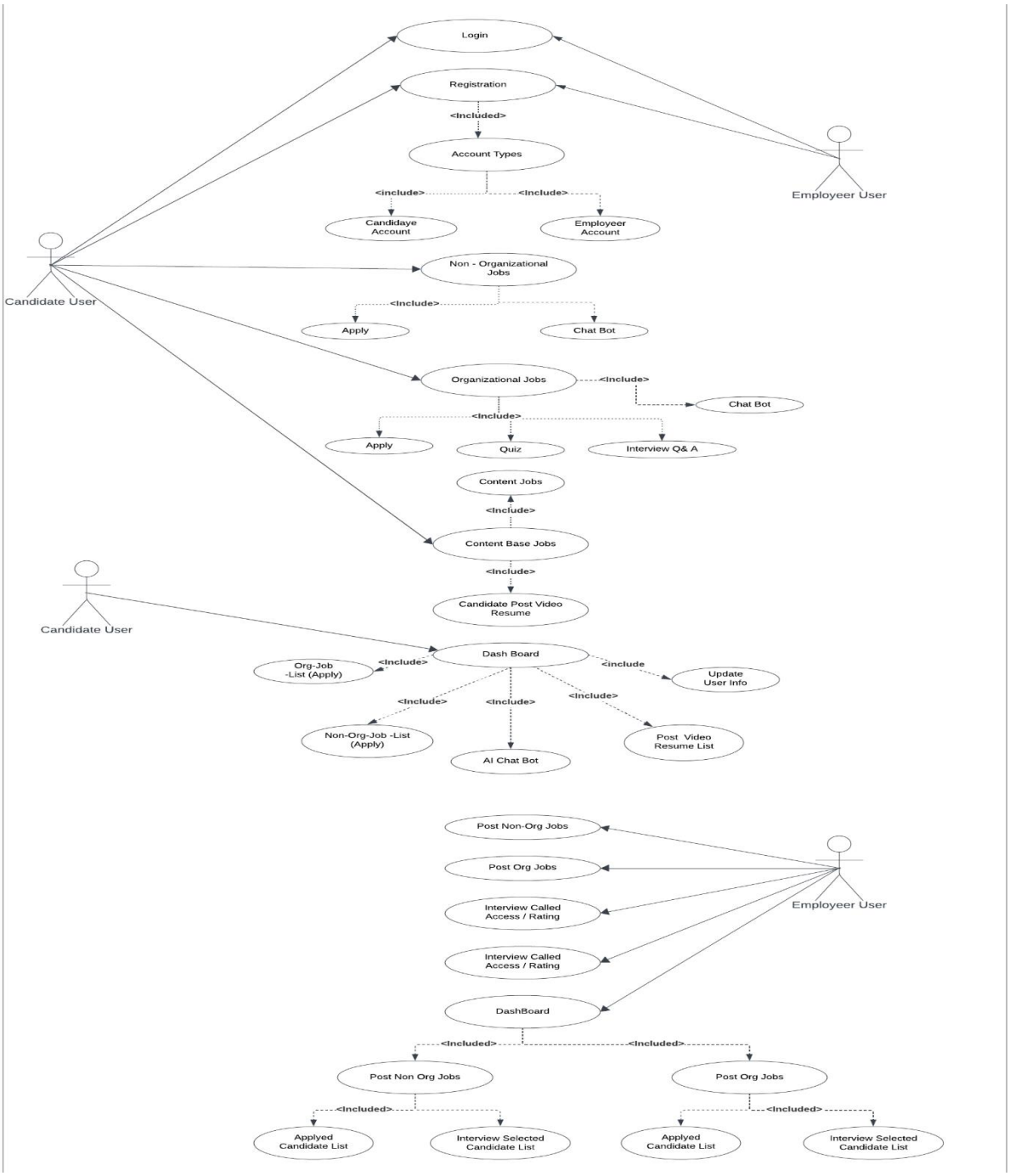


Fig 15: New System Use Case (JOBBOX Management System)

9.3 ERD Diagram:

Fig 16: ERD Diagram (JOBBOX Management System)

9.4SystemInterfaceDesign/Prototype:

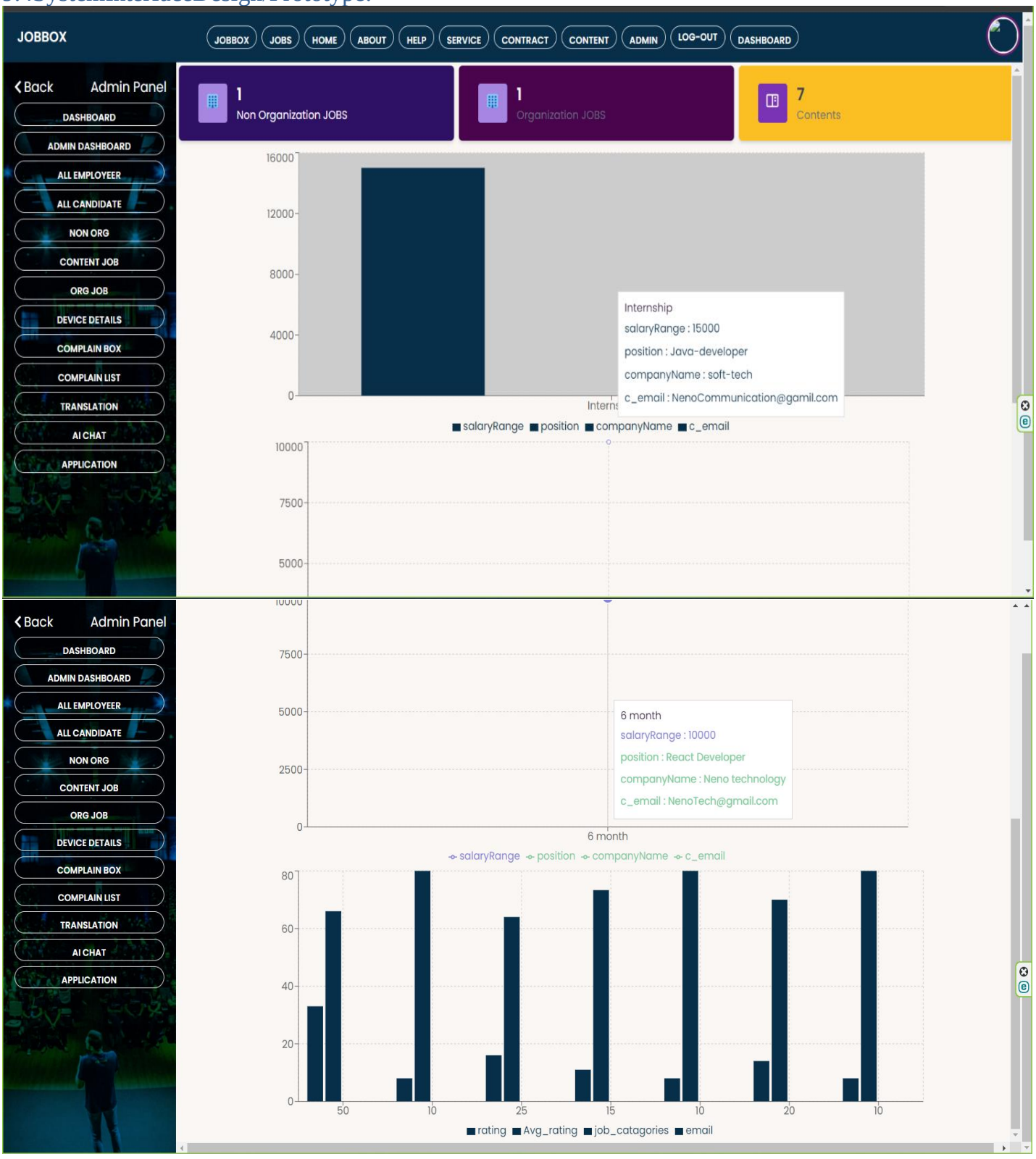


Fig 16: System Interface Dashboard (JOBBOX Management System)

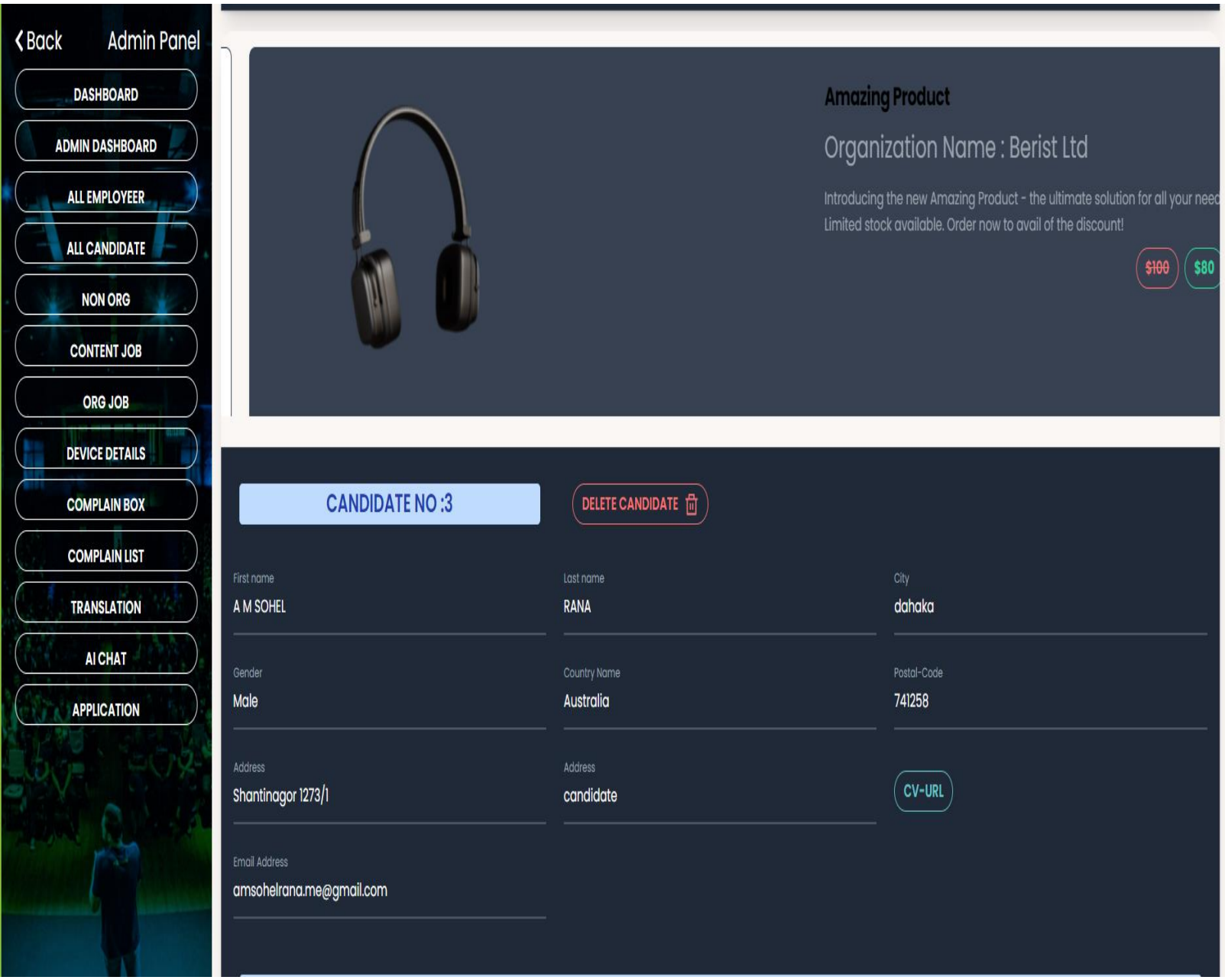
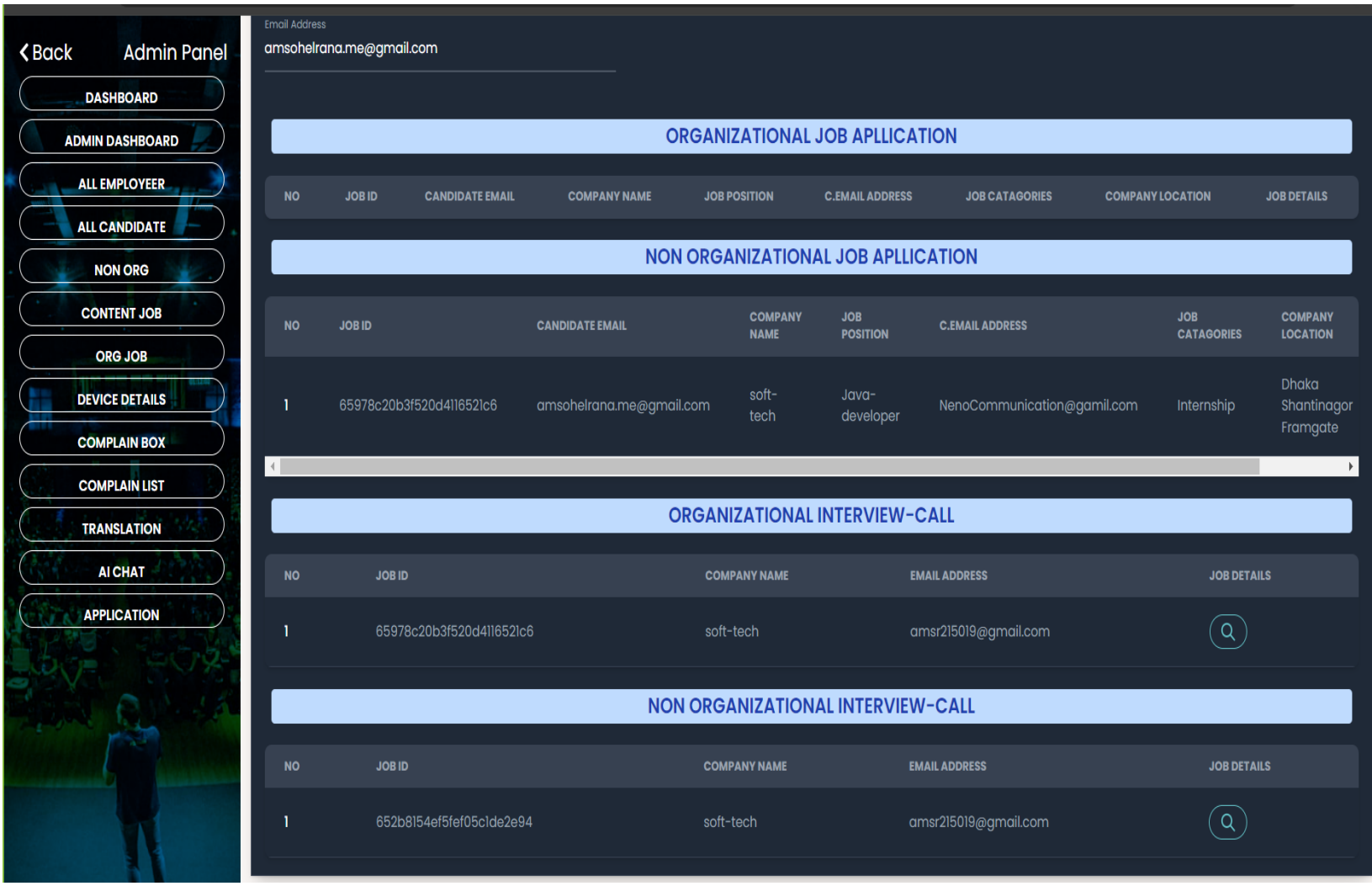


