

Cairo University

Faculty of Computers and Artificial Intelligence Information Technology Department





"Graduation Project 2024"

Implemented by:

Shady Mohamed	20200246
Fatma Omar	20201133
Hassan Ashraf	20200151
Mohamed Abdelqader	20190459
Esraa Saeed	20200074
Hussein Alyamni	20200157

Under the supervision of:

Dr. Elham Shawky Salama Omer

"Associate professor at Information Technology Department"

Faculty of Computers and Artificial Intelligence,
Cairo University, Egypt, 2024

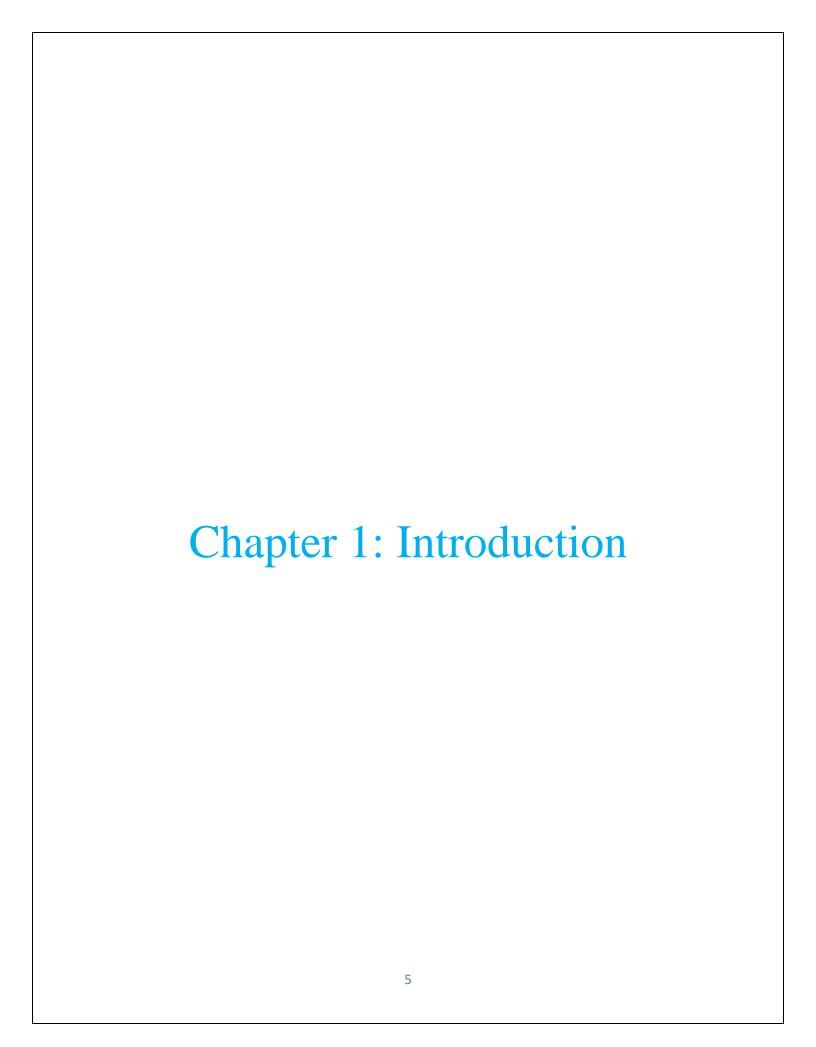
Table of Contents

Chapter 1: Introduction	5
1.1 project idea	8
1.2 Background	9
1.3 Purpose.	10
1.4 Project Objective	11
1.5 Project Scop and Limitations	12
1.6 Methodology	14
Chapter 2: related works	15
Weak points	20
Solutions	22
Chapter 3: System Analysis	24
3.1 Functional requirements.	25
3.2 Non-functional requirements	28
3.3 Sequence diagram	30
Chapter 4: proposed system	31
4.1 Technology	32
4.2 System application	34
4.3 Flow chart.	38
Chapter 5: Conclusion and future work	49
5.1 conclusion	50
5.2 future work	50
5.3 references	53

List of Figures

Figure 1: Agile Life Cycle	14
Figure 2: linked in logo	16
Figure 3: indeed logo	17
Figure 4: : glassdoor logo	17
Figure 5: career builder logo	18
Figure 6: UP Work logo	19
Figure 7: freelancer logo	19
Figure 8: Export cv sequence diagram	30
Figure 9: node js logo	32
Figure 10: SQL logo	33
Figure 11: flutter logo	33
Figure 12: sign up for user	34
Figure 13: sign up for company	35
Figure 14: login user	36
Figure 15:login company	37
Figure 16: achievement	38
Figure 17: experience	38
Figure 18: interest/hobbies	38
Figure 19: resume workspace	39
Figure 20: projects	39
Figure 21: personal details	39
Figure 22: Education	40
Figure 23: technical skills	40
Figure 24: reference	40
Figure 25: carrier objective	40
Figure 26: cv analyst	41
Figure 27: user/company analyst	41
Figure 28: job details	41

Figure 29: cv strength	41
Figure 30: type of job	41
Figure 31: Profile user	42
Figure 32: create Cv	43
Figure 33: cv example form	45
Figure 34: payment plan details	46
Figure 35: payment methods	46
Figure 36: form paypal	47
Figure 37: paypal payment	47
Figure 37: Project flow chart	48



In response to the challenges faced by job seekers within a large community, the Dot Job platform aims to provide comprehensive support and solutions to address their questions and concerns related to job applications. The platform focuses on facilitating seamless communication, sharing valuable insights, and enhancing the overall job- seeking experience.

Users can easily get for specific job opportunities based on their preferences and qualifications. The platform allows users to submit job applications directly through the application. Job seekers can create CV to share their experiences, ask questions, or seek advice from the community. Users can react to and comment on CV, fostering a collaborative and supportive environment. Employers and organizations can make announcements regarding job fairs, recruitment events, or other relevant updates.

Users receive notifications for new job opportunities and important announcements. The job seeker will be able to obtain all services from our application wherever the platform is used, after a while we will have a large amount of data that provides a lot of useful information It enables us to know the number of job categories, the number of job seekers applying for a particular job, etc. this it makes it easier for us to help them in the future.

• The primary aim of this application is two-fold:

- 1. For Job Seekers: To simplify the process of creating a compelling CV that highlights their skills, experiences, and qualifications. Users can leverage a variety of templates and guidance tools to ensure their CVs meet industry standards and effectively showcase their potential.
- **2. For Employers**: To facilitate the identification and selection of suitable candidates based on the specific needs of their organization. The application includes advanced search and filtering capabilities, enabling companies to quickly find CVs that match their job requirements.

In today's competitive job market, job seekers often face significant hurdles, such as:

- **Difficulty in CV Formatting**: Many individuals struggle with creating a well-structured and visually appealing CV.
- Matching Skills to Job Requirements: Ensuring that a CV effectively aligns with the job descriptions can be a daunting task.
- Limited Access to Professional Guidance: Not everyone has access to career advisors or resources to improve their CV.

The Dot Job platform addresses the challenges faced by job seekers in a large community by providing comprehensive support and solutions for job applications. It aims to enhance the job-

seeking experience through seamless communication, valuable insights, and easy access to job opportunities.

Key Features for Job Seekers:

- **Job Opportunity Matching**: Users can find specific job opportunities based on their preferences and qualifications.
- **Direct Job Applications**: Users can submit job applications directly through the platform.
- **CV Creation and Sharing**: Job seekers can create professional CVs, share their experiences, ask questions, and seek advice from the community.
- **Community Engagement**: Users can react to and comment on CVs, fostering a collaborative and supportive environment.
- **Notifications**: Users receive notifications for new job opportunities and important announcements.

Key Features for Employers:

- **Announcements**: Employers can make announcements about job fairs, recruitment events, and other updates.
- Advanced Search and Filtering: The platform includes tools for employers to search and filter CVs based on specific job requirements, making it easier to identify and select suitable candidates.

Data Utilization:

• **Insights and Analytics**: Over time, the platform will collect a large amount of data, providing valuable insights into job categories, the number of job seekers, and application trends. This data helps improve future services and support for users.

