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W O R K S H O P 1

R E P O R T

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EXECUTIVE SUMMARY

The StreetJobRecruit System is designed to help job seekers and employers track and organize career opportunities, which will ultimately boost hiring productivity and professional growth. The main headache right now is the scattered and often manual way job data is stored, which creates a messy barrier between talent and companies. Relying on these human-heavy procedures leads to major issues: first, when a huge amount of data is handled through informal social media posts or printed ads, errors like missing details or outdated listings are bound to happen; secondly, manually finding or tracking applications is a total time-sink that results in slow hiring rates and major delays in meeting workforce demand. My goal is to create a centralized recruitment system that is so well-designed that users instantly vibe with how it works. Next, I need to evaluate how well this system facilitates ease of use to identify and fix any vulnerabilities so I can improve on the previous, disorganized performance. This platform allows the database to store all data related to user profiles, job descriptions, and application statuses, where users can add, remove, modify, search, and view data to keep the hiring process moving. Depending on the module, the system offers smart calculation capabilities, such as automatically tracking the total number of applicants per job for the target users: job seekers, employers, and administrators. In conclusion, this initiative is a total productivity cheat code that saves time and money, making data administration easier than ever since the system calculates applicant volume automatically, so staff don't have to stress about it.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Job recruitment platforms are essential digital spaces that provide bridges for individuals looking for employment and companies seeking talent in a competitive market. The primary benefit of the StreetJobRecruit System is that its design allows users to search for and manage career opportunities safely at any time, even when the local job market is disorganized. Therefore, to be able to achieve such things, good facilities must be developed to ensure that users will return to the platform to find work whenever they need it. This will create value for the platform's administrators and the professional ecosystem. Unfortunately, having many job seekers and listings is not enough to attract people if the platform does not have a proper management system.

The StreetJobRecruit System will assist recruitment hubs by managing administrative tasks such as overseeing user accounts and job categories, as well as generating reports for administrators to analyse what happens with their hiring metrics. Next, in this system, the admin can view all user and job advertisement data in the database. As a result, it makes the administrative job much easier to manage.

For employers, they work as a connector between job seekers and the final hiring decision. All applicants will be managed by them, including the registration of job ads and the tracking of submissions. Therefore, employers can also manage the applicants, including searching, viewing, and updating application progress. This will help candidate management stay properly organized. Next, for registered job seekers, they do not need to register their personal details again when they come back because their profile data has been saved in the database. They can go straight to the search listings to make an application.

The purpose of this system development is to improve the efficiency of the hiring process and, at the same time, improve the quality of the recruitment database. With this system in hand, career management will be easy to access, and data can be well organized.

1.2 Problem Statement

Based on my observations, the current way job recruitment is handled still relies heavily on informal social media posts and manual notes, which then must be keyed into basic Excel sheets to keep any kind of record. This manual setup seriously drags down the speed of user registration and makes tracking job applications a total chore. Next, employers are still stuck calculating the total number of applicants per job by hand, which wastes everyone's time and leaves candidates stuck in a long, frustrating hiring queue.

The reporting side of things is also a mess; staff must take data from informal chats or paper notes and key it into spreadsheets just to generate a basic hiring report. This slow workflow is an open invitation for human error, where candidate details get lost, or staff simply forget to key in data they previously wrote down.

As for the solution, the recruitment process needs a dedicated system that provides an organized inventory of users, job postings, and applications, while also handling the heavy lifting of calculating applicant totals automatically. By moving everything into a centralized database, the system will cut out these time-consuming manual tasks and kill off human error. This will result in professional, high-quality recruitment reports that give employers and job seekers the clear data they need.

1.3 Objective (s) of the project

This project embarks on the following objectives:

1. To implement **3** modular functionalities with **CRUDS** (Create, Read, Update, Delete, Search) database management for the **StreetJobRecruit System**:
 - **User Management Module** to manage job seeker and employer information.
 - **Job Posting Module** to allow employers to create and manage job advertisements.
 - **Job Application Module** to enable job seekers to apply for and track job applications.

2. To implement **complex calculations**, including the **total number of applicants per job**, to support decision-making and data analysis.
3. To develop **analytical reports** for the **StreetJobRecruit System**, including application summaries, job posting statistics, and user activity reports to provide valuable insights for employers and job seekers.

1.4 Scope

1.4.1 Modules to be developed

a) User Management Module

- This module manages the professional identities and profiles of all platform participants, including job seekers, employers, and administrators.
- It provides secure registration and login functionalities to ensure data privacy and authorized access control.
- Users can maintain and update their personal or company information, such as contact details and professional skills, through a centralized interface.

b) Job Posting Management Module

- This module empowers employers to oversee the full lifecycle of their job advertisements within the system.
- It includes comprehensive tools to create new job posts, modify existing listing details, and remove outdated or filled positions.
- The module ensures all job data is well-organized by utilizing standardized categories for skills, salaries, and requirements.

c) Job Application Management Module

- This module facilitates the direct connection between talent and opportunity by managing the submission workflow.
- Job seekers can submit digital applications and monitor their progress through real-time statuses like "Pending," "Shortlisted," or "Hired."

- Employers utilize this module to review candidate profiles and update application statuses to keep the hiring process transparent.

d) Report Generation & Analytics Module

- This module focuses on high-level data analysis to improve recruitment productivity and provide system insights.
- It performs complex calculations, such as automatically determining the total number of applicants for each specific job posting.
- The system generates various analytical reports, including hiring trends and application summaries, to support data-driven decision-making.

1.4.2 Target User

a) Job Seekers

- These are the users looking for their next career move and a break from the stress of disorganized job boards.
- They can build out digital profiles, showcase their actual skills, and browse centralized listings without ever touching a piece of paper.
- Their main role is to apply for jobs and track their application status in real-time, so they aren't left in the dark.

b) Employers

- They act as the vital bridge between the company's needs and the incoming talent pool.
- Employers handle the heavy lifting of dropping job ads, reviewing candidate profiles, and updating hiring statuses like "Shortlisted" or "Hired".
- Using this system helps them kill off the manual spreadsheet grind and keep their recruitment pipeline perfectly organized.

c) Administrators

- These are the system MVPs responsible for keeping the whole platform running smoothly and safely.

- They oversee all user accounts, check on system-wide statistics, and generate the heavy-hitting analytical reports.
- Their goal is to ensure the data stays organized and the system continues to boost productivity for everyone involved.

1.5 Project Significance

a) Centralized Job Access

- The system provides a unified digital hub that eliminates the need for job seekers to hunt through scattered and unreliable social media posts.
- It ensures that career opportunities are easily accessible and transparent for all users through a user-friendly online platform.

b) Enhanced Hiring Efficiency

- a) By automating the application and tracking process, the system significantly reduces the time and effort required for job seekers to find employment.
- b) Employers benefit from a systematic way to manage postings and applicants, which speeds up the entire recruitment cycle.

c) Elimination of Manual Errors

- The platform kills off outdated paper-based applications and informal communication methods that lead to data loss.
- Moving to a centralized database ensures that recruitment data is accurate, organized, and free from common human errors.

d) Data-Driven Decision Making

- The system provides valuable insights through automated calculations, such as tracking the volume of applicants per job listing.

- Administrators and employers can use analytical reports to evaluate hiring effectiveness and professional trends within the ecosystem.

e) **Empowerment for Students and Graduates**

- This project specifically bridges the gap between education and employment by providing a reliable starting point for fresh talent.
- It motivates the development of digital solutions that support long-term career growth and professional connectivity.

1.6 Gantt Chart of Project Activities

Process	Week 1-2	Week 3-4	Week 5-8	Week 7	Week 9-11	Week 12-14	Week 15
Preparation & Submission							
Analysis & Design							
Progress 1 (CRUDS Module Development)							
Mid-Semester Break							
Progress 2 (Complex Calculation Module Development)							
Progress 3 (Report Generation Module Development)							
Final Report Writing, Presentation & Submission							

Figure 1.6.1 Gantt Chart of Project Activities

CHAPTER 2: ANALYSIS OF PROBLEM

2.1 Problem Decomposition Description

Problem	Solution
Job seekers struggle to find suitable jobs because information sources are scattered and outdated.	Develop a centralized StreetJobRecruit System that allows job seekers to easily browse and search for available job opportunities on the platform.
Employers find it hard to manage several job postings and review applicants effectively.	Implement a Job Posting Management Module that enables employers to add, update, delete, and search job listings within the system.
Job seekers cannot check the status of their job applications after they apply.	Develop a Job Application Tracking Module that allows job seekers to monitor their application progress.
There is no precise analysis of job postings and hiring practices.	Integrate a Data Analysis and Report Generation Module to summarize the total applicants.

Table 2.1.1 ANALYSIS OF PROBLEM

2.2 Structured Chart

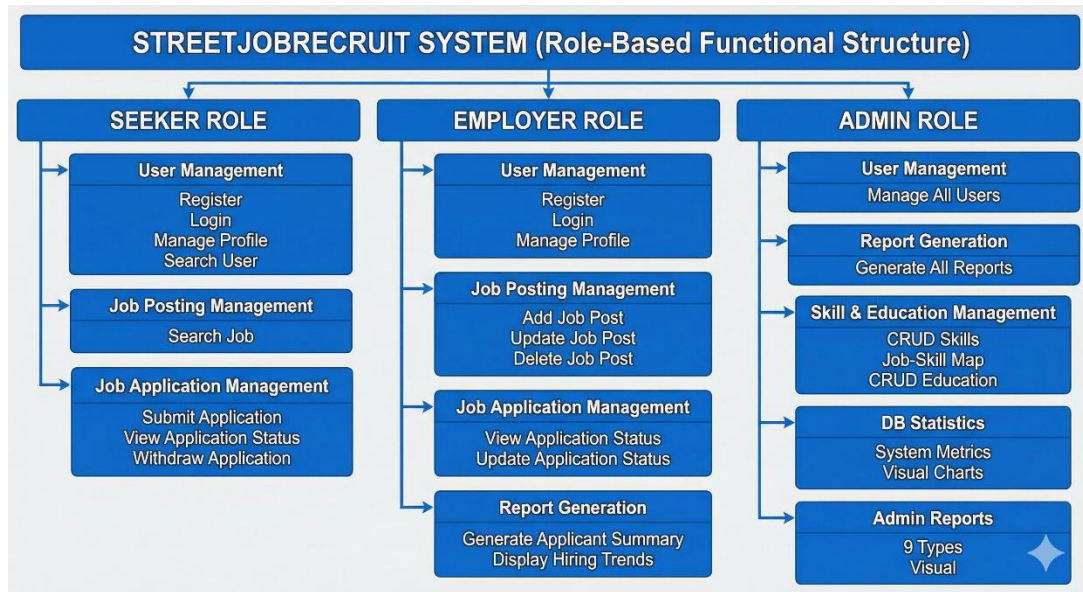


Figure 2.2.1 Structured Chart

CHAPTER 3: DESIGN

3.1 Business Rules

a) User Management Module

Identity Uniqueness: Every user must register with a unique email and ID to prevent duplicate accounts and data confusion.

- **Role-Based Access:** Users must select a role—Job Seeker, Employer, or Administrator—upon registration, which strictly defines the features they can access.
- **Profile Integrity:** A profile must contain valid contact information and skills before a seeker can apply for jobs or an employer can drop a listing.

b) Job Posting Management Module

- **Ownership Lockdown:** Employers are only allowed to modify or delete job advertisements that they personally created.
- **Requirement Validation:** New job posts must include a title, description, and salary range to ensure job seekers have the full context before applying.
- **Listing Expiry:** Once a job is marked as "Filled" or is deleted by the employer, it must be removed from the public search view immediately.

c) Job Application Management Module

- **Single Submission:** To keep things fair and spam-free, a job seeker is limited to one application per specific job listing.
- **Status Authority:** Only the employer who posted the job has the permission to update the application status, moving candidates from "Pending" to "Shortlisted" or "Hired" .
- **Withdrawal Rights:** Job seekers can withdraw their applications at any time, which

automatically updates the employer's applicant count and removes the record from active tracking.

d) **Report Generation Module**

- **Data Synchronization:** All analytical reports must be generated from live database data to ensure the statistics match the actual system activity.
- **Calculation Accuracy:** Complex calculations, such as the total number of applicants per job, must be performed automatically by the system to eliminate manual math errors.
- **Admin Oversight:** While employers can see their own hiring trends, only Administrators have the global authority to generate system-wide user activity reports.

3.2 Flowchart

3.2.1 System Flowchart

Figure 3.2.1.2 illustrates the operational flow of the system for each user role. Upon system initialization, the main menu is displayed, providing access to the Admin, Employer, Seeker, and Exit menus. If the Admin menu is selected, the user must undergo authentication via a unique username and password to access administrative functions. Similarly, Employers and Seekers are required to enter their credentials to access their respective functional modules. The Exit menu provides a secure termination of the system session.

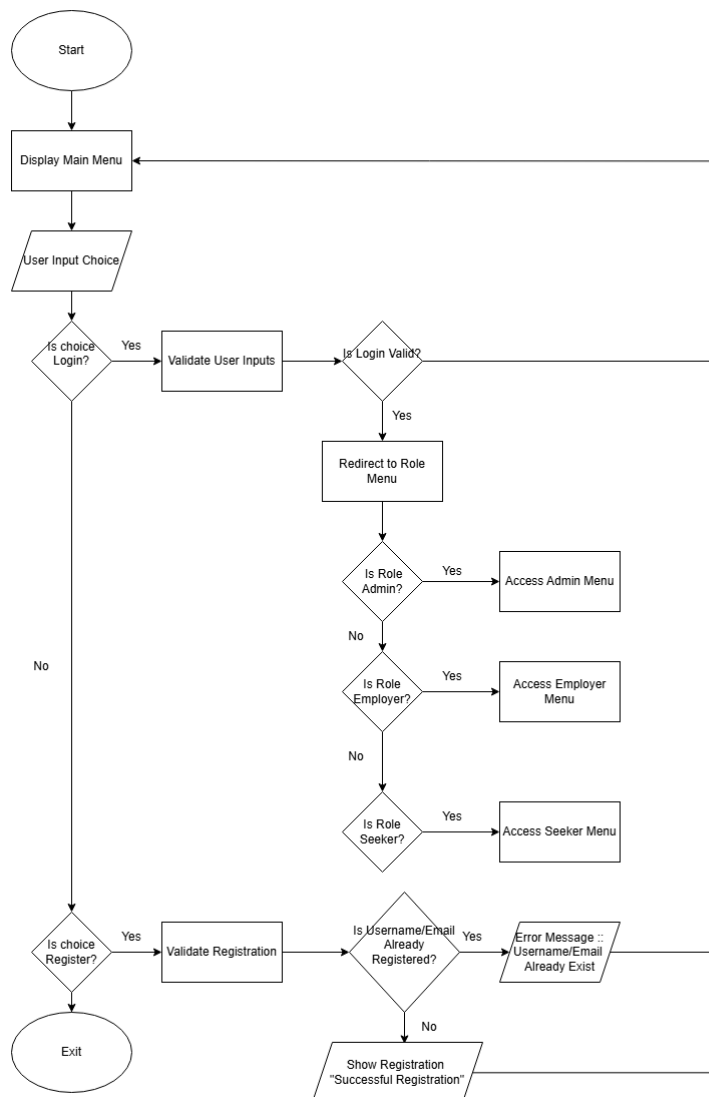


Figure 3.2.1.1 System Flowchart

3.1.1 Seeker Flowchart

Figure 3.2 illustrates the operational flow within the Seeker Module of the system. Upon successful authentication, the user is directed to the Seeker Main Menu, which provides access to Profile Management, Job Search, and Application Tracking functionalities. The Profile Management section enables the user to update personal credentials and professional summaries, while the Job Search interface allows for the filtering and identification of available career opportunities. Additionally, the Application Tracking feature provides real-time visibility into the status of submitted applications. Selecting the logout option secures the user's data and returns the system to the initial authentication screen.

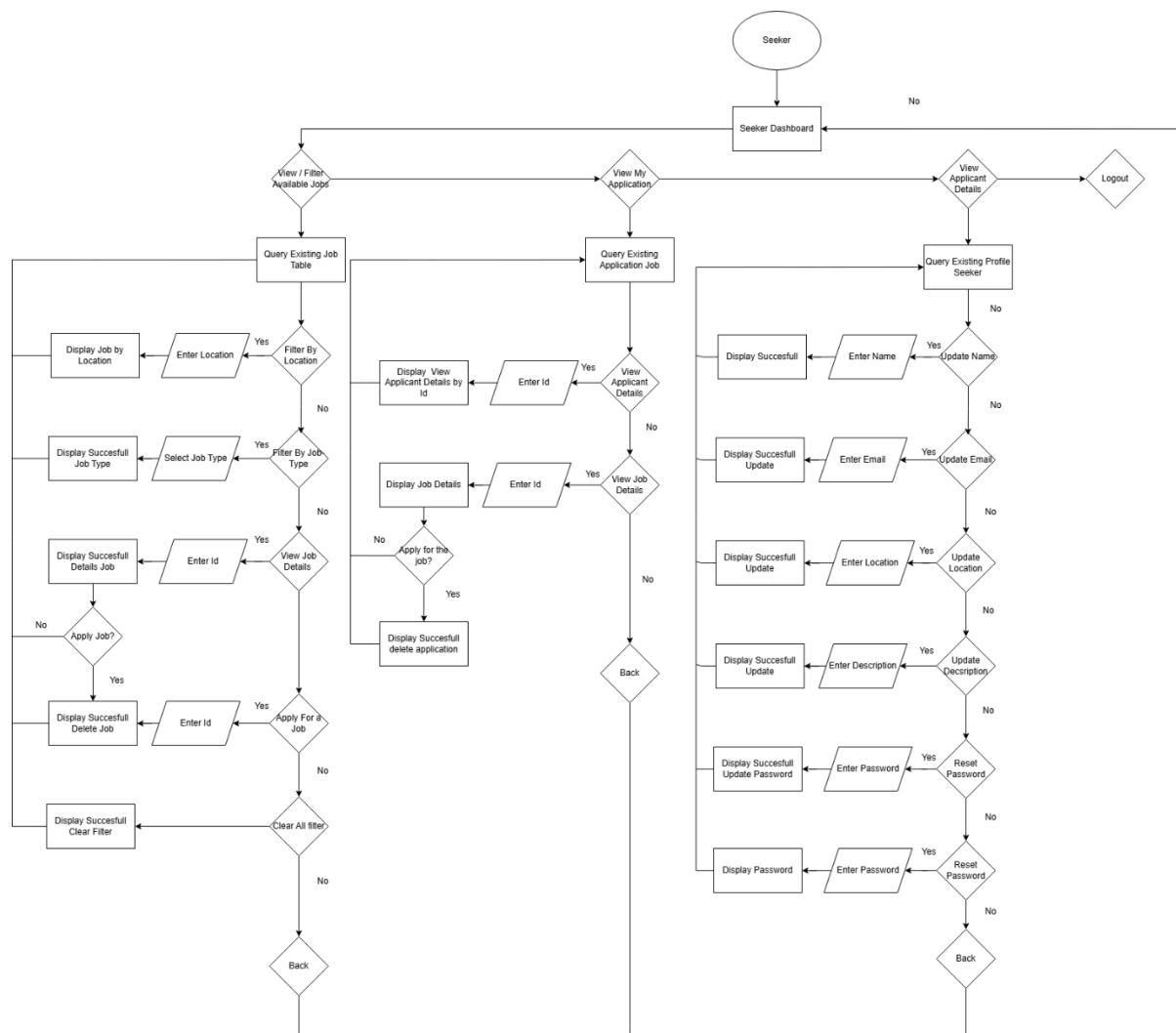


Figure 3.1.1.1 Seeker Flowchart

3.1.2 Employer Flowchart

Figure 3.1.2.1 illustrates the operational flow of the Employer Module within the system. Following successful authentication, the user is directed to the Employer Main Menu, which facilitates the management of job vacancies and candidate applications. This module allows the employer to perform essential operations on job postings, including adding new listings, updating details, or deleting outdated advertisements. Furthermore, the Applicant Management interface enables the employer to review all submitted applications and update their hiring status in real-time. The logout functionality ensures the secure termination of the session and redirects the user to the main authentication screen.