Fig 17: System Interface Candidate Details


Back
Admin Panel
DASHBOARD
ADMIN DASHBOARD
ALL EMPLOYEER
ALL CANDIDATE
NON ORG
CONTENT JOB
ORG JOB
DEVICE DETAILS
COMPLAIN BOX
COMPLAIN LIST
TRANSLATION
AI CHAT
APPLICATION
Email Address
amsohelrana.me@gmail.com
ORGANIZATIONAL JOB APLLICATION
NO
JOB ID
CANDIDATE EMAIL
COMPANY NAME
JOB POSITION
C.EMAIL ADDRESS
JOB CATAGORIES
COMPANY LOCATION
JOB DETAILS
NON ORGANIZATIONAL JOB APLLICATION
NO
JOB ID
CANDIDATE EMAIL
COMPANY NAME
JOB POSITION
C.EMAIL ADDRESS
JOB CATAGORIES
COMPANY LOCATION
1
65978c20b3f520d4116521c6
amsohelrana.me@gmail.com
soft-tech
Java-developer
NenoCommunication@gamil.com
Internship
Dhaka Shantinagor Framgate
ORGANIZATIONAL INTERVIEW-CALL
NO
JOB ID
COMPANY NAME
EMAIL ADDRESS
JOB DETAILS
1
65978c20b3f520d4116521c6
soft-tech
amsr215019@gmail.com
NON ORGANIZATIONAL INTERVIEW-CALL
NO
JOB ID
COMPANY NAME
EMAIL ADDRESS
JOB DETAILS
1
652b8154ef5fef05c1de2e94
soft-tech
amsr215019@gmail.com

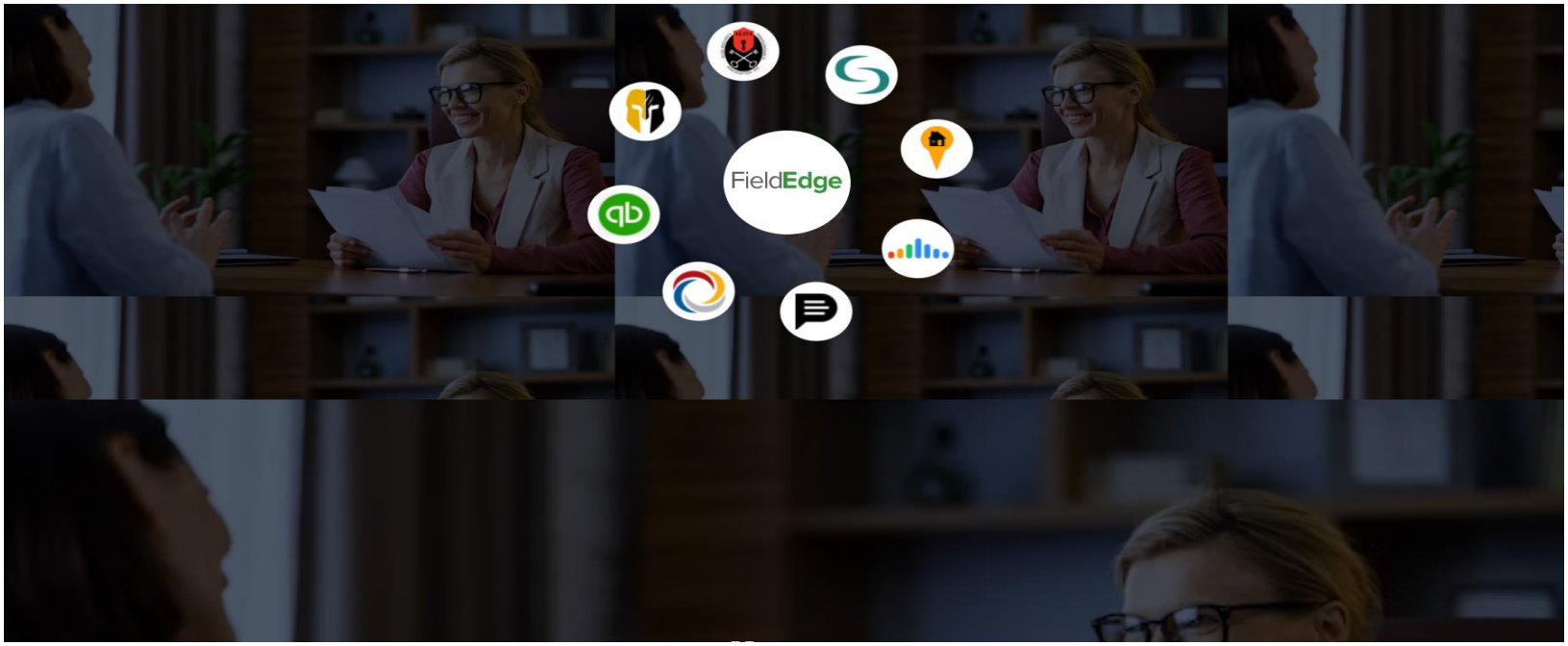


Fig 18: System Interface Services (JOBBOX Management System)

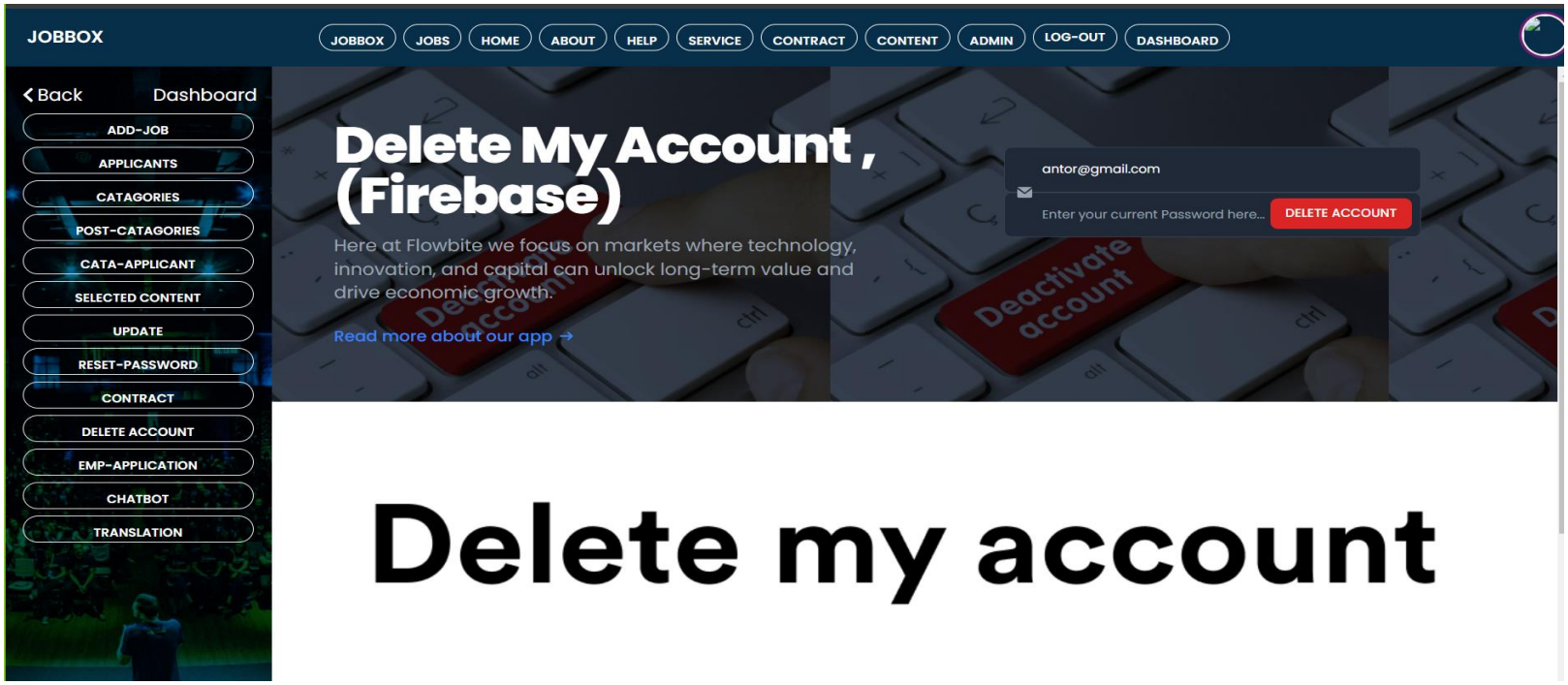


Fig 18: System Interface Delete Account (JOBBOX Management System)

