

# **Supermarket Job Requirement System (Talent Acquisition Digitization)**

**K. D. P. S. Somathilake  
2020**



# **Supermarket Job Requirement System (Talent Acquisition Digitization)**

**A dissertation submitted for the Degree of Master of  
Information Technology**

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**University of Colombo School of Computing**  
**2020**



## **Declaration**

The thesis is my original work and has not been submitted previously for a degree at this or any other university/institute.

To the best of my knowledge it does not contain any material published or written by another person, except as acknowledged in the text.

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Signature:

Date:

This is to certify that this thesis is based on the work of

Mr./Ms.

under my supervision. The thesis has been prepared according to the format stipulated and is of acceptable standard.

Certified by:

Supervisor Name: Dr. K. L. Jayarathne

\_\_\_\_\_  
Signature:

Date:

## **Abstract**

This document introduces a full automated IT solution that has been created with the view of reducing the issues currently prevailing in job recruitment of supermarkets. This involves identifying the specific issues and its analysis based on which the system is introduced setting out its design, implementation and testing. The system introduced by this study is a Job Requirement System which is a platform that allows all candidates to apply through a web-based system (Public Website).

The backend website will also accommodate several other HR processes including managing interviews, trainings, transfers, promotions, outlet allocation and the resigning process. A pre-defined set of jobs with the relevant qualifications for each of the jobs have been included in the system and hence once the applicant fills out the relevant details, the system automatically generates the list of jobs that such applicant is entitled to apply.

## **Acknowledgement**

I would like to express my sincere thanks of gratitude to project supervisor, Dr. Lakshman Jayarthne for his continuance guidance, encouragement and valuable evaluation of my project work. His eagerness to give his time so abundantly is commendable. Specially acknowledging the motivation and the consistent direction by giving important evaluation empowered me to finish my work effectively.

I would likewise thank our project coordinator, Mr. Viraj Welgama for continuously offering us with the direction and support to execute the project successfully. And my special thanks go to all the other lectures who taught us and nurtured us with means of education for the past two years while undergoing this master program. Those teachings were very much useful for the development of this project.

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## List of Abbreviations

<b>Abbreviation</b>	<b>Description</b>
API	Application Programming Interface
DI	Dependency Injection
DOM	Document Object Model
EF	Entity Framework
GCE O/L	General Certificate of Education Ordinary Level
GCE A/L	General Certificate of Education Advanced Level
HR	Human Resource
HRP	Human Resource Partner
HTML	Hypertext Markup Language
HTTP	Hyper Text Transfer Protocol
IIS	Internet Information Services
JWT	JSON Web Token
MSSQL	Microsoft SQL Server
MVC	Model View Controller
NIC	National Identity Card
OOP	Object Oriented Programming
PQ	Professional Qualification
SMTP	Simple Mail Transfer Protocol
SQL	Structured Query Language
UI	User interface
URL	Uniform Resource Locator
XML	Extensible Markup Language
XSS	Cross Site Scripting

# **Chapter 1. Introduction**

## **1.1 Motivation**

As one of the prominent industries in terms of employment, the retail industry's (supermarkets) recruitment challenges are huge and unique in their characteristics. One of such recruitment challenges faced is the high employee turnover.

The retail industry is among the top industries with the highest employee turnover rate. The procedure of hiring and training replacement is costly even for an entry level retail job. So, employee turnover is a very expensive recruitment challenge for any retail store.

Dissimilar to the greater part of the employments from different enterprises, retail occupations do not really focus on qualifications, educational level or experience. This implies individuals with various educational levels and experience maybe qualified. While this is an incredible thing, it makes distinguishing the best fits troublesome as you do not have a perfect applicant profile to compare the candidates with. Due to this reason after working for a short period of time the employees tend to leave the job.

Irregularity is basic in retail organizations. A few organizations get more deals before Christmas, while others during the New Year. This implies, the staffing needs of retail organizations are very unpredictable. This seasonality act as a massive recruitment challenge for retail organizations as it requires a specific type of recruiting called "high volume employing." High volume recruiting basically implies employing multiple employees over a limited time period.

At times, this recruiting challenge becomes worse when the regular retail employees (who are not adopted to handle the expanded heap of work) quit the job because of it.

Since a large portion of the huge retail associations have multiple stores, this adds one greater component to their recruiting.

Recruiting for multiple stores is challenging since most of the times these do not have a centralized recruitment process. This absence of a central recruitment process mostly means that each particular store conducts its own hiring. As it is not practicable for every retail outlet of a company to have an HR resource on site, this hiring is frequently done by the store's manager, who may not excel as a recruiter. So even employees who left one outlet of the store after working few months, join another outlet without any issue as there is no way to keep records of all the employees who join and leave all the outlets of the store.

## 1.2 Project Objectives

The project illustrates the details of a complete Talent Acquisition Digitization system. It defines that, external entities can apply for available career opportunities inside an organization and the way of handling the application of the candidate throughout the recruitment process. The system users can be mainly two types. They are external users and internal organization users. The main outcome of the system would be an efficient recruitment management system to make the processes much easier and keep the candidates with the system updated throughout the process.

**Centralize all outlets new recruitments** - Centralizing the information of all the new recruitments with regard to all the outlets, will help the outlets to filter through unsolicited resumes. They provide simple, unbiased solutions to the growing problem of resume management. Since all the resumes are in the system, the issue of previous employees joining some other outlet can be easily identified and avoided if required.

**Manage existing employee's details** - Not only the new recruits but also the details of the existing employees shall be added to the system and they are required to follow same promotion, transfer and deletion processes provided by the system.

**Enhance efficiency of interview process** - Human Resource Partner will send a confirmation email through the system to the candidate regard to the interview. According to their confirmation and rejects, system will capture the schedules of all interviews. Interview process will provide levels of interviews, such as schedule interview, 1<sup>st</sup> level and 2<sup>nd</sup> level interviews.

**Handle employee promotion, transfer and deletion processes** - The proposed system will eliminate gaps between promotion, transfer and deletions processes both with regard to existing employees and new recruits.

**Simple way to apply as a candidate** - Application form will allow candidates to enter their personal information, academic information and work information. Candidates might be applying via various sources such as agents, agencies, workshops and other sources in their recruitment process. Hence all these source details can be tracked and analysed to determine the areas that need to be improved.

**Centralize login system with Proper authentication mechanism** - Users should be able to login to the system from anywhere at any time. Only thing required would be an internet connection. System has role, permission-based authentication to show/hide access levels. This is a key objective of this system.

### **1.3 Scope of the Project**

Job Requirement System is a platform that allows all candidates to apply through a web-based system (Public Website). Since these candidates might be applying via various sources, the system will allow capturing the candidate's information through such sources and this information will be useful for the business to optimize their job advertisement methodology. Public website will allow candidates to enter their personal, academic and work information which will be consolidated into a single database that is accessible by people with the right credentials.

Furthermore, system will notify the Human Resource Partner when the user completes filling the application form in the system. Human Resource Partner can either confirm or reject such applications and based on such decision system will capture the schedules of all interviews. Interview process will provide levels of interviews, such as schedule interview, 1st level and 2nd level interviews. After the selection process of candidates, system will allow to enter employee training details.

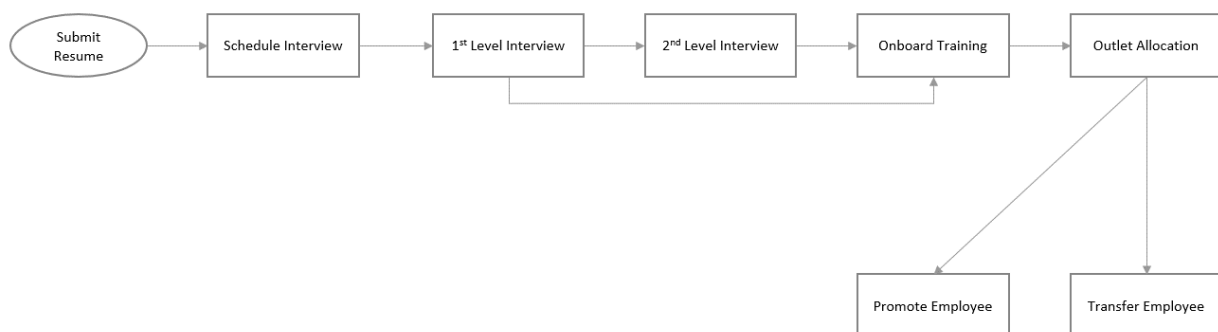
The system will also accommodate the other HR processes such as promotion module, deletion module, transfer module of an employee, campaign module, source module, outlet module, outlet allocation module, edit application module, candidate status module, training module, existing employee module, user management module and dashboard module.

## Chapter 2. Background

The main issue which needs to be identified is why the employee turnover in retail so high and more importantly what can you do about it. There are several reasons for the high employee turnover such as highly competitive job market, relatively low wages and mismanagement of expectations. It is important to hire the right candidate from the start which means hiring someone who is fit for the job and not under or overqualified. An applicant who is under-qualified will struggle to continue with the pace of work. Even though an overly competent applicant might seem good, they are also more prone to leave prematurely because they have reached their ceiling. The lack of a centralized hiring process in stores has allowed even employees who left one outlet of the store after working few months, join another outlet without any issue as there is no way to keep records of all the employees who join and leave all the outlets of the store.

So, to avoid these issues it is important to choose candidates who are fit and proper for the job through a talent acquisition system which focuses on selecting the candidates for specific job positions based on their talent.