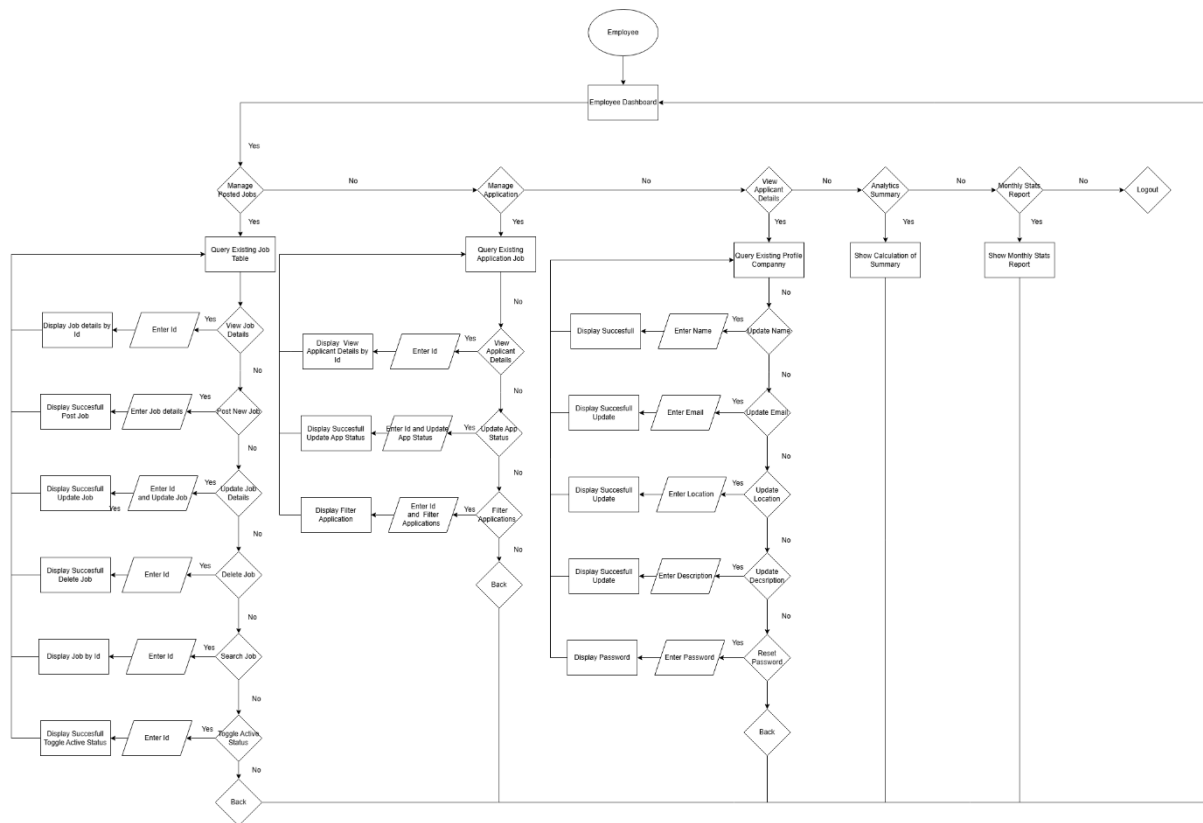


Figure 3.1.2.1 Employer Flowchart

3.1.3 Admin Flowchart

Figure 4.3 illustrates the operational flow of the Admin Module within the system. After the administrator successfully logs in, the system displays the Admin Main Menu, which provides high-level oversight and maintenance of the platform. Key functionalities include User Management, where the administrator can monitor and search the database for all system accounts to ensure data integrity. Additionally, the Report Generation interface facilitates the creation of comprehensive analytical summaries regarding system activity, user statistics, and recruitment trends. Selecting the logout option secures the administrative interface and returns the system to the initial login page.