Primary Aims:

- 1. **For Job Seekers**: To simplify the CV creation process, offering templates and guidance tools to help users create compelling CVs that effectively showcase their skills, experiences, and qualifications.
- 2. **For Employers**: To facilitate the identification and selection of suitable candidates through advanced search and filtering capabilities, ensuring companies can quickly find CVs that match their job requirements.

Addressing Job Seeker Challenges:

- **CV Formatting**: Assists users in creating well-structured and visually appealing CVs.
- **Skill Matching**: Helps align CVs with job descriptions.
- **Professional Guidance**: Provides resources and community support for CV improvement.

1.1 Project Idea

This project revolves around the development of a mobile application aimed at simplifying and enhancing the CV creation and selection processes for both job seekers and employers. The application offers a seamless and intuitive platform where users can create, customize, and export professional CVs in PDF format. Simultaneously, it provides companies with the tools to view, filter, and select CVs that best match their job requirements.

Key Features

- 1. CV Creation and Customization:
- **User-Friendly Interface**: A guided, step-by-step process to help users create a professional CV.
- Customizable Templates: A variety of industry-specific templates to choose from,
- ensuring that the CV is tailored to the user's field of expertise.
- **Skill Matching**: Suggestions and prompts to help users align their skills and experiences with job market demands.
- **PDF Export**: Users can easily export their completed CVs as high-quality PDF files for easy sharing and application submission.
- 2. **Employer Tools**:
- **CV Database**: A comprehensive database of CVs that employers can access.
- Advanced Search and Filtering: Employers can search and filter CVs based on specific criteria
- such as skills, experience, and education to find the most suitable candidates.
- Candidate Selection: Tools for employers to shortlist and manage potential candidates directly within the application.

Benefits

- For Job Seekers: Simplifies the often complex and time-consuming process of creating a CV. Users are guided through each step, ensuring their CV is professional and market-ready. The ability to export the
- CV as a PDF adds convenience for job applications.
- **For Employers**: Reduces the effort required to sift through numerous CVs. The advanced search and filtering options help employers quickly identify and select candidates who best meet their job requirements, streamlining the recruitment process.

1.2 Background

In today's dynamic job market, the process of matching job seekers with suitable opportunities and facilitating connections between companies and potential employees has become increasingly complex. Traditional methods of job searching and recruitment often lack efficiency and transparency, leading to challenges for both job seekers and employers.

Recognizing these challenges, the DOT JOB team embarked on developing an innovative solution aimed at revolutionizing the job search and recruitment process. Our application seeks to address several key issues prevalent in the current job market landscape:

Job seekers often find themselves navigating multiple job search platforms and websites, each with its own set of requirements and procedures. Similarly, companies face the challenge of managing various recruitment channels, leading to inefficiencies in the hiring process.

Many qualified job seekers struggle to gain visibility in a crowded job market dominated by large corporations and recruitment agencies. As a result, talented individuals may remain unnoticed by potential employers, hindering their career advancement opportunities.

Resource-Intensive Recruitment Process: Traditional recruitment methods typically involve extensive time and resource investments for both employers and job seekers. From manually sifting through resumes to conducting multiple rounds of interviews, the process can be laborious and costly for all parties involved.

Lack of Personalization: Generic job postings and standardized application processes often fail to capture the unique skills and preferences of individual job seekers. Similarly, companies may struggle to find candidates who align closely with their specific requirements and organizational culture.

1.3 Purpose

In response to these challenges DOT JOB has developed an innovative job search and recruitment application that aims to streamline the process for both job seekers and employers. By leveraging advanced algorithms and user-friendly interfaces, our platform offers the following benefits:

Our application utilizes cutting-edge matching algorithms to connect job seekers with relevant job opportunities based on their skills, experience, and preferences. This personalized approach ensures that candidates are matched with roles that align closely with their career aspirations.

For employers, our platform offers a streamlined recruitment process, reducing the time and resources required to identify and onboard top talent. From posting job listings to conducting virtual interviews, every step of the hiring process is optimized for efficiency and effectiveness.

With a focus on intuitive design and seamless navigation, our application provides an exceptional user experience for both job seekers and employers. Whether browsing job listings or managing recruitment campaigns, users can easily access the features they need with minimal friction.

The primary purpose of the Dot Job platform is to streamline and enhance the job application and recruitment processes for both job seekers and employers. It aims to address the common challenges faced by job seekers, such as difficulty in creating a professional CV, aligning their skills with job requirements, and accessing professional guidance. Simultaneously, it provides employers with efficient tools to identify and select suitable candidates based on their specific needs.

1.4 Project Objective

1. Basic objectives

- Developing a multi-platform application that provides employment services to job seekers.
- Building a community that benefits from our platform and connecting them.
- Empowering service providers to be more accessible.
- Enabling job seekers to find suitable job opportunities for them and register for these opportunities online.
- Enabling job seekers to build a professional CV.

2. Secondary objectives

- Try to respond to job seekers about their progress in tracking the job opportunities they have applied for as quickly as possible.
- Obtaining a huge amount of data about job categories to analyze it and knowing the number of job seekers registered in the course, and the number of contacts between the two job seekers and Employer, etc.

The primary objective of this application is to address the common challenges faced by job seekers and employers within a large community. By providing a robust and user-friendly platform for CV creation and selection, the application aims to bridge the gap between job seekers and employers, making the job market more efficient and accessible for everyone.

This project represents a significant step forward in the job application and recruitment processes, leveraging technology to create a more dynamic and responsive employment ecosystem.

1.5 Project scope and limitations

In this project, we will provide a multi-platform mobile application to help business owners appoint people capable of carrying out work tasks and create a brochure to describe the work in detail, attaching the form to apply for the job, as well as the requirements that must be met by the job applicant to increase the chances of being accepted for this job and help. Job seekers can apply for various job opportunities that match the data in his CV via the Internet, see the numerous publications submitted by employers, send notifications about them, verify the extent to which the job opportunity he is applying for has reached advanced levels, and work on building his own CV. And see the dashboard that enables him to analyze and detail the opportunities he applies to. All these services see a beneficial community. It can make their lives easier.

Limitations

We will work on a project which is a feature of giant platforms, so competition is quite far. Chatting will not be included in our app so no user behavior (history) data to depend on it in our recommendation. So, we need to choose the best alternative way regarding UX to communication.

Project Scope

The scope of this project encompasses the following key areas:

1. User Registration and Profile Management:

- o Users can create accounts and manage their profiles.
- o Profiles will store personal information, job history, education, and skills.

2. CV Creation and Customization:

- o A guided process for users to input their information and generate a CV.
- o Multiple customizable templates to choose from, catering to different industries.
- o Real-time suggestions and tips for improving CV content.

3. Export and Sharing:

- o Users can export their CVs as PDF files for easy sharing and application submission.
- o Integration with email and other platforms for direct sharing.

4. Employer Access and Tools:

- o Employers can register and create company profiles.
- o Access to a searchable database of CVs.
- o Advanced filtering and search capabilities to identify suitable candidates.
- o Tools for shortlisting and managing candidate selections.

5. Notifications and Updates:

- o Real-time notifications for users about their CV status and job application updates.
- o Employers receive updates on candidate activities and applications.

6. Data Security and Privacy:

- o Ensuring that all user data is securely stored and managed.
- o Compliance with relevant data protection regulations.

Limitations

While this project aims to provide a comprehensive solution for CV creation and candidate selection, there are several limitations to consider:

1. Template Customization:

 Although multiple templates are available, users may have limited customization options beyond predefined formats.

2. Skill Matching Accuracy:

 The skill matching feature relies on user input and may not always perfectly align with job market demands.

3. Employer Database Access:

Employers' access to the CV database is dependent on user consent. Not all CVs may be available for review if users choose to restrict access.

4. User Experience Variability:

o The effectiveness of the CV creation tool may vary based on individual user proficiency with technology and the accuracy of the information provided.

5. Resource Limitations:

• The development and maintenance of the application depend on available resources, which may affect the speed of updates and new feature rollouts.

6. Market Adaptation:

o The application's success is contingent on user adoption within the job market. Without sufficient user engagement, the platform's benefits may be limited.