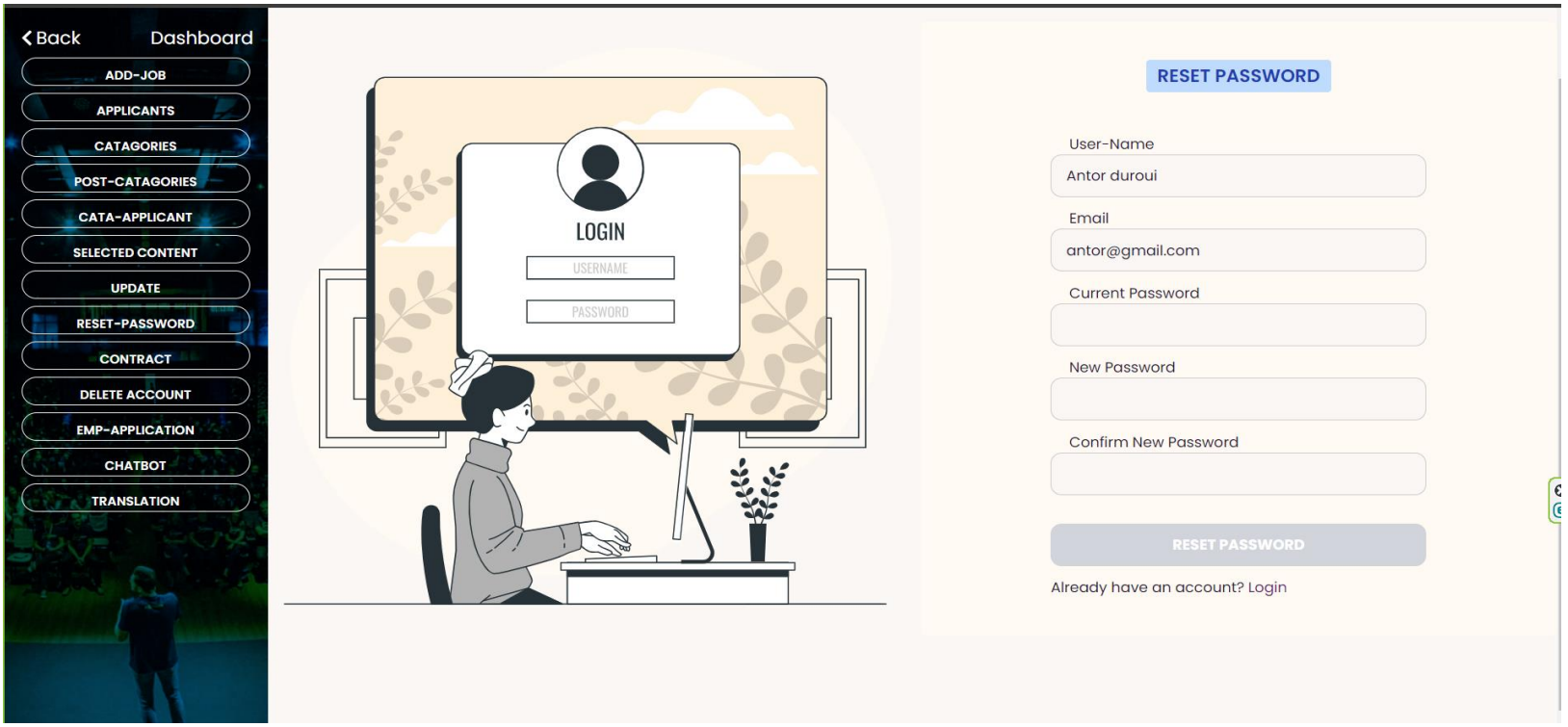


Fig 19: System Interface Reset Password

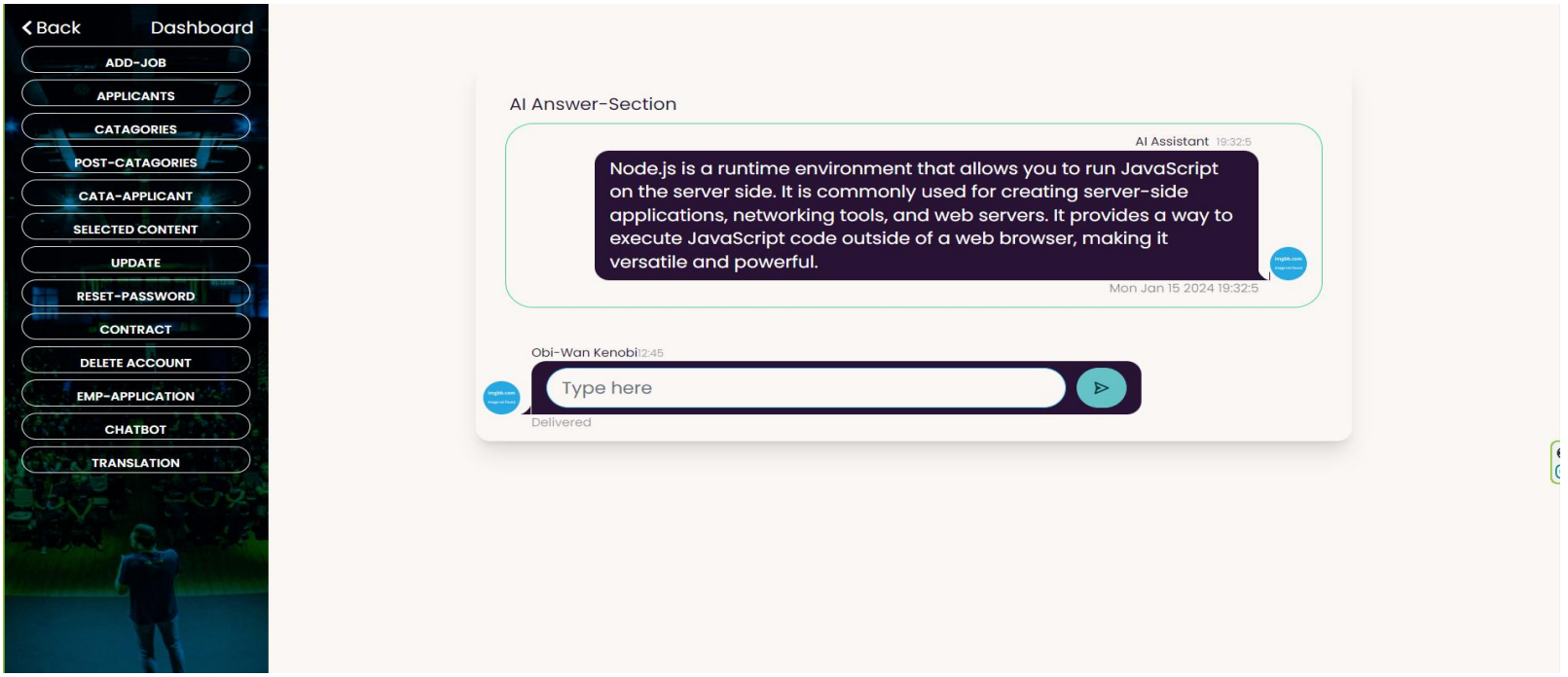


Fig 19: System Interface AI Chat Bot

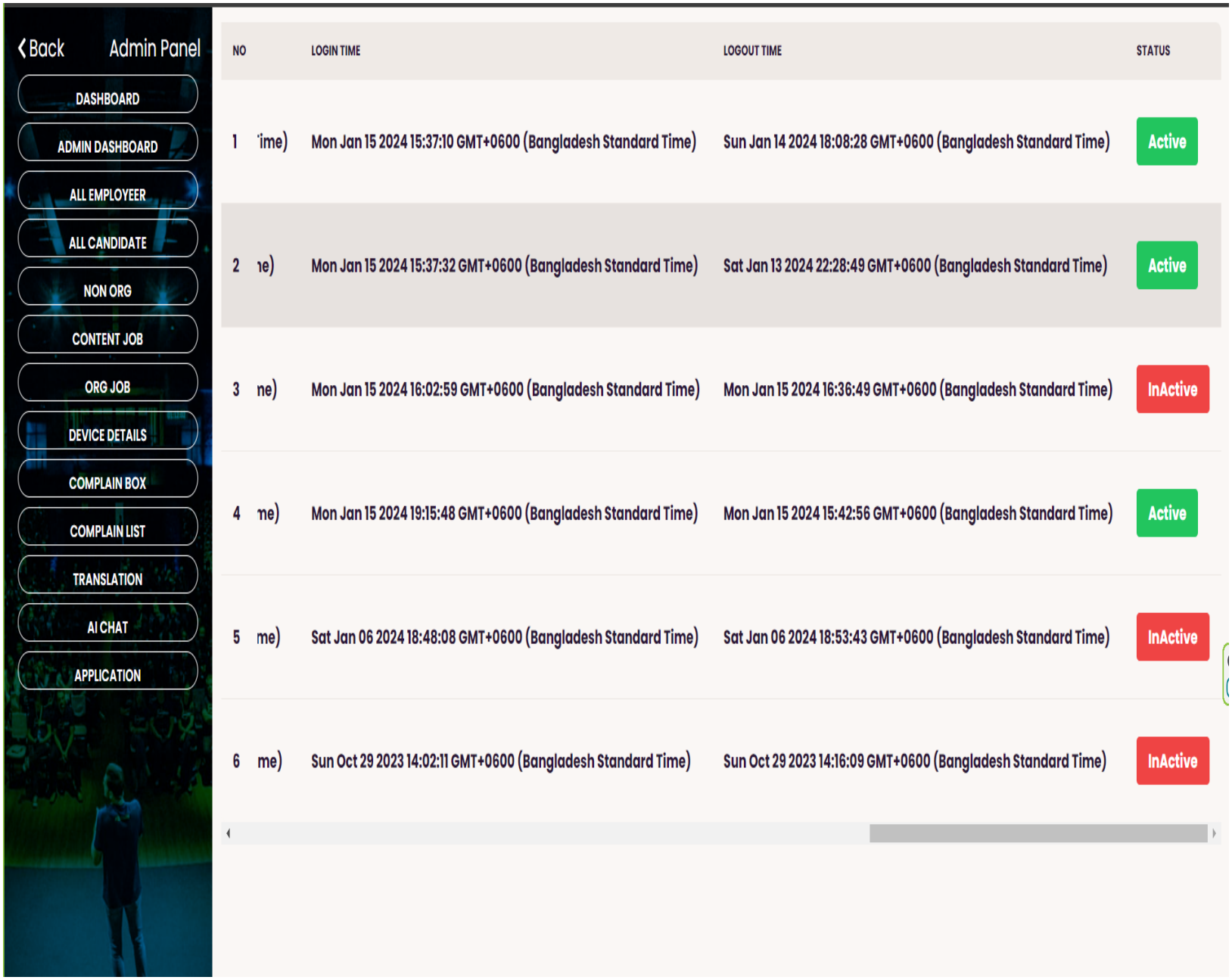


Fig 20: User Activity Detection

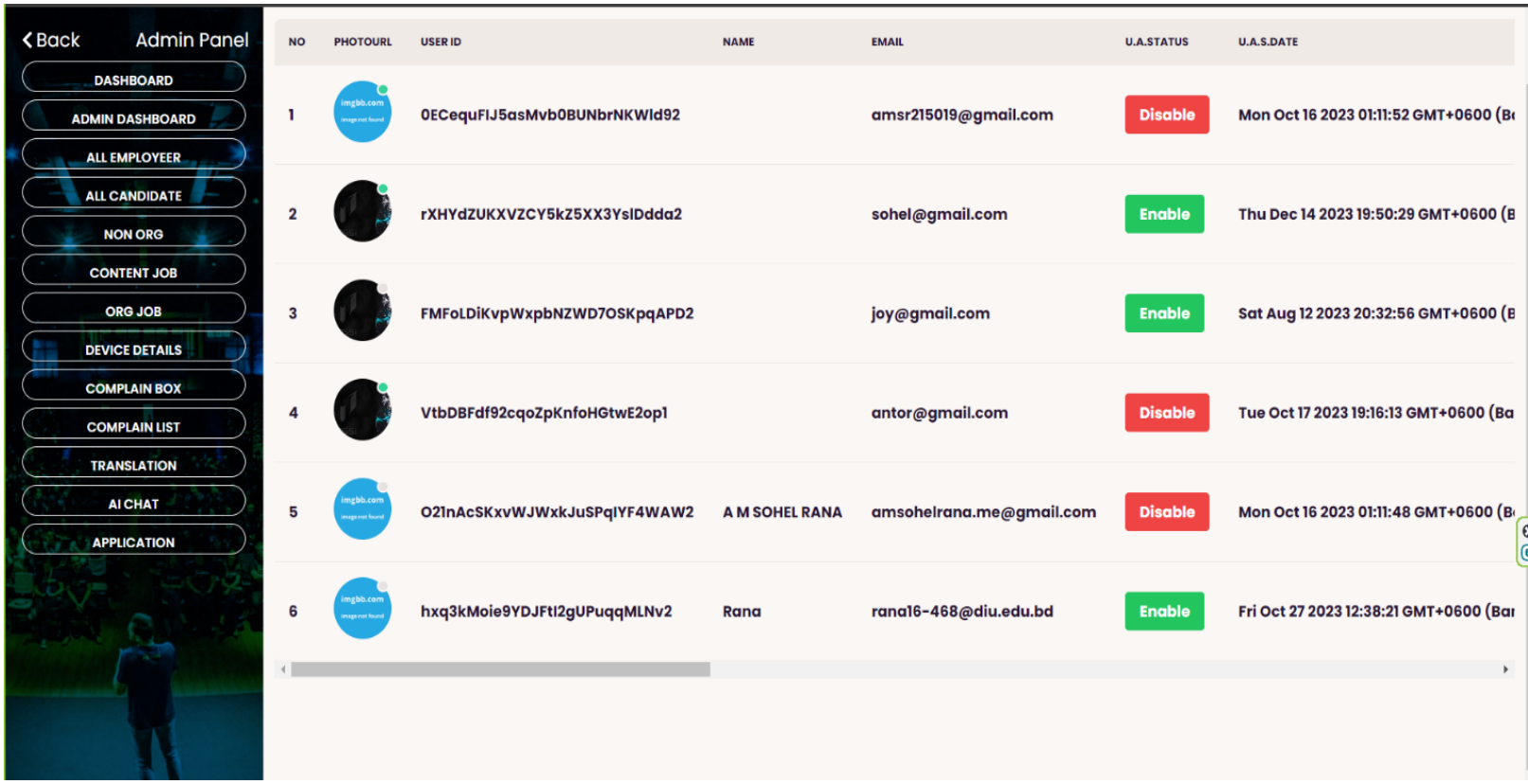


Fig 21: User Information Recode

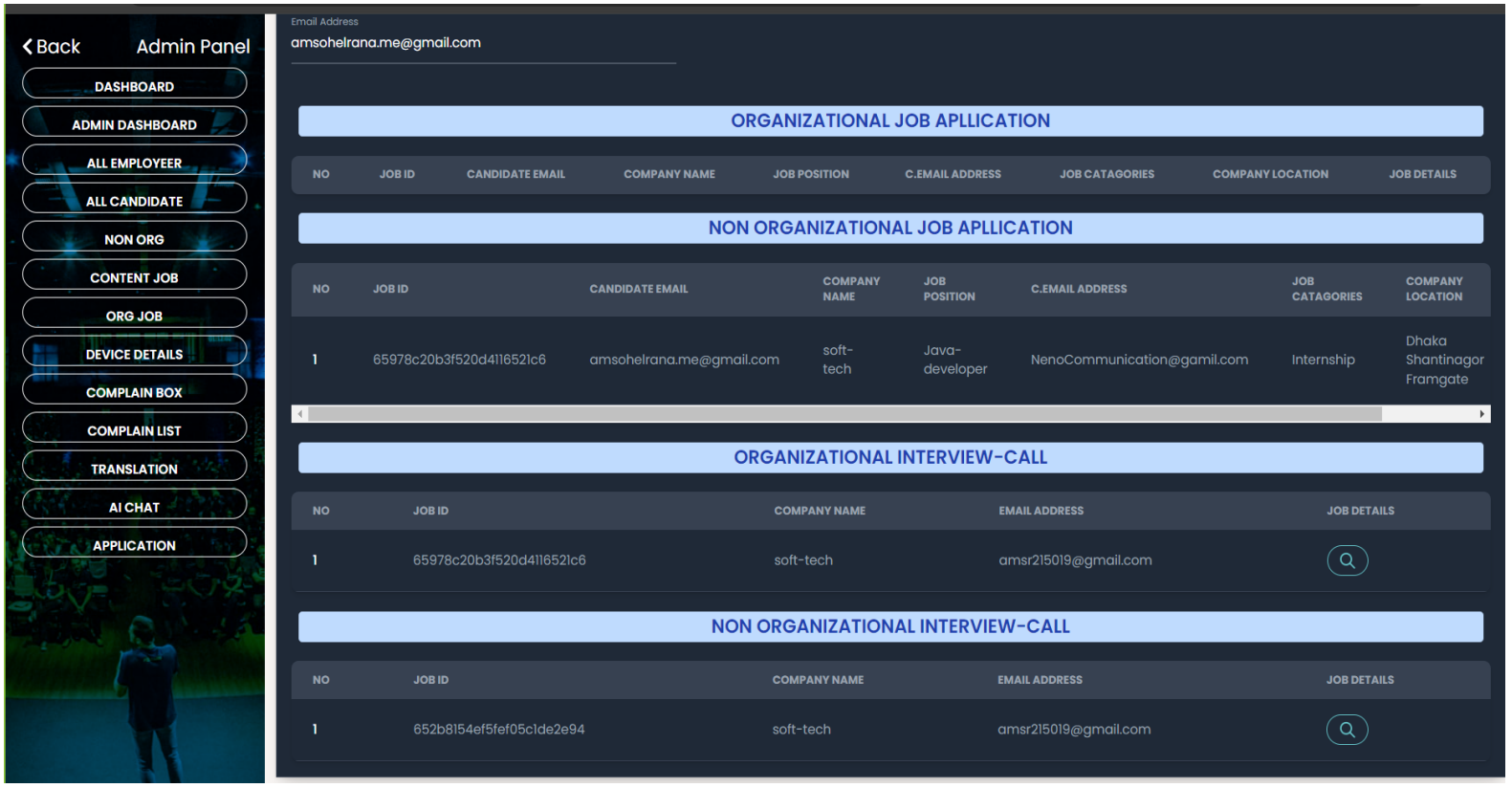


Fig 22: Job Application And Interview Tracking Interface

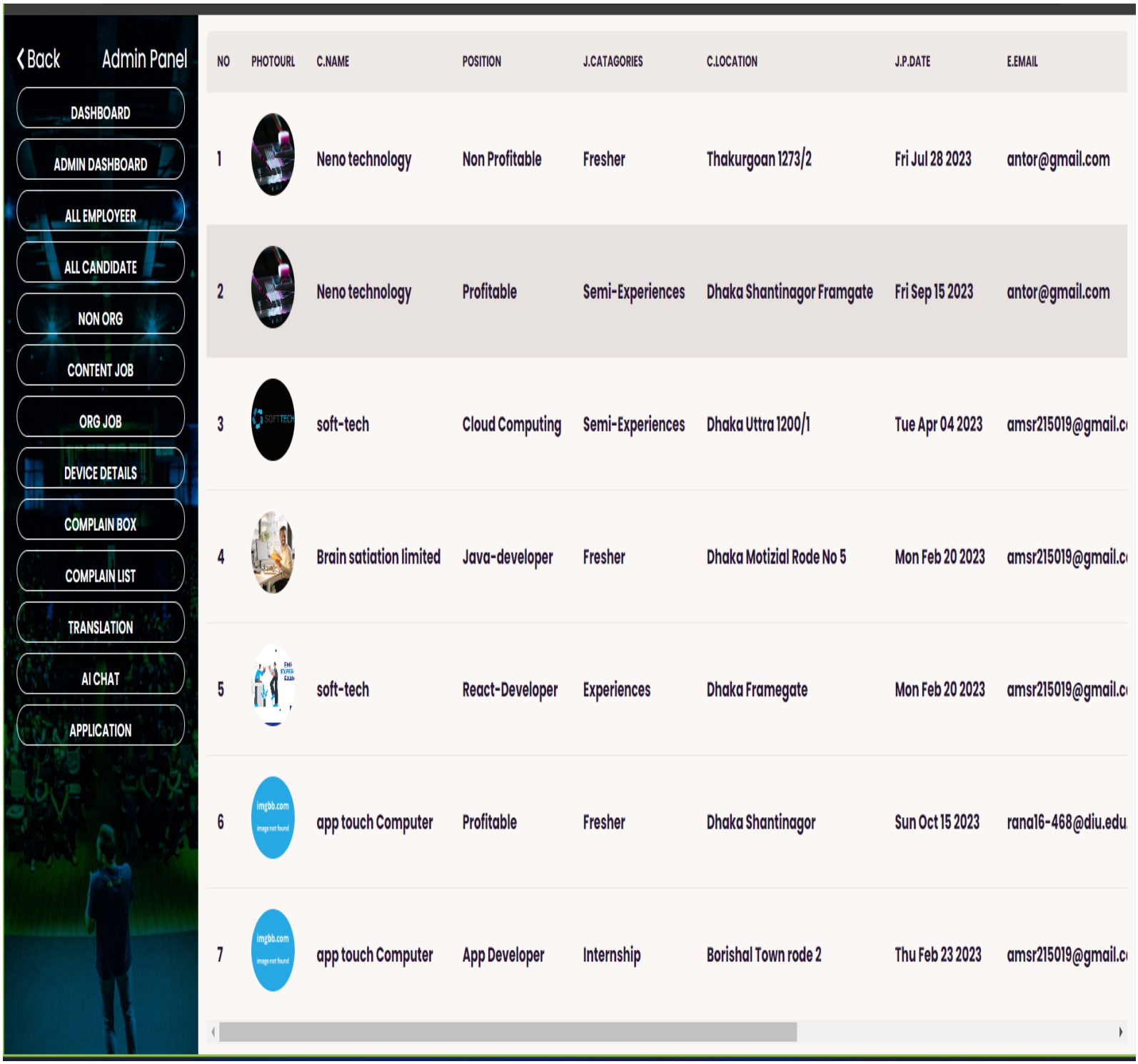


Fig 23 :All Organizational Jobs Interface

Chapter10-Develoyment/Development

10.1 Core Modules Coding Simples:

Implementation and construction begin at this stage subsequent to the conclusion of all analyses.. Breaking down tasks into small, distinct segments significantly streamlined the development process. To craft the recommended framework, I utilized various programming languages and tools, including Node.js, Express.js, Redux, React.js, Tailwind CSS, Daisy UI, MongoDB, and JavaScript.
Below are examples of some of the code snippets:

JOBBOX MANAGEMENT System Some Code:

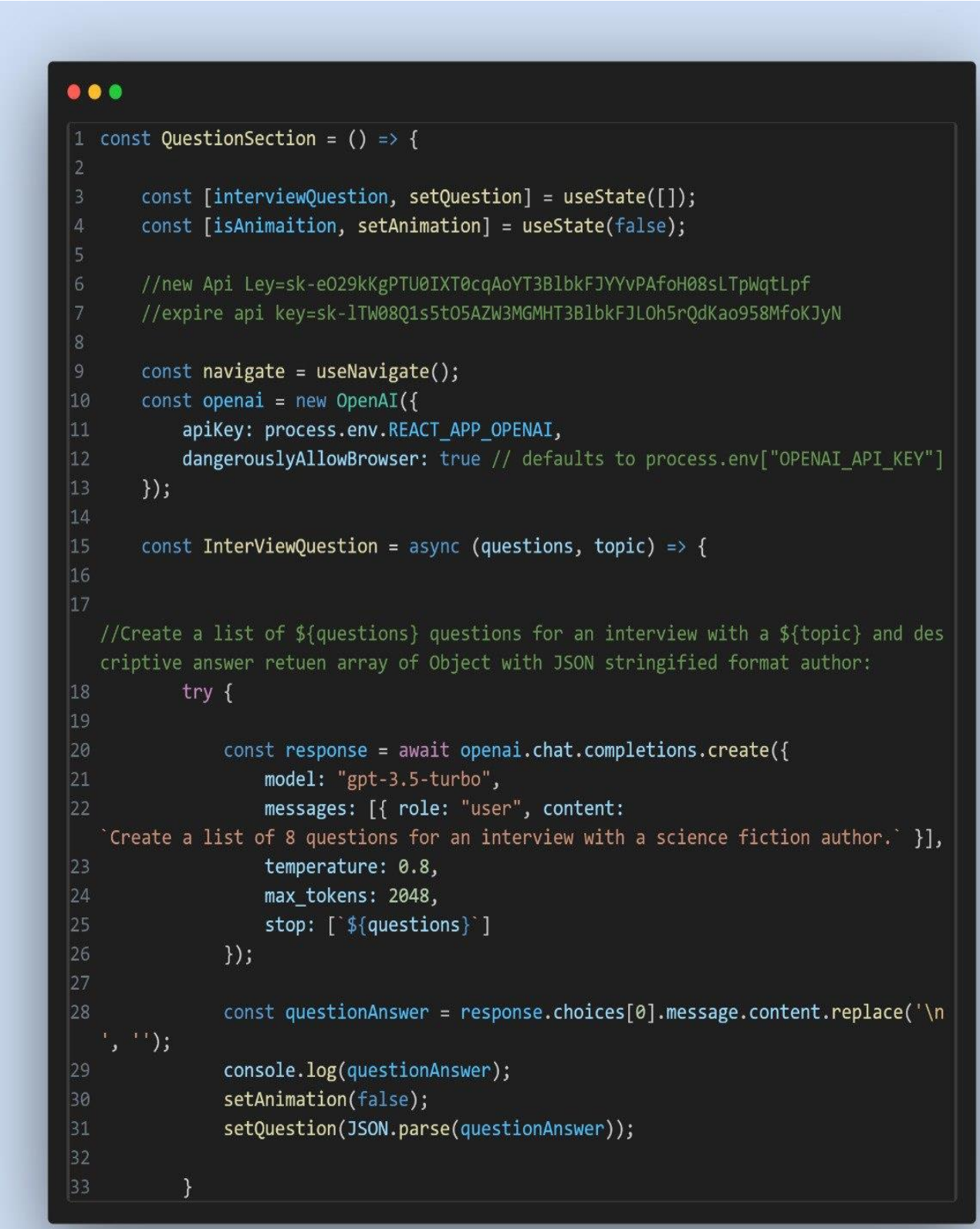
```
{/*grapgh chat started  Non Orginazition */}
            <div className=" mt-3">
                <div className="w-full flex items-center justify-center">
                    <ResponsiveContainer width="80%" height={400}>
                        <BarChart data={non_orgJobs?.data}>
                            <CartesianGrid strokeDasharray="3 3" />
                            <XAxis dataKey="experience" />
                            <YAxis />

                            <Tooltip />
                            <Legend />
                            <Bar dataKey="salaryRange" fill="#082f49" />
                            <Bar dataKey="position" fill="#082f49" />
                            <Bar dataKey="companyName" fill="#082f49" />
                            <Bar dataKey="c_email" fill="#082f49" />
                        </BarChart>
                    </ResponsiveContainer>
                </div>
                {/*grapgh chat started   Orginazition */}
                <div className="w-full flex items-center justify-center">

                    <ResponsiveContainer width="80%" height={400}>


                        <LineChart
                            data={orgJobs?.data}
                            margin={{
                                top: 5,
                                right: 30,
                                left: 20,
                                bottom: 5,
                            }}
                        >
```

Fig 24 :Admin Dashboard



```
const QuestionSection = () => {

    const [interviewQuestion, setQuestion] = useState([]);
    const [isAnimaition, setAnimation] = useState(false);

    //new Api Ley=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
    //expire api key=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

    const navigate = useNavigate();
    const openai = new OpenAI({
        apiKey: process.env.REACT_APP_OPENAI,
        dangerouslyAllowBrowser: true // defaults to process.env["OPENAI_API_KEY"]
    });

    const InterViewQuestion = async (questions, topic) => {


//Create a list of ${questions} questions for an interview with a ${topic} and descriptive answer retuen array of Object with JSON stringified format author:
        try {

            const response = await openai.chat.completions.create({
                model: "gpt-3.5-turbo",
                messages: [{ role: "user", content: `Create a list of 8 questions for an interview with a science fiction author.` }],
                temperature: 0.8,
                max_tokens: 2048,
                stop: [`${questions}`]
            });

            const questionAnswer = response.choices[0].message.content.replace('\n', '');
            console.log(questionAnswer);
            setAnimation(false);
            setQuestion(JSON.parse(questionAnswer));

        }
```

Fig 24 :AI Question Answer Sections

```
import { BiSend } from 'react-icons/bi';
import OpenAI from 'openai';
import { useNavigate } from 'react-router-dom';
import toast from 'react-hot-toast';

const ChatBot = () => {

    // new-api-key : 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
    //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
    const navigate = useNavigate();
    const [aiAssestance, setAiAssestance] = useState([]);

    const openai = new OpenAI({
        apiKey: process.env.REACT_APP_OPENAI,
        dangerouslyAllowBrowser: true
// defaults to process.env["OPENAI_API_KEY"]
    });

    const generteQuiz = async (message) => {
        try {
            const response = await openai.chat.completions.create({
                model: "gpt-3.5-turbo",
                messages: [{ role: "user", content:
`The following is a conversation with an AI assistant. The assistant is helpful,
creative, clever, and very friendly.
\n\nHuman:${message} for each question return plain text` }],
                temperature: 0.8,
                max_tokens: 256,
            });
            const AiMessage = response.choices[0].message.content;
            setAiAssestance([...aiAssestance, AiMessage]);
        }
        catch (error) {
            toast.error(error?.message);
            console.log(error?.message);
            navigate('/');

        }
```

Fig 25 :AI Quiz Generator

```jsx
import React, { useEffect } from 'react';
import { useForm } from "react-hook-form";
import { AiOutlineSend } from "react-icons/ai"
import { useCompalin_DetailsMutation } from '../../features/api/apiSlice';
import Swal from 'sweetalert2';

const CommonContract = ({ information }) => {

    const { handleSubmit, register, reset, formState: { errors } } = useForm();
    const [postComplain, { data: serverRespome, isSuccess, error }] = useCompalin_DetailsMutation();
    const onSubmit = (data) => {

        const email = information?.email;
        const formInfo = {
            ...data,
            typeofCondition: information?.role === process.env.REACT_APP_CANDIDATE_USER ? "CanToEmp" : "EmpToCan"

        };

        postComplain({ email, ...formInfo });
        reset();
    }

    useEffect(() => {
        if (isSuccess && serverRespome?.status && serverRespome?.data?.acknowledged) {

            Swal.fire('Successfully ', 'Complain Recorded');
        }
        else {
            error && Swal.fire('System Error ', error?.message);
        }

    }, [isSuccess, serverRespome, error]);
```

Fig 26 :Comments Contract

```jsx
import React from "react";
import { useNavigate, useParams } from "react-router-dom";
import candidate from "../../assets/candidate.svg";
import employer from "../../assets/employer.svg";
import CandidateRegistration from "./CandidateRegistration";
import EmployerRegistration from "./EmployerRegistration";

const AccountCreator = () => {
  const navigate = useNavigate();
  const { type } = useParams();

  if (type === "candidate") {
    return <CandidateRegistration />;
  }

  if (type === "employer") {
    return <EmployerRegistration />;
  }

  return (
    <div className='h-screen pt-14'>
      <h1 className='text-center my-10 text-2xl'>Continue as ...</h1>
      <div className='flex justify-evenly '>
        <div
          onClick={() => navigate("/register/candidate")}
          className=
'flex flex-col justify-between transition-all rounded-lg p-5 border b
order-white hover:border-primary hover:shadow-2xl hover:scale-105 gro
up'
        >
          <img className='h-5/6' src={candidate} alt='' />
          <p className='text-center text-3xl'>Candidate</p>
        </div>
        <div
          onClick={() => navigate("/register/employer")}
          className=
'flex flex-col justify-between transition-all rounded-lg p-5 border b
order-white hover:border-primary hover:shadow-2xl hover:scale-105 gro
up'
        >
          <img className='h-[77%]' src={employer} alt='' />
          <p className='text-center text-3xl'>Employer</p>
        </div>
      </div>
    </div>
  );
};

export default AccountCreator;
```

Fig 28 :Candidate Registration

```jsx
import React, { useEffect, useState } from "react";
import { useForm, useWatch } from "react-hook-form";
import { useNavigate } from "react-router-dom";
import { FaChevronLeft } from "react-icons/fa";
import { useCandidateRegisterMutation } from "../../features/api/apiSlice";
import { useSelector } from "react-redux";
import Swal from "sweetalert2";
const CandidateRegistration = () => {
  const [countries, setCountries] = useState([]);
  const { handleSubmit, register, control, reset } = useForm();
  const term = useWatch({ control, name: "term" });

  const navigate = useNavigate();
  const [candidatePost, { data, isSuccess, error }] = useCandidateRegisterMutation
();
  const { user: { email } } = useSelector((state) => state.auth);

  useEffect(() => {
    fetch("https://restcountries.com/v3.1/all")
      .then((res) => res.json())
      .then((data) => setCountries(data));
  }, []);

  const onSubmit = (data) => {

    candidatePost({ ...data, role: 'candidate' });
    reset();

  };


  useEffect(() => {
    if (data?.acknowledged && isSuccess) {
      Swal.fire('Successfully ', 'create-candidate-account');
      navigate("/");

    }
    else {
      error && Swal.fire('System Error ', error?.message);
    }

  }, [data, isSuccess, error, navigate]);

  return (
    <div className='pt-14'>
      <div
        onClick={() => navigate("/register")}
        className='cursor-pointer w-fit mt-5 flex items-center'
      >
        <FaChevronLeft />
        <p>back</p>
      </div>
      <div className='flex justify-center items-center overflow-auto p-10'>
        <form
          className=
'bg-secondary/20 shadow-lg p-10 rounded-2xl flex flex-wrap gap-3 max-w-3xl justify
-between'
          onSubmit={handleSubmit(onSubmit)}
        >
```

Fig 30:Account Create

10.2Possibleproblembreakdown:

To streamline the development process, all challenges encountered are segmented into smaller, manageable problems. This approach proves highly effective in establishing timelines and accomplishing tasks incrementally. The system I propose boasts numerous remarkable features. It's imperative to decompose the system for smoother development. Failure to do so will significantly hinder the progress of the entire system.

Here is the breakdown of the development process::

Applications Database:

- Analyze System Data
- Set Up System Database
- Create Entity-Relationship Diagram (ERD)
- Build Data Flow Diagram (DFD)
- Define Primary and Foreign Keys, and Formulate Queries

Front-End designing:

- Create Replica Sketch
- Design Implementation using JavaScript, React.js, Tailwind CSS, Daisy UI
- Set Up Page Navigation
- Ensure Cross-Device Responsiveness.

CRUD for the system:

Here are the tasks involved in this stage:

- Add Product, Update Product, Delete Product
- MongoDB Packages for Managing Update, Deletion, and CURD Operations
- Post Articles, Revise Articles, Delete Articles

Administration Dashboard Control:

- Handle all records
- Handel All Candidates
- Manage Non-Organizational Jobs
- Administer Organizational Jobs
- Supervise All Employers
- Address User Complaints
- Administer Chat Box
- Manage Intern CVs

Candidate Management:

- Non-Organizational Jobs.
- Organizational-Jobs.
- Search the Jobs
  Categories
- Content Base Jobs
- Chat Bot
- Choose the JOB in Your Skills.
- Show the portfolio
- Gives Rating
  Only Employer
  Account Holder
- Update profile
  Information

Admin Management:

- Show the All Activity control by the Admin Account Holder
- Control Hole Applications Activity

Employer Management:

- Post Non-Organizational Jobs
- Manage Applicant User List
- Post Organizational Jobs
- Manage Applicant User for Organizational Jobs
- Use AI Chat Bot
- Manage Content Base Jobs Holder Interview
- Manage Chatbot Only Specific Candidate How Apple your Jobs .

Chapter11-Testing

Careful examination of the product category is essential. Further evaluation might be necessary in the upcoming assessment stage. This section offers comprehensive insights into the information and alternate approaches. These detectors play a crucial role in identifying system faults, thereby enhancing reliability and overall system efficiency.