### 2.1 Current Process



**Fig. 2. 1. Current Process**

Before hiring an applicant for a job position, a supermarket goes through a step-by-step hiring process. The recruitment aspect of the hiring process occurs when the supermarket tries to reach a pool of candidates mostly through job postings in newspapers, job campaign, advertisements, agents etc. Candidates respond to these measures by posting their resumes, manually handing over the resumes or if the option is available by sending via email. After reviewing the resumes selected candidates will be invited for one or more interviews and other methods of assessment depending on the position offered. If the position requires a higher level of qualifications then the candidate will have to go through both level one and level two interviews while a candidate who has applied for a position which requires lesser qualifications may only have to face the level one interview. Before recruitment employers may check the background of prospective candidates, as well as check references.

After the interview process the selected candidates may be given on board training prior to allocating them to branches of the supermarket. Throughout this entire process all the documentation is being handled and stored for future references by using manual methods. If the hired employee is being transferred to another outlet the documentation will also be transferred manually to the other outlet.

## 2.2 Similar Systems

As a background study few products and their features have been studied to get an idea what needs to be included in the proposed solution. A small company with only few employment positions may be able to keep record of everything in well-organized spreadsheets. But a business like a supermarket with several branches which is larger and growing steadily, has the requirement for a specialized software. But the products that have been studied are more generic products that cover a basic job recruitment system. The necessity is a supermarket related complete “Talent Acquisition Digitization System”. These generic products relate to recruitment, which is about filling vacancies. Talent acquisition is a growing strategy which influences to focus on long-term human resources planning and discovering appropriate candidates for positions that require a specific skill set. So, buying these generic products for huge a cost will not necessarily resolve the problem. While recruitment continues to be an essential activity to fill immediate vacancies, talent acquisition is a long-term method to make hiring more efficient and more productive. Newcomers will be attracted to the company as a great place to work, and the company will thrive. Talent acquisition will help to build the best possible team for the company.

Product	Best For	Ideal number of Users	Product Features	Platforms
BambooHR [1]	Small and medium businesses that want to move away from using spreadsheets to manage their HR.	2 - 999	<ul style="list-style-type: none"> <li><input type="checkbox"/> Assessments</li> <li><input type="checkbox"/> Background Screening</li> <li><input checked="" type="checkbox"/> CRM</li> <li><input type="checkbox"/> Interaction Tracking</li> <li><input checked="" type="checkbox"/> Internal HR</li> <li><input type="checkbox"/> Interview Management</li> <li><input type="checkbox"/> Job Posting</li> <li><input checked="" type="checkbox"/> Job Requisition</li> <li><input checked="" type="checkbox"/> Onboarding</li> <li><input type="checkbox"/> Recruiting Firms</li> <li><input type="checkbox"/> Reference Checking</li> <li><input type="checkbox"/> Resume Parsing</li> <li><input type="checkbox"/> Self Service Portal</li> </ul>	Cloud Windows Mac IOS Android

<p>Recooty [2]</p>	<p>Recooty is an ideal all-in-one recruitment tool for high growth tech startups, well established companies and ambitious organizations.</p>	<p>1 - 1000+</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Assessments</li> <li><input type="checkbox"/> Background Screening</li> <li><input type="checkbox"/> CRM</li> <li><input type="checkbox"/> Interaction Tracking</li> <li><input type="checkbox"/> Internal HR</li> <li><input checked="" type="checkbox"/> Interview Management</li> <li><input checked="" type="checkbox"/> Job Posting</li> <li><input type="checkbox"/> Job Requisition</li> <li><input checked="" type="checkbox"/> Onboarding</li> <li><input checked="" type="checkbox"/> Recruiting Firms</li> <li><input type="checkbox"/> Reference Checking</li> <li><input checked="" type="checkbox"/> Resume Parsing</li> <li><input type="checkbox"/> Self Service Portal</li> </ul>	<p>Cloud</p>
<p>Workable [3]</p>	<p>Workable is for organizations of all forms, anyplace in the world. From high-growth tech startups to well established organizations in hospitality, media, manufacturing, healthcare and more.</p>	<p>1 - 999</p>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Assessments</li> <li><input checked="" type="checkbox"/> Background Screening</li> <li><input checked="" type="checkbox"/> CRM</li> <li><input checked="" type="checkbox"/> Interaction Tracking</li> <li><input checked="" type="checkbox"/> Internal HR</li> <li><input checked="" type="checkbox"/> Interview Management</li> <li><input checked="" type="checkbox"/> Job Posting</li> <li><input checked="" type="checkbox"/> Job Requisition</li> <li><input checked="" type="checkbox"/> Onboarding</li> <li><input checked="" type="checkbox"/> Recruiting Firms</li> <li><input checked="" type="checkbox"/> Reference Checking</li> <li><input checked="" type="checkbox"/> Resume Parsing</li> <li><input checked="" type="checkbox"/> Self Service Portal</li> </ul>	<p>Cloud IOS Android</p>



Zoho Recruit [4]	Corporate HRs, Staffing Agencies, Recruitment Agencies, Temporary Staffing Agencies, Recruiting and Staffing Professionals.	1 - 1000+	<ul style="list-style-type: none"> <li>✓ Assessments</li> <li>✓ Background Screening</li> <li>✓ CRM</li> <li>✓ Interaction Tracking</li> <li>✓ Internal HR</li> <li>✓ Interview Management</li> <li>✓ Job Posting</li> <li>✓ Job Requisition</li> <li>✓ Onboarding</li> <li>✓ Recruiting Firms</li> <li>✓ Reference Checking</li> <li>✓ Resume Parsing</li> <li>✓ Self Service Portal</li> </ul>	Cloud IOS Android
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**Table 2. 1. Similar Systems**

## **2.3 Functional and Nonfunctional Requirements**

### **2.3.1 Functional Requirements**

#### **User Management Module**

- The system should be able to handle user accounts with different privileges.
- The system should be able to notify users via emails.

#### **Candidate/Employee Management Module**

- The system should be able to manage candidate details.
- The system should be able to handle promotions of employees.
- The system should be able to handle deletion of employees.
- The system should be able to handle transfers of employees.
- The system should be able to handle campaigns.
- The system should be able to handle sources.
- The system should be able to view candidate status.
- The system should be able to assign candidate for an on the job training.
- The system should be able to manage existing employees.
- The system should be able to view some progress on key modules in dashboard.

### **Interview Management Module**

- The system should be able to handle schedule interview.
- The system should be able to handle 1<sup>st</sup> and 2<sup>nd</sup> level interviews (levels of interviews depending on job position).

### **Outlet Management Module**

- The system should be able to handle outlets.
- The system should be able to handle outlet allocation of employees.

## **2.3.2 Non-Functional Requirements**

### **Candidate Management Module**

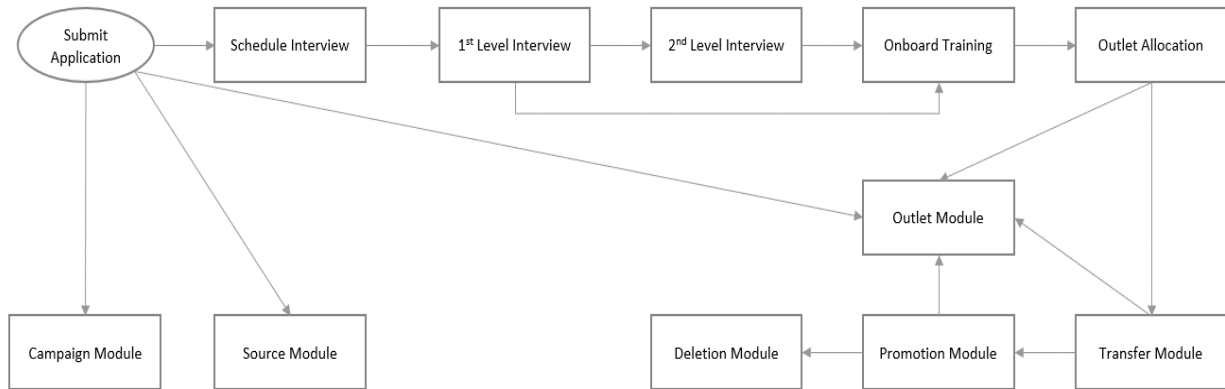
- The system shall accommodate any amount of applications to be entered in the system, regardless of the time limit.
- The system shall terminate any spamming operation from computers, which will enable Recaptcha entry during user registering process and forgot password process.

### **User Management Module**

- Every user must change his initially assigned login password to a new password immediately after his first successful login.
- Password strength assigned to the user will be alphanumeric (minimum length 8 character, at least a number to be used)
- User name of the users will be their respective NIC number and it cannot be duplicated in the system. Username can only be modified by the admin user.
- Forgotten passwords shall be managed by an authorization cycle where user has to submit their Username. Correct combination will generate a new password to their respective emails.
- During the login process, if the user enters an incorrect password more than 5 times system will block the account for 30mins.
- User privilege levels shall be implemented in the system where users shall have segregated access to the system, defined within their roles and screen-based access allocated to them.