1.6 Methodology: Agile

We will use agile methodology as our project life cycle because Agile methodologies, such as Scrum or Kanban, are known for their flexibility and adaptability. In a dynamic project environment, where requirements may evolve or new insights emerge, Agile allows for seamless adjustments to accommodate changes. Agile methodologies aim to deliver a minimum viable product (MVP) quickly. This enables stakeholders to start using and providing feedback on the system sooner, reducing time-to-market and allowing for quicker responses to changing market conditions. Agile practices, such as continuous testing and frequent integration, help in identifying and addressing issues early in the development process. This proactive approach contributes to risk mitigation and better overall project quality.

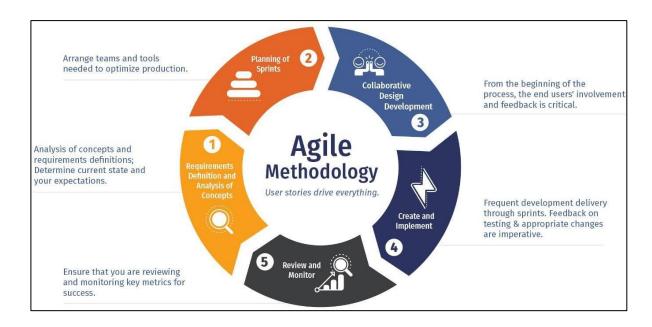
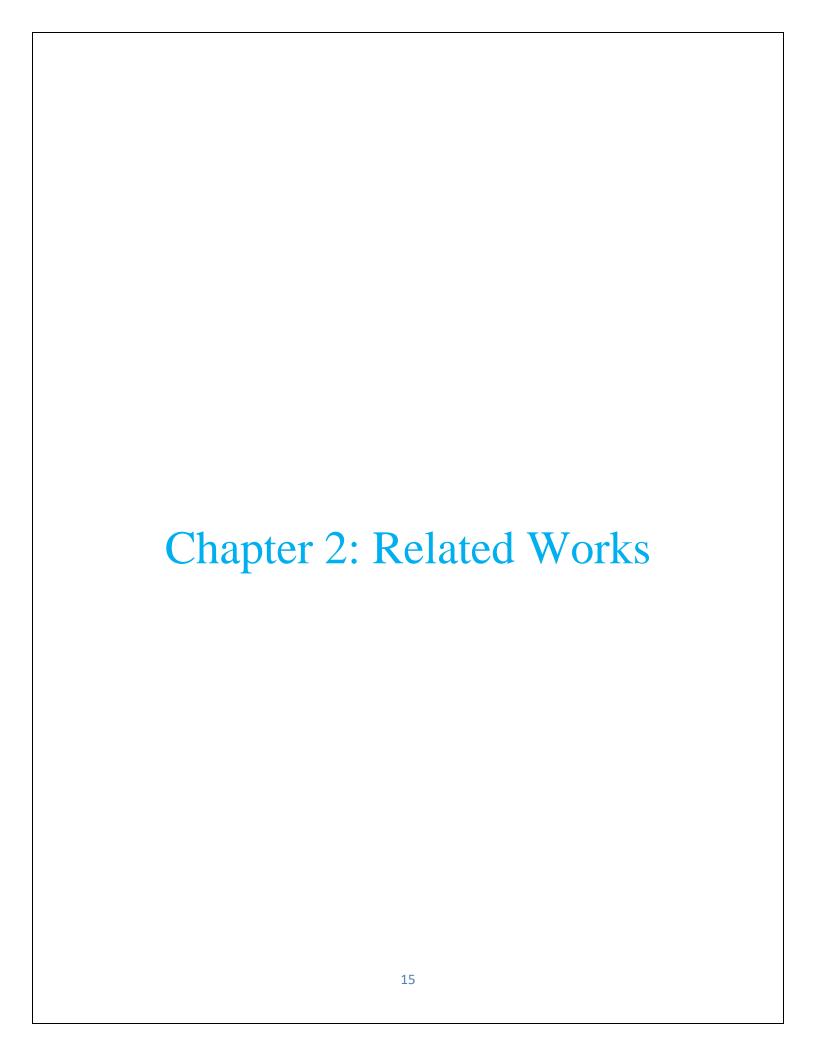


Figure 1: Agile Life Cycle



This chapter provides an overview of various platforms and tools in the professional networking, job search, and freelancing domains. It covers popular platforms such as LinkedIn, Indeed, Glassdoor, Monster, CareerBuilder, SimplyHired, ZipRecruiter, Dice, Upwork, Freelancer, and FlexJobs, highlighting their key features and functionalities in connecting job seekers with opportunities and facilitating professional connections.

2.1 Related Works

2.1.1 LinkedIn:

LinkedIn is a professional networking platform that also serves as a job search and recruitment platform. Users can create profiles, connect with professionals, and explore job opportunities.



Figure 2: Linked in logo

2.1.2. *Indeed*:

Indeed, is a comprehensive job search engine that aggregates job listings from various sources. Users can search for jobs based on keywords, location, and other criteria.



Figure 3: indeed logo

2.1.3 Glassdoor:

Glassdoor not only lists job openings but also provides company reviews, salary information, and insights into company culture. It aims to help job seekers make informed decisions.



Figure 4: glassdoor logo

2.1.4 CareerBuilder:

CareerBuilder is an online job portal that offers job search, company research, and career advice. It covers a diverse range of industries and job types.



Figure 5: career builder logo

2.1.5. *Monster:*

Monster is a global job search website that connects employers with job seekers. It offers a wide range of job listings and provides tools for resume creation and career advice.

2.1.6. SimplyHired:

SimplyHired is a job search engine that aggregates job listings from various sources. It provides filters for location, job type, and company.

2.1.7. ZipRecruiter:

ZipRecruiter is a platform that connects employers and job seekers. It uses AI-driven matching technology to match candidates with relevant job opportunities.

2.1.8. Dice:

Dice is a specialized job board for technology and engineering professionals. It focuses on

IT and engineering job opportunities.

2.1.9. *Up work:*

Upwork is a freelancing platform that connects businesses with freelancers. It covers a wide range of skills, including writing, design, programming, and more.



Figure 6: UP Work logo

2.1.10. Freelancer:

Freelancer is a global freelancing and crowdsourcing marketplace. It allows businesses to post projects.



Figure 7: freelancer logo

2.1 Weak Points

LinkedIn and Indeed are two popular platforms in the job search and professional networking space, each with its own strengths and weaknesses. Identifying weaknesses can help in understanding potential areas for improvement or opportunities for innovation. Here are some potential weaknesses for each platform:

2.1.1 LinkedIn:

Limited Job Listings: While LinkedIn offers a wide range of professional networking features, its job listings may not cover every industry or job type comprehensively. Some niche industries or specific job roles may have fewer opportunities listed compared to broader job search platforms.

Overemphasis on Networking: LinkedIn's primary focus is on professional networking rather than just job searching. While this can be beneficial for building connections and accessing hidden job opportunities, it may not suit individuals solely interested in finding job listings quickly and easily.

Premium Features: Certain features on LinkedIn, such as advanced search filters or access to candidate profiles, require a premium subscription. This can be a barrier for users who cannot afford or justify the cost, limiting their ability to fully utilize the platform's capabilities.

User Experience:

Despite regular updates, LinkedIn's user interface and experience may not always be intuitive or user-friendly for all users. Navigating through job listings, managing connections, or accessing relevant content may require some familiarity with the platform.

While LinkedIn offers extensive professional networking features, its job listings may not cover every industry or job type comprehensively. Niche industries or specific roles might have fewer opportunities listed compared to broader job search platforms. LinkedIn primarily focuses on professional networking rather than solely on job searching. This focus is beneficial for building connections and accessing hidden job opportunities, but may not suit individuals who want to find job listings quickly and easily. Additionally, some advanced features on LinkedIn, such as advanced search filters or access to candidate profiles, require a premium subscription. This can be a barrier for users who cannot afford or justify the cost, limiting their ability to fully utilize the platform's capabilities.

2.1.2 Indeed:

Volume Over Quality: Indeed aggregates job listings from various sources, which can sometimes result in a high volume of listings that may not always be relevant or high-quality. Users may need to sift through numerous listings to find suitable opportunities, leading to a potentially overwhelming experience.

Limited Networking Features:

Unlike LinkedIn, Indeed focuses primarily on job listings and application processes rather than fostering professional networking. While this may streamline the job search process, it may not provide the same level of networking opportunities or connections as LinkedIn.