11.1 Test Case:

The paper delineates different kinds of test scenarios and examination approaches. Testing stands as a vital element of software advancement, ensuring the fulfillment of all specifications and pinpointing disparities between real results and anticipated outcomes. A range of assessments, including individual assessments, component assessments, amalgamation assessments, approval assessments, security assessments, and others, are employed. Provided below are instances of standards for each test scenario.: [12]

11.2UnitTesting:

A project's unit testing process is crucial. Individual assessments will verify that the project code is operating correctly in this aspect. The initiative looked at changes and reorganizations to raise the standard. Below are a few examples of unit tests:

Table 10 : Unit Testing (JOBBOX Management System)

Integration testing	Test Class	Designed by Ali MD SOHEL RANA		
Data source:	Object Test Functionality	Tested By Ali MD SOHEL RANA		
Test case:	Test Description	Tasks	Expected Output	Actual Out Put
1.1	User Registration	Fill the From Expected Data	Successfully create Account	Successfully create Account
1.2	**Candidate Account**	Candidate Apply the Jobs and also provide candidate dashboard	Successfully	Successfully

1.3	Employer Account	Post The Jobs and Control the hole employer dashboard	Successfully	Successfully

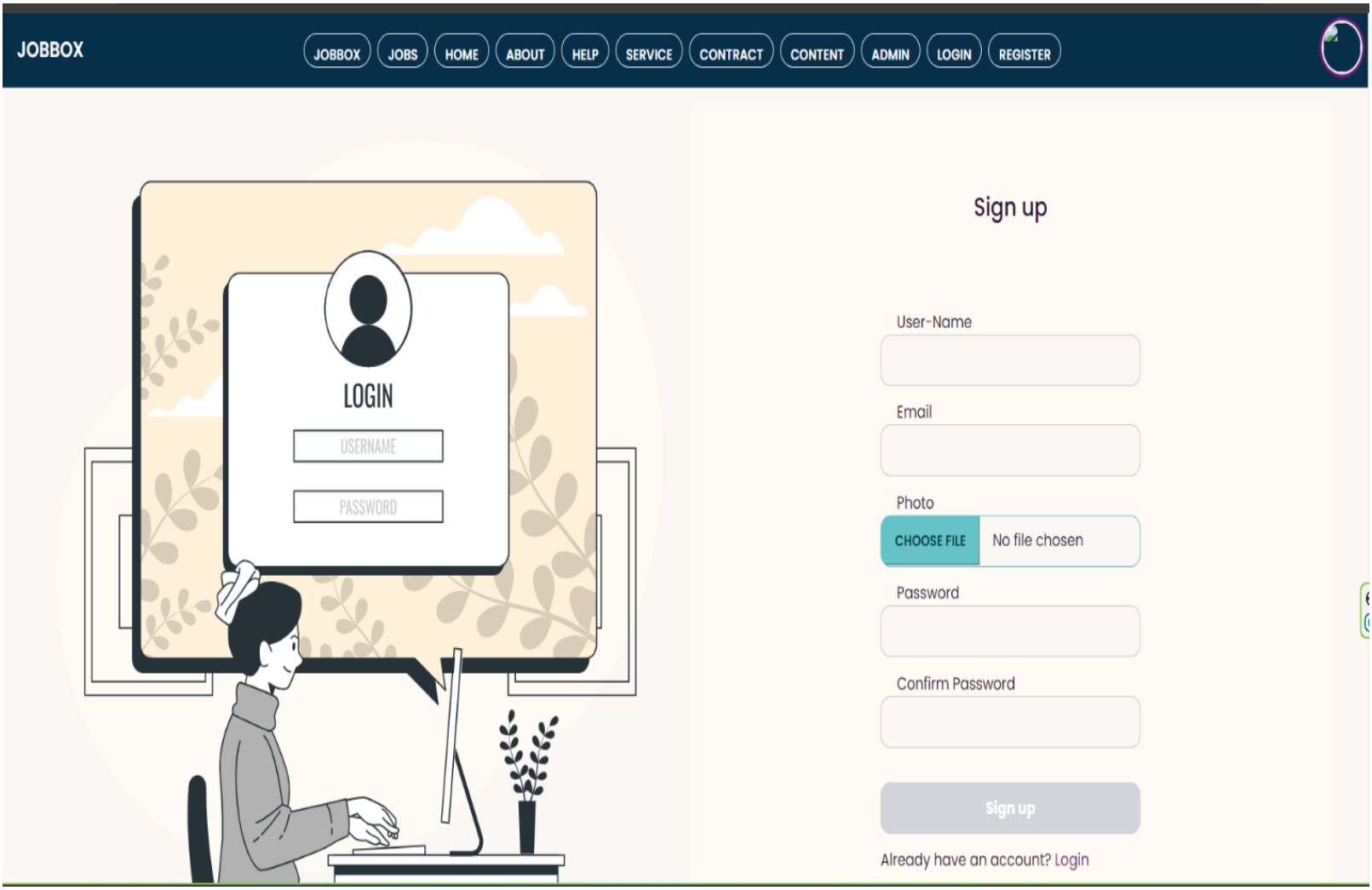


Fig 30: Login System Testing (Unit Testing)

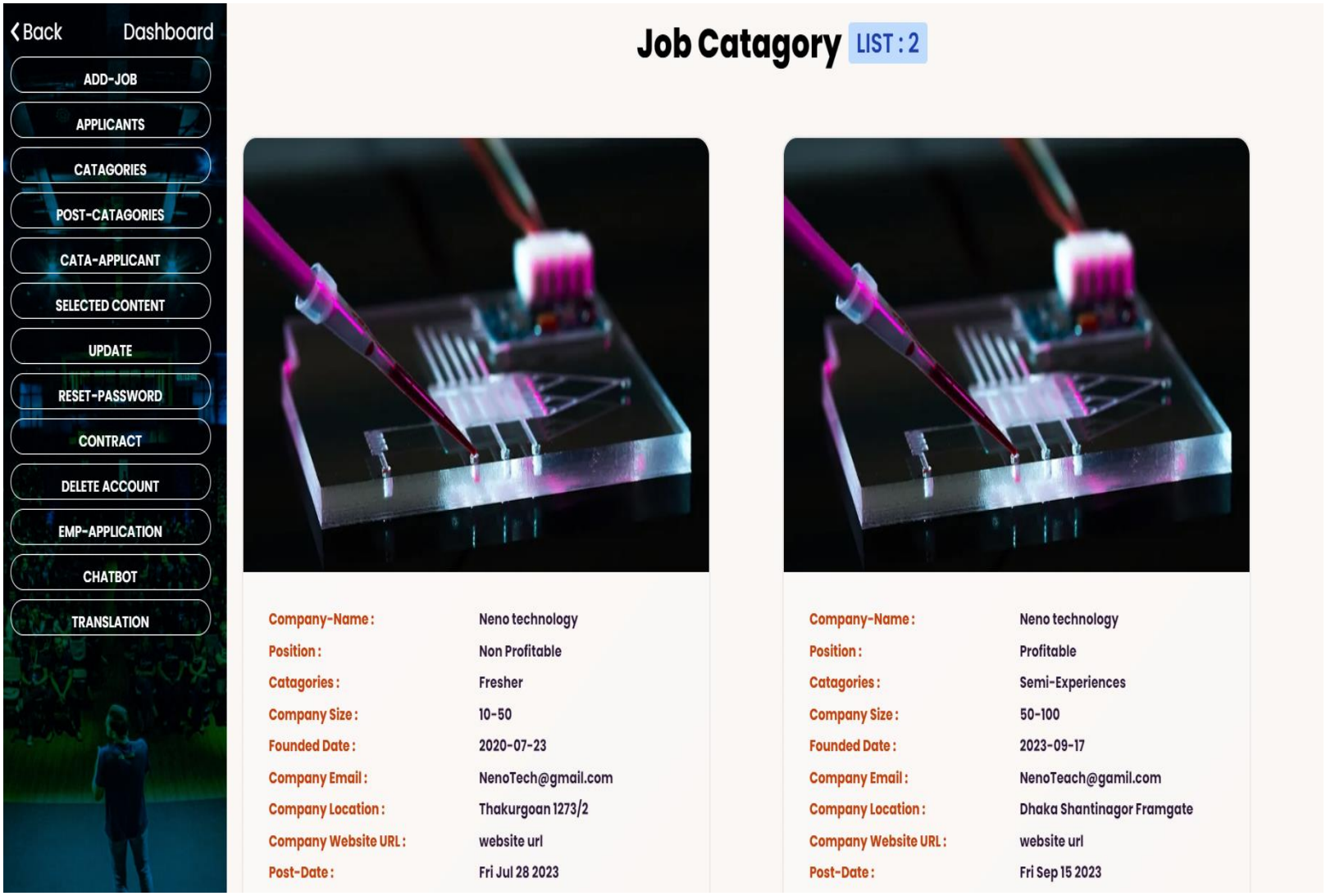


Fig 31 : Categories Jobs (Unit Testing)

11.3Moduletesting:

Module testing encompasses protocols, norms, classes, or software types designed to scrutinize systems and programs. It's advisable to focus on testing the internal components of your system at a smaller scale rather than testing all applications simultaneously. The outcomes of module testing are outlined below:

Table 11 : Module Testing

Module testing	Test Class	Designed by A M SOHEL RANA		
Data source:	Object : Test Case Functionality	Tested by A M SOHEL RANA		
Test Case	Testing Descriptions	Task	Expected Outcome	Actual Outcome
2.1	Salary Range	Must be enter the salary Range	Show the wrong message	Show the Actual Message
2.2	Enter the Video URL	Must be Enter the Video URL	Show the Wrong Message	Show the Actual Message

2.3	Enter the Company Registration Number	Must be Enter the Registration Number	Show the Wrong message	Show the Actual Message

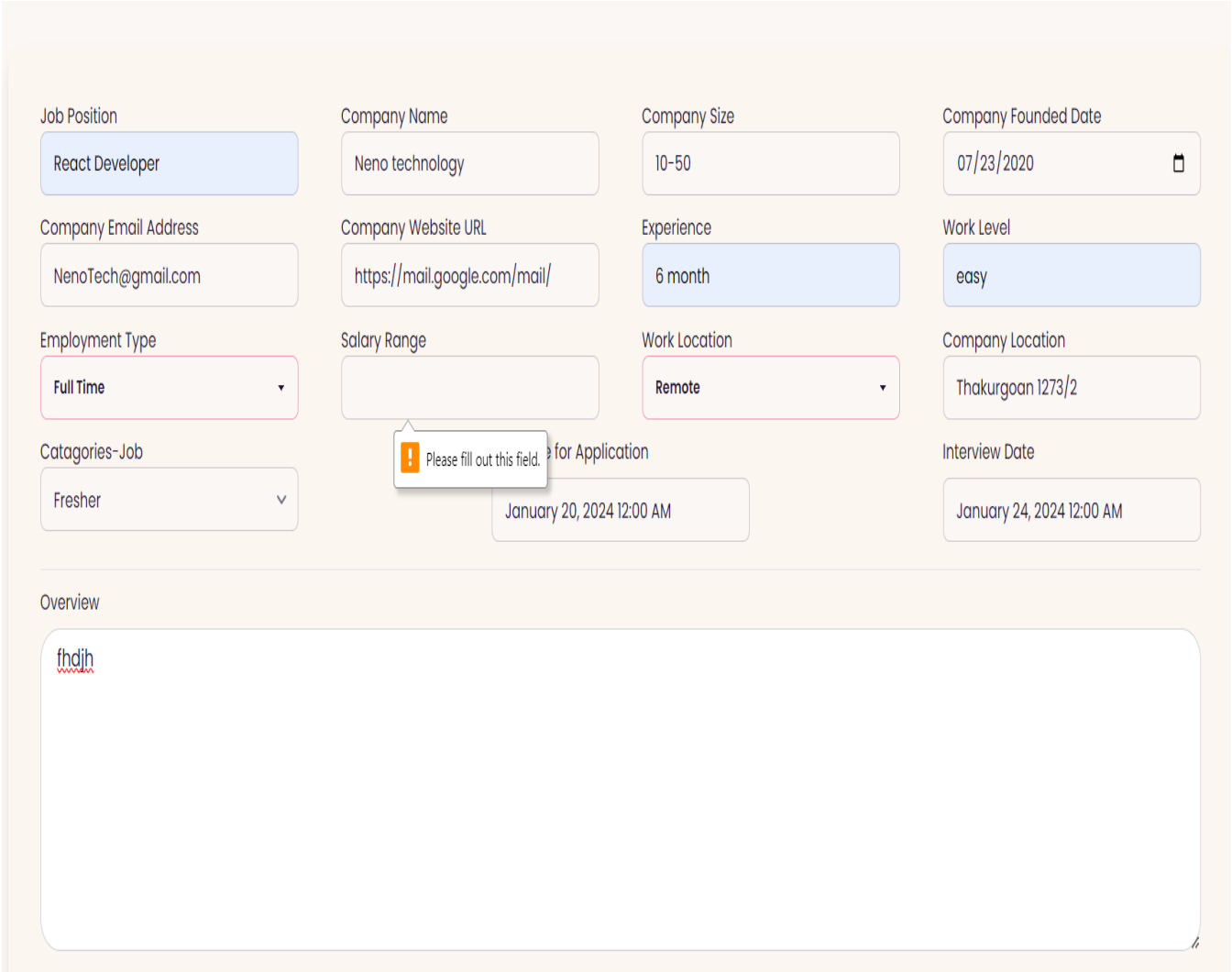


Fig 32 : Add Categories (Module Testing)