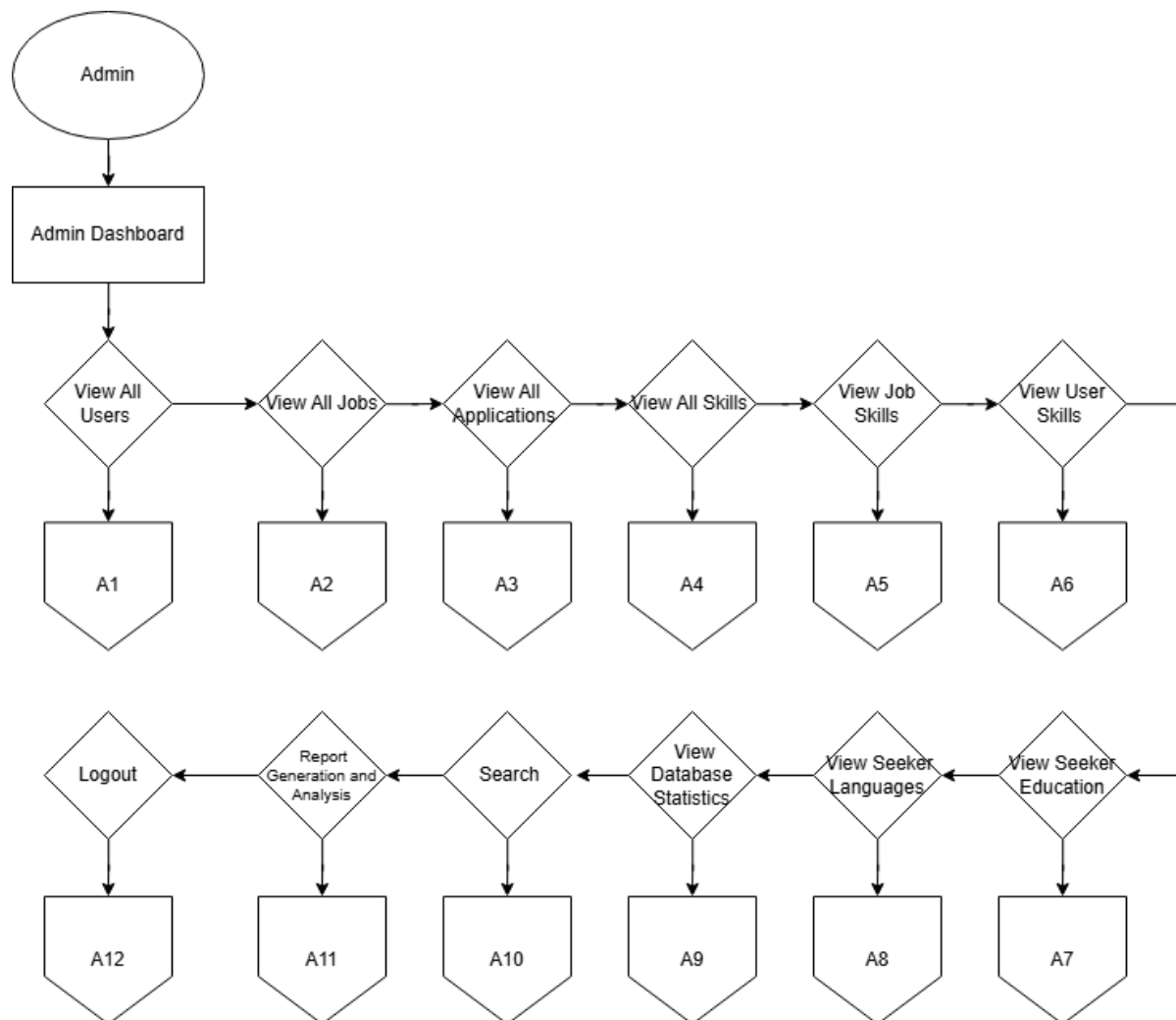


Figure 3.1.3.1Admin Menu

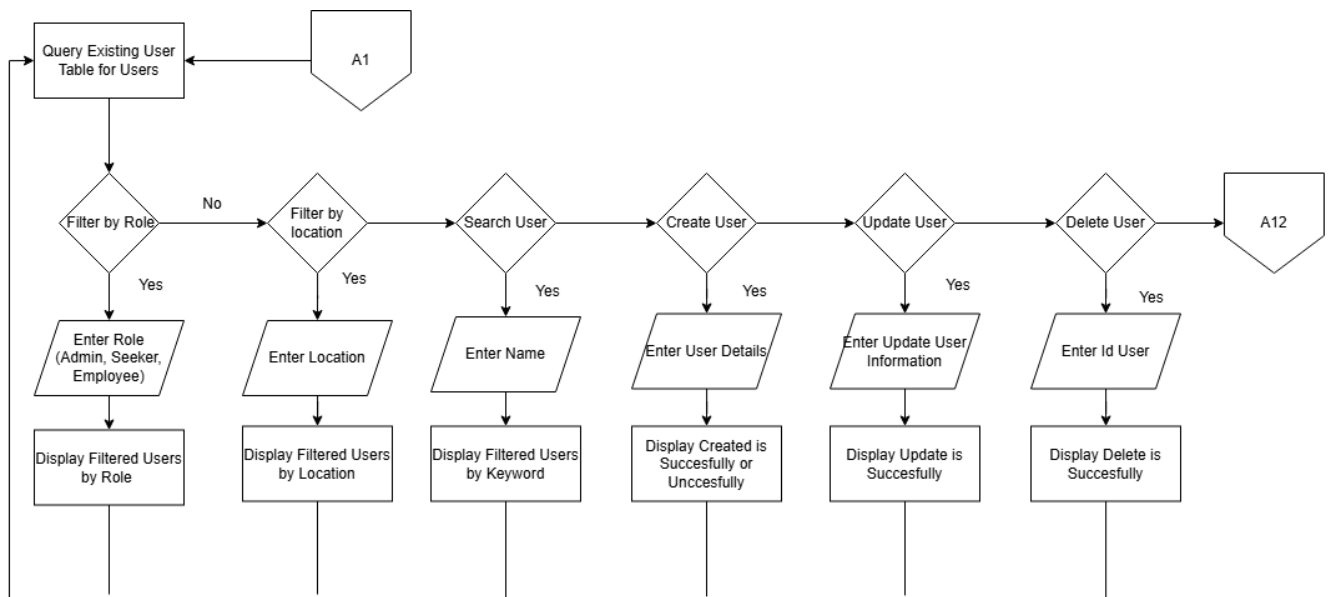


Figure 3.1.3.2 Admin View All Users

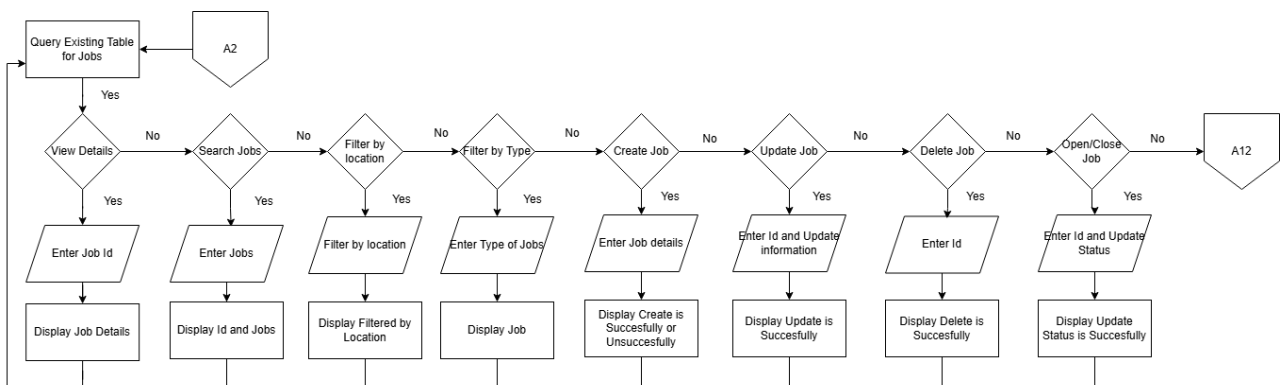


Figure 3.1.3.3 Admin View All Jobs

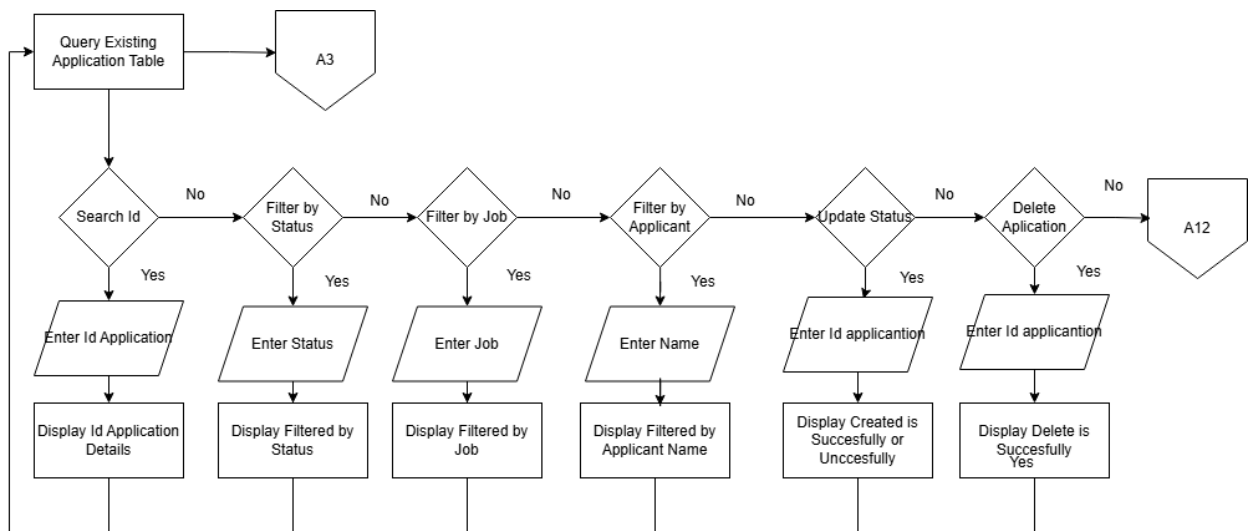


Figure 3.1.3.4 Admin View All Applications

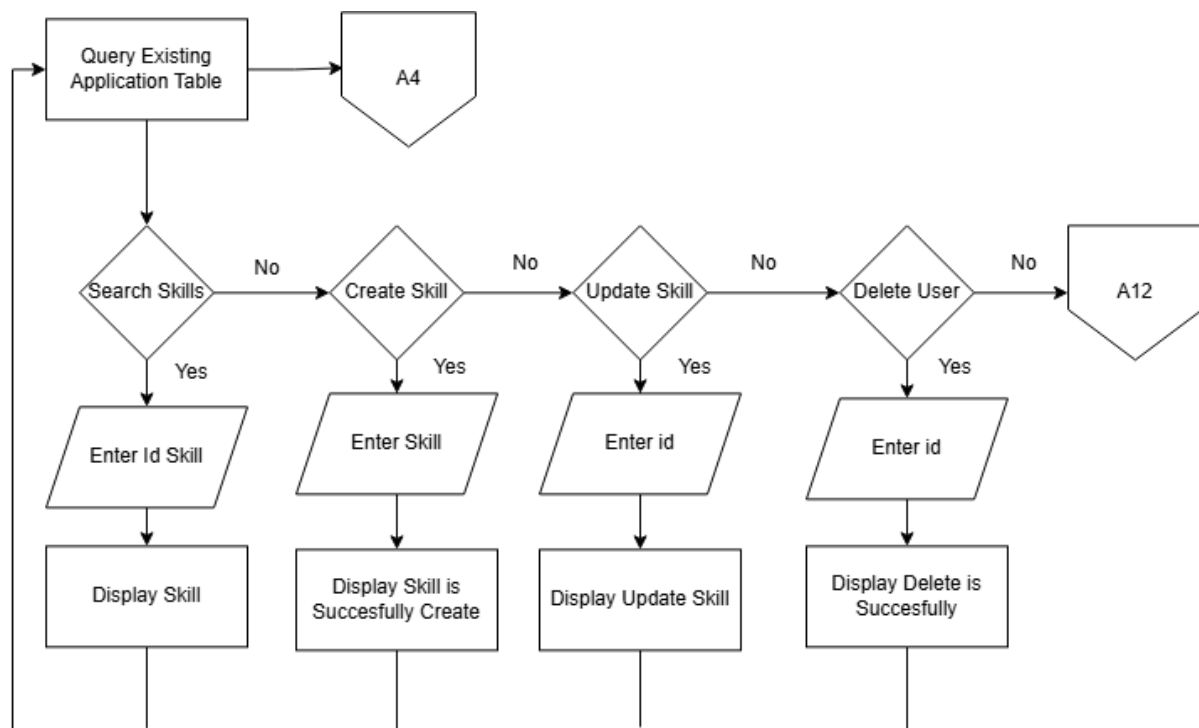


Figure 3.1.3.5 Admin View All Skills

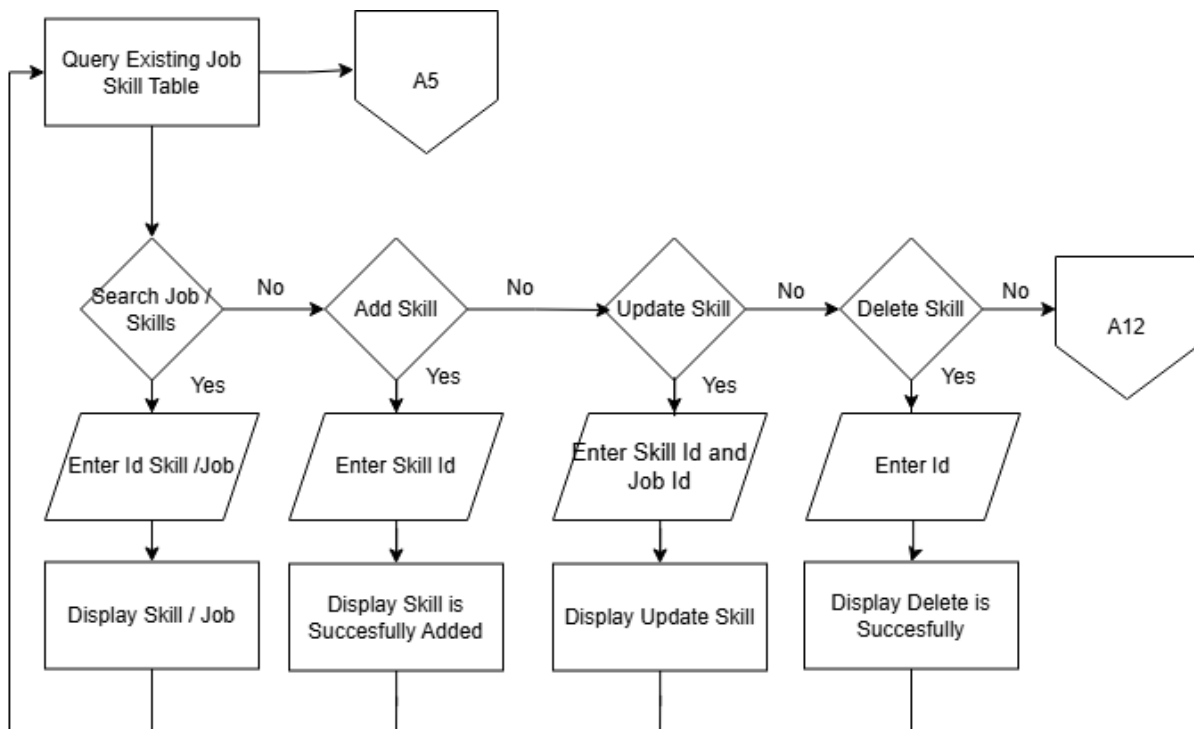


Figure 3.1.3.6 Admin View Job Skills

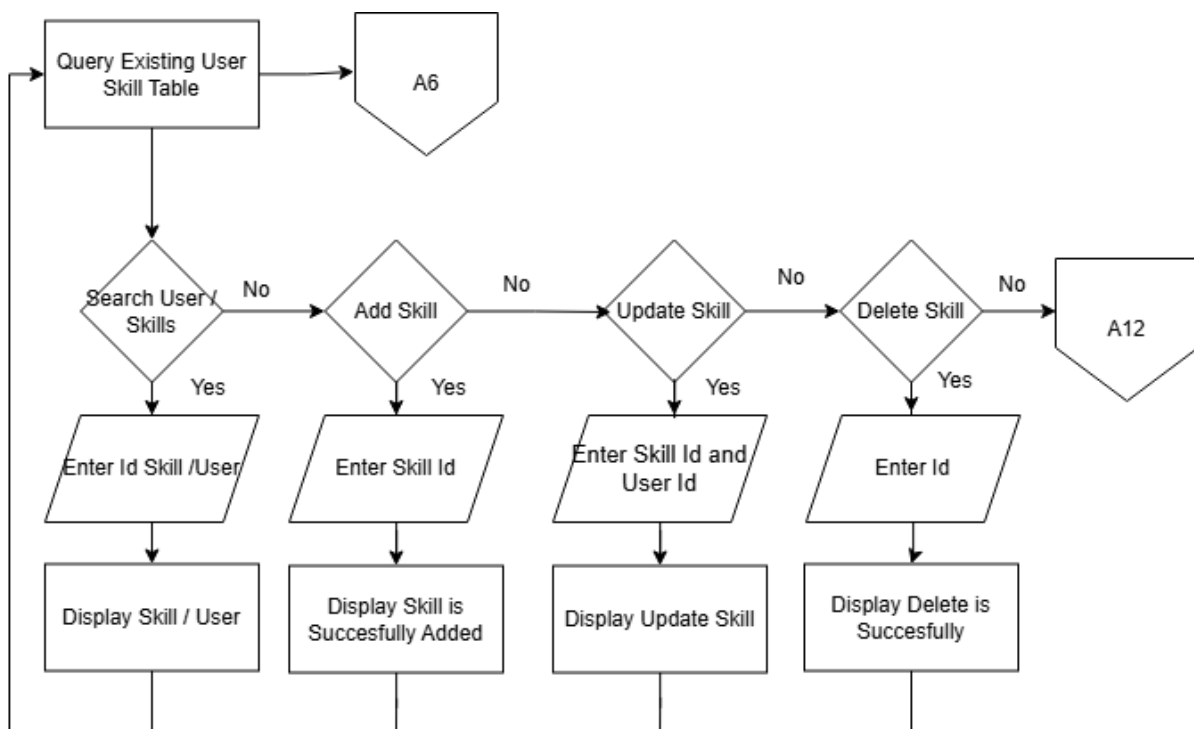


Figure 3.1.3.7 Admin View User Skills

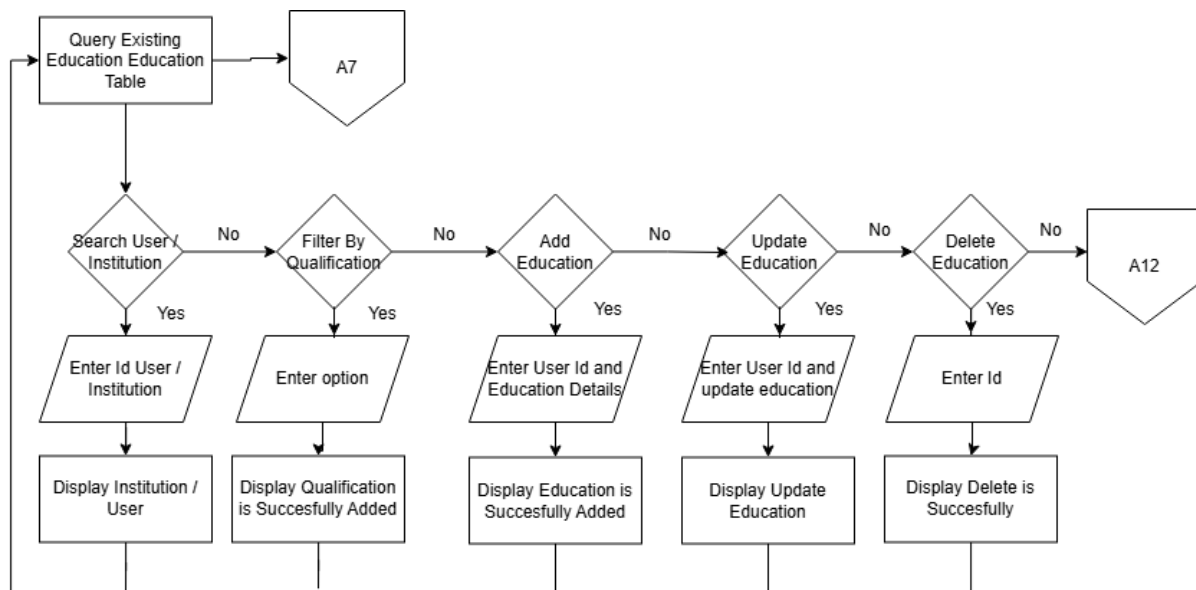


Figure 3.1.3.8 Admin View Seeker Education

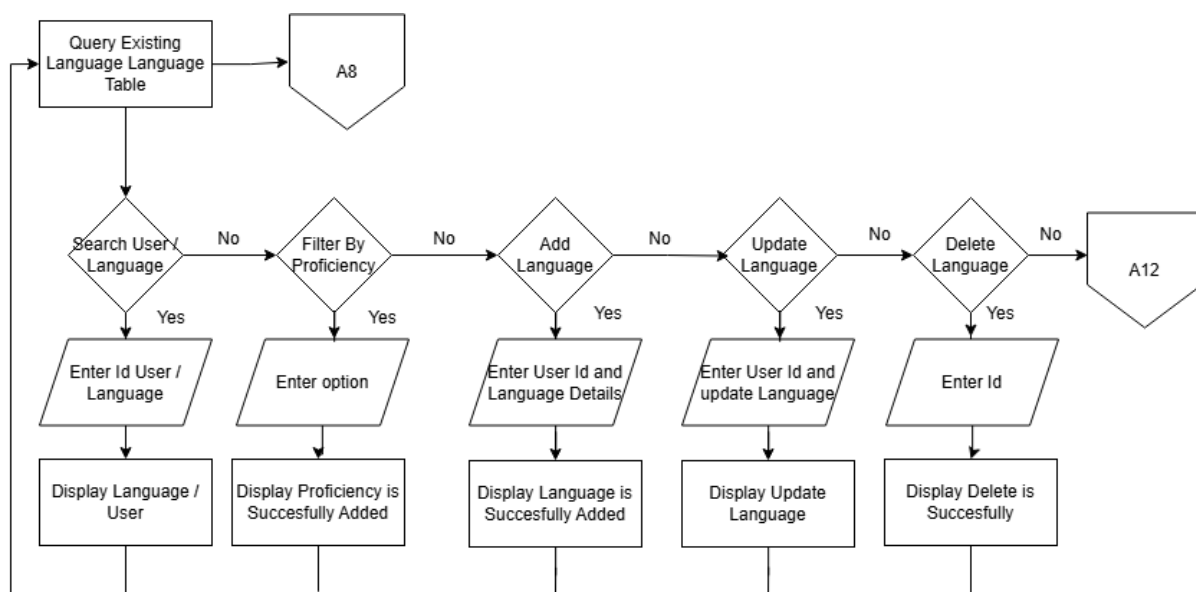


Figure 3.1.3.9 Admin View Seeker Languages

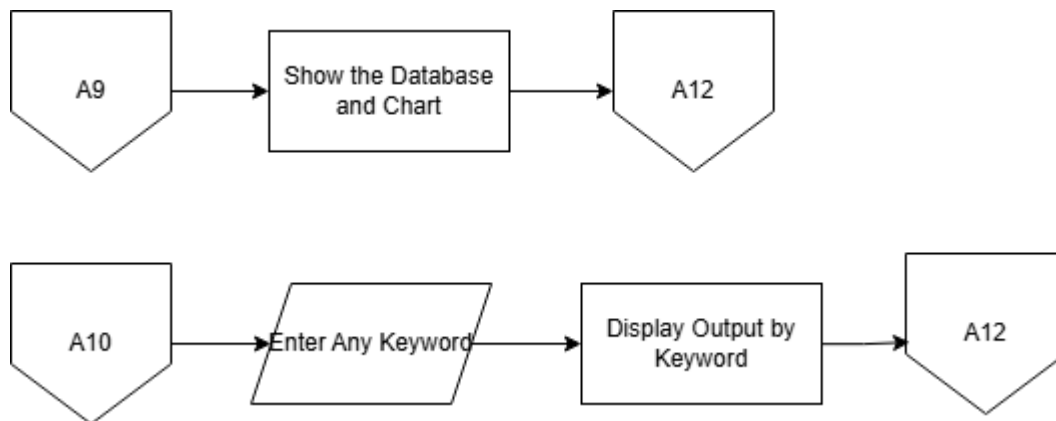


Figure 3.1.3.10 Admin View Database Statistics and Search

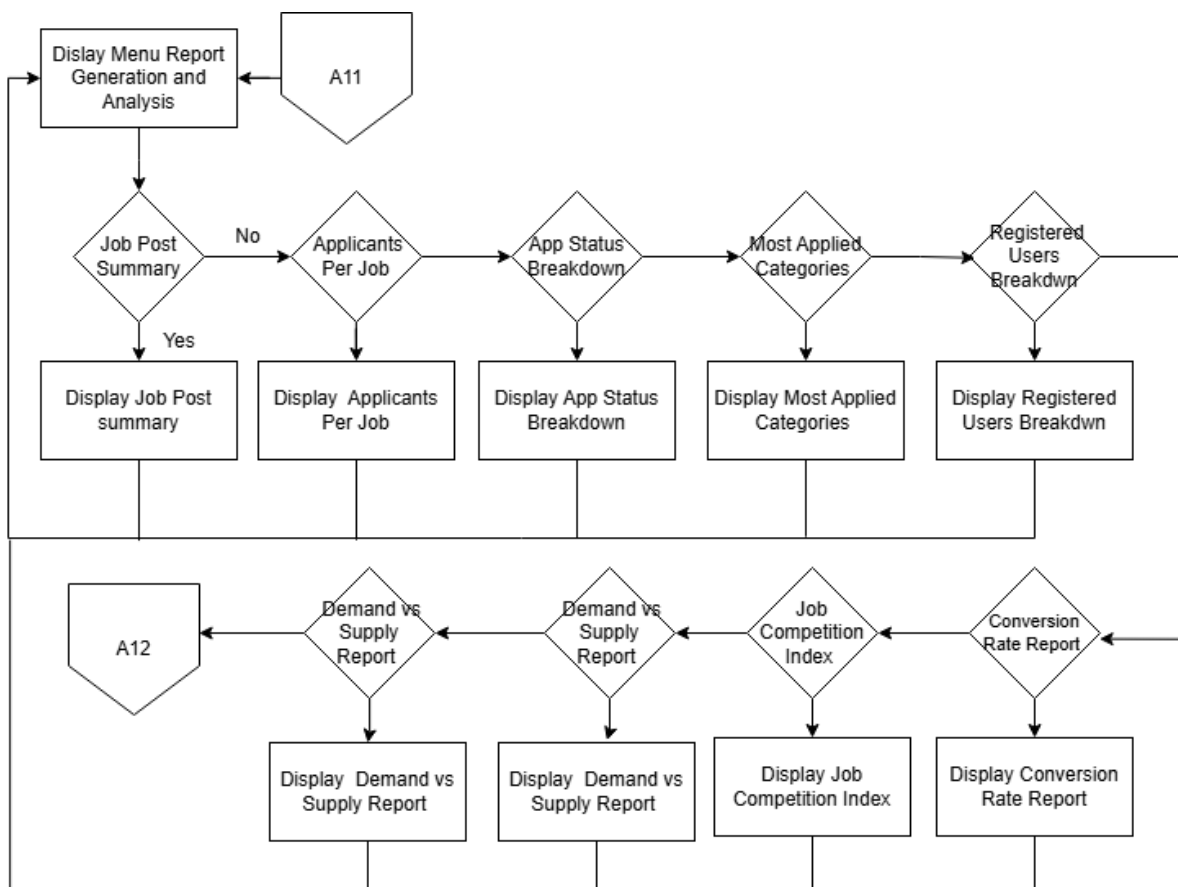


Figure 3.1.3.11 Admin Report Generation

3.3 ERD

Figure 3.3.1 illustrates the database architecture for the StreetJobRecruit System. The diagram defines the entities, attributes, and the relational constraints that ensure data integrity across the platform.

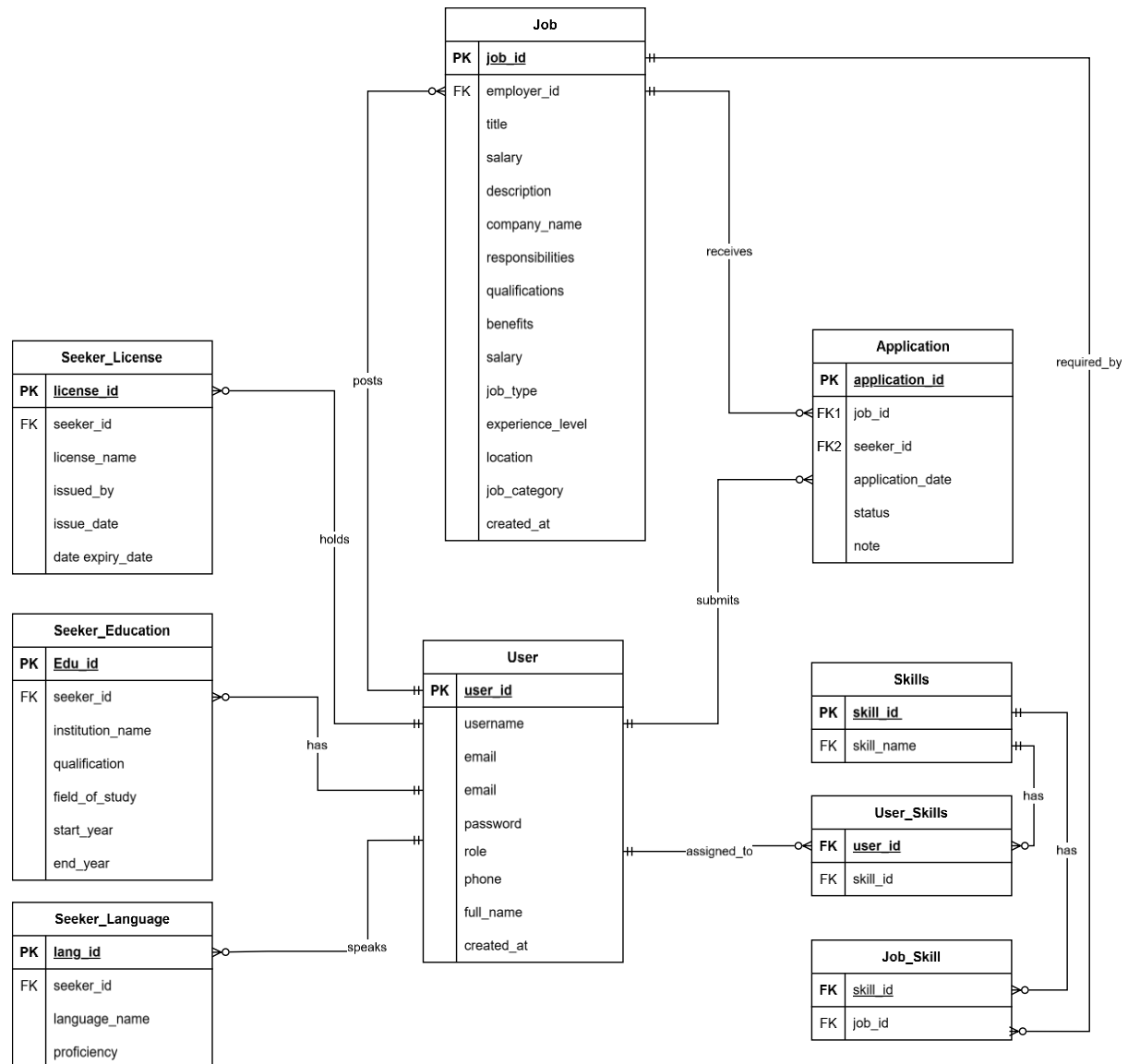


Figure 3.3.1 ERD

3.4 Data Normalization

The data normalization process for the StreetJobRecruit System is a systematic approach to organizing the database to minimize redundancy and eliminate data anomalies. By refining the structure into smaller, logically related tables, the system ensures that every piece of data is stored in only one place, thereby improving data integrity and query performance. The process follows a progression from an unnormalized state to the Third Normal Form (3NF), which is the standard for professional-grade relational databases.

Stage	Action Taken	Result for StreetJobRecruit System
UNF (Unnormalized Form)	Collection of all data (User info, Job details, Skills, Education) in one large table with repeating groups.	High redundancy: updating an employer's email requires changing every row containing their job posts.
1NF (First Normal Form)	Removed repeating groups and ensured all attributes contain atomic (single) values. Defined Primary Keys for each record.	Attributes like "Skills" (e.g., 'Java, SQL') are broken down into individual records so each cell contains only one value.
2NF (Second Normal Form)	Removed partial functional dependencies by ensuring all non-key attributes depend on the whole Primary Key.	Created separate tables for users , jobs , and applications . A job title now only depends on the job_id, not on the user details.
3NF (Third Normal Form)	Eliminated transitive dependencies by moving non-key attributes that depend on other non-key attributes into specialized tables.	Extracted details into skills , seeker_education , seeker_language , and seeker_license . This ensures every field depends ONLY on the Primary Key.

Table 3.4.1 Data Normalization

3.5 Data Dictionary

Field Name	Data Type	Length	Constraint	Description
user_id	Integer	10	Primary Key	Unique identifier for each user.
username	Varchar	50	Unique, Not Null	The login name used for authentication.
email	Varchar	100	Unique, Not Null	The user's primary contact email address.
password	Varchar	8	Not Null	Encrypted password string for security.
role	Varchar	15	Not Null	Defines user type (Admin, Employer, Seeker).

Table 3.5.1 User

Field Name	Data Type	Length	Constraint	Description
job_id	Integer	10	Primary Key	Unique identifier for the job post.
employer_id	Integer	10	Foreign Key	Links the job to the specific User (Employer).
job_title	Varchar	100	Not Null	The official name of the position.
salary	Decimal	10,2	Optional	The offered compensation amount.
job_location	Varchar	100	Not Null	The geographic location of the role.

Table 3.5.2 Job

Field Name	Data Type	Length	Constraint	Description
application_id	Integer	10	Primary Key	Unique identifier for the application record.
seeker_id	Integer	10	Foreign Key	Links to the User (Seeker) applying.
job_id	Integer	10	Foreign Key	Links to the specific Job being applied for.
apply_date	Date	-	Not Null	The timestamp of when the application was sent.
status	Varchar	20	Default: 'Pending'	Current state (Pending, Shortlisted, Hired).

Table 3.5.3 Application

Field Name	Data Type	Length	Constraint	Description
user_id	Integer	11	Primary Key, Foreign Key	ID of the seeker possessing the skill.
skill_id	Integer	11	Primary Key, Foreign Key	ID of the skill associated with the user.