Lack of Personalization: Indeed's job recommendation algorithms may not always provide highly personalized suggestions based on a user's skills, experience, and preferences. This can result in job seekers receiving irrelevant job recommendations or missing out on potentially suitable opportunities.

Competitive Job Market:

Due to its popularity and wide user base, the competition for job listings on Indeed can be intense. Job seekers may find themselves competing with a large pool of applicants for the same positions, making it challenging to stand out to employers.

It's important to note that while these weaknesses exist, both LinkedIn and Indeed have significant strengths and are valuable resources for job seekers and employers alike. Understanding their weaknesses can help users navigate these platforms effectively and identify opportunities for improvement in the job search process.

2.2 Solutions

Addressing the weaknesses of LinkedIn and Indeed and other platforms involves strategic approaches aimed at improving user experience, enhancing job search effectiveness, and providing additional value to users. Here are some potential solutions:

Diversify Job Listings:

LinkedIn can partner with more companies and organizations to ensure a broader range of job listings across various industries and job roles. This could involve targeted outreach to companies in niche industries or those with specific hiring needs.

Enhance Free Features: LinkedIn can improve the functionality of its free features to provide more value to users without requiring a premium subscription. This could include expanding access to advanced search filters or offering more insights and analytics on user profiles.

User Interface Improvements:

Continuously refining the user interface and experience can make

LinkedIn more intuitive and user-friendly for all users. Conducting usability testing and gathering feedback

from users can help identify areas for improvement and prioritize enhancements.

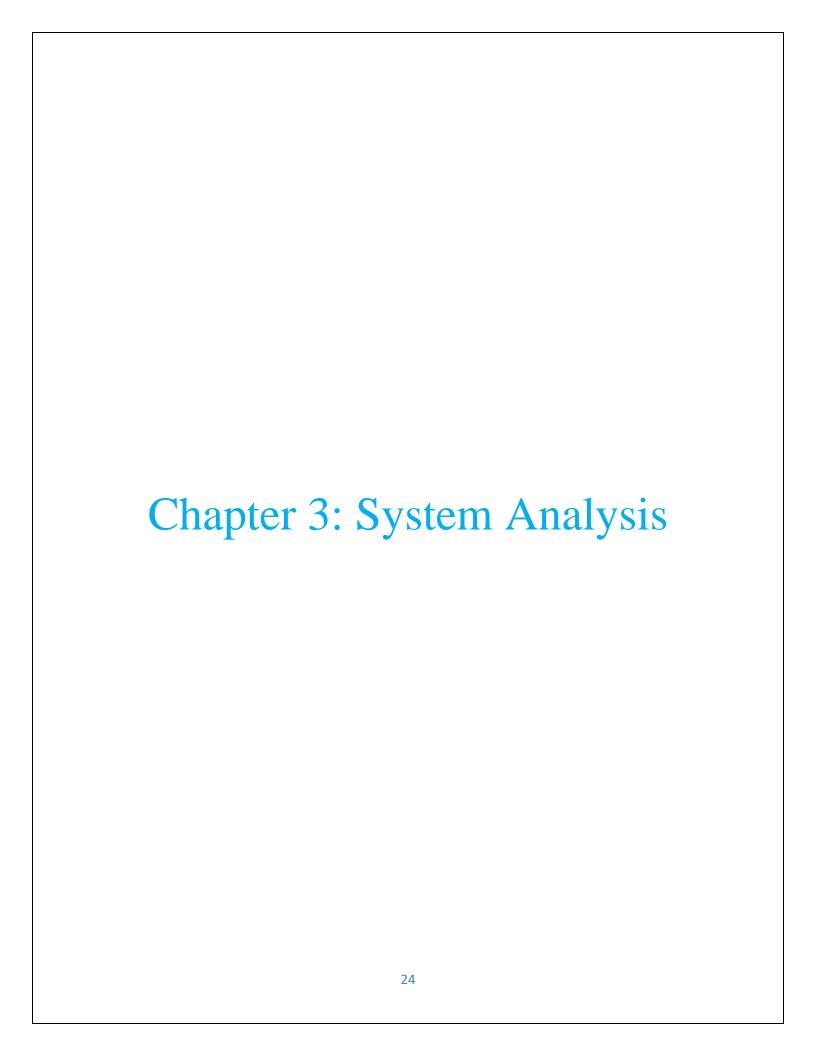
Personalization Algorithms: Invest in machine learning and data analytics to improve the accuracy and relevance of job recommendations on LinkedIn. By analyzing user behavior, preferences, and interactions, LinkedIn can tailor job suggestions more effectively to individual users.

Quality Control Measures: Implement measures to ensure the quality of job listings on Indeed, such as manual review processes or algorithms that prioritize reputable sources and remove spam or duplicate listings. This can help reduce clutter and improve the relevance of job search results.

Networking Features: Introduce networking features on Indeed to facilitate connections between job seekers and industry professionals. This could include features for sharing insights, seeking advice, or connecting with recruiters and hiring managers directly within the platform.

Enhanced Personalization: Similar to LinkedIn, Indeed can leverage data analytics and machine learning to deliver more personalized job recommendations to users. By analyzing user preferences, skills, and behavior, Indeed can surface job listings that align more closely with individual interests and qualifications.

Promote Skill Development: Offer resources and tools to help job seekers improve their skills and qualifications, making them more competitive in the job market. This could involve partnerships with online learning platforms, providing access to courses, certifications, and other educational resources.



This chapter delves into the functional and non-functional requirements, as well as the technological aspects, essential for the development of the system. It outlines functionalities such as user authentication, job exploration, application submission, employer recruitment process, CV management, payment method integration, and dashboard design. Additionally, it addresses non-functional aspects like performance, usability, reliability, security, scalability, compatibility, maintainability, and provides insights into the technology stack chosen for the system, including MongoDB for the database, NodeJS and Express for the backend, and Flutter for the front-end.

3 1 Functional requirements:

1. User Authentication and Profile Management:

- Job seekers should be able to register and log in to the system.
- Users should have the ability to create and manage a personalized profile, including information on skills, experiences, and career aspirations.
- Password recovery and account verification mechanisms should be in place.

2.CV Application:

- Job seekers should be able to apply CV.
- Once a CV is created, the system should store it in database of the system.
- And user can export it as pdf.

3. Advanced Search and Filtering:

• Advanced search functionalities should allow users to refine job search to search for company.

4. Create and Manage CV:

- Job seekers should have the ability to create their curriculum vitae (CV) directly within the application.
- The CV creation feature should include fields for personal information, education history, work experience, skills, certifications, and any other relevant details.
- Users should be able to upload and attach documents, such as cover letters or additional certifications, to their CV.

- The system should provide templates or guidance to help users structure their CV effectively
- Users should have the option to set privacy settings for their CV, controlling who can view specific sections or the entire CV.
- The created CV should be automatically linked to the user's profile for easy access and management.

5. Advanced Search and Filtering:

 Advanced search functionalities should allow users to refine job search to search for company.

6. Create and Manage CV:

- Job seekers should have the ability to create their curriculum vitae (CV) directly within the application.
- The CV creation feature should include fields for personal information, education history, work experience, skills, certifications, and any other relevant details.
- Users should be able to upload and attach documents, such as cover letters or additional certifications, to their CV.
- The system should provide templates or guidance to help users structure their CV effectively.
- Users should have the option to set privacy settings for their CV, controlling who can view specific sections or the entire CV.
- The created CV should be automatically linked to the user's profile for easy access and management.

7. Dashboard:

1. Job Seeker Dashboard:

- Profile Overview: Display a summary of the job seeker's profile, including application status and relevant notifications.
- Application Tracking: Provide a section to track and manage submitted applications.
- Recommendations: Display personalized job recommendations based on the user's profile and preferences.

2. Employer Dashboard:

- Job Posting Management: Allow employers to create, edit, and manage job postings from a centralized dashboard.
- Application Review: Provide a section to review and manage received job applications.
- Analytics and Insights: Offer insights into the performance of job postings and the effectiveness of the recruitment process.