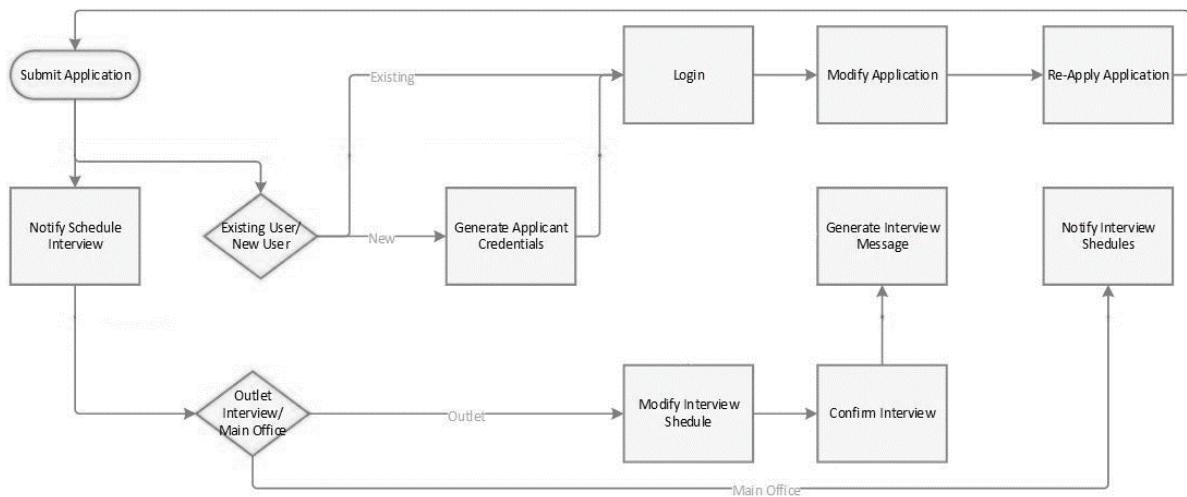
## 2.4 Proposed Solution

### 2.4.1 Entire System Process Flow

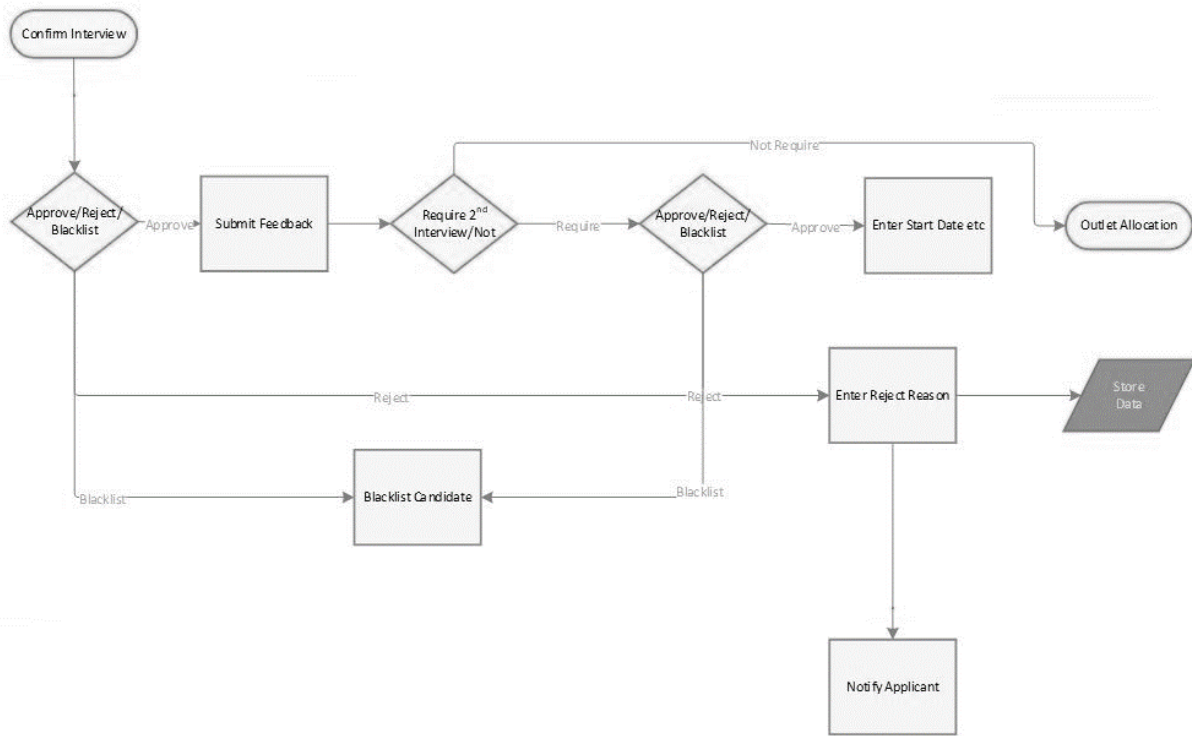


**Fig. 2. 2. Entire System Process Flow**

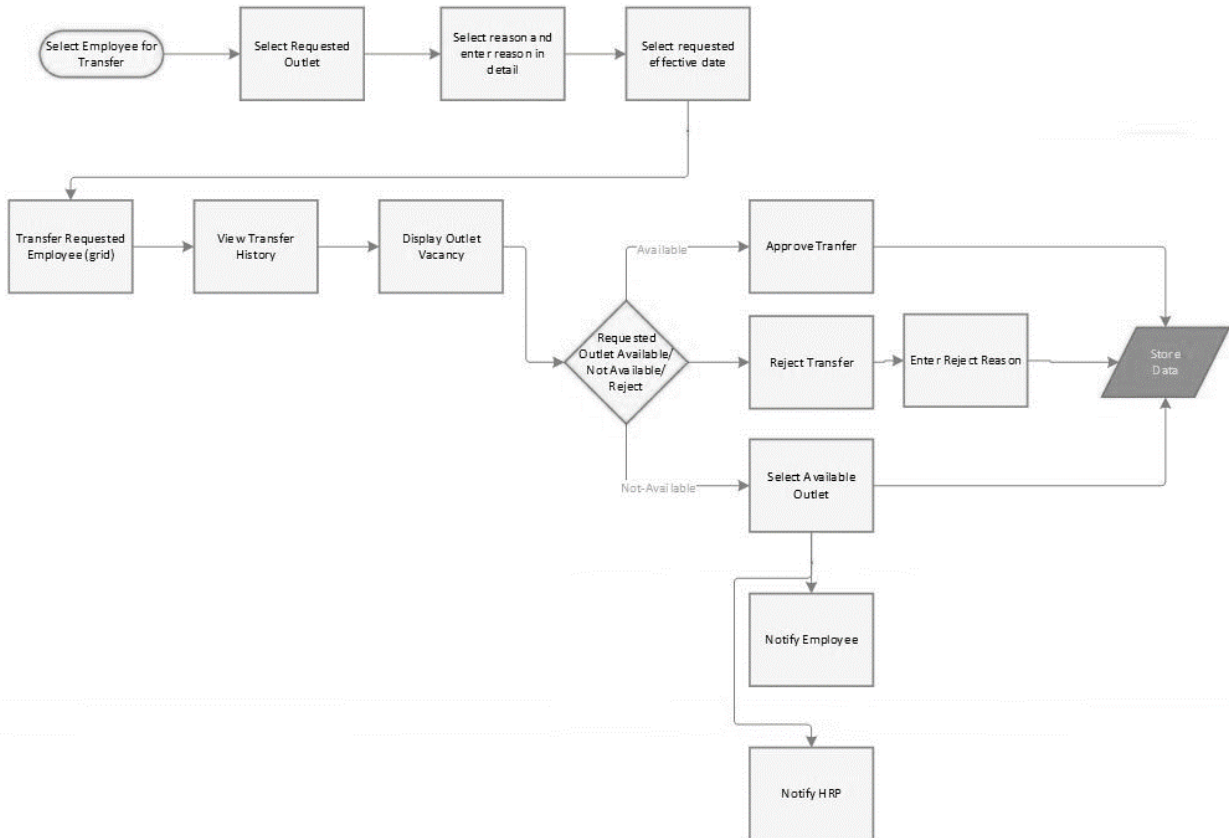
### 2.4.2 Process Diagrams of the System



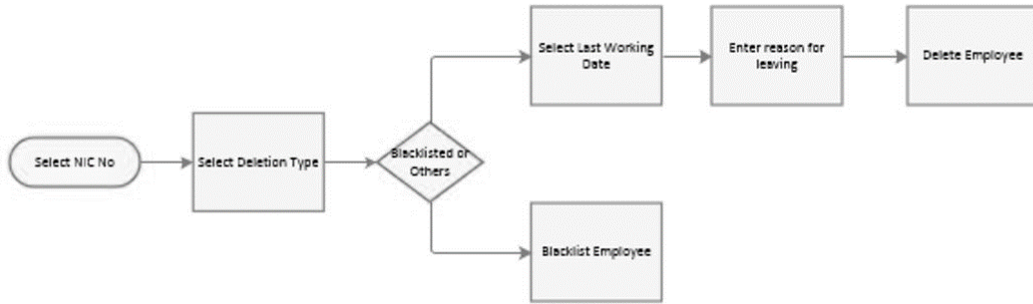
**Fig. 2. 3. Submit Application Process**