Table 3.5.4 User Skill

Field Name	Data Type	Length	Constraint	Description
job_id	Integer	11	Primary Key, Foreign Key	ID of the job listing.
skill_id	Integer	11	Primary Key, Foreign Key	ID of the skill required for the job.

Table 3.5.5 Job Skill

Field Name	Data Type	Length	Constraint	Description
edu_id	Integer	11	Primary Key, Auto-Increment	Unique identifier for the education record.
seeker_id	Integer	11	Foreign Key	ID of the seeker this record belongs to.
qualification	Varchar	100	Not Null	The level of education attained (e.g., Degree, SPM).

Table 3.5.6 Seeker Education

Field Name	Data Type	Length	Constraint	Description
lang_id	Integer	11	Primary Key, Auto-Increment	Unique identifier for the language record.
language_name	Varchar	10	Not Null	The name of the language.
proficiency	Enum	-	Not Null	Level of command ('Basic', 'Fluent', 'Native').
Field Name	Data Type	Length	Constraint	Description
license_id	Integer	11	Primary Key, Auto-Increment	Unique identifier for the license record.
seeker_id	Integer	11	Foreign Key	ID of the seeker holding the license.
license_name	Varchar	100	Not Null	The title of the professional license or certificate.

Table 3.5.7 Seeker Language

Field Name	Data Type	Length	Constraint	Description
license_id	Integer	11	Primary Key, Auto-Increment	Unique identifier for the license record.
seeker_id	Integer	11	Foreign Key	ID of the seeker holding the license.
license_name	Varchar	100	Not Null	The title of the professional license or certificate.

Table 3.5.8 Seeker License

3.6 Interface Design

3.6.1 Menu Login

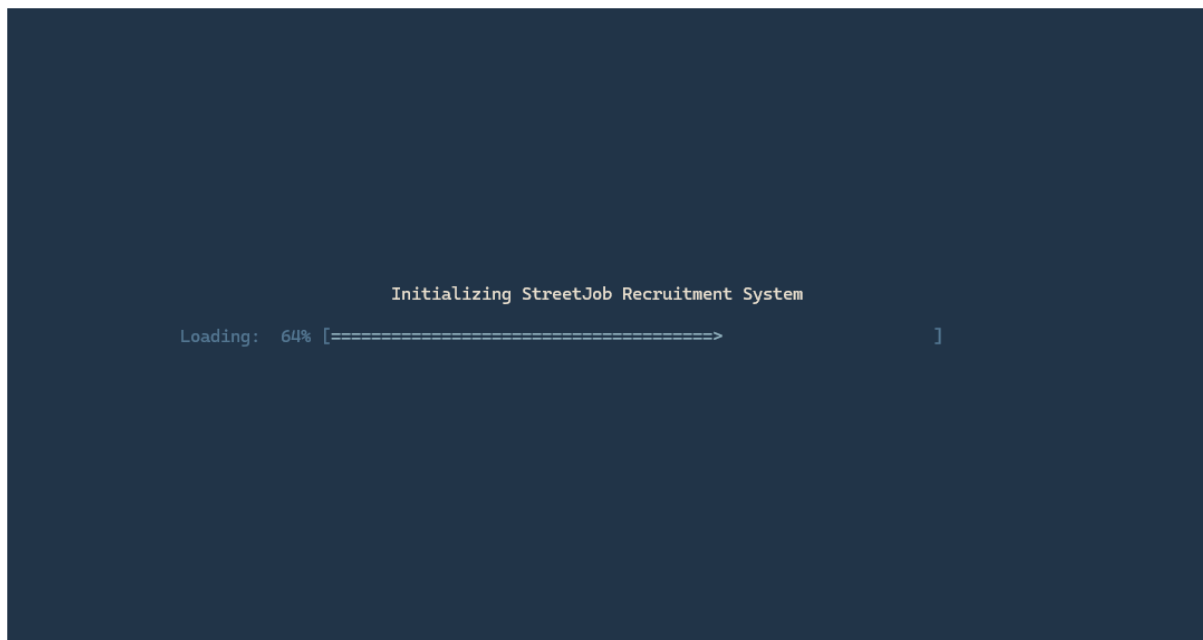


Figure 3.6.1.1 Loading Menu Interface

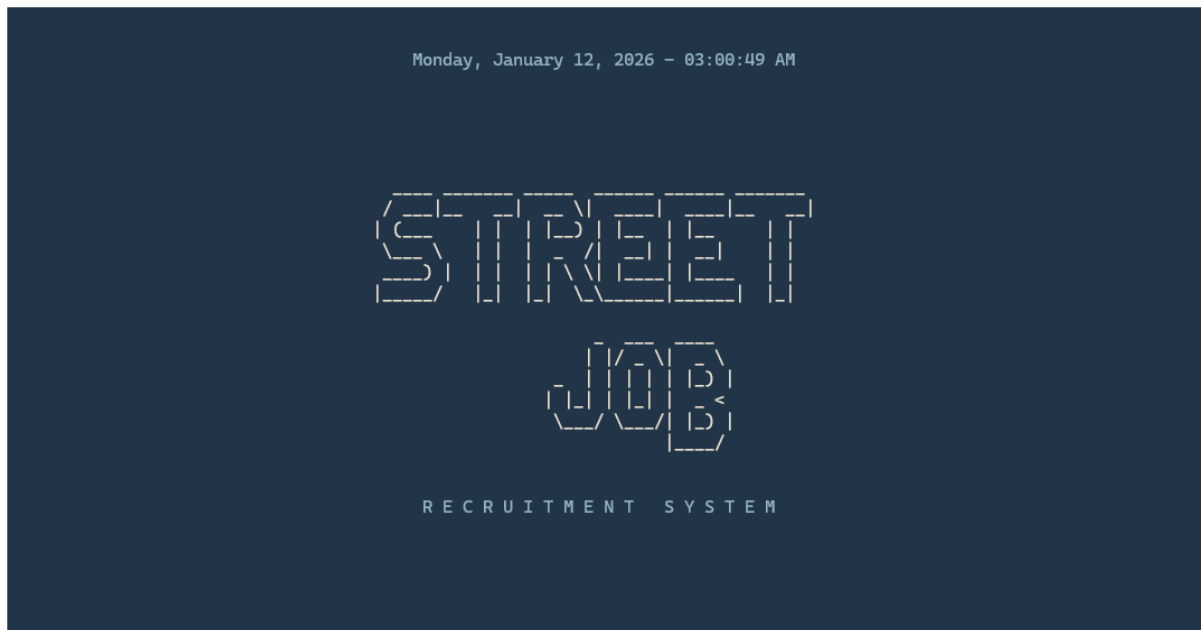


Figure 3.6.1.2 Menu Welcome

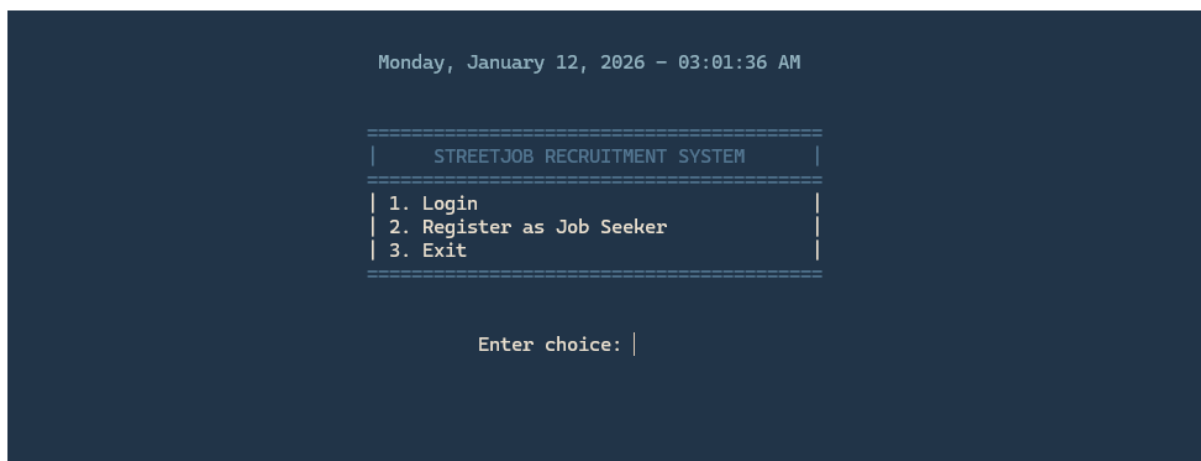


Figure 3.6.1.3 Menu

```
Monday, January 12, 2026 - 03:01:57 AM

=====
| NEW SEEKER REGISTRATION |
=====

Full Name: Muhammad Fikri bin Firdaus
Username: Fikri
Password (max 8 chars):

Error: Password cannot be empty!
Password (max 8 chars): *****
Email: Fikri5566@gmail.com
Location: Pulau Pinang
Phone: 0123456789
Personal Summary: Love Travel

Registration successful! You can now login with your credentials.

Press Enter to continue...|
```

Figure 3.6.1.4 Register User

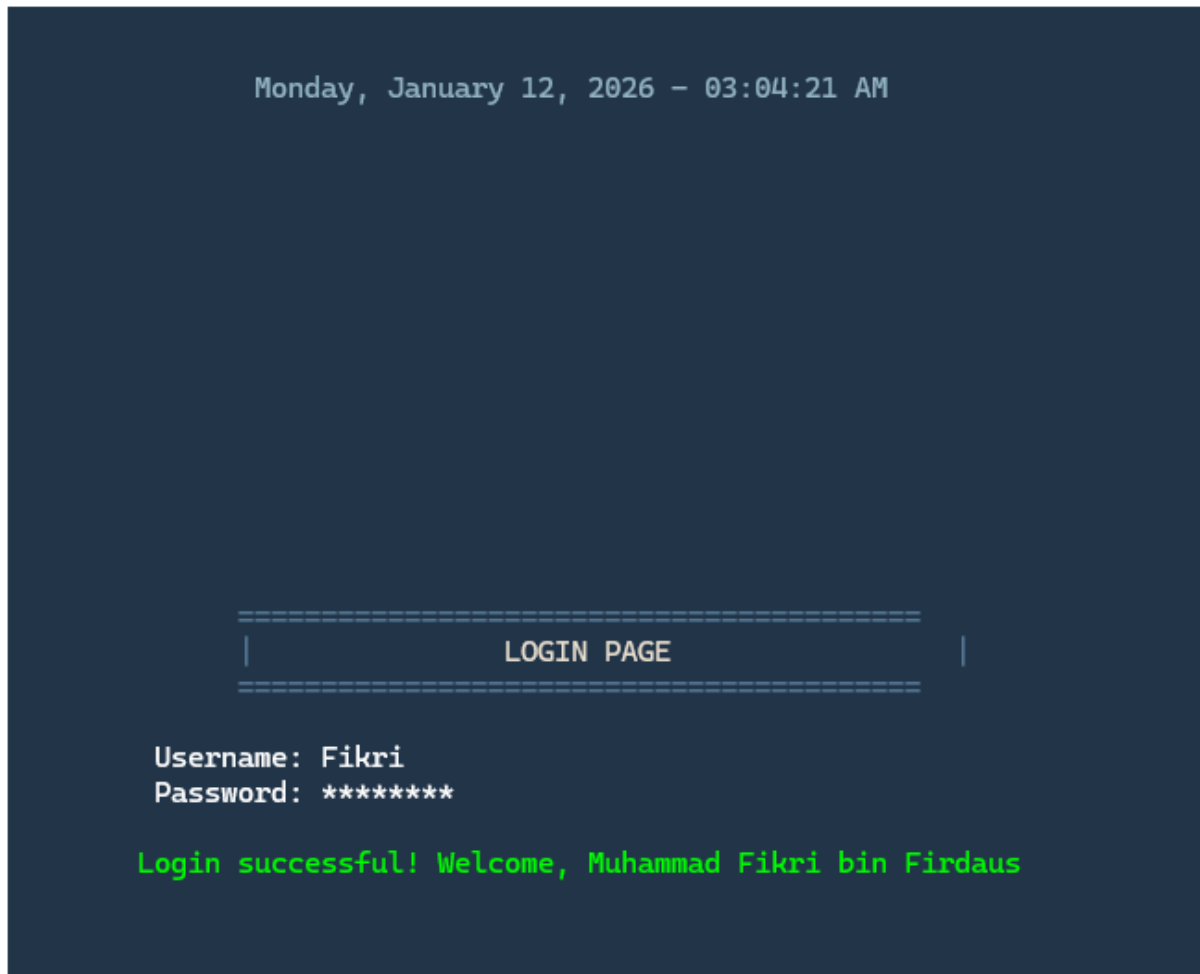


Figure 3.6.1.5 Login Page

3.6.2 Seeker Interface

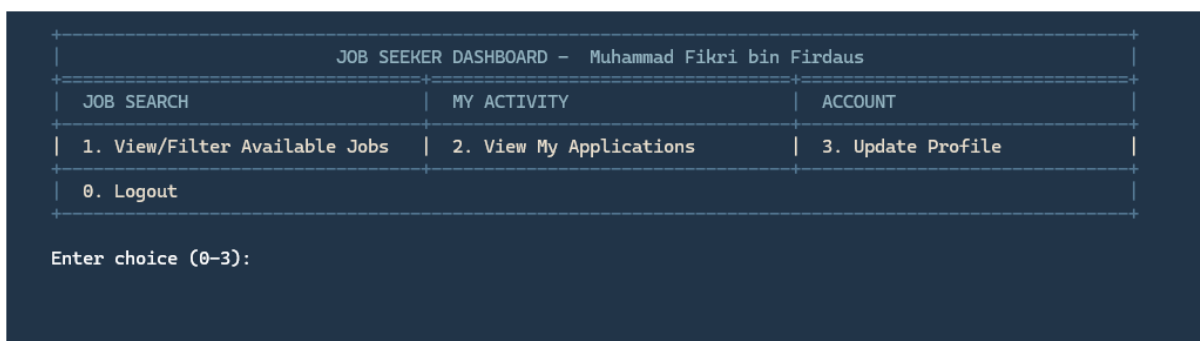


Figure 3.6.2.1 Seeker Menu

19	Graphic Designer (Pa	Alpha Food Sdn Bhd	Kuala Lumpur	RM700/month	Part-Time	Student/Fre...
20	Delivery Rider	Beta Logistics Sdn Bhd	Johor	RM1,800-RM2,500/month	Full-Time	0-2 years
21	Warehouse Assistant	Beta Logistics Sdn Bhd	Johor	RM1,600/month	Full-Time	0-1 years
22	Customer Service (Ca	Beta Logistics Sdn Bhd	Johor	RM1,700/month	Full-Time	1 year
24	Admin Assistant	Beta Logistics Sdn Bhd	Johor	RM1,500/month	Full-Time	0-2 years
25	Part-Time Sorter	Beta Logistics Sdn Bhd	Johor	RM8-10/hour	Part-Time	Student/Fre...
27	Store Assistant	Gamma Retail Sdn Bhd	Penang	RM1,500/month	Full-Time	0-1 years
34	DevOps Engineer	Delta Technologies ...	Kuala Lumpur	RM4,000-RM6,000/Month	Full-Time	2-4 years
33	QA Tester	Delta Technologies ...	Kuala Lumpur	RM2,500/month	Full-Time	0-2 years
32	Junior Software Engi	Delta Technologies ...	Kuala Lumpur	RM3,000-RM4,500/mont	Full-Time	0-2 years
31	Stock Controller	Gamma Retail Sdn Bhd	Penang	RM1,700/month	Full-Time	1 year
30	Part-Time Cleaner	Gamma Retail Sdn Bhd	Penang	RM9-RM12/hour	Part-Time	No experience
29	Visual Merchandiser	Gamma Retail Sdn Bhd	Penang	RM1,800/month	Full-Time	1 year
28	Supervisor	Gamma Retail Sdn Bhd	Penang	RM2,200/month	Full-Time	1-3 years
23	Fleet Coordinator	Beta Logistics Sdn Bhd	Johor	RM2,200/month	Full-Time	2-4 years
8	Delivery Rider	CBA CAFE	Melaka	RM1,800-RM2,800/mont	Full-Time	1-3 years e...
7	Graphic Designer Int	CBA CAFE	Melaka	Allowance RM600/mont	Internship	Student or ...
6	Cashier Assistant	CBA CAFE	Melaka	RM9/hour	Part-Time	0-2 years e...
5	Part-Time Barista	CBA CAFE	Melaka	RM10/hour	Part-Time	1 year expe...
1	Part-Time Barista	CBA CAFE	Melaka	RM10/hour	Part-Time	Entry Level

Total jobs found: 49

FILTER OPTIONS	ACTIONS	NAVIGATION
1. Filter by Location 2. Filter by Job Type 3. Search Title/Company	4. View Job Details 5. Apply for a Job 6. Clear All Filters	7. Back to Menu

Enter choice:

Figure 3.6.2.2 Seeker View/Filter Available Jobs

AVAILABLE JOBS						
ID	TITLE	COMPANY	LOCATION	SALARY	TYPE	EXPERIENCE
64	Senior Barista	Delta Technologies ...	Melaka	RM 2,500 - 2,800 /M...	Full-Time	2 - 5 Years
5	Part-Time Barista	CBA CAFE	Melaka	RM10/hour	Part-Time	1 year expe...
6	Cashier Assistant	CBA CAFE	Melaka	RM9/hour	Part-Time	0-2 years e...
7	Graphic Designer Int	CBA CAFE	Melaka	Allowance RM600/mont	Internship	Student or ...
8	Delivery Rider	CBA CAFE	Melaka	RM1,800-RM2,800/mont	Full-Time	1-3 years e...
1	Part-Time Barista	CBA CAFE	Melaka	RM10/hour	Part-Time	Entry Level

Total jobs found: 6

ACTIVE FILTERS		
Location: melaka		

FILTER OPTIONS	ACTIONS	NAVIGATION
1. Filter by Location 2. Filter by Job Type 3. Search Title/Company	4. View Job Details 5. Apply for a Job 6. Clear All Filters	7. Back to Menu

Enter choice:

Figure 3.6.2.3 Seeker Filter by Location

Filter by job type and search title / company will not be show since it has same function with Figure 3.6.1.3 Seeker Filter by Location.

JOB DETAILS: Senior Barista	
Job ID:	64
Company:	Delta Technologies Sdn Bhd
Location:	Melaka
Type:	Full-Time
Salary:	RM 2,500 - 2,800 /Month
Experience:	2 - 5 Years
Posted:	2025-12-26 15:32:06
Category: Food & Beverage (F&B)	
DESCRIPTION:	
<ul style="list-style-type: none"> - We are looking for a friendly and energetic Barista to join our team. - You will be the face of our cafe, serving premium coffee and pastries. - Experience with espresso machines is a plus but not required. - Must be willing to work weekends and public holidays. 	
RESPONSIBILITIES:	
<ul style="list-style-type: none"> - Prepare and serve high-quality coffee, tea, and other beverages while keeping the vibes immaculate. Keep the bar area, equipment, and seating zones clean and sanitized-nobody likes a messy station. Handle the register, process payments, and manage cash flow accurately. Monitor inventory for beans, milk, and pastries, and let the manager know before we run out of the good stuff. Mentor and train junior staff (since you're the Senior here) on brewing techniques and customer service. Open or close the cafe, ensuring everything is secure and ready for the next shift. 0 	
QUALIFICATIONS:	
<ul style="list-style-type: none"> - At least 2 to 3 years of experience as a barista, preferably in a fast-paced or specialty coffee environment. 0 Deep knowledge of espresso extraction, milk texturing, and latte art-we need someone who actually knows their way around a machine. 0 Proven experience leading a small team or mentoring juniors; you're the one they'll look to when things get hectic. 0 Solid communication skills and the ability to handle a "Karen" situation without breaking a sweat. 0 Strong organizational skills to keep the workflow moving and the inventory tight. 0 Basic math skills for the register and a sharp eye for detail.0 - Deep knowledge of espresso extraction, milk texturing, and latte art-we need someone who actually knows their way around a machine. 0 - Proven experience leading a small team or mentoring juniors; you're the one they'll look to when things get hectic. 0 - Solid communication skills and the ability to handle a "Karen" situation without breaking a sweat. 0 - Strong organizational skills to keep the workflow moving and the inventory tight. 0 Basic math skills for the register and a sharp eye for detail. 	
BENEFITS:	

Figure 3.6.2.4 Seeker View Job Details

CONFIRMATION REQUIRED	
You are about to apply for the following position:	
Job Title:	Senior Barista
Company:	Delta Technologies Sdn Bhd
<div> <div>1. Confirm Application</div> <div>0. Back</div> </div>	
Enter choice: 1	
SUCCESS	
Your application has been submitted successfully!	
The employer has been notified.	
Press Enter to continue...	