3. Admin Dashboard:

- User Management: Allow administrators to manage user accounts, roles, and permissions.
- Analytics and Reports: Provide comprehensive analytics and reports on overall platform performance, user engagement, and financial transactions.
- Notification Center: Implement a centralized notification center within the dashboard for users to receive updates, alerts, and announcements.
- Customization and Preferences: Allow users to customize their dashboard layout and set preferences for notifications.
- Responsive Design: Ensure that the dashboard is accessible and user- friendly across various devices, including desktops, tablets, and mobile phones.
- Feedback and Support: Include a section for users to provide feedback or seek support through the dashboard.
- Data Visualization: Utilize charts and graphs to visually represent key metrics and trends within the dashboard.

3.2 Non-Functional requirements:

1. Performance:

• Response Time:

o The system should respond to user actions within a maximum of 2 seconds.

Scalability:

 The application should be able to handle a scalable number of simultaneous users, especially during peak times.

2. Usability:

• User Interface Design:

• The user interface should be intuitive and user-friendly, adhering to industry design standards.

Accessibility:

The application should comply with accessibility standards (e.g., WCAG) to ensure it is usable by people with disabilities.

3. Reliability:

Availability:

o The system should aim for 99.9% uptime, allowing for scheduled maintenance.

• Fault Tolerance:

 The application should be designed to handle system failures gracefully without losing critical data.

4. Security:

• Authentication and Authorization:

 Implement secure authentication mechanisms and ensure proper authorization for different user roles.

• Data Privacy:

o Adhere to data protection regulations and ensure the privacy of user information.

5. Scalability:

- Database Scalability:
- The database should be scalable to handle a growing amount of user and job data.
- Consider implementing database sharing or clustering as needed.

6. Compatibility:

- Browser Compatibility:
 - o Ensure compatibility with major web browsers (e.g., Chrome, Firefox, Safari, Edge).
- Device Compatibility:
 - The application should be accessible and functional across various devices and screen sizes.

7. Maintainability:

- Code Maintainability:
- Code should be well-documented and follow best coding practices for ease of maintenance.
- Modularity:
 - o Design the application in a modular way to facilitate updates and modifications.

8. Performance Monitoring and Logging:

- Monitoring:
 - o Implement tools for monitoring application performance and user interactions.
- Logging:
 - Maintain logs for system activities, errors, and user interactions for troubleshooting and auditing purposes.

3.3 Sequence diagram

This figure show how sequence of user to create cv and request to export It as pdf

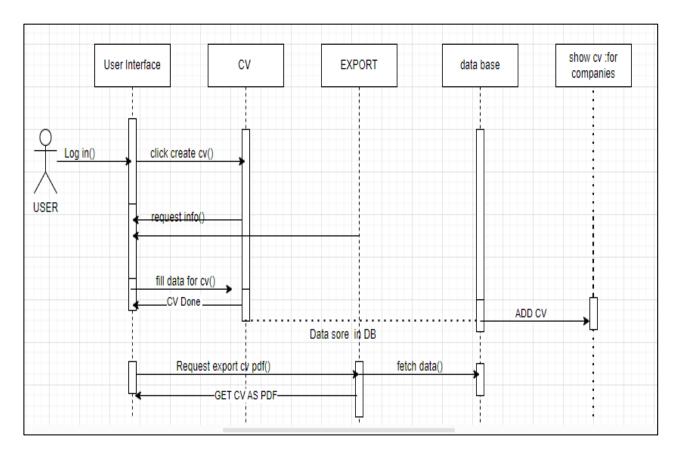
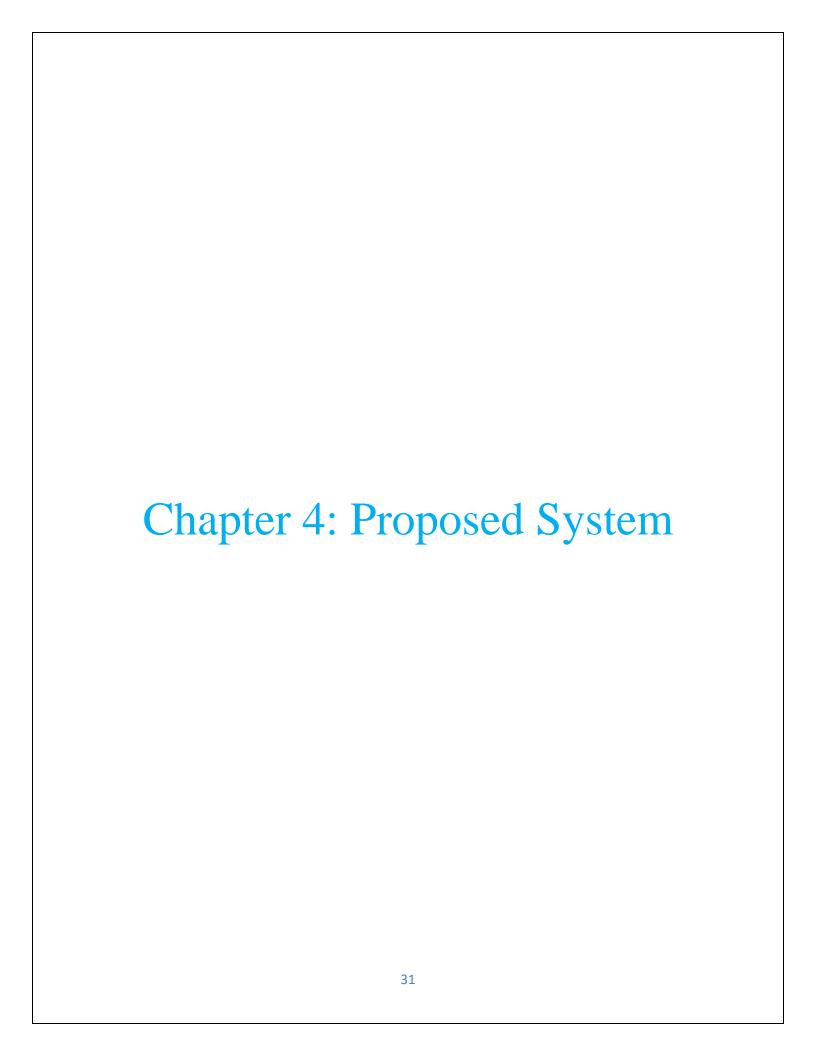


Figure 8: Export CV sequence diagram



4.1 Technology:

1. Database:

• For our database we will be using SQL db to store our user's data.

2. Backend

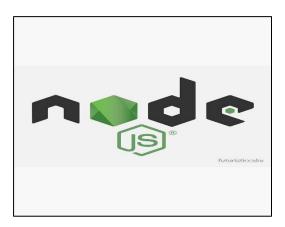


Figure 9: node js logo

- We will use Express for our backend.
- NodeJS is an event driven backend environment with the ability of adding limitless nodes which allows for extremely high vertical or horizontal scalability,
- It is well known for its performance and speed, as well as giving the option for cross-platform development.
- While Express is one of the most powerful node frameworks available, it's easily integral into the Node environment and makes the development much easier.
- Fire Base



Figure 10: SQL logo

3. Front-end

- Our front-end will utilize Flutter.
- Flutter allows for cross platform development on iOS, android and web

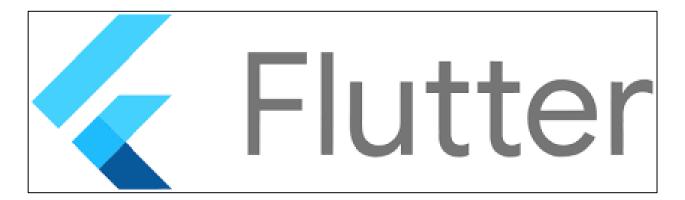


Figure 11: flutter logo

4.2 System application

• Sign Up For User

The user sign-up process is designed to provide a seamless and secure entry point into the Dot Job platform.

This process ensures that each user can create a personalized account, granting them access to the full range of features and functionalities offered by the platform.