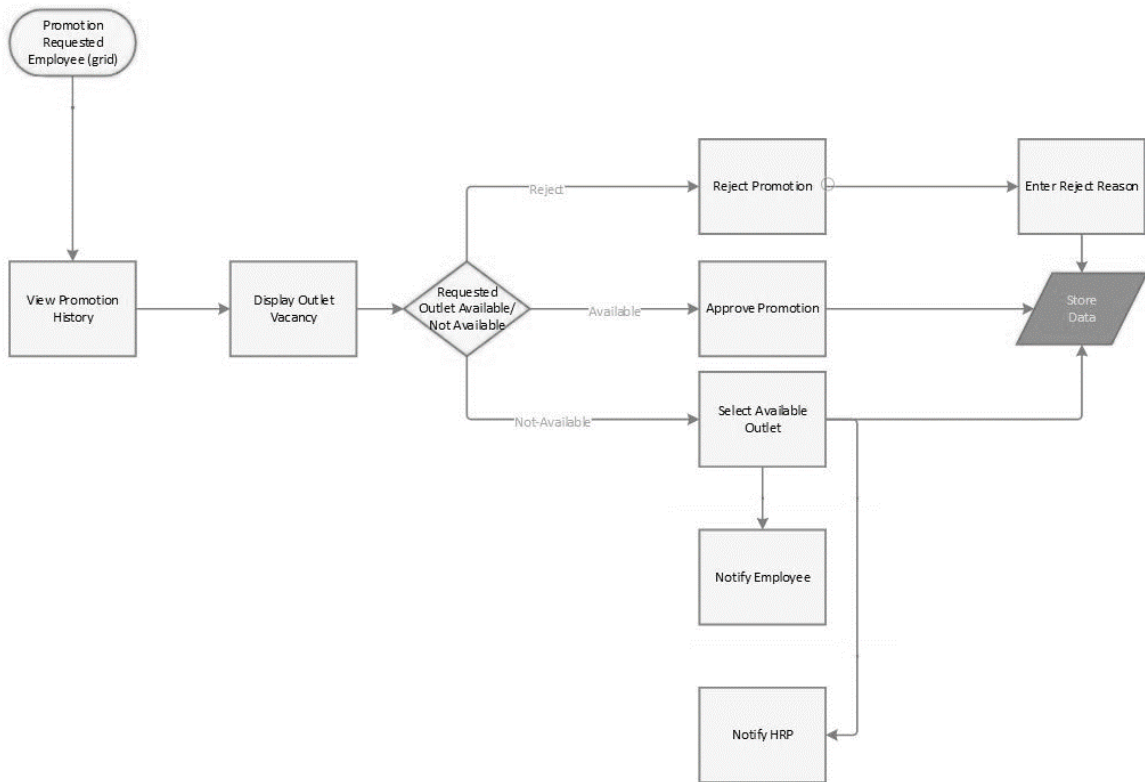
**Fig. 2. 4. Schedule Interview**



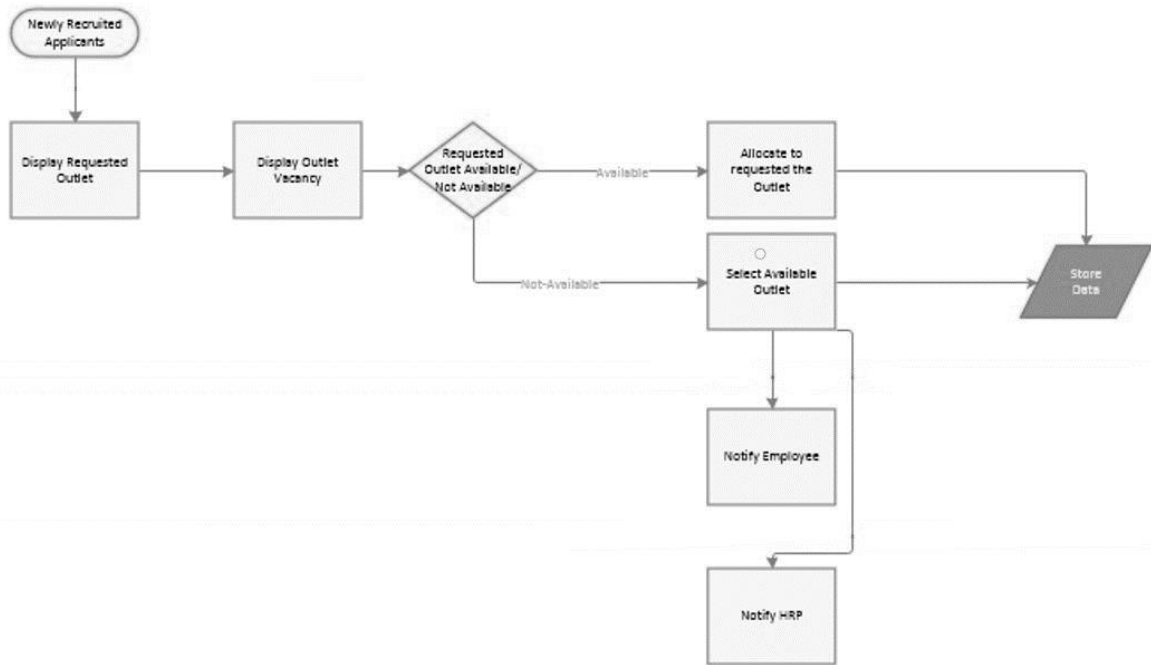
**Fig. 2. 5. Transfer Module**



**Fig. 2. 6. Deletion Module**



**Fig. 2. 7. Promotion Module**



**Fig. 2. 8. Outlet Allocation Module**



**Fig. 2. 9. Vacancy Module**



**Fig. 2. 10. Campaign Module**

## 2.5 User Classes and Characteristics

### 2.5.1 Applicant

User Class	Description
Applicants	Applicants (external users) who are seeking jobs and who are going to apply for jobs.

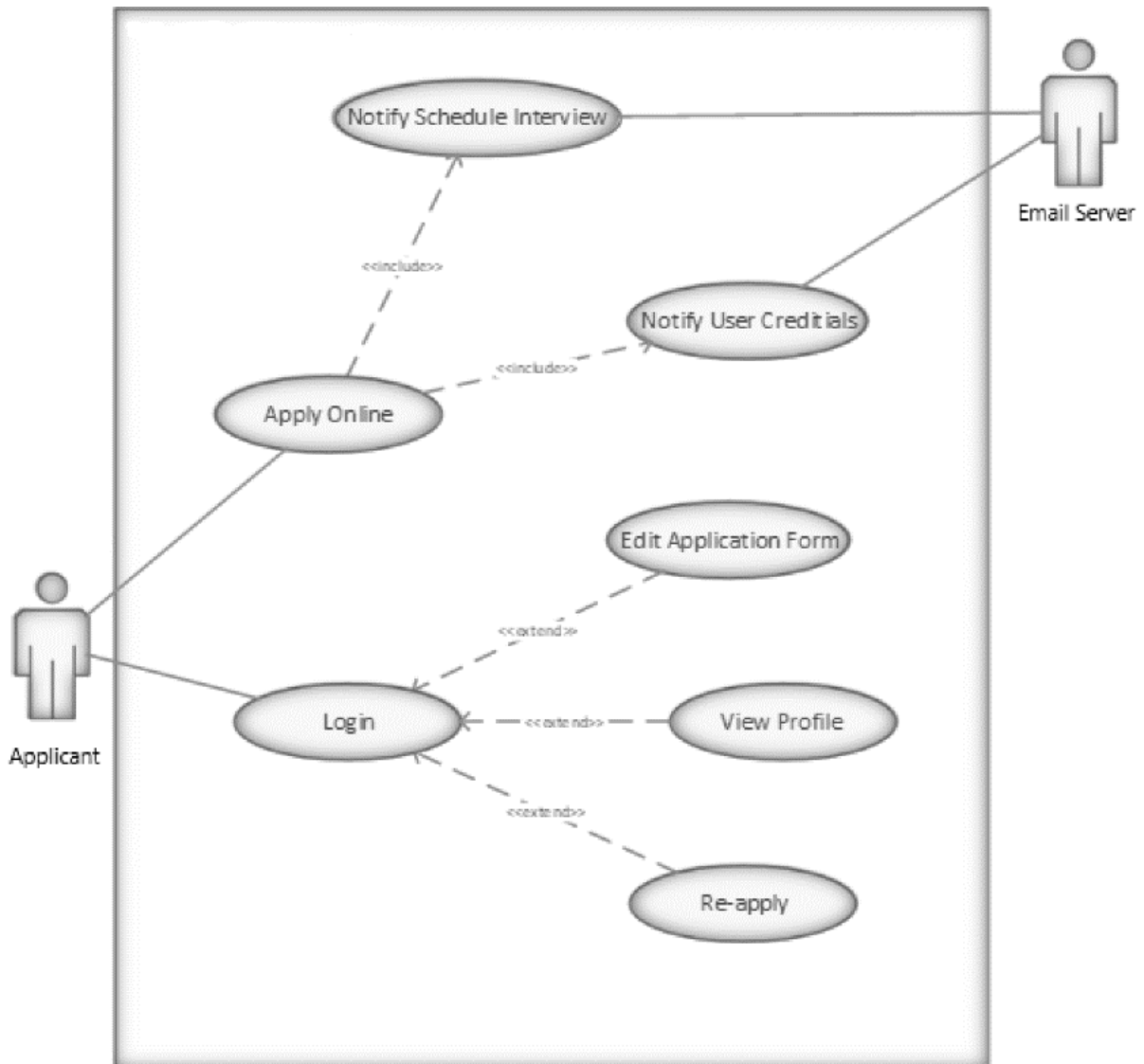


Fig. 2. 11. Applicant

### 2.5.2 Human Resource Partner

User Class	Description
HRP	Human resource partners of the supermarket who are placed in outlets and head office.