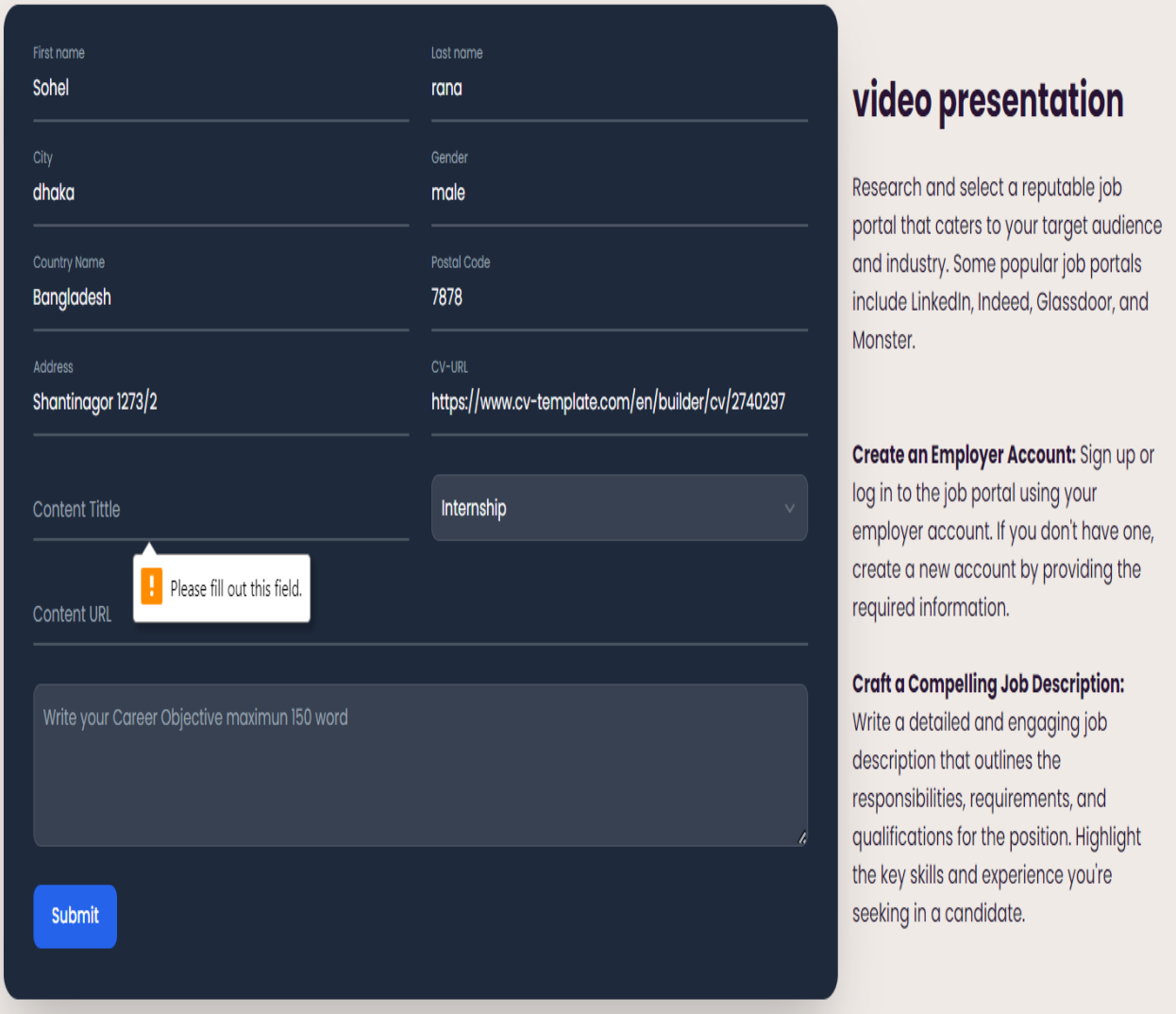


Fig 32 : Add Content (Module Testing)

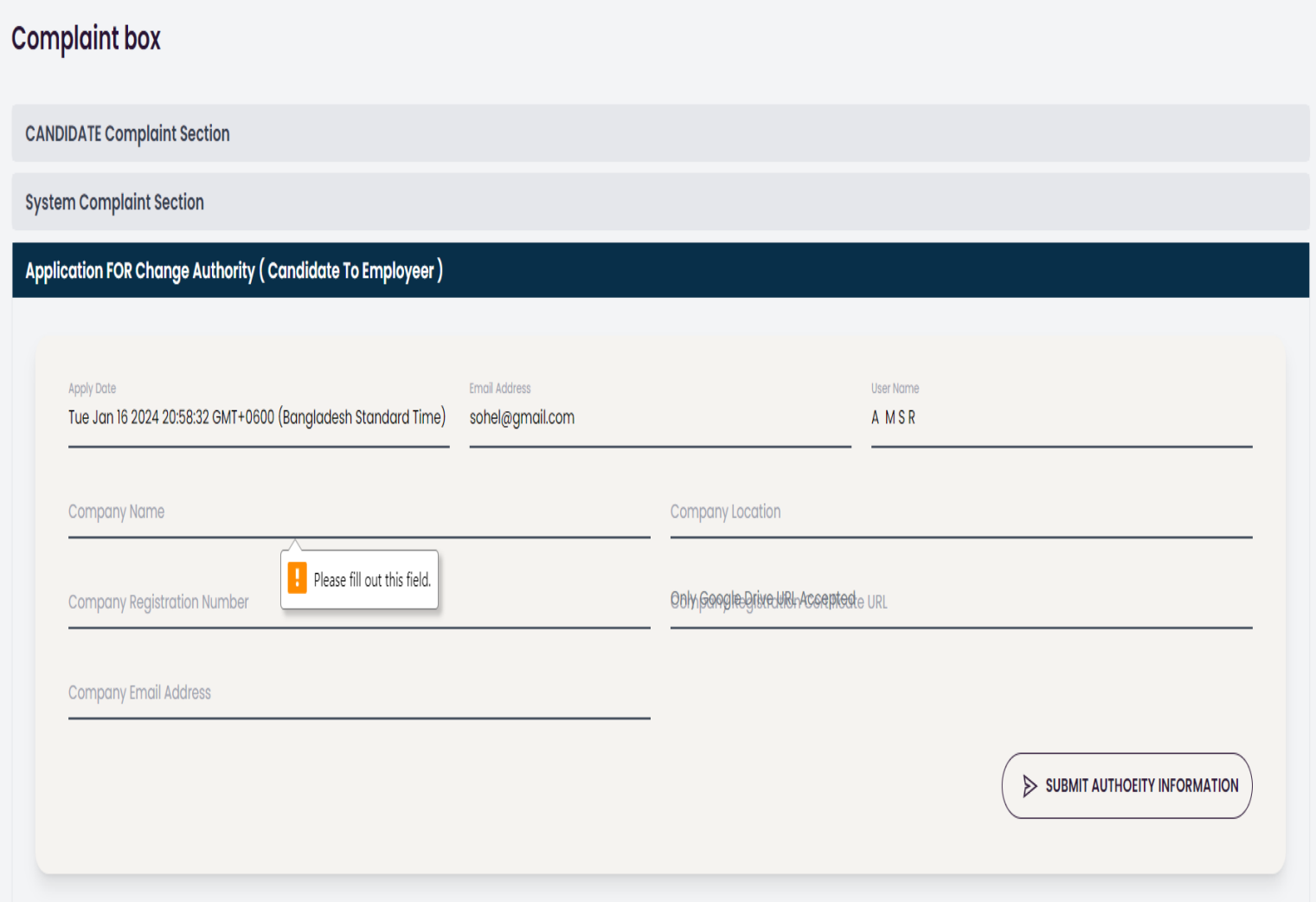


Fig 33 : Complain Sections (Module Testing)

11.4 Integration Testing

Integrated testing verifies the functionality of individual program units. Given its aim to uncover design-related issues, the archive integration test holds relevance. Below, you'll find the subsequent integration test:

Table : Integration Testing

Integration testing	Test class	Designed by A M SOHEL RANA		
Data source:	Object : Test Case Functionality	Tested by A M SOHEL RANA		
Test Case	Testing Descriptions	Task	Expected Outcome	Actual Outcome
2.1	write Information	write username and password	Show the wrong message	Show the Actual Message
2.2	Enter The Job Apply button	Must be Enter the Apply option	Show the Wrong Message	Show the Actual Message

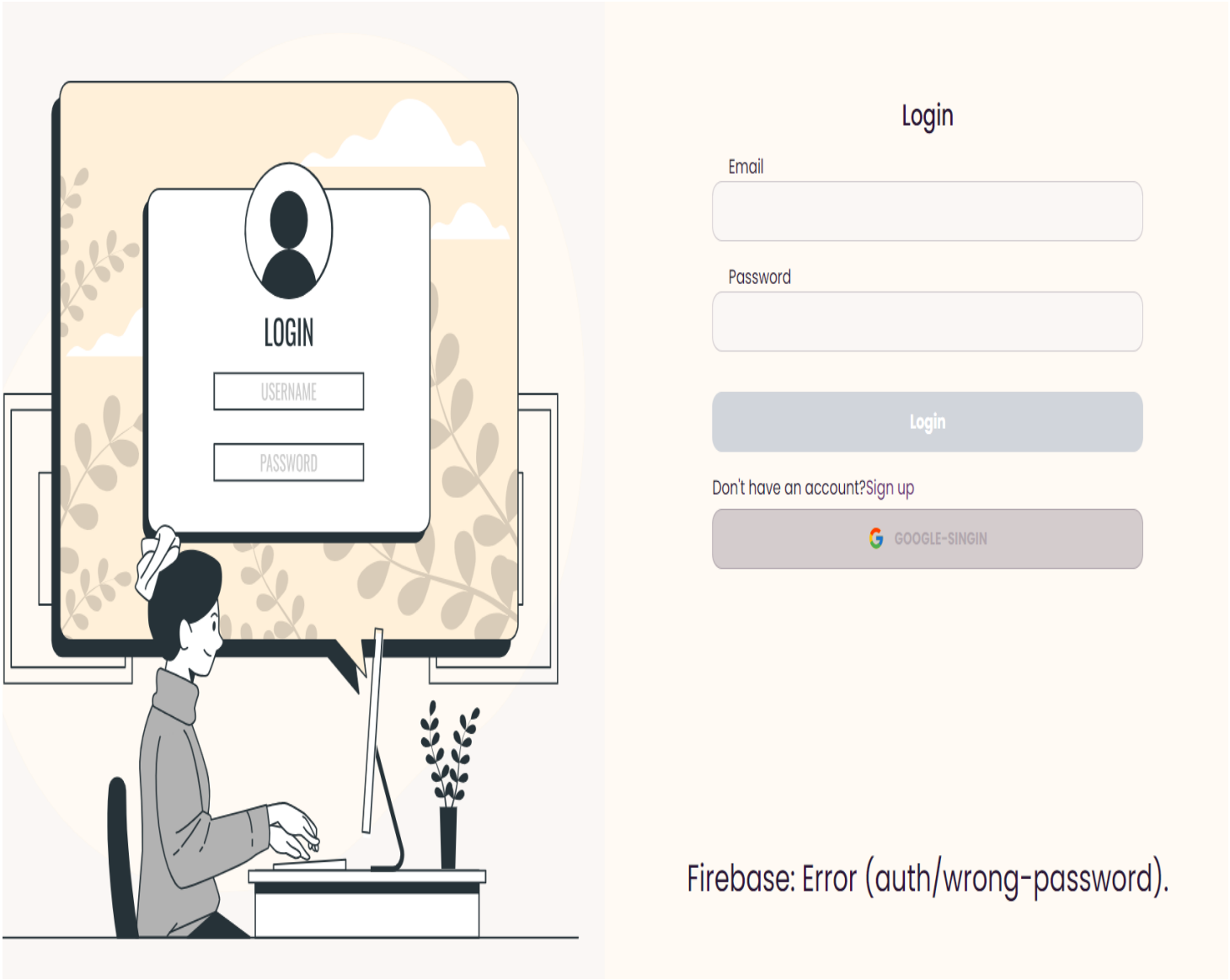


Fig 34 : Login System (Integration Testing)