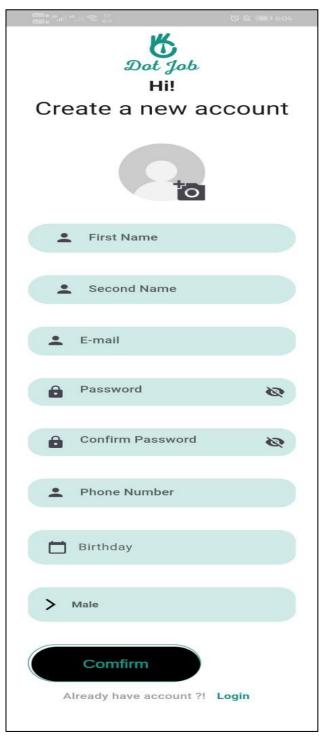


Figure 12: sign up for user

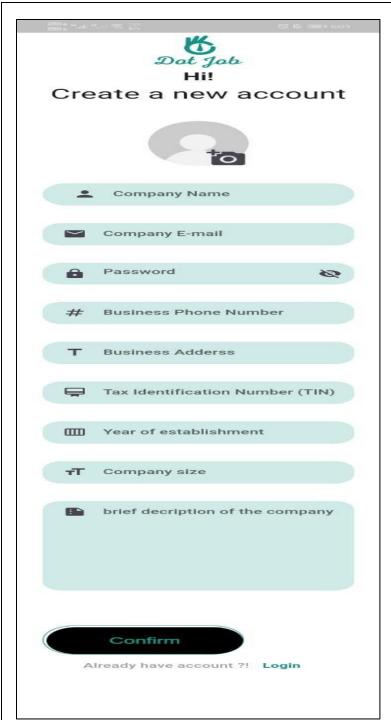


Figure 13: sign up for company

• Signup for company

The company sign-up process is designed to provide employers with a streamlined and secure way to access the Dot Job platform's recruitment tools and features. This process ensures that companies can create an account, post job listings, search for potential candidates, and manage their recruitment activities efficiently.

• Login user

The user login process is designed to provide a secure and seamless entry point into the Dot Job platform for registered users. This process ensures that users can quickly and easily access their accounts and take full advantage of the platform's features and functionalities.

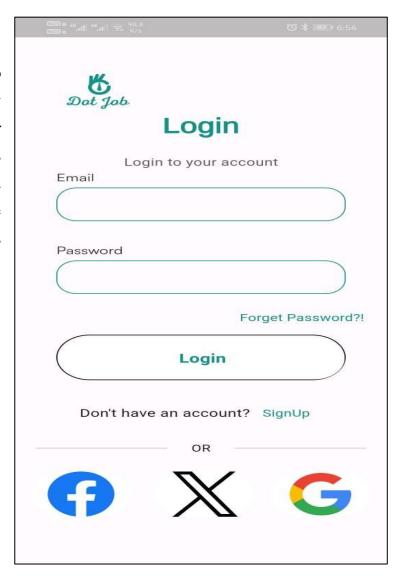


Figure 14: login user

• Login Company

The company login process is designed to provide secure and efficient access to the Dot Job platform for registered employers. This process ensures that companies can quickly access their accounts to manage job postings, search for candidates, and handle recruitment activities.

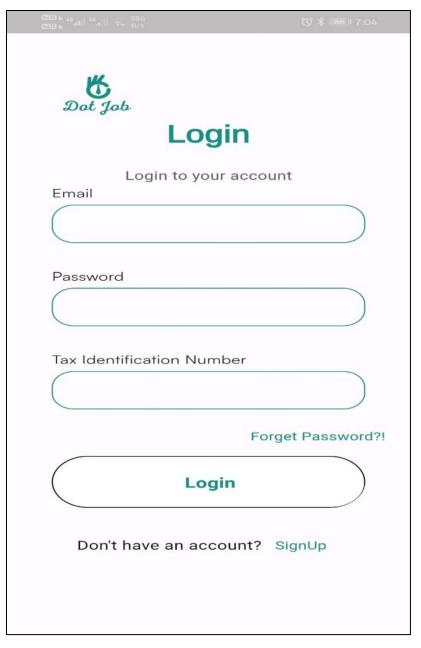
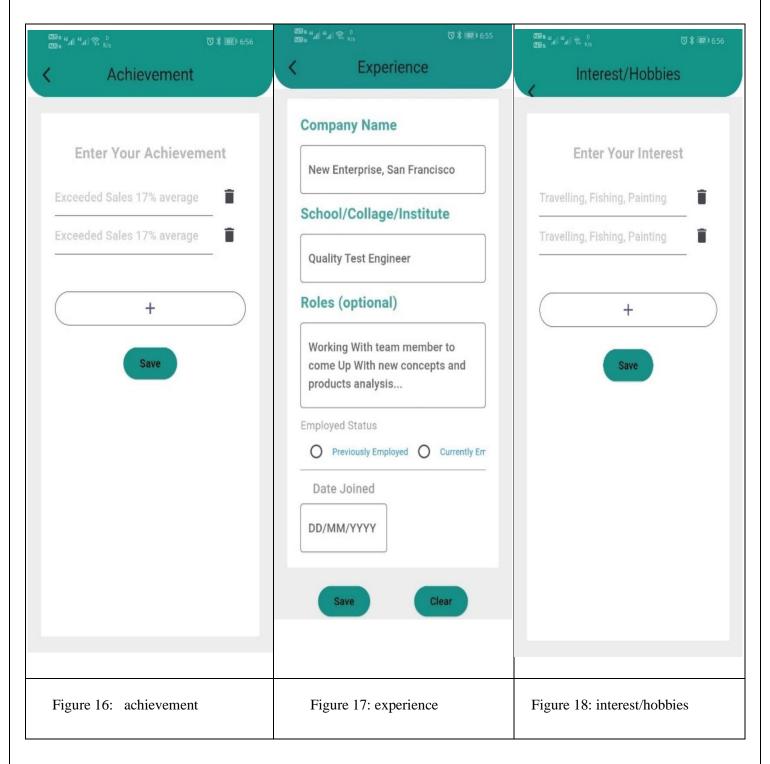
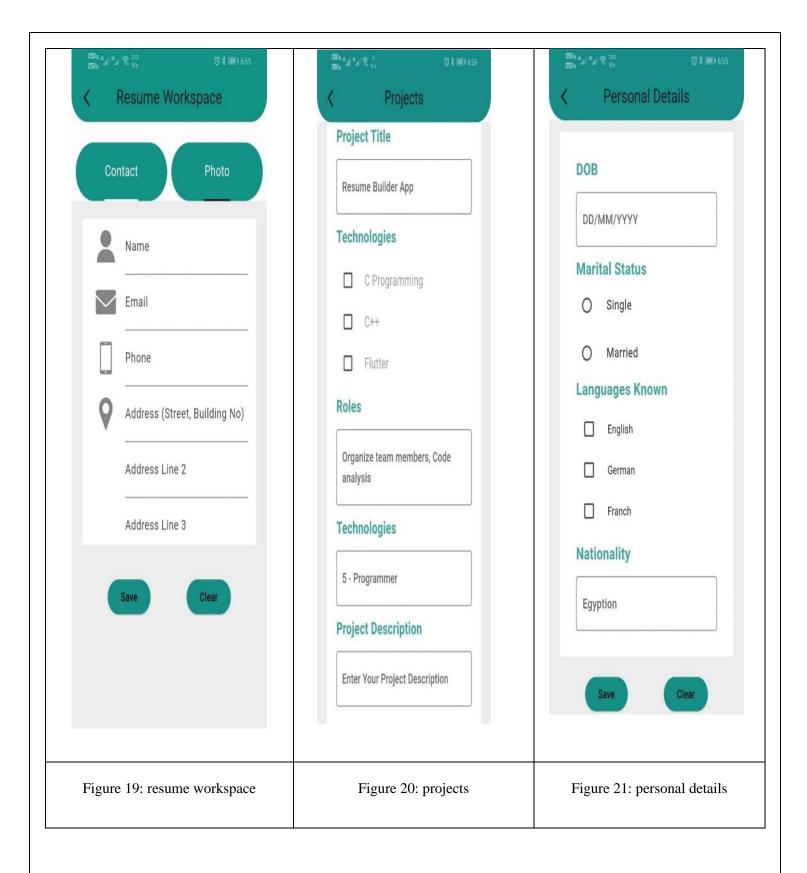