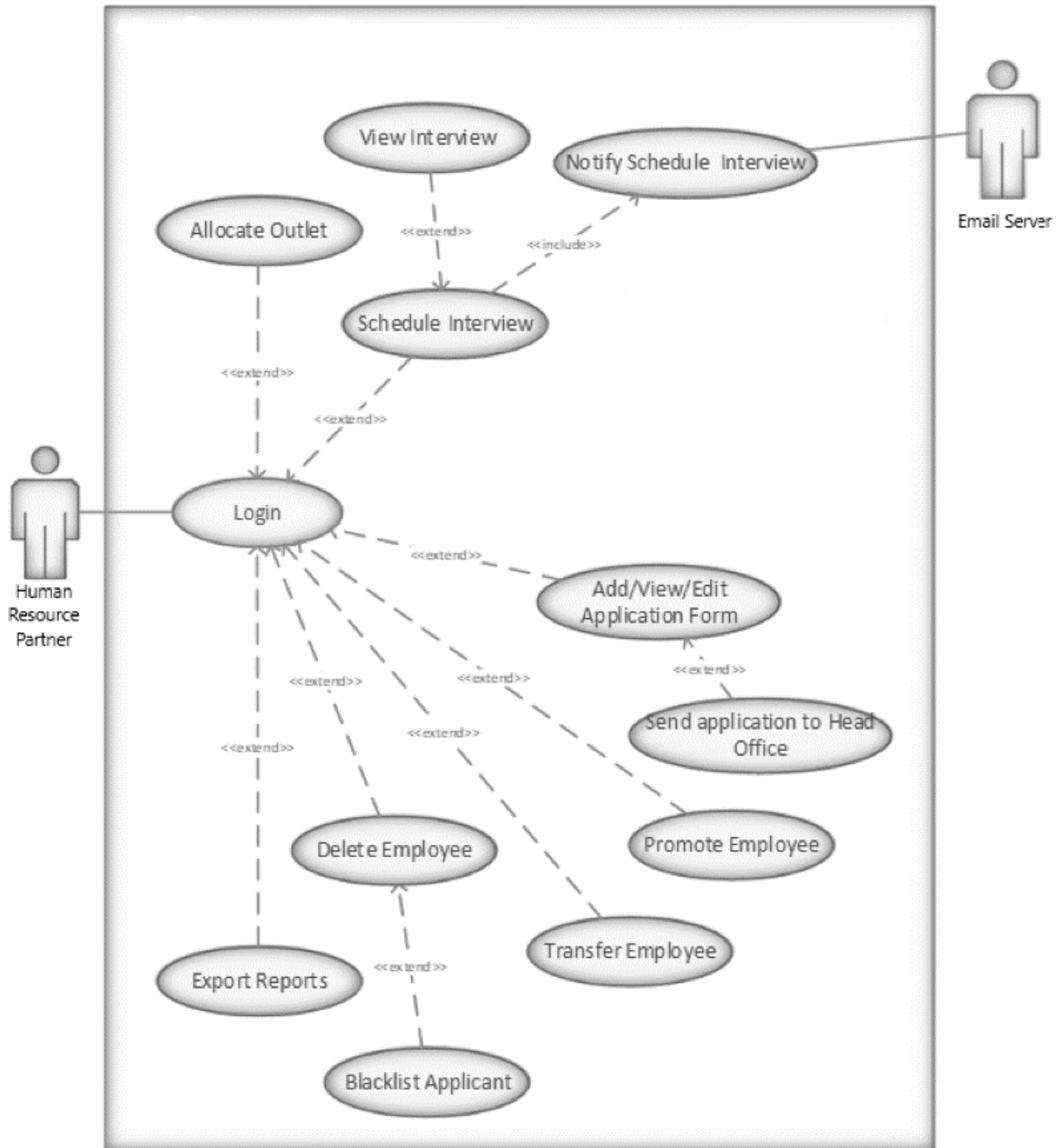
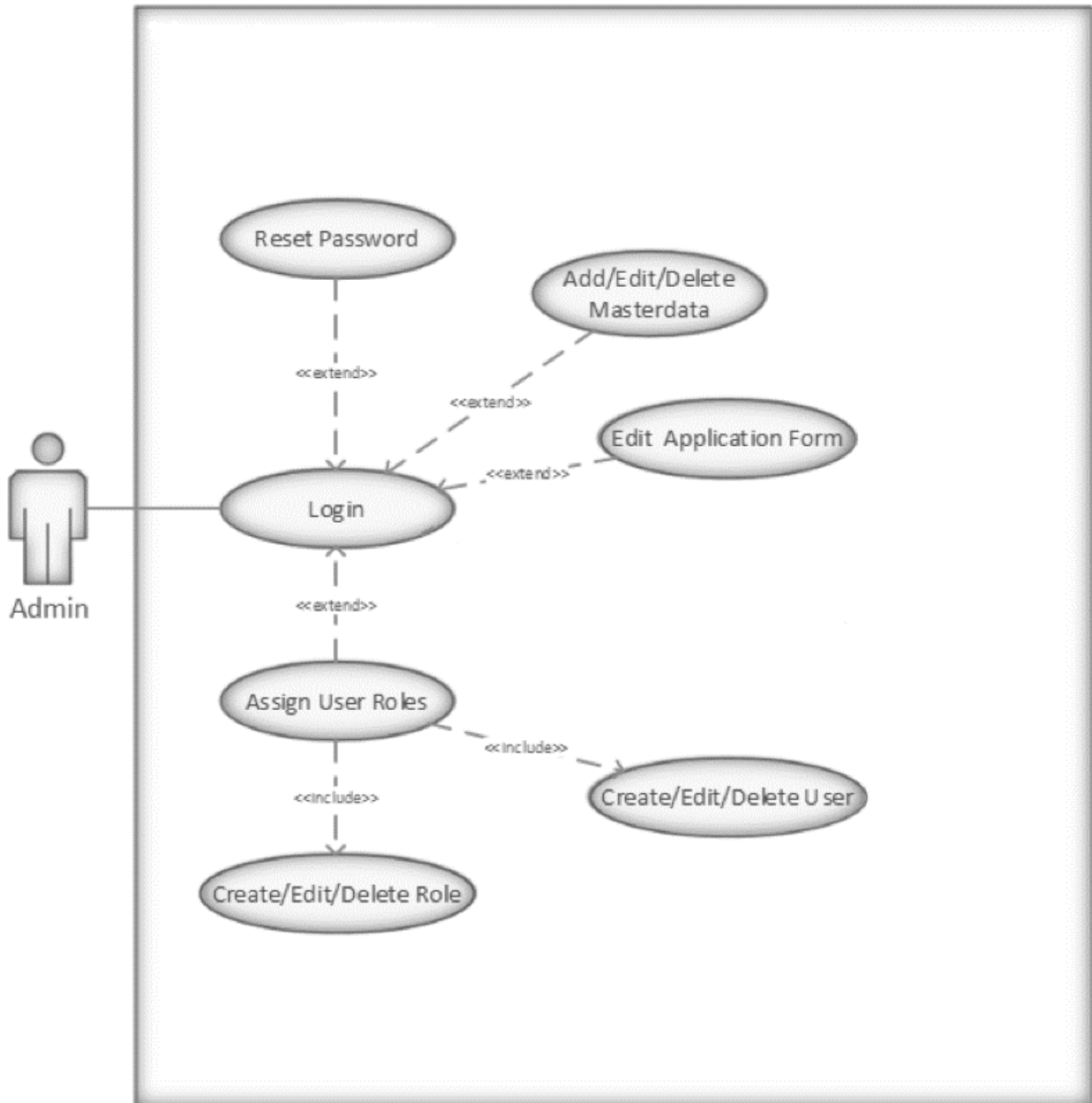


Fig. 2. 12. Human Resource Partner



### 2.5.3 Administrator

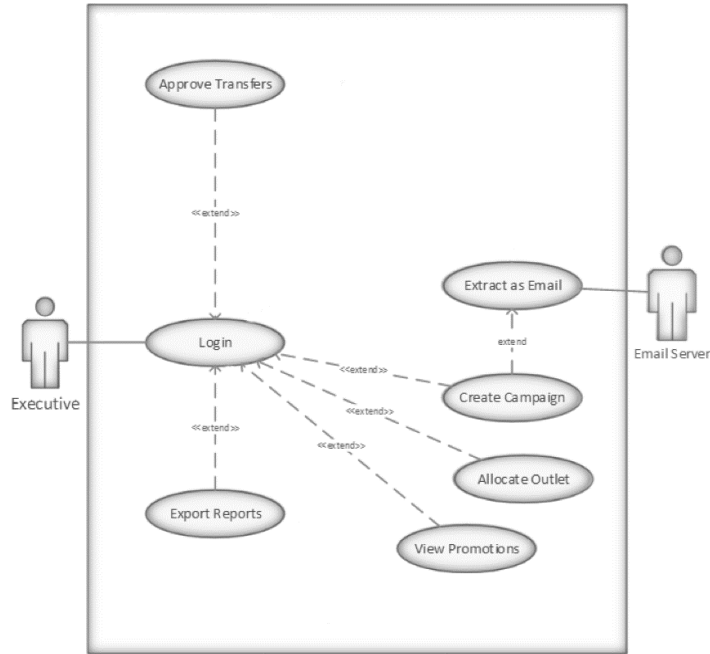
User Class	Description
Administrators	Administrators of the system.