Figure 3.6.2.5 Seeker Apply for a Job

MY APPLICATIONS						
APP ID	APPLIED DATE	STATUS	JOB TITLE	COMPANY	LOCATION	SALARY
46	2026-01-12 03:09:21	Pending	Account Assistant	Theta Services Sdn Bhd	Perak	RM1,6...
45	2026-01-12 03:09:11	Pending	IT Support (Part-Tim	Eta Education Sdn Bhd	Selangor	RM800...
44	2026-01-12 03:08:58	Reviewed	Delivery Rider	Beta Logistics Sdn Bhd	Johor	RM1,8...
43	2026-01-12 03:08:51	Pending	Stock Controller	Gamma Retail Sdn Bhd	Penang	RM1,7...
42	2026-01-12 03:08:43	Rejected	Graphic Designer Int	CBA CAFE	Melaka	Allow...
41	2026-01-12 03:08:24	Shortlisted	Part-Time Barista	CBA CAFE	Melaka	RM10/...
40	2026-01-12 03:07:40	Hired	Senior Barista	Delta Technologies ...	Melaka	RM 2,...

Total applications: 7

1. View Application Details	3. Back to Menu
2. View Job Details	

Enter choice:

Figure 3.6.2.6 Seeker View My Applications

View Job Details have same function as Figure 3.6.1.4 Seeker View Job Details.

UPDATE PROFILE	
CURRENT PROFILE	
Name:	Muhammad Fikri bin Firdaus
Email:	Fikri5566@gmail.com
Location:	Pulau Pina
Phone:	0123456789
SUMMARY:	
Love Travel	

1. Update Email	
2. Update Location	
3. Update Phone	
4. Update Summary	
5. Change Password	
6. Update All Info	
0. Back	

Enter choice: |

Figure 3.6.2.7 Seeker Update Profile

```

=====
UPDATE PROFILE
=====

+-----+
| CURRENT PROFILE |
+-----+
| Name:      Muhammad Fikri bin Firdaus |
| Email:     Fikri5566@gmail.com        |
| Location:  Pulau Pina                  |
| Phone:     0123456789                  |
+-----+
| SUMMARY: |
+-----+
| Love Travel |
+-----+

+-----+
| 1. Update Email |
| 2. Update Location |
| 3. Update Phone |
| 4. Update Summary |
| 5. Change Password |
| 6. Update All Info |
| 0. Back |
+-----+

Enter choice: 4
New Summary (Enter to keep current): Love Travel, Love playing tennis

[SUCCESS] Profile updated successfully!

Press Enter to continue...

```

Figure 3.6.2.8 Seeker Update Summary

Update Email, location, phone, summary, all info, change password is same function as Figure 3.6.1.8 Seeker Update Summary.

3.6.3 Employer Interface

```

+-----+
| EMPLOYER DASHBOARD - Delta Technologies Sdn Bhd |
+-----+
| CORE MODULES | COMPANY SETTINGS | ANALYTICS & REPORTS |
+-----+
| 1. Manage Posted Jobs | 3. Manage Company Profile | 4. Analytics Summary |
| 2. Manage Applications | | 5. Monthly Stats Report |
+-----+
| 0. Logout |
+-----+

Enter choice (0-5):

```

Figure 3.6.3.1 Employer Menu

MY POSTED JOBS							
ID	TITLE	COMPANY	SALARY	TYPE	LOCATION	ACTIVE	POSTED
64	Senior Barista	Delta Technolog	RM 2,500 - 2,80	Full-Time	Melaka	Yes	2025-12-26
32	Junior Software Engi	Delta Technolog	RM3,000-RM4,500	Full-Time	Kuala Lumpur	Yes	2025-11-24
33	QA Tester	Delta Technolog	RM2,500/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
34	DevOps Engineer	Delta Technolog	RM4,000-RM6,000	Full-Time	Kuala Lumpur	Yes	2025-11-24
35	Technical Support	Delta Technolog	RM2,200/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
36	UI/UX Designer	Delta Technolog	RM3,200/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
37	Intern (Software)	Delta Technolog	RM800/month	Internship	Kuala Lumpur	Yes	2025-11-24

1. View Job Details	3. Update Job Details	5. Search My Jobs
2. Post New Job	4. Delete Job	6. Toggle Active Status
		0. Back to Main Menu

Enter choice: |

Figure 3.6.3.2 Employer Manage Posted Jobs

MY POSTED JOBS							
ID	TITLE	COMPANY	SALARY	TYPE	LOCATION	ACTIVE	POSTED
66	Head of Corporate Sa	Delta Technolog		Full-Time		Yes	2026-01-12
64	Senior Barista	Delta Technolog	RM 2,500 - 2,80	Full-Time	Melaka	Yes	2025-12-26
32	Junior Software Engi	Delta Technolog	RM3,000-RM4,500	Full-Time	Kuala Lumpur	Yes	2025-11-24
33	QA Tester	Delta Technolog	RM2,500/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
34	DevOps Engineer	Delta Technolog	RM4,000-RM6,000	Full-Time	Kuala Lumpur	Yes	2025-11-24
35	Technical Support	Delta Technolog	RM2,200/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
36	UI/UX Designer	Delta Technolog	RM3,200/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
37	Intern (Software)	Delta Technolog	RM800/month	Internship	Kuala Lumpur	Yes	2025-11-24

1. View Job Details	3. Update Job Details	5. Search My Jobs
2. Post New Job	4. Delete Job	6. Toggle Active Status
		0. Back to Main Menu

Enter choice: 4

Enter Job ID to delete: 66

Delete 'Head of Corporate Sa'? (y/n): y

[SUCCESS] Deleted!

Press Enter to continue...

Figure 3.6.3.3 Employer Delete Job

```

=====
POST NEW JOB
=====

Job Title (Enter '0' to Cancel): Head of Corporate Sales - Manufacturing (Northern)
Company: Delta Technologies Sdn Bhd (auto-filled)

Enter Job Description (Type text. Enter '0' on NEW LINE to finish):
> Are you ready to get ahead in your career?
>
> We want to empower you to turn your ambitions into achievements.
> We thrive in inclusiveness, diversity and embrace close collaborations for you to create impact for yourself and others.
> Together, we aim to bring the best of technology to help people, businesses and the nation to be ahead in a changing world.
> To realise our vision to become Malaysia's leading converged solutions company, we are looking for a new talent to innovate and
performance and possibilities.
> What are you accountable for?
>
> Sales Strategy & Business Growth
> Develop and execute corporate sales strategies to drive revenue and market expansion in the northern region.
>
> Identify and capitalize on new business opportunities within the manufacturing sector.
>
> Establish and maintain relationships with key decision-makers, industry leaders, and potential clients.
>
> Lead contract negotiations and ensure the successful closure of high-value deals.
>
> Team Leadership & Performance Management
> Lead, mentor, and manage a high-performing corporate sales team.
>
> Set sales targets, monitor performance, and provide coaching to enhance sales effectiveness.
>
> Foster a results-driven and customer-centric sales culture within the team.
>
> Client Relationship Management
> Build and maintain long-term partnerships with corporate clients, understanding their needs and providing tailored solutions.
>
> Ensure exceptional customer service and satisfaction to drive client retention and repeat business.
>
> Collaborate with internal teams to ensure seamless service delivery and post-sales support.
>
> Market & Industry Analysis
> Stay updated on manufacturing industry trends, market dynamics, and competitor activities in the northern region.
>
> Provide market intelligence to refine sales strategies and enhance product offerings.
>
> Identify potential risks and opportunities within the regional manufacturing landscape.
>
> What's next?
>
> Once you've applied online, our team will carefully review your application. Due to a high volume of applications, we appreciate

```

Figure 3.6.3.4 Employer Post New Job

```

=====
UPDATE JOB - CURRENT DETAILS
=====

+-----+
| Job Title: Head of Corporate Sa |
+-----+
| Company: Delta Technolog |
| Location: Kelatan |
| Salary: negotiate |
| Type: Full-Time |
| Category: Account & Relationship Management (Sales) |
| Status: ACTIVE |
+-----+

+-----+ +-----+ +-----+
| 1. Job Title | 7. Experience Level | 13. Toggle Active Status |
| 2. Company Name | 8. Location | |
| 3. Job Description | 9. Job Category | |
| 4. Responsibilities | 10. Salary | 0. Cancel Update |
| 5. Qualifications | 11. Job Type | |
| 6. Benefits | 12. Update All Fields | |
+-----+ +-----+ +-----+

Enter your choice (0-13): |

```

Figure 3.6.3.5 Seeker Update Job

```

=====
UPDATE JOB - CURRENT DETAILS
=====

+-----+
| Job Title: Intern (Software) |
+-----+
| Company: Delta Technolog    |
| Location: Kuala Lumpur     |
| Salary: RM800/month        |
| Type: Internship           |
| Category: IT               |
| Status: CLOSED             |
+-----+

+-----+-----+-----+
| 1. Job Title      | 7. Experience Level | 13. Toggle Active Status |
| 2. Company Name   | 8. Location         |                           |
| 3. Job Description | 9. Job Category     |                           |
| 4. Responsibilities | 10. Salary          | 0. Cancel Update         |
| 5. Qualifications | 11. Job Type        |                           |
| 6. Benefits       | 12. Update All Fields |                           |
+-----+-----+-----+

Enter your choice (0-13): 11

+-----+
| SELECT JOB TYPE |
+-----+
| 1. Full-Time    |
| 2. Part-Time    |
| 3. Internship   |
+-----+

Enter choice (1-3): 1

[SUCCESS] Updated!

Press Enter to continue...

```

Figure 3.6.3.6 Employer Update Job Type

Job category has same function as Figure 3.6.2.6 Employer Update Job Type.

```

=====
UPDATE JOB - CURRENT DETAILS
=====

+-----+
| Job Title: Intern (Software) |
+-----+
| Company: Delta Technolog |
| Location: Kuala Lumpur |
| Salary: RM800/month |
| Type: Full-Time |
| Category: IT |
| Status: CLOSED |
+-----+

+-----+
| 1. Job Title | 7. Experience Level | 13. Toggle Active Status |
| 2. Company Name | 8. Location | |
| 3. Job Description | 9. Job Category | |
| 4. Responsibilities | 10. Salary | 0. Cancel Update |
| 5. Qualifications | 11. Job Type | |
| 6. Benefits | 12. Update All Fields | |
+-----+

Enter your choice (0-13): 10

Enter new Salary: RM 1200 /month

[SUCCESS] Updated!

Press Enter to continue...

```

Figure 3.6.3.7 Employer Update Salary

Job title, company name, job description, responsibilities, qualifications, benefits, experience level, update all fields is same function as Figure 3.6.2.7 Employer Update Salary.

```

=====
APPLICATION MANAGEMENT
=====

+-----+
| ID | JOB TITLE | APPLICANT | STATUS | APPLIED AT |
+-----+
| 40 | Senior Barista | Muhammad Fikri bin Firdau | Hired | 2026-01-12 03:07:40 |
+-----+
| 35 | Senior Barista | abu bin ali | Hired | 2025-12-29 17:10:14 |
+-----+
| 30 | Technical Support | abu bin ali | Rejected | 2025-12-09 14:39:11 |
+-----+
| 22 | Junior Software Engi | Imran Fauzi | Hired | 2025-11-16 14:15:00 |
+-----+

+-----+
| 1. View Applicant Details | 3. Filter Applications |
| 2. Update App Status | 0. Back to Main Menu |
+-----+

Enter choice:

```

Figure 3.6.3.8 Employer Manage Applications

27	Centre Manager	Darren Lim	Hired	2025-11-17 15:50:00
18	Delivery Rider	Evelyn Ong	Rejected	2025-11-17 13:10:00
22	Junior Software Engi	Imran Fauzi	Hired	2025-11-16 14:15:00
17	Shift Supervisor	Darren Lim	Pending	2025-11-15 16:20:00
2	Cashier Assistant	Siti Nur	Pending	2025-11-04 00:32:05

SEARCH & FILTER	MANAGEMENT	NAVIGATION
1. Search by App ID 2. Filter by Status 3. Filter by Job Title 4. Filter by Applicant	5. Update Status 6. Delete Application	7. Back

Enter choice: 2

SELECT STATUS FILTER
1. Pending 2. Reviewed 3. Shortlisted 4. Hired 5. Rejected

Select Status: 4

=====

FILTER: Hired

APP ID	JOB TITLE	APPLICANT	STATUS	APPLIED AT
40	Senior Barista	Muhammad Fikri bin Firdau	Hired	2026-01-12 03:07:40
35	Senior Barista	abu bin ali	Hired	2025-12-29 17:10:14
19	Delivery Rider	Farah Nur	Hired	2025-11-21 10:05:00
27	Centre Manager	Darren Lim	Hired	2025-11-17 15:50:00
22	Junior Software Engi	Imran Fauzi	Hired	2025-11-16 14:15:00

Figure 3.6.3.9 Employer Filter by Status

Search by app id, filter by job title, applicant is same as Figure 3.6.2.9 Employer Filter by Status.

18	Delivery Rider	Evelyn Ong	Rejected	2025-11-17 13:10:00
22	Junior Software Engi	Imran Fauzi	Hired	2025-11-16 14:15:00
17	Shift Supervisor	Darren Lim	Pending	2025-11-15 16:20:00
2	Cashier Assistant	Siti Nur	Pending	2025-11-04 00:32:05

SEARCH & FILTER	MANAGEMENT	NAVIGATION
1. Search by App ID	5. Update Status	7. Back
2. Filter by Status	6. Delete Application	
3. Filter by Job Title		
4. Filter by Applicant		

Enter choice: 5

Enter Application ID to update: 2

1. Pending
2. Reviewed
3. Shortlisted
4. Hired
5. Rejected

Current Status: Pending
Select NEW Status: 2

[SUCCESS] Application 2 status updated from 'Pending' to 'Reviewed'!

Press Enter to continue...

Figure 3.6.3.10 Employer Update Status

16	Kitchen Helper	Chong Wei	Shortlisted	2025-11-18 11:45:00
23	F&B Supervisor	Jasmine Kho	Rejected	2025-11-18 11:20:00
27	Centre Manager	Darren Lim	Hired	2025-11-17 15:50:00
18	Delivery Rider	Evelyn Ong	Rejected	2025-11-17 13:10:00
22	Junior Software Engi	Imran Fauzi	Hired	2025-11-16 14:15:00
17	Shift Supervisor	Darren Lim	Pending	2025-11-15 16:20:00
2	Cashier Assistant	Siti Nur	Reviewed	2025-11-04 00:32:05

SEARCH & FILTER	MANAGEMENT	NAVIGATION
1. Search by App ID	5. Update Status	7. Back
2. Filter by Status	6. Delete Application	
3. Filter by Job Title		
4. Filter by Applicant		

Enter choice: 6

App ID to Delete: 2

[SUCCESS] Application Deleted!

Press Enter to continue...

Figure 3.6.3.11 Employer Delete Application

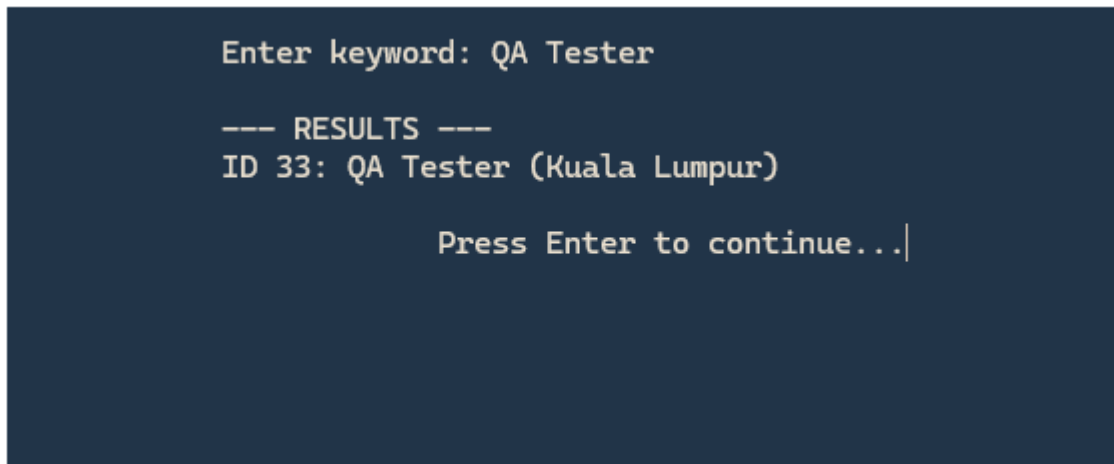


Figure 3.6.3.12 Employer Search My Jobs

MY POSTED JOBS							
ID	TITLE	COMPANY	SALARY	TYPE	LOCATION	ACTIVE	POSTED
67	Head of Corporate Sa	Delta Technolog	negotiate	Full-Time	Kelatan	Yes	2026-01-12
64	Senior Barista	Delta Technolog	RM 2,500 - 2,80	Full-Time	Melaka	Yes	2025-12-26
32	Junior Software Engi	Delta Technolog	RM3,000-RM4,500	Full-Time	Kuala Lumpur	Yes	2025-11-24
33	QA Tester	Delta Technolog	RM2,500/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
34	DevOps Engineer	Delta Technolog	RM4,000-RM6,000	Full-Time	Kuala Lumpur	Yes	2025-11-24
35	Technical Support	Delta Technolog	RM2,200/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
36	UI/UX Designer	Delta Technolog	RM3,200/month	Full-Time	Kuala Lumpur	Yes	2025-11-24
37	Intern (Software)	Delta Technolog	RM800/month	Internship	Kuala Lumpur	Yes	2025-11-24

1. View Job Details	3. Update Job Details	5. Search My Jobs
2. Post New Job	4. Delete Job	6. Toggle Active Status
		0. Back to Main Menu

Enter choice: 6

Enter Job ID to Toggle Status (0 to cancel): 37

[SUCCESS] Status toggled.

Press Enter to continue...

Figure 3.6.3.13 Employer Active Toggle Status

ANALYTICS SUMMARY - Delta Technologies Sdn Bhd	
JOB POSTING STATISTICS:	
Total Jobs Posted:	7
Active Jobs:	6
Inactive Jobs:	1
APPLICATION STATISTICS:	
Total Applications Received:	4
--	Pending:0
--	Reviewed:0
--	Shortlisted:0
--	Hired:3
--	Rejected:1
TOP 5 JOBS BY APPLICATIONS:	
1. Senior Barista	2 applications
2. Junior Software Engi	1 applications
3. Technical Support	1 applications
4. DevOps Engineer	0 applications
5. Intern (Software)	0 applications
CONVERSION METRICS:	
Hire Rate:	75% (3/4)
Rejection Rate:	25% (1/4)
Press Enter to continue...	

Figure 3.6.3.14 Employer Analytics Summary

MONTHLY APPLICATION STATISTICS - Delta Technologies Sdn Bhd				
MONTH	TOTAL	HIRED	REJECTED	PENDING
January 2026	1	1	0	0
December 2025	2	1	1	0
November 2025	1	1	0	0
TOTAL (6 months)	4	3	1	0
INSIGHTS:				
Average applications/month: 1				
Overall hire rate: 75%				
Press Enter to continue...				