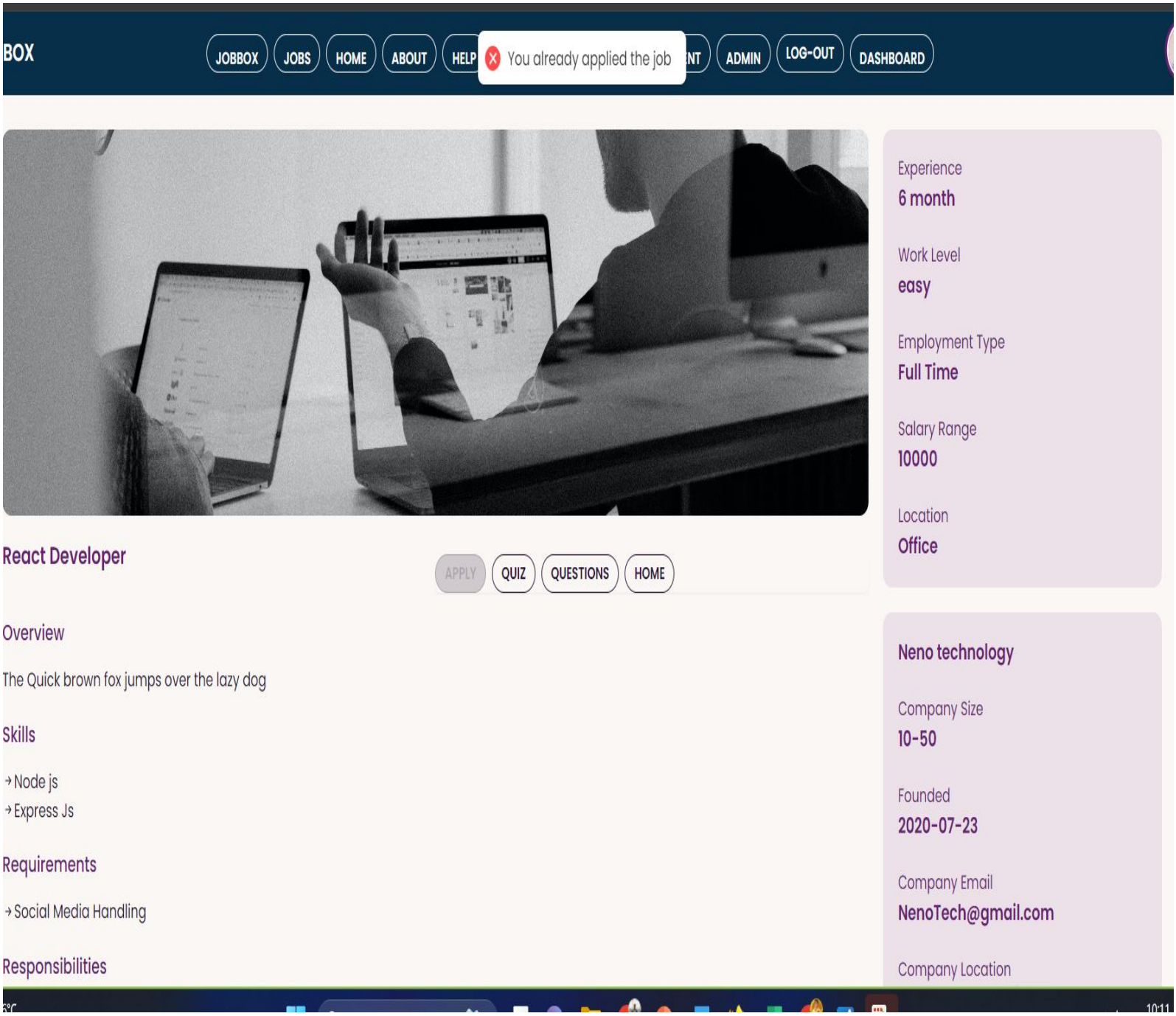


Fig 34 : Apply Jobs Testing (Integration Testing)

Chapter12-Implementation

12.1Training:

A crucial component development is training. To stay current with the user and system

instruction. System users must be trained in order for it to be implemented. After training, customers will have no trouble navigating and understanding the system. Here are a few training options listed below:

Table 12 :Tanning for JOBBOX Management System

SL NO	User	Training Sector	Duration	Comment
1	Admin	Create /Update/delete and etc.	1.5 hours	Admin can be control by the hole Application User
2		Checked Candidate User Activity	30 min	Admin Can Understand How to checked User Activity
3		Checked Employer User Activity	30 min	Admin Can Understand How to checked Employer User Activity
4		Admin can be Access All user Dashboard Information	30 min	Admin Can Understand How to Access All User Dashboard Information
5		Admin Can be Tracking All	30 min	Admin Can Understand

		User Device Activity		How Track All User Device Activity
6		Admin Can be Control All Content base data	30 min	Admin can Understand How to Control All Content base Jobs
7	Candidate User	Candidate User can be Apply There types of Jobs	45 min	Candidate User can Understand hoe to apply jobs
8		Candidate User Can be User Chat Bot to Contract Job Applicant User	45 min	Candidate User can Understand How to use Chatbot
9		Candidate can be use his Personal Dashboard	45 min	Candidate User can be Understand How to use Dashboard
10	Employer User	Employer Can Be Post 2 types of Jobs	45 min	Employer Can be Understand How to post 2 types of Jobs
		Employer Can be Use chatbot Only his Applicant User	45 min	Employer Can be Understands how to reply this Applicant user
		Employer can change is Role to Admin	45 min	Admin Can be Access provide to Change Employer to Admin

12.2 Big bang:

Specifically, it functions to launch a new system and close down an old one. The primary option: Proceed with the installation of the new system upon completion of testing. Transitioning data from the old system to the new platform may encounter delays. Moreover, there's a risk of data loss or corruption inherent in the migration process, particularly concerning page management.

- **Pilot:**

To facilitate testing, the system is being implemented accordingly. Certain organizations have finalized agreements following a designated timeframe, with the final system installation scheduled pending successful execution of the plan.

- **Parallel:**

The previous system serves as a backup for the current system, which is undergoing systematic updates to align with the newly released operating system..

12.3Recommendedimplementationprocess

Since of deploying the system in several organizational departments is being carried out with the intention of conducting a pilot project, I believe it is feasible to set the scene for one. At last, the system will be made operational if every function is operating as intended.

Chapter13-CriticalAppraisaland Evaluation

This article discusses failed ventures. Has must be fulfilled. This section's criteria isn't met, and it's discussed here. Additional project development and possible guidance are necessary to satisfy the criteria.

13.1–Objective Cloud be Met

Project objectives have been accomplished due to expansion.

13.1.1 Success Rate Against each Objective

The three components of the success rate for each goal are as follows:

- Educational Goals
- Professional Goals
- Personal Goals

Academic objectives:

- Should user-friendly and provide adaptability to the user..
- If this system is using the proper technique
- Feasibility study
- Risk assessment

- Design and development of databases

- Conduct thorough analysis and document to produce an entire system. Everybody must have standard paperwork.
- All parties must be able to interpret the paperwork.

Business objectives:

- It must offer an intuitive interface.

- Give the appropriate perspective.
- Candidate ,Employer control by the Admin User
- Show reports.
- Must show User Activity Status.
- Manage Three Types of Job.

personal objectives:

- It is necessary to validate
- the system.
- System validation is necessary.
- Error-free, reliable, and secure is what the system must be.

13.1.2How much better could have been done:

- chat Bot Options To Contract Applicant user to Employer user.
- User Update easily his Information.
- Overall rating provide Only Employer User.
- Employer User must be use Email which is the provide Atomically Interview called

13.1.3 How Better the Features the of the Solution?

- Yes, it must in its entirety.
- It needs to be seamless and efficient.
- It needs performance parameters.
- Job box Management System is Responsive for Any Types of Devices
- The whole system secured and I have to JWT Token Which

  is the provide Hashing Algorithm and encryption data.

3.1.4Which Features Could Not be Touch

- rating Only Accessible Employer user

Access to ratings is restricted to employer users exclusively.
Key functionalities include:

- Job application features for candidate users.
- Comprehensive application control accessible to multiple administrators simultaneously.

Chapter14- Conclusion

14.1 Summery of the Project

JOBBOX Management System functions as a Service Provider Application, offering a diverse range of job services. The application caters to three main types of job services simultaneously, namely Non-Organizational Jobs, Organizational Jobs, and Video Resume or Content-Based Job Services.

The comprehensive control of the entire application is vested in three distinct user roles: Candidate, Employer, and Admin. Certain conditions are specifically applied to Employer Account Holders, allowing them to assume an administrative role within the system. It is important to note that Candidate Users do not have the ability to play an Admin role.

In terms of security features, the application is equipped with robust measures, including JWT Token, Firebase Authorization, and the ability to access user devices' information. The JWT Token employs HS256 encryption algorithms, ensuring secure communication for every type of account holder.

Furthermore, the application is designed to provide three levels of user accessibility: Candidate, Employer, and Admin. Each user category enjoys specific functionalities tailored to their role within the JOBBOX Management System.

14.2 Goal of the Project

The Vision JOBBOX Management is give a comprehensive ,versatile service Provider Application for job-related services. The primary objectives include.

The goal JOBBOX Management System project is give comprehensive and versatile Service Provider Application for job-related services. The primary objectives include:

Non Originations JOB: “Non-Organizational Jobs," it generally implies job opportunities that are not associated with specific organizations or companies. These could include freelance or independent contractor positions, temporary roles, or any employment opportunities that do not involve a long-term commitment to a particular organization.

Originations JOB: It appears there might be a small typo in your query. If you meant "Organizational Jobs," this typically refers to employment opportunities within a specific organization or company. Organizational jobs involve working for a particular entity, and the responsibilities and tasks are associated with the functioning and goals of that organization.

User Roles and Control: Implement a user-centric system with three distinct roles—Candidate, Employer, and Admin—each with specific responsibilities and access levels. Enable Employer Account Holders to assume administrative roles with specific conditions.

Security Measures: Ensure the security of user data and interactions through robust security features. Implement JWT Token, Firebase Authorization, and device information access to maintain the integrity and confidentiality of user accounts. Utilize HS256 encryption algorithms within JWT Tokens for secure communication.

User Accessibility: Design the application to provide tailored functionalities for each user category—Candidate, Employer, and Admin. Tailor the user experience to meet the specific

needs and roles within the JOBBOX Management System.

The project endeavors to establish a user-friendly, secure, and efficient platform, fostering seamless interaction and collaboration among candidates, employers, and administrators within the job services domain.

14.3 My experience:

Completing project was over, I now know gathering info, addressing problems, and overcoming obstacles. Even while the physical tasks were first difficult, they offered a great chance to hone skills. I completed the assignment with effective time and cost management. I hope that the knowledge I've gained from this experience will help me in my future undertakings. The Almighty is thanked for power and intelligence, and the helpful people who were instrumental in the project's accomplishment are also thanked..

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Appendices:

Test Scripts

Requirements Catalogue:

Admin:

- Dashboard
- Control All Candidate User Profile
- Control All Employer User Profile
- manage All User Jobs Activity
- Manage All User Device Activity
- Admin Can be Create Other Admin only Employer User
- AI Generated Chat Bot
- Complain Management System

Candidate:

- Registration and login
- Update profile
- Apply organizational Jobs
- Apply Non Organizational Jobs
- Post Content Base Resume
- Chat Bot use to specific job Employer
- search All Categories Jobs
- Admin Can be Access All Candidate User Applicant Jobs
- Candidate Rating System Can be use Employer Account Holder

Employer:

- Registration and login
- Post Non-Organizational Jobs
- Post Organizational Jobs
- Employer can be reply the applicant user Question (Chatbot)
- Employer can be taking All His Jobs Applicant user Details
- Employer can be called video resume / content base jobs

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PRIMARY SOURCES

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2	Subroto Budhi Utomo, Bayu Hendradjaya. "Multifactor Authentication on Mobile Secure Attendance System", 2018 International Conference on ICT for Smart Society (ICISS), 2018 Publication	<1%
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