**Fig. 2. 13. Administrator**

### 2.5.4 Executive

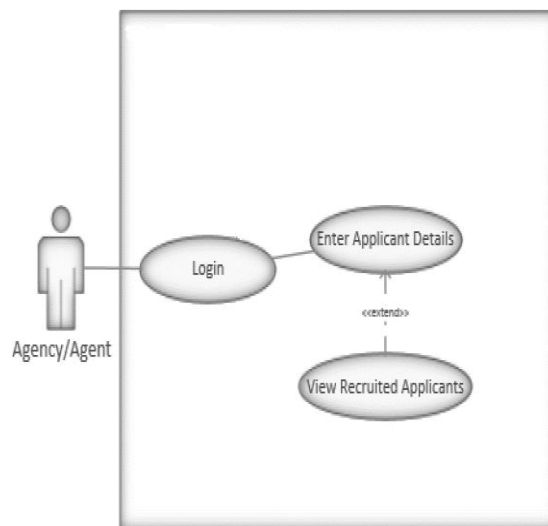
User Class	Description
Executive	Executive level employees who have authorization on campaign, promotions and transfer modules.



**Fig. 2. 14. Executive**

### 2.5.5 Agent/Agency

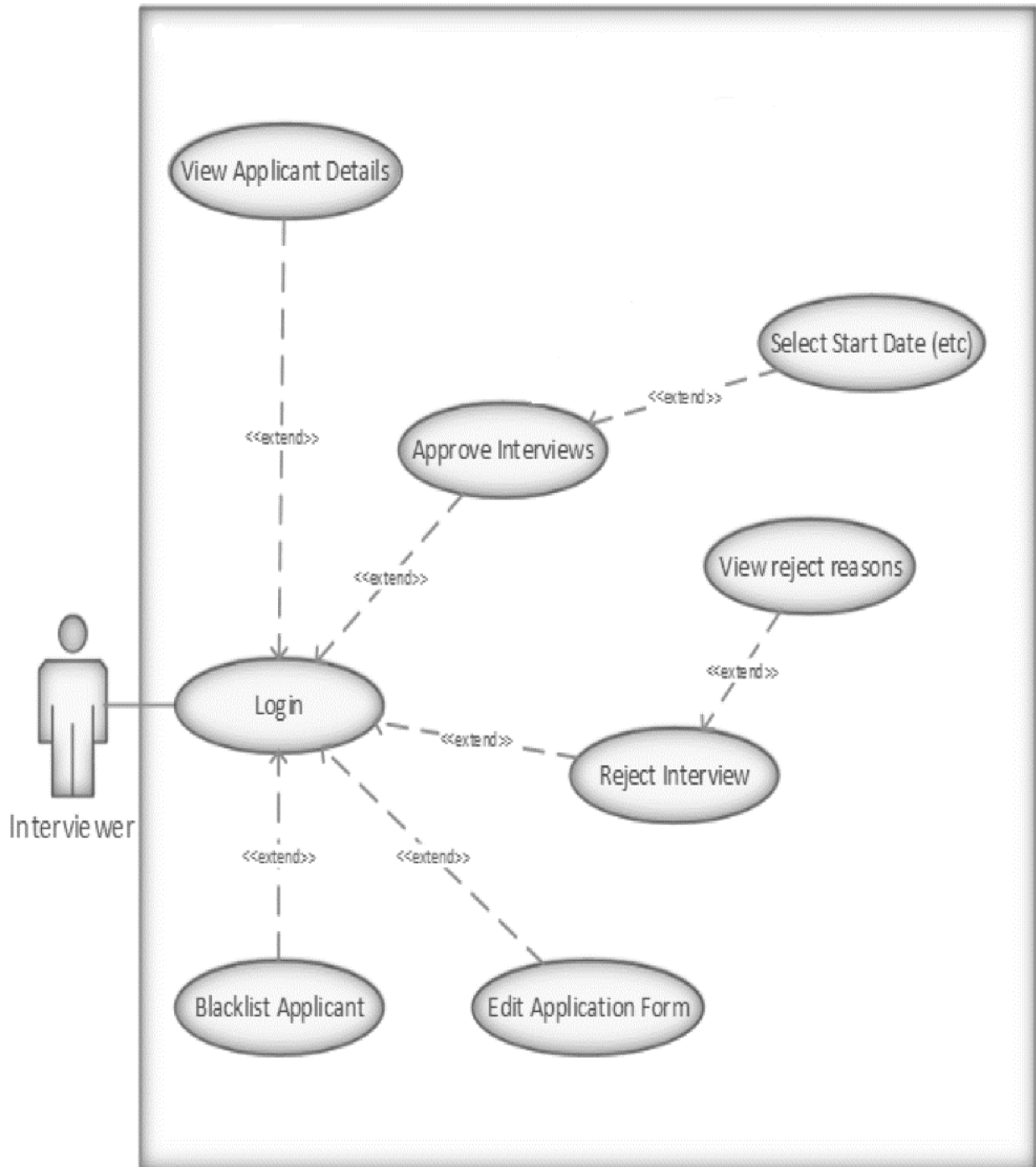
User Class	Description
Agent/Agency	Agents or agencies who recruit applicants for supermarkets.



**Fig. 2. 15. Agent/Agency**

### 2.5.6 Interviewer

User Class	Description
Interviewer	Interviewer has access to 1 <sup>st</sup> and 2 <sup>nd</sup> level interviews.



**Fig. 2. 16. Interviewer**

## 2.6 Operating Environment

<p>The system shall support below specified web browser's versions and above versions:</p> <ul style="list-style-type: none"><li>• Chrome Version latest</li><li>• Firefox Version 68 and above</li><li>• Safari Version 9 and above</li><li>• Internet Explorer 11 / Edge and above</li></ul>
<p>The system shall support in below specified operating system's versions and above of their respective native web-browsers.</p> <ul style="list-style-type: none"><li>• Android 5.0 LOLLIPOP and above</li><li>• IOS 9 and above</li></ul>
<p>Recommended browsers for maximum performances are mentioned below:</p> <ul style="list-style-type: none"><li>• Chrome Version latest</li><li>• Firefox Version 68 and above</li><li>• Safari Version 9 and above</li><li>• Edge any version</li></ul>
<p>The web application will be a responsive website.</p>
<p>The system shall allow users to access from any geographical locations.</p>
<p>Development hardware requirement:</p> <ul style="list-style-type: none"><li>• Processor - Intel Core i5-5200U 2.20 GHz</li><li>• RAM - DDR 3 8 GB or higher</li><li>• Hard disk - 150 GB or higher</li><li>• Monitor - HP LED 19 inches</li></ul>
<p>Development software requirement:</p> <ul style="list-style-type: none"><li>• Developing software's - Visual Studio 2017, Visual Code</li><li>• Frameworks - .Net Core, Entity Framework, Angular</li><li>• Database server - MSSQL Server 2016</li><li>• Hosting environment - Microsoft azure server</li></ul>

**Table 2. 2. Operating Environment**

## 2.7 Architectural Mechanisms

Analysis Mechanism	Description
<p>Why select ASP.NET Core for backend?</p>	<p>ASP.NET Core [5] is a redesign concept of ASP.NET, with architectural changes that result in a modular and leaner framework. Following are some improvements for ASP.NET to become ASP.NET Core:</p> <ul style="list-style-type: none"> <li>• A best way for building web UI and web APIs.</li> <li>• A lightweight and modularized HTTP request pipeline.</li> <li>• Can integrate with modern client-side frameworks and development workflows.</li> <li>• A cloud-ready environment-based configuration system.</li> <li>• Built-in dependency injection.</li> <li>• Easy to host on IIS or self-host in your own environment.</li> <li>• Built on .NET Core supports true side-by-side app versioning.</li> <li>• Ships entirely as NuGet packages.</li> <li>• New tooling that simplifies modern web development.</li> <li>• Build and run cross-platform ASP.NET Core apps on Windows, Mac, and Linux.</li> </ul>
<p>Why select Angular for frontend?</p>	<p><b><u>JQuery</u></b></p> <p>Is a library used for DOM manipulations and do not support two-way binding feature. Becomes complex and difficult to maintain when size of project increases day by day. Sometimes we have to write more code to achieve the same functionality as in Angular. Angular and React have come a long way since JQuery [6].</p> <p><b><u>React</u></b></p> <p>React [7] is an open-source JavaScript library for building user interfaces and its more in to component driven.</p> <p>Features:</p> <ul style="list-style-type: none"> <li>• Declarative views.</li> <li>• Component based architecture supporting complex UI.</li> <li>• No dependency injection.</li> </ul>

	<ul style="list-style-type: none"> <li>• XSS protection.</li> <li>• Utilities for unit-testing components.</li> </ul> <p><b><u>Angular</u></b></p> <p>Angular [8] is an open-source JavaScript framework for creating efficient and sophisticated single-page apps.</p> <p>Features:</p> <ul style="list-style-type: none"> <li>• Dependency injection.</li> <li>• Templates are based on an extended version of HTML.</li> <li>• Routing, provided by @angular/router.</li> <li>• Ajax requests by @angular/http.</li> <li>• @angular/forms for building forms.</li> <li>• Component CSS encapsulation.</li> <li>• XSS protection.</li> <li>• Utilities for unit-testing components.</li> </ul> <p><b>Why Angular over React?</b></p> <ul style="list-style-type: none"> <li>• No breaking changes after version 2.0 (Google’s public goal)</li> <li>• Clear best practices – OOP, design patterns, best practice architecture.</li> <li>• Minimal Unknowns.</li> <li>• Typescript support.</li> <li>• Support from third party libraries such as Kendo.</li> <li>• Available talent pool.</li> </ul>
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**Table 2. 3. Architectural Mechanisms**