Figure 3.6.3.15 Employer Monthly Stats Report

3.6.4 Admin Interface

ADMIN DASHBOARD - Street Job Recruit		
MAIN ENTITIES (CRUDS)	DETAILS & MAPPING (CRUDS)	SYSTEM & ANALYTICS
1. View All Users	5. View User Skills	9. View Database Statistics
2. View All Jobs	6. View Job Skills	10. Search (Global)
3. View All Applications	7. View Seeker Education	11. Report Generation
4. View All Skills	8. View Seeker Languages	
0. Logout		

Enter choice (0-11):

Figure 3.6.4.1 Admin Menu

15	hr_gamma	Gamma Retail Sdn Bhd	hr@gammaretail.com	employer	Penang
16	hr_delta	Delta Technologies Sdn Bh	hr@deltatech.com	employer	Kuala Lump
17	hr_epsilon	Epsilon Hospitality Sdn B	hr@epsilonhotel.com	employer	Malacca
18	hr_zeta	Zeta Manufacturing Sdn Bh	hr@zetamfg.com	employer	Negeri Sem
19	hr_eta	Eta Education Sdn Bhd	hr@etaedu.com	employer	Selangor
20	hr_theta	Theta Services Sdn Bhd	hr@thetaservices.com	employer	Perak
21	Adam224	Adam bin Hakim	adam01@example.com	seeker	Kuala Lump
22	bella667	Bella Tan	bella02@example.com	seeker	Selangor
23	chongw1	Chong Wei	chong03@example.com	seeker	Penang
24	darrenlim	Darren Lim	darren04@example.com	seeker	Johor
25	EveOng	Evelyn Ong	evelyn05@example.com	seeker	Malacca
26	FahNur	Farah Nur	farah06@example.com	seeker	Negeri Sem
27	GoMar	Gopal Kumar	gopal07@example.com	seeker	Perak
28	Hannah	Hannah Lee	hannah08@example.com	seeker	Sarawak
29	Imranfa	Imran Fauzi	imran09@example.com	seeker	Sabah
30	minekho	Jasmine Kho	jasmine10@example.com	seeker	Kedah
31	ilwen	ilie wen	iliewen90@gmail.com	seeker	johot
32	mail	mail bin ilam	mail123@gmail.com	seeker	melaka
34	khiun	kouy	khiun@gmail.com	seeker	terengganu
36	ali	ali bin pau	ali@gmail.com	seeker	Thailand
38	weijia	Tn Wei Jia	weijia0506@gmail.com	seeker	Johor
39	Fikri	Muhammad Fikri bin Firdau	Fikri5566@gmail.com	seeker	Pulau Pina

1. Filter by Role	4. Create New User	7. Back
2. Filter by Location	5. Update User	
3. Search User	6. Delete User	

Enter choice:

Figure 3.6.4.2 View All Users

Enter choice: 1

Enter role: seeker

SEARCH RESULTS				
ID	USERNAME	FULL NAME	ROLE	LOCATION
4	siti_freelancer	Siti Nur	seeker	Melaka
5	abu	abu bin ali	seeker	johor
6	abang	muhammasd abang	seeker	johor
7	lzb	lim zi jia	seeker	pulau pina
8	adam	adam ali	seeker	Malaysia
21	Adam224	Adam bin Hakim	seeker	Kuala Lump
22	bella667	Bella Tan	seeker	Selangor
23	chongw1	Chong Wei	seeker	Penang
24	darrenlim	Darren Lim	seeker	Johor
25	EveOng	Evelyn Ong	seeker	Malacca
26	FahNur	Farah Nur	seeker	Negeri Sem
27	GoMar	Gopal Kumar	seeker	Perak
28	Hannah	Hannah Lee	seeker	Sarawak
29	Imranfa	Imran Fauzi	seeker	Sabah
30	minekho	Jasmine Kho	seeker	Kedah
31	ilwen	ilie wen	seeker	johor
32	mail	mail bin ilam	seeker	melaka
34	khiun	kouy	seeker	terengganu
36	ali	ali bin pau	seeker	Thailand
38	weijia	Tn Wei Jia	seeker	Johor
39	Fikri	Muhammad Fikri bin Firdau	seeker	Pulau Pina

Figure 3.6.4.3 Admin Filter by Role

34	khiun	kouy	khiun@gmail.com	seeker	terengganu
36	ali	ali bin pau	ali@gmail.com	seeker	Thailand
38	weijia	Tn Wei Jia	weijia0506@gmail.com	seeker	Johor
39	Fikri	Muhammad Fikri bin Firdau	Fikri5566@gmail.com	seeker	Pulau Pina

1. Filter by Role	4. Create New User	7. Back
2. Filter by Location	5. Update User	
3. Search User	6. Delete User	

Enter choice: 2

Enter location: melaka

=====

SEARCH RESULTS

ID	USERNAME	FULL NAME	ROLE	LOCATION
2	abc_cafe	CBA CAFE	employer	Melaka
4	siti_freelancer	Siti Nur	seeker	Melaka
12	EMPLOYER2	HSR COMPANNY	employer	Melaka Ray
32	mail	mail bin ilam	seeker	melaka

Press Enter to continue

Figure 3.6.4.4 Admin Filter By Location

25	EveOng	Evelyn Ong	evelyn05@example.com	seeker	Malacca
26	FahNur	Farah Nur	farah06@example.com	seeker	Negeri Sem
27	GoMar	Gopal Kumar	gopal07@example.com	seeker	Perak
28	Hannah	Hannah Lee	hannah08@example.com	seeker	Sarawak
29	Imranfa	Imran Fauzi	imran09@example.com	seeker	Sabah
30	minekho	Jasmine Kho	jasmine10@example.com	seeker	Kedah
31	ilwen	ilie wen	iliewen90@gmail.com	seeker	johot
32	mail	mail bin ilam	mail123@gmail.com	seeker	melaka
34	khiun	kouy	khiun@gmail.com	seeker	terengganu
36	ali	ali bin pau	ali@gmail.com	seeker	Thailand
38	weijia	Tn Wei Jia	weijia0506@gmail.com	seeker	Johor
39	Fikri	Muhammad Fikri bin Firdau	Fikri5566@gmail.com	seeker	Pulau Pina

1. Filter by Role	4. Create New User	7. Back
2. Filter by Location	5. Update User	
3. Search User	6. Delete User	

Enter choice: 3

Enter keyword: ali

=====

SEARCH RESULTS

=====

ID	USERNAME	FULL NAME	ROLE	LOCATION
5	abu	abu bin ali	seeker	johor
8	adam	adam ali	seeker	Malaysia
17	hr_epsilon	Epsilon Hospitality Sdn B	employer	Malacca
36	ali	ali bin pau	seeker	Thailand

Press Enter to continue...

Figure 3.6.4.5 Admin Search

20	hr_theta	Theta Services Sdn Bhd	hr@thetaservices.com	employer	Perak
21	Adam224	Adam bin Hakim	adam01@example.com	seeker	Kuala Lump
22	bella667	Bella Tan	bella02@example.com	seeker	Selangor
23	chongw1	Chong Wei	chong03@example.com	seeker	Penang
24	darrenlim	Darren Lim	darren04@example.com	seeker	Johor
25	EveOng	Evelyn Ong	evelyn05@example.com	seeker	Malacca
26	FahNur	Farah Nur	farah06@example.com	seeker	Negeri Sem
27	GoMar	Gopal Kumar	gopal07@example.com	seeker	Perak
28	Hannah	Hannah Lee	hannah08@example.com	seeker	Sarawak
29	Imranfa	Imran Fauzi	imran09@example.com	seeker	Sabah
30	minekho	Jasmine Kho	jasmine10@example.com	seeker	Kedah
31	ilwen	ilie wen	iliewen90@gmail.com	seeker	johot
32	mail	mail bin ilam	mail123@gmail.com	seeker	melaka
34	khiun	kouy	khiun@gmail.com	seeker	terengganu
36	ali	ali bin pau	ali@gmail.com	seeker	Thailand
38	weijia	Tn Wei Jia	weijia0506@gmail.com	seeker	Johor
39	Fikri	Muhammad Fikri bin Firdau	Fikri5566@gmail.com	seeker	Pulau Pina

1. Filter by Role	4. Create New User	7. Back
2. Filter by Location	5. Update User	
3. Search User	6. Delete User	

Enter choice: 4

Username: wei lim
 Password: weilim123
 Full Name: weilim
 Role: seeker

User created successfully!

Press Enter to continue...

Figure 3.6.4.6 Admin Create User

24	darrenlim	Darren Lim	darren04@example.com	seeker	Johor
25	EveOng	Evelyn Ong	evelyn05@example.com	seeker	Malacca
26	FahNur	Farah Nur	farah06@example.com	seeker	Negeri Sem
27	GoMar	Gopal Kumar	gopal07@example.com	seeker	Perak
28	Hannah	Hannah Lee	hannah08@example.com	seeker	Sarawak
29	Imranfa	Imran Fauzi	imran09@example.com	seeker	Sabah
30	minekho	Jasmine Kho	jasmine10@example.com	seeker	Kedah
31	ilwen	ilie wen	iliewen90@gmail.com	seeker	johot
32	mail	mail bin ilam	mail123@gmail.com	seeker	melaka
34	khiun	kouy	khiun@gmail.com	seeker	terengganu
36	ali	ali bin pau	ali@gmail.com	seeker	Thailand
38	weijia	Tn Wei Jia	weijia0506@gmail.com	seeker	Johor
39	Fikri	Muhammad Fikri bin Firdau	Fikri5566@gmail.com	seeker	Pulau Pina
40	wei lim	lai wei lim		seeker	

1. Filter by Role	4. Create New User	7. Back
2. Filter by Location	5. Update User	
3. Search User	6. Delete User	

Enter choice: 5

User ID: 40

UPDATE USER INFORMATION		
1. Name	3. Phone	5. Username
2. Email	4. Location	

Enter choice: 3

New Value: 012234567743

User updated successfully!

Press Enter to continue...

Figure 3.6.4.7 Admin Update User

39	Fikri	Muhammad Fikri bin Firdau	Fikri5566@gmail.com	seeker	Pulau Pina
40	wei lim	lai wei lim		seeker	

1. Filter by Role	4. Create New User	7. Back
2. Filter by Location	5. Update User	
3. Search User	6. Delete User	

Enter choice: 6

User ID: 40

User deleted successfully!

Press Enter to continue...

Figure 3.6.4.8 Admin Delete User

42	Part-Time Waiter	Epsilon Hospita	Malacca	Part-Time	Yes
43	Kitchen Helper (Nigh	Epsilon Hospita	Malacca	Full-Time	Yes
44	Production Operator	Zeta Manufactur	Negeri Sembilan	Full-Time	Yes
45	Maintenance Technici	Zeta Manufactur	Negeri Sembilan	Full-Time	Yes
46	Warehouse Clerk	Zeta Manufactur	Negeri Sembilan	Full-Time	Yes
47	Quality Inspector	Zeta Manufactur	Negeri Sembilan	Full-Time	Yes
48	Forklift Driver	Zeta Manufactur	Negeri Sembilan	Full-Time	Yes
49	Admin Assistant	Zeta Manufactur	Negeri Sembilan	Full-Time	Yes
50	Tuition Teacher (Mat	Eta Education S	Selangor	Part-Time	Yes
51	Admin Officer	Eta Education S	Selangor	Full-Time	Yes
52	Marketing Executive	Eta Education S	Selangor	Full-Time	Yes
53	Part-Time English Tu	Eta Education S	Selangor	Part-Time	Yes
54	IT Support (Part-Tim	Eta Education S	Selangor	Part-Time	Yes
55	Centre Manager	Eta Education S	Selangor	Full-Time	Yes
56	General Helper	Theta Services	Perak	Full-Time	Yes
57	Customer Service (On	Theta Services	Perak	Full-Time	Yes
58	Electrician Technici	Theta Services	Perak	Full-Time	Yes
59	Plumber	Theta Services	Perak	Full-Time	No
60	Account Assistant	Theta Services	Perak	Full-Time	Yes
64	Senior Barista	Delta Technolog	Melaka	Full-Time	Yes
67	Head of Corporate Sa	Delta Technolog	Kelatan	Full-Time	Yes

1. View Details	5. Create Job	8. Open / Close Job
2. Search Jobs	6. Update Job	9. Back
3. Filter by Location	7. Delete Job	
4. Filter by Type		

Enter choice:

Figure 3.6.4.9 Admin View All Jobs

67	Head of Corporate Sa	Delta Technolog	Kelatan	full-time	Yes
----	----------------------	-----------------	---------	-----------	-----

1. View Details	5. Create Job	8. Open / Close Job
2. Search Jobs	6. Update Job	9. Back
3. Filter by Location	7. Delete Job	
4. Filter by Type		

Enter choice: 6

UPDATE JOB

Enter Job ID: 67

1. Title	3. Location
2. Salary	4. Type

Enter choice: 3
New Value: Pulau Pinang

[SUCCESS] Updated!

Press Enter to continue...

Figure 3.6.4.10 Admin Update Job

58	Electrician Technici	Theta Services	Perak	Full-Time	Yes
59	Plumber	Theta Services	Perak	Full-Time	No
60	Account Assistant	Theta Services	Perak	Full-Time	Yes
64	Senior Barista	Delta Technolog	Melaka	Full-Time	Yes
67	Head of Corporate Sa	Delta Technolog	Pulau Pinang	full-time	No

1. View Details	5. Create Job	8. Open / Close Job
2. Search Jobs	6. Update Job	9. Back
3. Filter by Location	7. Delete Job	
4. Filter by Type		

Enter choice: 7

DELETE JOB

Enter Job ID: 67

[SUCCESS] Deleted!

Press Enter to continue...

Figure 3.6.4.11 Admin Delete Job

- View details are the same as Figure 3.6.2.4 Seeker View Job Details,
- search job same as Figure 3.6.4.12 Admin Search App Id
- filter by location, type is same as Figure 3.6.2.3 Seeker Filter by Location.
- Create job is same function as Figure 3.6.3.4 Employer Post New Job.

10	Delivery Rider	abu bin ali	Pending	2025-11-19 21:38:32
9	Senior Manager, Peop	abu bin ali	Pending	2025-11-19 21:38:02
8	cashier	abu bin ali	Pending	2025-11-19 21:37:03
7	Cashier Assistant	abu bin ali	Pending	2025-11-19 21:24:30
15	Full-Time Waiter/Wai	Bella Tan	Reviewed	2025-11-19 14:30:00
28	Electrician Technici	Evelyn Ong	Rejected	2025-11-19 13:25:00
21	Cashier	Hannah Lee	Shortlisted	2025-11-19 09:30:00
16	Kitchen Helper	Chong Wei	Shortlisted	2025-11-18 11:45:00
23	F&B Supervisor	Jasmine Kho	Rejected	2025-11-18 11:20:00
27	Centre Manager	Darren Lim	Hired	2025-11-17 15:50:00
18	Delivery Rider	Evelyn Ong	Rejected	2025-11-17 13:10:00
22	Junior Software Engi	Imran Fauzi	Hired	2025-11-16 14:15:00
17	Shift Supervisor	Darren Lim	Pending	2025-11-15 16:20:00
2	Cashier Assistant	Siti Nur	Pending	2025-11-04 00:32:05

SEARCH & FILTER	MANAGEMENT	NAVIGATION
1. Search by App ID	5. Update Status	7. Back
2. Filter by Status	6. Delete Application	
3. Filter by Job Title		
4. Filter by Applicant		

Enter choice: 1

Enter Application ID: 17

SEARCH RESULT (ID: 17)

APP ID	JOB TITLE	APPLICANT	STATUS	APPLIED AT
17	Shift Supervisor	Darren Lim	Pending	2025-11-15 16:20:00

Press Enter to continue...

Figure 3.6.4.12 Admin Search App Id

SKILLS LIBRARY	
SKILL ID	SKILL NAME
1	Customer Service
2	Cash Handling
3	Coffee Making
4	Communication
5	Teamwork
6	Problem Solving
7	Time Management
8	Microsoft Office
9	Food Preparation
10	Inventory Management
11	Digital Marketing
12	Web Development
13	Quality Control
14	teaching
15	Electrical Repair
16	Plumbing
17	learning
18	self learning
19	willing to learning
1. Search Skills	3. Update Skill
2. Create Skill	4. Delete Skill
	5. Back

Enter choice:

Figure 3.6.4.13 View User Skills

```
| 19 | willing to learning |
+-----+
| 1. Search Skills | 3. Update Skill |
| 2. Create Skill | 4. Delete Skill |
| | 5. Back |
+-----+
Enter choice: 2

Name: Self-management and initiative

Added!

Press Enter to continue...
```

Figure 3.6.4.14 Admin Create Skill

```
| 1. Search Skills | 3. Update Skill |
| 2. Create Skill | 4. Delete Skill |
| | 5. Back |
+-----+
Enter choice: 3

ID: 20

New Name: Self-management

Updated!

Press Enter to continue...
```

Figure 3.6.4.15 Admin Update Skill

```
+-----+
| 1. Search Skills      | 3. Update Skill      |
| 2. Create Skill       | 4. Delete Skill      |
|                       | 5. Back              |
+-----+
Enter choice: 4

ID: 1

Deleted!

Press Enter to continue...
```

Figure 3.6.4.16 Admin Delete Skill

- search skills same as Figure 3.6.4.12 Admin Search App Id

23	Chong Wei	7	Time Management
24	Darren Lim	7	Time Management
24	Darren Lim	4	Communication
25	Evelyn Ong	10	Inventory Management
25	Evelyn Ong	7	Time Management
25	Evelyn Ong	5	Teamwork
26	Farah Nur	7	Time Management
26	Farah Nur	4	Communication
27	Gopal Kumar	7	Time Management
27	Gopal Kumar	15	Electrical Repair
27	Gopal Kumar	6	Problem Solving
28	Hannah Lee	14	teaching
28	Hannah Lee	4	Communication
28	Hannah Lee	7	Time Management
29	Imran Fauzi	6	Problem Solving
29	Imran Fauzi	7	Time Management
29	Imran Fauzi	5	Teamwork
30	Jasmine Kho	4	Communication
30	Jasmine Kho	9	Food Preparation
6	muhammasd abang	7	Time Management
6	muhammasd abang	2	Cash Handling
4	Siti Nur	2	Cash Handling

1. Search (User or Skill)	3. Update User Skill	5. Back
2. Add Skill to User	4. Remove Skill from User	

Enter choice:

Figure 3.6.4.17 Admin View User Skills

- Search same function as Figure 3.6.4.12 Admin Search App Id
- Add skill to user same function as Figure 3.6.4.14 Admin Create Skill
- Update user skill same function as Figure 3.6.4.15 Admin Update Skill
- Remove skill to user same function as Figure 3.6.4.16 Admin Delete Skill

JOB SKILLS REQUIREMENTS			
JOB ID	JOB TITLE	SKILL ID	SKILL NAME
26	Cashier	4	Communication
2	Cashier Assistant	2	Cash Handling
55	Centre Manager	7	Time Management
55	Centre Manager	6	Problem Solving
22	Customer Service (Ca	4	Communication
18	Delivery Rider	7	Time Management
20	Delivery Rider	7	Time Management
18	Delivery Rider	6	Problem Solving
20	Delivery Rider	9	Food Preparation
58	Electrician Technici	15	Electrical Repair
58	Electrician Technici	6	Problem Solving
38	F&B Supervisor	6	Problem Solving
38	F&B Supervisor	5	Teamwork
15	Full-Time Waiter/Wai	4	Communication
32	Junior Software Engi	6	Problem Solving
32	Junior Software Engi	12	Web Development
16	Kitchen Helper	5	Teamwork
16	Kitchen Helper	10	Inventory Management
1	Part-Time Barista	3	Coffee Making
1	Part-Time Barista	4	Communication
14	Part-Time Barista	4	Communication
14	Part-Time Barista	10	Inventory Management
44	Production Operator	7	Time Management
44	Production Operator	5	Teamwork
17	Shift Supervisor	6	Problem Solving
17	Shift Supervisor	5	Teamwork
41	Sous Chef	18	self learning
41	Sous Chef	10	Inventory Management
50	Tuition Teacher (Mat	4	Communication
50	Tuition Teacher (Mat	14	teaching
1. Search (Job or Skill)	3. Update Job Skill	5. Back	
2. Add Skill to Job	4. Remove Skill from Job		