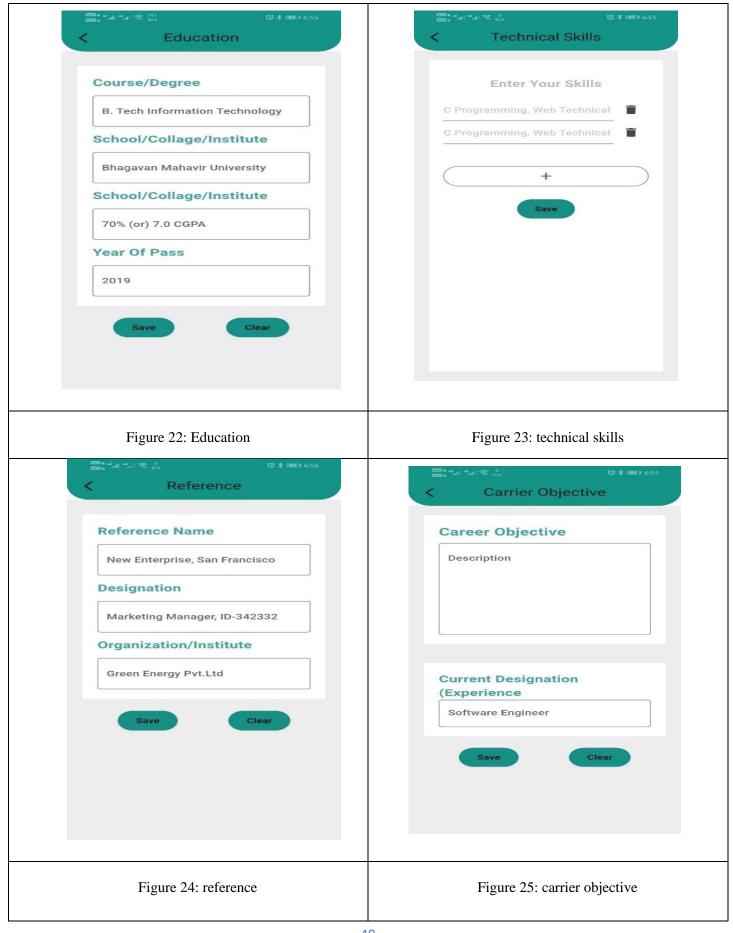
Figure 15: login company

• CV Information

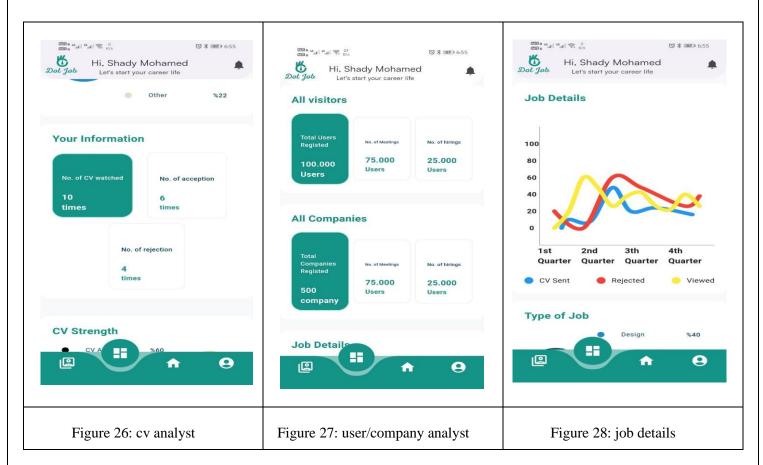
Document that outlines an individual's educational background, professional experience, skills, and other relevant information. It is an essential tool for job seekers to present their qualifications and achievements to potential employers.

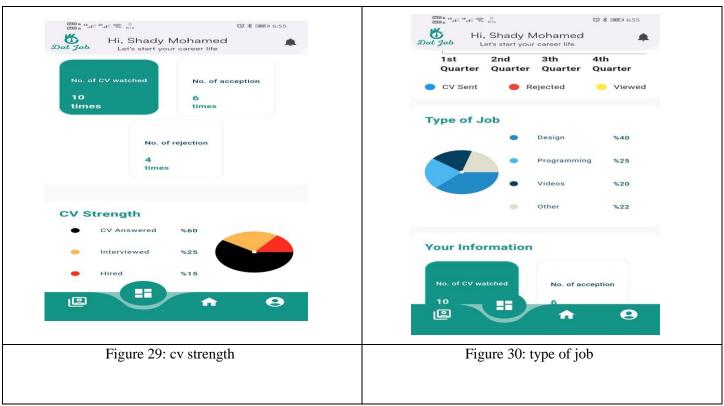






• Dashboard





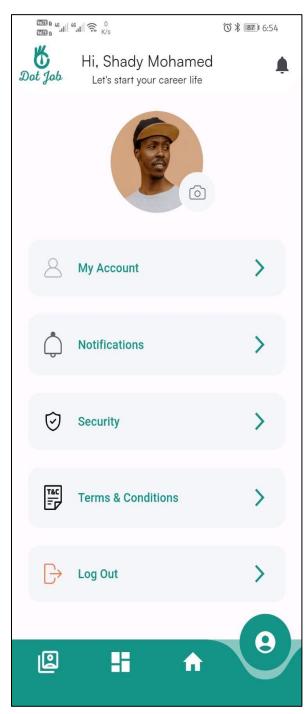


Figure 31: profile user

Profile user

A user profile on the Dot Job platform serves as a comprehensive representation of a job seeker's professional identity and career aspirations. It consolidates personal information, professional experience, skills, and preferences into a structured format that helps users showcase their qualifications effectively to potential employers.

• Export the cv in PDF form

The CV Creator and PDF Exporter is

a user-friendly application designed to help users create professional and visually appealing Curriculum Vitae (CV) effortlessly. The application provides a structured, step-by-step process for inputting personal and professional information, organizing it into a polished CV, and exporting it as a PDF document.

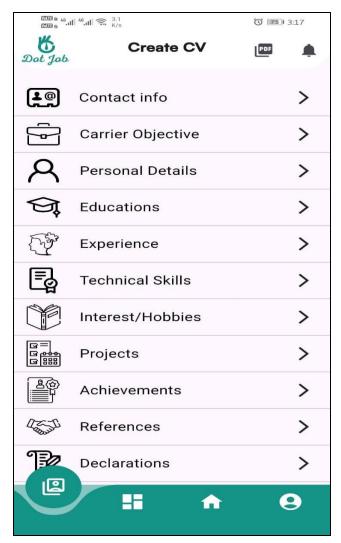


Figure 32: create cv

• Key Features:

- 1. **Intuitive Interface**: The application features an easy-to-navigate interface that guides users through the process of entering their information, ensuring a smooth and efficient experience.
- Structured Data Entry: The application provides fields for all essential CV
 components, including personal details, contact information, work experience,
 education, skills, languages, and additional sections like awards and
 certifications.
- 3. **Real-time Preview**: As users enter their information, they can see a real-time preview of their CV. This feature allows them to make adjustments on the fly and ensures the final document looks exactly as they want.
- 4. **PDF Export**: Once the CV is complete, users can export their document as a high-quality PDF. The export feature ensures that the formatting is preserved, and the CV is ready for printing or digital sharing.

• Benefits:

- Professional Quality: The application helps users create professional-grade CVs without needing advanced design skills.
- Time-Saving: Streamlined data entry and template selection reduce the time and effort required to create a CV from scratch.
- Consistency: Structured templates ensure that all important information is included and presented in a consistent, easy-to-read format.
- Flexibility: Users can update and customize their CVs as needed, ensuring they always have an up-to-date document ready for job applications.