# Chapter 3. Methodology

## 3.1 High Level System Diagram

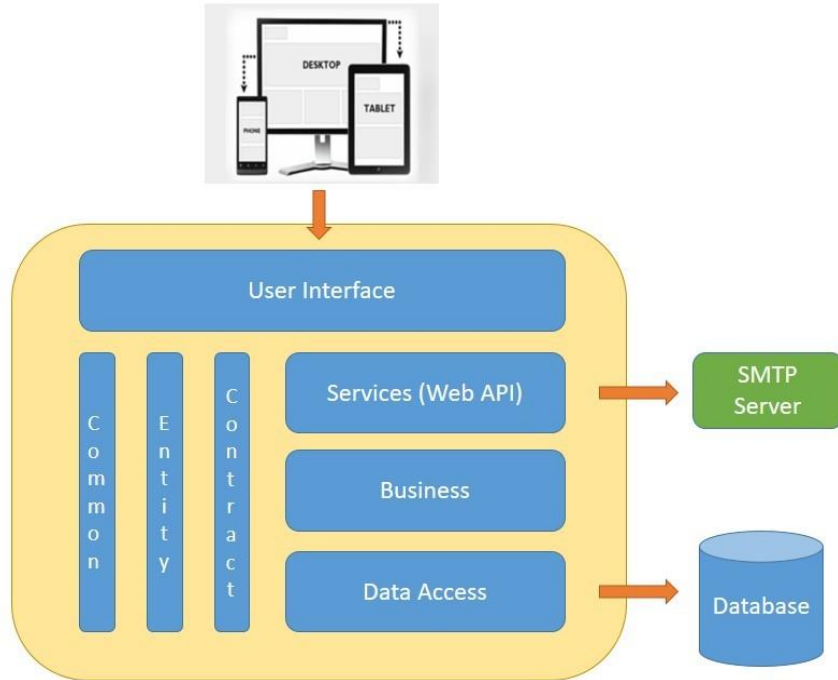


Fig. 3. 1. High Level System Diagram

## 3.2 Module View Diagram

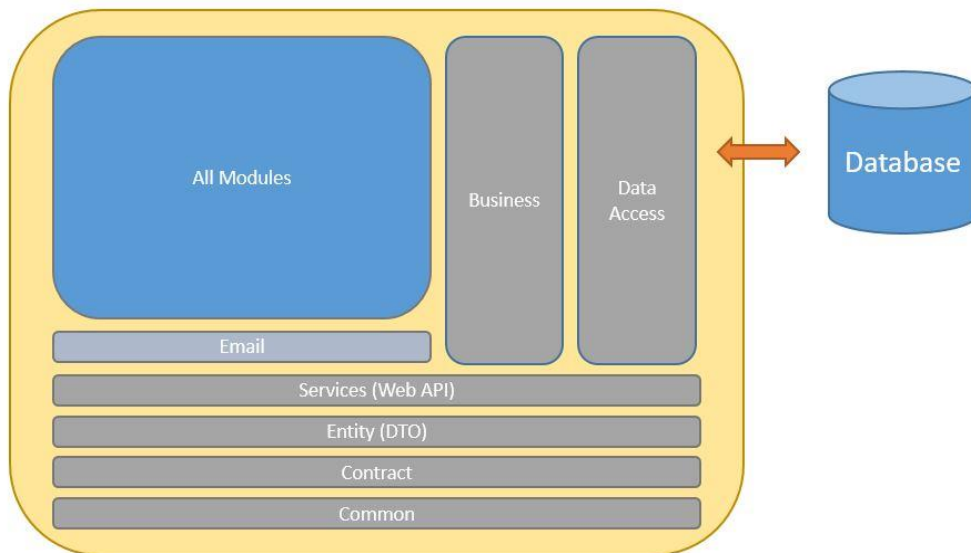


Fig. 3. 2. Module View Diagram

### 3.3 Database Design

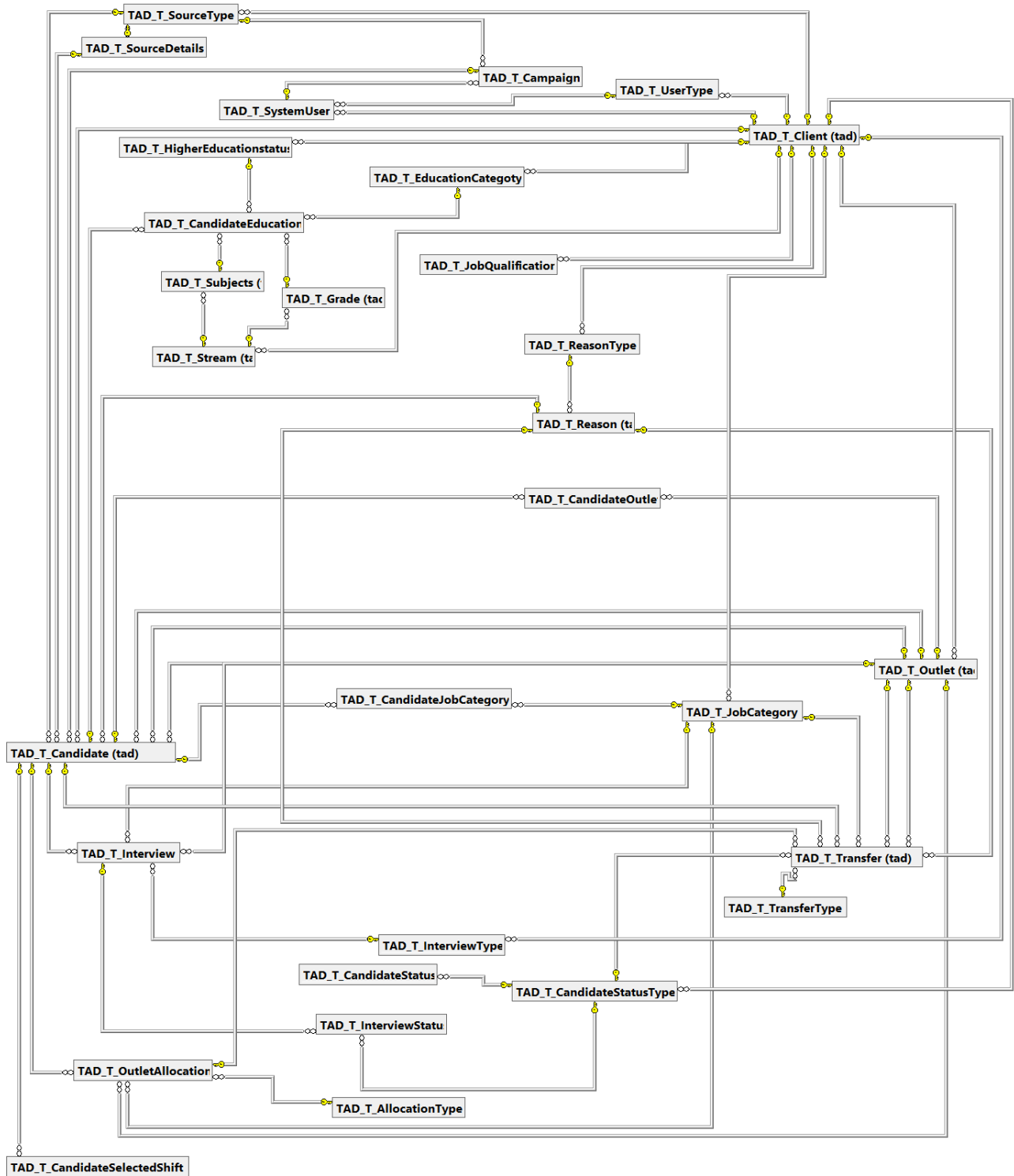


Fig. 3. 3. Database Design



### 3.4 UI Design (Wire Frames)

Below mentioned wireframes are displayed in order to capture the functionalities and features of the relevant process in the system. The design would not be the same as it displayed below. It shall change according to the user interface design.



The wireframe shows a landing page with a central registration and login form. At the top right, there is a button labeled "Apply Now". Below it, there is a silhouette icon of a person. Under the icon, the text "Username" is displayed above a rectangular input field. Below the input field, the text "Password" is displayed above another rectangular input field. At the bottom of the form, there are two buttons: "Login" on the left and "Forgot Password" on the right.

**Fig. 3. 4. Landing Page**

- When the user enters to the system, the user should be able to register himself by completing the application form. This action can be completed by clicking on the “Apply Now” button.
- System should allow the user to enter the system by the “username” and “password”.
- Both external (Applicants, Agents and Agency) and internal (HRP, Executive etc.) users of the system will be using the same login page and login URL. According to their user-role mapping system will redirect to respective pages.
- Users have the option to click on “Forgot Password” button.

## Register Now

**NIC No**

**How did you get to know about the job opening?**

Newspaper  
 Agents  
 Campaigns  
 Agency  
 Job Fair

Outlet Visits  
 Other Sources

**First Name**       **Last Name**

**Gender**

**Date of Birth**

**Address**

**City**

**District**

**Fig. 3. 5. Personal Information**

- “NIC Number” should be a mandatory field in the system. System should not allow an user to change the NIC number field once he/she submits the entire form.
- System should not allow the blacklisted NIC numbers to submit their application form.
- Validation on the “NIC number” should be added in the system in order to enter valid NIC numbers.
- Validation on the “NIC number” should be added in the system in order to not allow the existing NIC numbers.
- “Gender”, “City” and “District” should be dropdowns in the system.
- “Date of birth” will be a date picker which will block future date and will not allow users who are below 18 to apply for the job.