Enter choice:

Figure 3.6.4.18 Admin View Job Skill

- Search same function as Figure 3.6.4.12 Admin Search App Id
- Add skill to user same function as Figure 3.6.4.14 Admin Create Skill

- Update user skill same function as Figure 3.6.4.15 Admin Update Skill
- Remove skill to user same function as Figure 3.6.4.16 Admin Delete Skill

SEEKER EDUCATION RECORDS						
EID	UID	SEEKER NAME	INSTITUTION	QUALIFICATION	FIELD	PERIOD
3	5	abu bin ali	Universiti Teknologi Ma	Bachelor Degree	Computer Scie	2020-2024
5	21	Adam bin Hakim	SMK Seri Melaka	SPM	Science	2019-2023
6	22	Bella Tan	Taylor's University	Bachelor Degree	Marketing	2020-2024
16	2	CBA CAFE	Universiti Malaya	Degree	Computer Scie	2024-2028
19	2	CBA CAFE	Universiti Malaya	Diploma	Computer Scie	2024-2027
15	2	CBA CAFE	Universiti Malaya	Bachelor Degree	Computer Scie	2023-2027
7	23	Chong Wei	Politeknik Port Dickson	Diploma	Logistics Man	2018-2021
8	24	Darren Lim	SMK Dato' Abdul Rahman	SPM	Arts	2017-2021
9	25	Evelyn Ong	Kolej Yayasan Melaka	Diploma	Culinary Arts	2019-2022
10	26	Farah Nur	SMK Tun Fatimah	SPM	Commerce	2018-2022
11	27	Gopal Kumar	Institut Kemahiran MARA	Certificate	Electrical Te	2017-2019
12	28	Hannah Lee	Universiti Malaya	Bachelor Degree	Psychology	2021-2025
13	29	Imran Fauzi	SMK Sultan Abdul Halim	SPM	Technical	2016-2020
14	30	Jasmine Kho	Kolej Komuniti Selangor	Diploma	Retail Manage	2020-2023
4	6	muhammasd abang	Kolej Komuniti Johor	Diploma	Business Admi	2019-2021

1. Search (Seeker/Inst.)	3. Add Education Record	5. Delete Education
2. Filter by Qualification	4. Update Education	6. Back

Enter choice: |

Figure 3.6.4.19 Admin View Seeker Education


```

Enter User ID (UID from table):

5
Institution Name: Universiti Malaya
Qualification: Diploma
Field of Study: Computer Science
Start Year (YYYY): 2017
End Year (YYYY or 0): 2019

[SUCCESS] Education Record Added!

```

Figure 3.6.4.21 Admin Add Education Record

- Search same function as Figure 3.6.4.12 Admin Search App Id
- Delete Education same function as Figure 3.6.4.16 Admin Delete Skill

```

+-----+-----+-----+
| 1. Search (Seeker/Inst.) | 3. Add Education Record | 5. Delete Education |
| 2. Filter by Qualification | 4. Update Education | 6. Back |
+-----+-----+-----+
Enter choice: 4

Enter Education ID (EID): 4

+-----+-----+
| UPDATE EDUCATION RECORD |
+-----+-----+
| 1. Institution | 3. Field of Study |
| 2. Qualification | 4. Years |
+-----+-----+
Select Field: 4

Start Year: 2019
End Year: 2021

Press Enter to continue...

```

Figure 3.6.4.22 Admin Update Education

SEEKER LANGUAGE PROFICIENCY				
ID	UID	SEEKER NAME	LANGUAGE	LEVEL
7	5	abu bin ali	Mandarin	Basic
6	5	abu bin ali	English	Advanced
5	5	abu bin ali	Malay	Fluent
10	21	Adam bin Hakim	Malay	Fluent
11	21	Adam bin Hakim	English	Intermediate
13	22	Bella Tan	English	Advanced
12	22	Bella Tan	Malay	Fluent
14	22	Bella Tan	Korean	Basic
16	23	Chong Wei	English	Intermediate
15	23	Chong Wei	Malay	Fluent
18	24	Darren Lim	English	Basic
17	24	Darren Lim	Malay	Fluent
20	25	Evelyn Ong	English	Intermediate
19	25	Evelyn Ong	Malay	Fluent
22	26	Farah Nur	English	Intermediate
21	26	Farah Nur	Malay	Fluent
23	27	Gopal Kumar	Malay	Fluent
24	27	Gopal Kumar	English	Basic
26	28	Hannah Lee	English	Advanced
25	28	Hannah Lee	Malay	Fluent
28	29	Imran Fauzi	English	Intermediate
27	29	Imran Fauzi	Malay	Fluent
29	30	Jasmine Kho	Malay	Fluent
30	30	Jasmine Kho	English	Intermediate
9	6	muhammasd abang	English	Intermediate
8	6	muhammasd abang	Malay	Fluent
4	4	Siti Nur	English	Intermediate
40	4	Siti Nur	Italic	Basic
3	4	Siti Nur	Malay	Native
34	4	Siti Nur	Chinese	Advanced
42	4	Siti Nur	German	Intermediate
41	4	Siti Nur	France	Fluent
1. Search by Seeker		3. Add Language Record		5. Delete Language
2. Filter (Level & Lang)		4. Update Proficiency		6. Back

Enter choice: #

Figure 3.6.4.23 Admin View Seeker Languages

```
Enter Language ID: 41
Current: Fluent

+-----+
| SELECT NEW LEVEL |
+=====+
| 1. Basic         |
| 2. Intermediate  |
| 3. Advanced      |
| 4. Fluent        |
| 5. Native        |
+-----+
Enter choice: 5

Press Enter to continue...
```

Figure 3.6.4.24 Admin Update Proficiency

- Search by seeker same function as Figure 3.6.4.12 Admin Search App Id
- Add language record to user same function as Figure 3.6.4.14 Admin Create Skill
- Delete language same function as Figure 3.6.4.16 Admin Delete Skill
- Filter (level & lang) same function as Figure 3.6.4.20 Admin Filter By Qualification

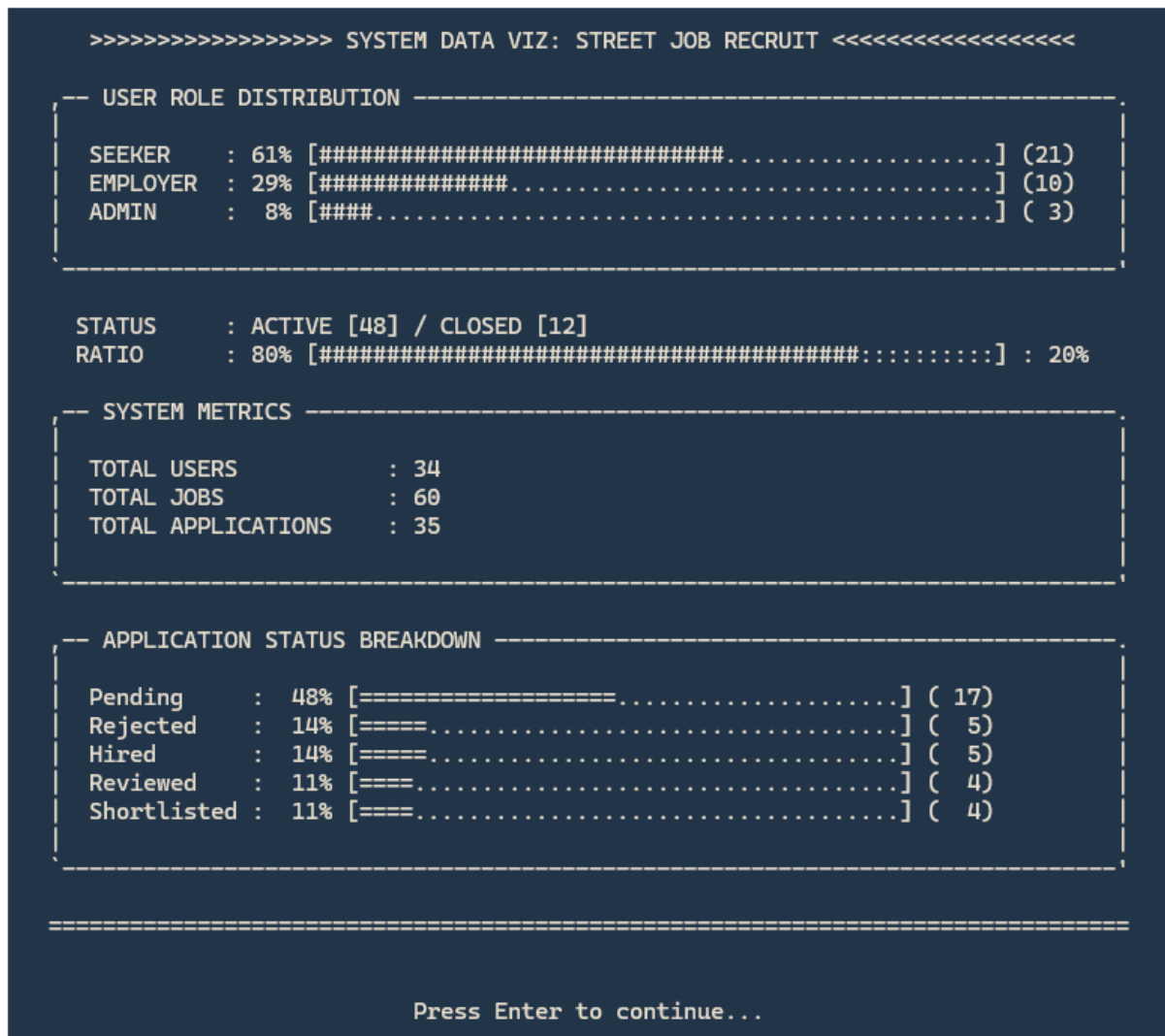


Figure 3.6.4.25 Admin View Database Statistics

Figure 3.6.4.26 Admin Job Posting Summary

APPLICANTS PER JOB REPORT		
JOB TITLE	EMPLOYER	APPLICANTS
IT Support (Part-Tim	Eta Education Sdn Bhd	2
Delivery Rider	Beta Logistics Sdn Bhd	2
Senior Barista	Delta Technologies Sdn Bh	2
Sous Chef	Epsilon Hospitality Sdn B	2
Graphic Designer Int	CBA CAFE	2
Centre Manager	Eta Education Sdn Bhd	1
Cashier Assistant	CBA CAFE	1
F&B Supervisor	Epsilon Hospitality Sdn B	1
Part-Time Barista	CBA CAFE	1
Supervisor	Gamma Retail Sdn Bhd	1
Delivery Rider	Alpha Food Sdn Bhd	1
Technical Support	Delta Technologies Sdn Bh	1
Production Operator	Zeta Manufacturing Sdn Bh	1
Account Assistant	Theta Services Sdn Bhd	1
Shift Supervisor	Alpha Food Sdn Bhd	1
Electrician Technici	Theta Services Sdn Bhd	1
Kitchen Helper	Alpha Food Sdn Bhd	1
Tuition Teacher (Mat	Eta Education Sdn Bhd	1
Delivery Rider	CBA CAFE	1
Junior Software Engi	Delta Technologies Sdn Bh	1
Customer Service (Ca	Beta Logistics Sdn Bhd	1
Stock Controller	Gamma Retail Sdn Bhd	1
Housekeeping Attenda	Epsilon Hospitality Sdn B	1
Warehouse Assistant	Beta Logistics Sdn Bhd	0
Part-Time Cleaner	Gamma Retail Sdn Bhd	0
Receptionist	Epsilon Hospitality Sdn B	0
Quality Inspector	Zeta Manufacturing Sdn Bh	0
Part-Time Barista	CBA CAFE	0
Visual Merchandiser	Gamma Retail Sdn Bhd	0
Warehouse Clerk	Zeta Manufacturing Sdn Bh	0
Part-Time English Tu	Eta Education Sdn Bhd	0
Graphic Designer (Pa	Alpha Food Sdn Bhd	0
UI/UX Designer	Delta Technologies Sdn Bh	0
Maintenance Technici	Zeta Manufacturing Sdn Bh	0
Store Assistant	Gamma Retail Sdn Bhd	0
Marketing Executive	Eta Education Sdn Bhd	0
Part-Time Sorter	Beta Logistics Sdn Bhd	0
DevOps Engineer	Delta Technologies Sdn Bh	0
Kitchen Helper (Nigh	Epsilon Hospitality Sdn B	0
Admin Officer	Eta Education Sdn Bhd	0
Admin Assistant	Beta Logistics Sdn Bhd	0
QA Tester	Delta Technologies Sdn Bh	0
Part-Time Waiter	Epsilon Hospitality Sdn B	0
Customer Service (On	Theta Services Sdn Bhd	0
Fleet Coordinator	Beta Logistics Sdn Bhd	0
Admin Assistant	Zeta Manufacturing Sdn Bh	0
General Helper	Theta Services Sdn Bhd	0
Forklift Driver	Zeta Manufacturing Sdn Bh	0
[VISUAL ANALYTICS: TOP 10 MOST DEMANDING JOBS]		
IT Support (Part-Tim	#####	(2)
Delivery Rider	#####	(2)
Senior Barista	#####	(2)
Sous Chef	#####	(2)
Graphic Designer Int	#####	(2)
Centre Manager	#####	(1)
Cashier Assistant	#####	(1)
F&B Supervisor	#####	(1)
Part-Time Barista	#####	(1)
Supervisor	#####	(1)

Figure 3.6.4.27 Admin Applicants Per Job

APPLICATION STATUS BREAKDOWN			
STATUS	COUNT	PERCENTAGE	
Pending	17	48.57	%
Hired	5	14.29	%
Rejected	5	14.29	%
Reviewed	4	11.43	%
Shortlisted	4	11.43	%

[VISUAL ANALYTICS: PIPELINE HEALTH]	
Pending	##### (17)
Hired	##### (5)
Rejected	##### (5)
Reviewed	##### (4)
Shortlisted	##### (4)

Press Enter to continue...

Figure 3.6.4.28 Admin App Status Breakdown

MOST POPULAR CATEGORIES	
CATEGORY	APPLICATIONS
Food & Beverage	9
Logistics	5
IT	3
Retail	3
Trades	2
Creative & Design	2
Customer Service	2
Food & Beverage (F&B)	2
Management	1
barista	1
Education	1
Administration	1
Manufacturing	1
Human Resources	1
Hospitality	1
Creative	0
Design	0
Marketing	0
Maintenance	0
Quality	0
Warehouse	0

[VISUAL ANALYTICS: POPULARITY INDEX]	
Food & Beverage	##### 9
Logistics	##### 5
IT	##### 3
Retail	##### 3
Trades	##### 2
Creative & Design	##### 2
Customer Service	##### 2
Food & Beverage (F&B)	##### 2
Management	### 1
barista	### 1
Education	### 1
Administration	### 1
Manufacturing	### 1
Human Resources	### 1
Hospitality	### 1
Creative	0
Design	0
Marketing	0
Maintenance	0
Quality	0
Warehouse	0

Figure 3.6.4.29 Admin Most Applied Categories

USER ROLE		TOTAL COUNT
seeker		21
employer		10
admin		3

[ROLE DISTRIBUTION]	
seeker	##### (21)
employer	##### (10)
admin	### (3)

REGISTRATION TREND (6 MO)		NEW USERS
2025-11		29
2025-12		2
2026-01		3

[GROWTH TRAJECTORY]	
2025-11	##### +29
2025-12	## +2
2026-01	### +3

Figure 3.6.4.30 Admin Registered Users Breakdown

CONVERSION RATE BY EMPLOYER				
EMPLOYER	APPS RCV'D	HIRED	SUCCESS RATE	
Delta Technologies Sdn Bhd	4	3	75.00	%
Beta Logistics Sdn Bhd	3	1	33.33	%
Eta Education Sdn Bhd	4	1	25.00	%
Theta Services Sdn Bhd	3	0	0.00	%
Epsilon Hospitality Sdn Bhd	4	0	0.00	%
Gamma Retail Sdn Bhd	3	0	0.00	%
HSR COMPANNY	1	0	0.00	%
Zeta Manufacturing Sdn Bhd	1	0	0.00	%
CBA CAFE	7	0	0.00	%
Alpha Food Sdn Bhd	5	0	0.00	%

[VISUAL ANALYTICS: SUCCESS RATE]	
Delta Technologies S	#####.....] 75%
Beta Logistics Sdn B	#####.....] 33%
Eta Education Sdn Bh	#####.....] 25%
Theta Services Sdn B	[.....] 0%
Epsilon Hospitality	[.....] 0%
Gamma Retail Sdn Bhd	[.....] 0%
HSR COMPANNY	[.....] 0%
Zeta Manufacturing S	[.....] 0%
CBA CAFE	[.....] 0%
Alpha Food Sdn Bhd	[.....] 0%

Figure 3.6.4.31 Admin Conversion Rate Report

JOB COMPETITION INDEX (TOP 20)	
JOB TITLE	APPLICANTS
Delivery Rider	2
IT Support (Part-Tim	2
Sous Chef	2
Senior Barista	2
Graphic Designer Int	2
Shift Supervisor	1
Account Assistant	1
F&B Supervisor	1
Delivery Rider	1
Junior Software Engi	1
Delivery Rider	1
Technical Support	1
Production Operator	1
Cashier Assistant	1
Centre Manager	1
Kitchen Helper	1
Tuition Teacher (Mat	1
Electrician Technici	1
Part-Time Barista	1
Supervisor	1

[VISUAL ANALYTICS: COMPETITION HEATMAP]	
Delivery Rider	##### 2
IT Support (Part-Tim	##### 2
Sous Chef	##### 2
Senior Barista	##### 2
Graphic Designer Int	##### 2
Shift Supervisor	##### 1
Account Assistant	##### 1
F&B Supervisor	##### 1
Delivery Rider	##### 1
Junior Software Engi	##### 1
Delivery Rider	##### 1
Technical Support	##### 1
Production Operator	##### 1
Cashier Assistant	##### 1
Centre Manager	##### 1
Kitchen Helper	##### 1
Tuition Teacher (Mat	##### 1
Electrician Technici	##### 1
Part-Time Barista	##### 1
Supervisor	##### 1

Figure 3.6.4.32 Job Competition Index

DEMAND VS SUPPLY MARKET REPORT		
CATEGORY	SUPPLY (JOBS)	DEMAND (PEOPLE)
Food & Beverage	12	8
Logistics	7	4
IT	5	3
Customer Service	3	2
Creative & Design	1	2
Trades	2	2
Retail	4	2
Food & Beverage (F&B)	1	2
Human Resources	2	1
barista	3	1
Hospitality	2	1
Administration	4	1
Manufacturing	1	1
Education	2	1
Management	1	1
Warehouse	2	0
Creative	2	0
Quality	1	0
Marketing	1	0
Design	1	0
Maintenance	3	0

[MARKET BALANCE (S=Supply, D=Demand)]

Food & Beverage:

S: ##### (12)

D: ##### (8)

Logistics:

S: ##### (7)

D: ##### (4)

IT:

S: ##### (5)

D: ##### (3)

Customer Service:

S: ##### (3)

D: ##### (2)

Creative & Design:

S: ### (1)

D: ##### (2)

Trades:

S: ##### (2)

D: ##### (2)

Retail:

S: ##### (4)

Figure 3.6.4.33 Admin Demand vs Supply Report

MONTHLY APPLICATION STATISTICS (PLATFORM-WIDE)						
MONTH	PENDING	REVIEWED	SHORTLISTED	HIRED	REJECTED	TOTAL
2026-01	3	1	1	1	1	7
2025-12	4	0	0	1	1	6
2025-11	10	3	3	3	3	22
TOTAL	17	4	4	5	5	35

[KEY PLATFORM METRICS]	
> Hiring Rate:	14%
> Rejection Rate:	14%
> Conversion Rate:	25%
> Average Apps/Mo:	11

[VISUAL ANALYTICS: APPLICATION TRENDS]	
2026-01	##### (7)
2025-12	##### (6)
2025-11	##### (22)

Press Enter to continue...