Education

- Bachelor of Computer science, information technology
- Cairo University
- 3
- 2024

Technical Skills

- Operating system knowledge
- Cryptography
- Ethical hacking
- kali linux knowledge
- Strong Communication

Achievement

- cybersecurity specialization certificate
- Penetration testing & Ethical hacking certification

Carrier Objective

- - Protecting Systems
- Mitigating Risks
- Incident Response
- Compliance and Governance
- Continuous Improvement

Designation: cybersecurity engineer

Projects

Title: News cloud

Roles: Make security plan for the project

Technologies: programming

Description: This app is the best app to know any

news in all over the world

Technologies:

- Flutter

Experience

Company Name : Meta company Designation : Penetration tester

Join Date: 25/05/2023



Shady Mohamed

Contact info

- 01235698723
- shady mohamed@gmail.com
- 30 street el-sayed el-badaye

Personal Details

DOB: 19/02/2000 Marital Status: Single Nationality: Egyptian

Language:

- English
- German
- Franch

Interest & Hobbies

- Playing football
- Traveling

Figure 33: CV Example form

• Payment



Figure 34: payment plan details



Figure 35: payment methods



Figure 36: form paypal



Figure 37: paypal payment

4.3: Flow chart

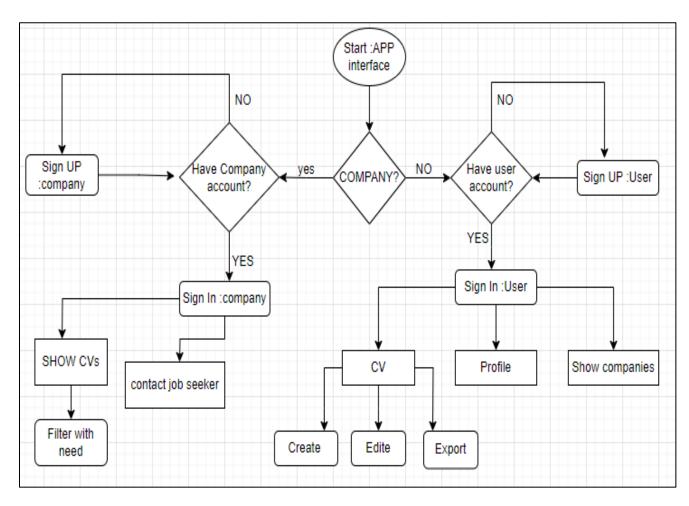
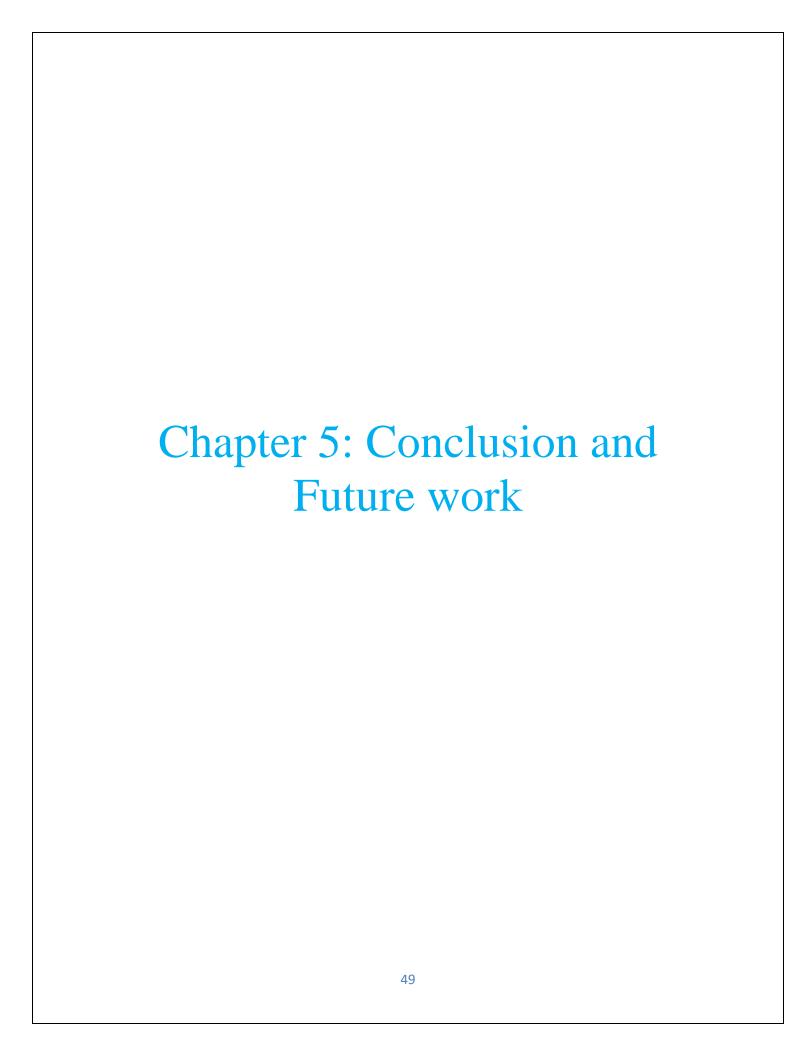


Figure 38: Project flow chart



5.1 Conclusion

The development of the Dot Job platform marks a significant advancement in addressing the challenges faced by job seekers and employers within a large community. By offering comprehensive support and solutions for job applications, the platform facilitates seamless communication, shares valuable insights, and enhances the overall job-seeking and recruitment experience.

The platform's core functionalities, such as user authentication, job exploration, application submission, employer recruitment process, CV management, and payment method integration, are designed to streamline the job search and hiring processes. Non-functional aspects like performance, usability, reliability, security, scalability, compatibility, and maintainability ensure that the platform remains robust, user-friendly, and capable of handling a growing user base.

The technology stack, comprising SQLDB for the database, NodeJS and Express for the backend, and Flutter for the front-end, provides a solid foundation for developing a responsive and efficient platform. These technologies support the platform's aim to deliver a seamless and engaging user experience for both job seekers and employers.

5.2 Future Work

While the Dot Job platform successfully addresses many challenges in the job market, several areas for future development and enhancement have been identified. These include:

1. Employer Recruitment Process:

- Employers should be able to create, manage, and post job openings.
- Employers should have the capability to review applicant profiles and communicate seamlessly with potential candidates.
- Application tracking features for employers to manage the recruitment pipeline effectively.

2. Advanced AI and Machine Learning Integration:

- Implementing AI-driven job matching algorithms to provide more accurate job recommendations for users based on their profiles, preferences, and application history.
- Utilizing machine learning to analyze user behavior and improve the platform's search and filtering capabilities, ensuring more relevant and personalized results.

3. Enhanced User Engagement Features:

- Developing interactive features such as live chat support, virtual career counseling, and
 AI-powered resume review to provide users with immediate assistance and feedback.
- Introducing gamification elements to motivate users to complete their profiles, apply for
 jobs, and participate in community activities.

4. Mobile Application Development:

 Expanding the platform to include a dedicated mobile application for both iOS and Android devices, offering users greater accessibility and convenience in managing their job search on the go.

5. Global Expansion:

- Localizing the platform to support multiple languages and cater to job seekers and employers in different regions, enhancing its usability and reach.
- Partnering with international job boards and recruitment agencies to expand the platform's job listings and candidate pool.

6. Advanced Analytics and Reporting:

- Developing comprehensive analytics and reporting tools for employers to track their recruitment metrics, such as application rates, time-to-hire, and candidate engagement.
- Providing users with detailed insights into their job search activities, helping them refine their strategies and improve their chances of success.

7. Integration with Educational Institutions:

 Establishing partnerships with universities, colleges, and vocational training centers to connect students and recent graduates with job opportunities and internships. Offering career development resources, such as online courses, webinars, and workshops, to enhance users' skills and employability.

8. Enhanced Security Measures:

• Continuously improving security protocols to protect user data and prevent unauthorized access, ensuring the platform remains a safe and trusted environment for all users.

The Dot Job platform has laid a strong foundation for transforming the job search and recruitment landscape. By continuously innovating and expanding its features and capabilities, the platform aims to provide even greater value to job seekers and employers, ultimately contributing to a more efficient and inclusive job market. The envisioned future work will further enhance the platform's effectiveness, reach, and user satisfaction, solidifying its position as a leading solution in the employment ecosystem.

References

- 1. https://stackoverflow.com/
- 2. https://docs.flutter.dev/
- 3. <a href="https://paymob.com/en/online-payment?utm_source=adwords&utm_medium=search_camp&utm_campaign=en_camp&gad=1&gclid=Cj0KCQjw3a2iBhCFARIsAD4jQB3hVagI8Ezcm0Ro9PC4QHX8vrxR7JY28Adm2AqdnoxDrSYP9Ge6xc8aAkBZEALw_wcBhttps://paymob.com/en/online-payment?utm_source=adwords&utm_medium=search_camp&utm_campaign=en_camp&gad=1&gclid=Cj0KCQjw3a2iBhCFARIsAD4jQB3hVagI8Ezcm0Ro9PC4QHX8vrxR7JY28Adm2AqdnoxDrSYP9Ge6xc8aAkBZEALwwcB
- **4.** https://www.udemy.com/course/best-and-complete-flutter-course-for-beginners/learn/lecture/39212406?start=0