Figure 3.6.4.34 Admin Monthly App Statistics


```
+-----+
|                                     |
|                               GENERATING COMPLETE REPORT SUITE |
|                                     |
+-----+
| This will generate all 9 available reports for comprehensive platform analysis. |
|                                     |
+-----+

[1/9] Generating Job Posting Summary...

+-----+
|                                     |
|                               JOB POSTING SUMMARY REPORT |
|                                     |
+-----+
| TOTAL ACTIVE: 48          TOTAL CLOSED: 12    [#####.....] Active Ratio |
+-----+

+-----+
| JOBS BY CATEGORY |
+-----+
| Food & Beverage   | 8 |
| Logistics         | 7 |
| Administration    | 4 |
| IT               | 4 |
| Retail           | 3 |
| Customer Service  | 3 |
| Maintenance       | 3 |
| Education         | 2 |
| Warehouse        | 2 |
| Hospitality       | 2 |
| Creative          | 2 |
| Quality           | 1 |
| Manufacturing     | 1 |
| Food & Beverage (F&B) | 1 |
| Trades            | 1 |
| Design            | 1 |
| Management        | 1 |
| Marketing         | 1 |
| Creative & Design  | 1 |
+-----+

+-----+
| TOP ACTIVE EMPLOYERS |
+-----+
| Zeta Manufacturing Sdn Bhd | 6 |
| Epsilon Hospitality Sdn Bhd | 6 |
| Eta Education Sdn Bhd      | 6 |
| Beta Logistics Sdn Bhd     | 6 |
| Delta Technologies Sdn Bhd  | 6 |
| Gamma Retail Sdn Bhd       | 5 |
| CBA CAFE                   | 5 |
| Theta Services Sdn Bhd     | 4 |
| Alpha Food Sdn Bhd         | 4 |
+-----+

[ VISUAL ANALYTICS: JOB DISTRIBUTION BY CATEGORY ]
+-----+
Food & Beverage | ##### (8)
Logistics       | ##### (7)
Administration  | ##### (4)
IT              | ##### (4)
Retail          | ##### (3)
Customer Service | ##### (3)
Maintenance     | ##### (3)
Education       | ##### (2)
Warehouse       | ##### (2)
Hospitality     | ##### (2)
Creative        | ##### (2)
Quality         | ##### (1)
Manufacturing   | ##### (1)
Food & Beverage (F&B) | ##### (1)
```

Figure 3.6.4.35 Admin GENERATE ALL REPORTS

CHAPTER 4: IMPLEMENTATION

4.1 Naming Convention

In the StreetJobRecruit system, a consistent naming convention is applied to ensure code readability and database maintainability.

- a) **Variable Naming:** Variables are named using camelCase (e.g., `userRole`, `jobID`) to easily distinguish them from class names and functions. Meaningful names are chosen to reflect the data they hold, avoiding single-letter variables except for loop counters (e.g., `i`, `j`).
- b) **Class Naming:** Classes representing system entities (e.g., `User`, `JobApplication`, `DatabaseConnection`) use **PascalCase**. This aligns with standard C++ object-oriented practices.
- c) **Constant Naming:** Constants, such as maximum array sizes or fixed database configuration strings, are written in **UPPER_CASE** with underscores (e.g., `MAX_USERS`, `DB_HOST`) to clearly indicate immutable value

```

int getTerminalWidth() {
#ifdef _WIN32
    CONSOLE_SCREEN_BUFFER_INFO csbi;
    GetConsoleScreenBufferInfo(GetStdHandle(STD_OUTPUT_HANDLE), &csbi);
    return csbi.srWindow.Right - csbi.srWindow.Left + 1;
#else
    struct winsize w;
    ioctl(STDOUT_FILENO, TIOCGWINSZ, &w);
    return w.ws_col;
#endif
}

string getPadding(int contentWidth) {
    int termWidth = getTerminalWidth();
    int padding = (termWidth - contentWidth) / 2;
    if (padding < 0) padding = 0;
    return string(static_cast<size_t>(padding), ' ');
}

```

Figure 4.1.1 Naming Convention

4.2 Function

In the StreetJobRecruit System, functions are the primary building blocks used to modularize code, improve readability, and prevent redundancy. We implemented two distinct types of functions:

- a) **Module Handlers (Void Functions):** These are large functions responsible for handling entire screen logic, such as displaying menus or processing user input. They often take the Database Connection (`sql::Connection*`) as a parameter to perform operations.
- b) **Utility Helpers (Return Functions):** These are smaller, reusable functions used for UI formatting (like centering text) or data calculation. They return specific data types (string, int) to be used by other parts of the system.

```
using namespace std;
> static string center(const string& text, int width) { ... }
> static string drawBar(int value, int maxValue, int maxLength = 40) { ... }
> static string drawProgressBar(double percentage, int width = 20) { ... }
> static void generateJobPostingSummary(sql::Connection* con) { ... }
> static void generateApplicantsPerJob(sql::Connection* con) { ... }
> static void generateApplicationStatusBreakdown(sql::Connection* con) { ... }
> static void generateMostAppliedCategories(sql::Connection* con) { ... }
> static void generateRegisteredUsersBreakdown(sql::Connection* con) { ... }
> static void generateConversionRateReport(sql::Connection* con) { ... }
> static void generateJobCompetitionIndex(sql::Connection* con) { ... }
> static void generateDemandSupplyReport(sql::Connection* con) { ... }
> static void generateMonthlyApplicationStats(sql::Connection* con) { ... }
> void reportMenu(sql::Connection* con) { ... }
```

Figure 4.2.1 Function

4.3 Array

In the StreetJobRecruit system, Arrays (specifically implemented as `std::vector` in C++) are used to store and manipulate dynamic collections of data elements. Unlike static C-style arrays with a fixed size, `std::vector` allows the system to handle varying amounts of data efficiently, such as a changing number of job applications, user roles, or monthly statistics.

```
static vector<string> wrapText(string text, int maxWidth) {
    vector<string> lines;

    for (size_t i = 0; i < text.length(); i++) {
        unsigned char c = text[i];
        if (c == 0xE2 || c == 0x80 || c == 0x93 || c == 0x94 || c == 0x95 || c == 0x96 || c == 0x97 || c == 0x98 || c == 0x99 || c == 0xA2 || c == 0xA6)
            text[i] = '-';

        else if (c < 32 && c != '\n' && c != '\r' && c != '\t') {
            text[i] = ' ';
        }
    }

    stringstream ss(text);
    string line;
    while (getline(ss, line)) {
        while (line.length() > (size_t)maxWidth) {
            size_t breakPos = line.rfind(' ', maxWidth);
            if (breakPos == string::npos || breakPos == 0) {
                breakPos = maxWidth;
            }
            lines.push_back(line.substr(0, breakPos));
            line = line.substr(breakPos);

            while (!line.empty() && line[0] == ' ') line.erase(0, 1);
        }
        if (!line.empty()) {
            lines.push_back(line);
        }
    }

    return lines;
}
```

Figure 4.3.1 Array

4.4 Selection

Selection control structures allow the program to choose different paths of execution based on specific conditions. In the StreetJobRecruit System, we use:

- a) **switch statements** for menu navigation, allowing the user to select distinct modules (e.g., "Manage Users" vs. "Manage Jobs") based on an integer input.
- b) **if-else statements** for conditional logic, such as building dynamic SQL queries. For example, when searching for a job, the system checks *if* a filter criteria exists before appending it to the query string.

```

switch (choice) {
case 1: viewAllUsers(con); break;
case 2: viewAllJobs(con); break;
case 3: viewAllApplications(con); break;
case 4: viewAllSkills(con); break;
case 5: viewUserSkills(con); break;
case 6: viewJobSkills(con); break;
case 7: viewSeekerEducation(con); break;
case 8: viewSeekerLanguages(con); break;
case 9: viewDatabaseStats(con); break;
case 10: searchAll(con); break;
case 11: reportMenu(con); break;
case 0:
    clearScreen();
    setColor(LGT_R, LGT_G, LGT_B);
    cout << "\n" << p << "Logging out..." << endl;
    resetColor();
    pauseScreen();
    break;
default:
    setColor(255, 80, 80);
    cout << "\n" << p << "[ERROR] Invalid choice!" << endl;
    resetColor();
    pauseScreen();
}

```

Figure 4.4.1 switch statements

```

"WHERE j.is_active = 1 ";
if (!filterLocation.empty()) query += "AND j.location LIKE '%" + filterLocation + "%' ";
if (!filterType.empty()) query += "AND j.job_type = '" + filterType + "' ";
if (!searchTerm.empty()) query += "AND (j.title LIKE '%" + searchTerm + "%' OR u.full_name LIKE '%" + searchTerm + "%') ";
query += "ORDER BY j.created_at DESC";

```

Figure 4.4.2 if-else statements

4.5 Control

Control structures, specifically loops, allow the system to execute a block of code multiple times. In the StreetJobRecruit System, we implemented:

- a) **do-while loops:** Used for menu navigation. This ensures the menu is displayed at least once and keeps the user on the screen until they explicitly choose to "Back" or "Exit" (condition choice != 0).
- b) **while loops:** Used to iterate through database result sets. When the system fetches multiple rows (like a list of jobs), the loop continues as long as res->next() returns true.

```

void viewAllUsers(sql::Connection* con) {
    int actionChoice;
    do {
        clearScreen();
        int w = 117;
        string p = getPadding(w);
        try {
            unique_ptr<sql::Statement> stmt(con->createStatement());
            unique_ptr<sql::ResultSet> res(stmt->executeQuery("SELECT user_id, username, full_name, email, role, location FROM users ORDER BY user_id"));

            cout << endl;
            setColor(MED_R, MED_G, MED_B);
            cout << p << string(117, '=') << endl;
            setColor(LGT_R, LGT_G, LGT_B);
            cout << p << centerText("ALL USERS LIST", 117) << endl;
            setColor(MED_R, MED_G, MED_B);
            cout << p << string(117, '=') << endl;
            cout << p << "+" << string(6, '-') << "+" << string(17, '-') << "+" << string(27, '-') << "+" << string(27, '-') << "+" << string(12, '-') << "+" << string(21, '-') << endl;
            setColor(LGT_R, LGT_G, LGT_B);
            cout << p << " | " << left << setw(4) << "ID" << " | " << setw(15) << "USERNAME" << " | " << setw(25) << "FULL NAME" << " | " << setw(25) << "EMAIL" << " | " << setw(25) << "ROLE" << " | " << setw(25) << "LOCATION" << endl;
            setColor(MED_R, MED_G, MED_B);
            cout << p << "+" << string(6, '=') << "+" << string(17, '=') << "+" << string(27, '=') << "+" << string(27, '=') << "+" << string(12, '=') << "+" << string(21, '=') << endl;
            setColor(CRM_R, CRM_G, CRM_B);
            while (res->next()) {
                cout << p << " | " << left << setw(4) << res->getInt("user_id") << " | " << setw(15) << truncate(res->getString("username"), 15) << " | " << setw(25) << truncate(res->getString("full_name"), 25) << " | " << setw(25) << truncate(res->getString("email"), 25) << " | " << setw(25) << truncate(res->getString("role"), 25) << " | " << setw(25) << truncate(res->getString("location"), 25) << endl;
                setColor(MED_R, MED_G, MED_B);
                cout << p << "+" << string(6, '-') << "+" << string(17, '-') << "+" << string(27, '-') << "+" << string(27, '-') << "+" << string(12, '-') << "+" << string(21, '-') << endl;
                setColor(CRM_R, CRM_G, CRM_B);
            }
        } catch (...) {
            cout << endl;
            cout << p << string(117, '=') << endl;
            cout << p << centerText("ERROR: " << strerror(errno), 117) << endl;
            cout << p << string(117, '=') << endl;
        }
    } while (actionChoice != 0);
}

```

Figure 4.5.1 Control

4.6 Pointer

Pointers are used to pass the database connection between functions without disconnecting.

```

pstmt->setString(1, username);
pstmt->setString(2, password);
pstmt->setString(3, fullName);
pstmt->setString(4, email);
pstmt->setString(5, location);
pstmt->setString(6, phone);
pstmt->setString(7, summary);

```

Figure 4.6.1 Pointer

4.7 Error Handling

Error handling is a programming technique used to ensure the system continues to operate smoothly even when unexpected events occur. In the StreetJobRecruit System, we implemented:

1. **try-catch Blocks:** All database interactions are wrapped in try-catch blocks. If a SQL command fails (e.g., trying to create a user with a duplicate email), the system catches the `sql::SQLException` and displays a readable error message instead of crashing the entire application.
2. **Input Stream Validation:** When the system expects a numerical input (like a menu choice), we check `cin.fail()`. If the user accidentally enters text, the system clears the error flag and ignores the invalid input to prevent infinite loops.

```

void viewAllUsers(sql::Connection* con) {
    int actionChoice;
    do {
        clearScreen();
        int w = 117;
        string p = getPadding(w);
        try { ... }
        catch (sql::SQLException& e) { cout << "Error: " << e.what() << endl; pauseScreen(); }
    } while (actionChoice != 7);
}

```

Figure 4.7.1 try-catch Blocks

```

if (!(cin >> choice)) { cin.clear(); cin.ignore(numeric_limits<streamsize>::max(), '\n'); choice = -1; }
switch (choice) {
    case 1: manageJobs(conn, employer_id); break;
    case 2: manageApplications(conn, employer_id); break;
    case 3: manageCompanyProfile(conn, employer_id); break;
    case 4: viewEmployerSummary(conn, employer_id); break;
    case 5: viewMonthlyApplicationStats(conn, employer_id); break;
    case 0:
        clearScreen();
        setColor(MED_R, MED_G, MED_B);
        cout << "\n" << centerText("Logging out...", getTerminalWidth()) << endl;
        resetColor();
        pauseScreen();
        return;
    default:
        setColor(255, 0, 0);
        cout << "\n" << centerText("[ERROR] Invalid choice!", getTerminalWidth()) << endl;
        resetColor();
        pauseScreen();
}
}

```

Figure 4.7.2 Input Stream Validation

4.8 Business Rule Implementation

Business rules are the policies and constraints that govern the behavior of the system. In the StreetJobRecruit System, a core business rule is that **"Job Seekers may only interact with Job Postings that are currently marked as Active."** This rule protects the recruitment process by ensuring that applications are only submitted to open vacancies, while allowing Employers to "Close" (hide) jobs without deleting them from the database.

```
string query = "SELECT j.job_id, j.title, u.full_name as company_name, j.location, j.salary, "
               "j.job_type, j.experience_level, j.job_category "
               "FROM jobs j "
               "JOIN users u ON j.employer_id = u.user_id "
               "WHERE j.is_active = 1 ";
```

Figure 4.8.1 Business Rule Implementation

4.9 Complex Calculation Implementation

In the StreetJobRecruit System, complex calculations are implemented to derive meaningful business insights from raw data. Instead of simple arithmetic, the system performs **Aggregate Ratio Calculations** involving multiple database tables. A key example is the **"Job Competition Index"**, which measures the difficulty of securing a job in a specific category.

The calculation follows this logic:

- a) **Aggregation:** It counts the total number of applications received for a category.
- b) **Normalization:** It divides that count by the number of unique active jobs in that category.
- c) **Interpretation:** The C++ logic then interprets this numerical index to assign a qualitative label (e.g., "High Competition" vs. "Low Competition").


```

static void generateJobCompetitionIndex(sql::Connection* con) {
    try {
        unique_ptr<sql::Statement> stmt(con->createStatement());
        unique_ptr<sql::ResultSet> res(stmt->executeQuery(
            "SELECT j.title, COUNT(a.application_id) AS Applicants "
            "FROM jobs j LEFT JOIN applications a ON j.job_id = a.job_id "
            "WHERE j.is_active = 1 GROUP BY j.job_id, j.title ORDER BY Applicants DESC LIMIT 20"));

        struct CompData { string t; int a; };
        vector<CompData> data;
        int maxApp = 0;

        int w = 57;
        string p = getPadding(w);

        cout << "\n" << p << "+-----+" << endl;
        cout << p << "| JOB COMPETITION INDEX (TOP 20) |" << endl;
        cout << p << "+-----+" << endl;
        cout << p << "| JOB TITLE | APPLICANTS |" << endl;
        cout << p << "+-----+" << endl;

        while (res->next()) {
            string t = res->getString("title");
            int a = res->getInt("Applicants");
            data.push_back({ t, a });
            if (a > maxApp) maxApp = a;

            cout << p << "| " << left << setw(37) << t.substr(0, 37) << " | " << setw(13) << a << " |" << endl;
        }
        cout << p << "+-----+" << endl;

        cout << "\n" << p << " [ VISUAL ANALYTICS: COMPETITION HEATMAP ]" << endl;
        cout << p << "+-----+" << endl;
        for (const auto& d : data) {
            cout << p << " " << left << setw(20) << d.t.substr(0, 20) << " | " << drawBar(d.a, maxApp, 35) << " " << d.a << endl;
        }
        cout << endl;
    } catch (sql::SQLException& e) { cout << "Error: " << e.what() << endl; }
}

```

Figure 4.9.1 Complex Calculation Implementation

4.10 Report Generation for Analysis Implementation

In the StreetJobRecruit System, report generation goes beyond simple data listing. The system implements an **Analytical Engine** that aggregates raw data (using SQL COUNT, SUM, GROUP BY) and visualizes it directly in the console.

The implementation involves two key steps:

- Data Aggregation:** The system executes complex SQL queries to calculate metrics like "Job Competition Index" or "Monthly Application Trends."
- Visual Rendering:** A custom C++ algorithm converts these numerical percentages into dynamic ASCII progress bars (e.g., [#####.....]), allowing the Administrator to instantly gauge performance metrics without needing external tools.

```

static string drawProgressBar(double percentage, int width = 20) {
    if (percentage < 0) percentage = 0;
    if (percentage > 100) percentage = 100;
    int fill = (int)((percentage / 100.0) * width);
    return "[" + string(fill, '#') + string(width - fill, '.') + "]";
}

```

Figure 4.10.1 Visual Rendering

CHAPTER 5: CONCLUSION

5.1 Constraints

The StreetJobRecruit System is designed as a standalone console application that meets the core project requirements but operates with specific technical limitations. It relies heavily on Windows-specific libraries like `<windows.h>` for interface formatting, which makes the software platform-dependent and incompatible with Linux or macOS environments. Additionally, because it is a linear executable without a Graphical User Interface (GUI), it is restricted to a single user session at a time and requires a direct local network connection to the MySQL database, preventing simultaneous multi-user access or remote deployment.

5.2 Future Improvements

To address the current technical limitations of the StreetJobRecruit System, future development should prioritize migrating the architecture from a standalone Windows console application to a scalable web-based platform. This transition will resolve platform dependency issues and enable concurrent multi-user access, allowing Employers and Seekers to interact with the system simultaneously from any device. Additionally, moving the local MySQL database to a cloud environment and integrating an SMTP notification service will ensure remote accessibility and real-time user engagement, effectively transforming the current prototype into a fully deployable enterprise solution.

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