## Register Now

**Province**

**Tel.Mobile**

**Marital Status**

**GCE O/L** Maths  English

**GCE A/L** 

Subject	Grade

**Higher Education**

Degree or PQ Name	Institute	Status	Grade

**Work Experience**

Designation	Company	Number of Years worked	Currently Working

**Job you are looking for**  Part Time  Full Time

**Fig. 3. 6. Academic Information**

- “Province”, “Marital Status”, “GCE O/L” and “GCE A/L” fields will be drop down from the system.
- Validation on the “Telephone Number” needs to be added in the system.
- “Higher Education” table should consist of dropdowns for “status” and “grade”. Whereas “Degree or PQ name” and “Institute” fields should be text fields.
- In “work experience” table, “designation” field and “company” field will be text fields, “Number of years worked” should be in months as a drop down and “Currently working” field should be a checkbox box that the user can tick.
- “Job you are looking for” field will be a tick box (either full-time or part-time).

## Register Now

**Position Would like to Apply**

Cashier  CSA

**PART TIME: Please Select the Shift**

Day	From	To
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		



**Please mention 03 outlets you would like to work**

Colombo 03  Colombo 05  Dehiwala

**Please mention a convenient place for the interview**

Colombo 05


**Please mention a convenient time for the interview**

/  /   


**Fig. 3. 7. Work Information**

- Positions should be available according to GCE O/L, A/L and Higher education data, which is provided by the user.
- If the applicant has selected part-time option in the system, then system should enable part-time table in order to enter their availability on the table.
- If the applicant has selected full-time option in the system, then system should disable part-time table in the system.
- Convenient place for the interview should be decided by the system.
- Outlets for the applicant should be shown in a drop down for all users. System should allow the user to select maximum 3 outlets from drop downs.
- Convenient time for the interview will be a date and time picker for the user to schedule their respective interview.
- When an applicant completes the application form, and submits in the system, system should send user credentials to the applicant (via Email).

Forgot Password



**Username**


I'm not a robot 

**Get New Password**

**Fig. 3. 8. Forgot Password**

- In order to reset the password, users should enter their user name correctly.
- If an incorrect user name was attempted in the system, system should not send the new password to the respective user.
- If the user enters their correct user name, user credentials will be sent via an email for the users.
- System will have a Recaptcha in forgot password option, in order to ensure only human users can pass through.

Reset Password



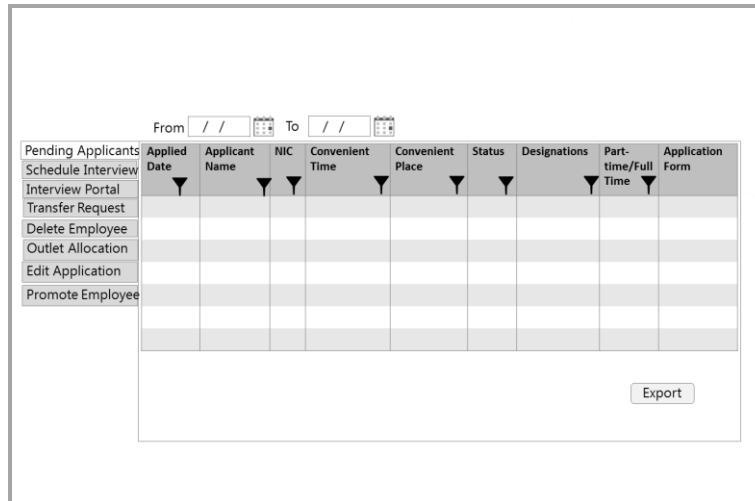
**New Password**

**Confirm Password**

**Reset**

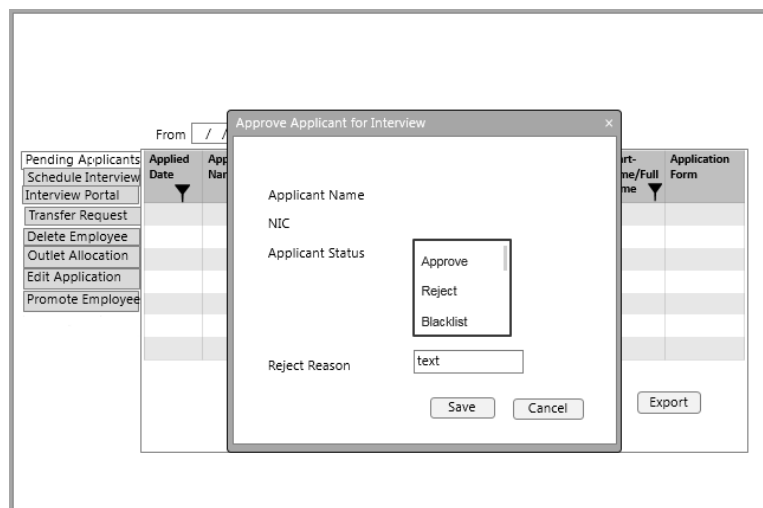
**Fig. 3. 9. Reset Password**

- Reset password screen should appear in the system when a user enters to the system for the first time or if the user entering into the system right after resetting the password.



**Fig. 3. 10. Pending Applications Grid**

- When HRP logs into the system, applicants who have applied for their respective outlet should be displayed in the system.
- Initially the screen will display the pending applicants for a week of time (as default).
- User should have the option to filter data in the grid.
- System should allow the user to search in a date range in the grid (“from” and “to”)
- System should allow the user to export the report to excel in the system.

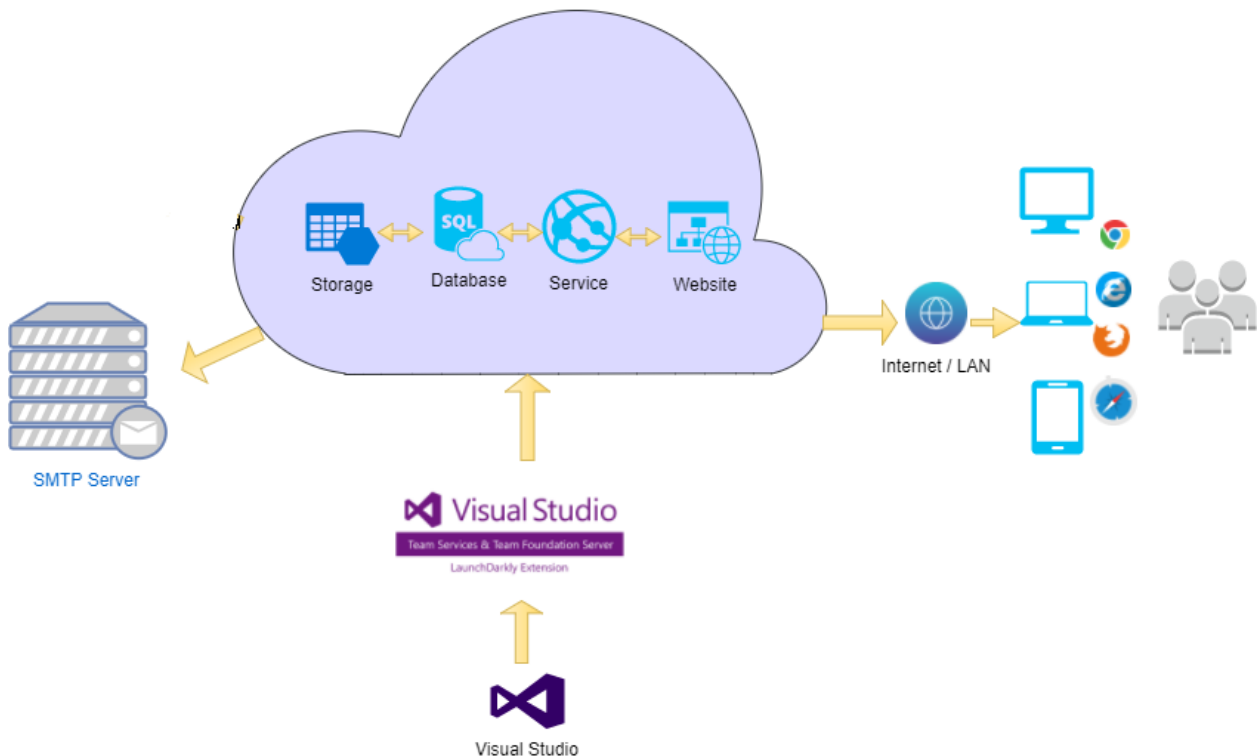


**Fig. 3. 11. Pending Application Approve Popup**

- When HRP clicks on an applicant system should be able to allow the user to approve/reject/blacklist according to their screening process. If the user selects ‘reject’ as an applicant status then the user should enter the reject reason in the system.
- System should allow HRP to search pending applicants from a date range that they enter in the system.
- When an applicant is rejected, system should send an email to the applicant.

### 3.5 Architecture

Software application architecture is the mechanism of outlining a systematic solution that executes all of the operational and technical requirements while boosting regular quality aspects such as security, performance, and manageability. It associates a set of arrangements based on a wide range of circumstances, and each of these circumstances can have an appreciable impact on the performance, quality, maintainability, and overall success of the system.



**Fig. 3. 12. Architecture**

This implementation used a layered architecture and it is described in detail below.

Each layer has specific responsibilities as follow:

#### **Data Access Layer**

This layer is responsible for executing all data access requests by the business logic layer. This will provide the capability to execute SQL queries against a database using Entity Framework [9] components.

#### **Business Layer**

This layer is responsible for executing all the business-related logic to serve the incoming requests from client. The layer is responsible for executing each request as a separate unit of work, ensuring clear transaction handling.

## **Presentation Layer**

The main responsibility of this layer is to handle the incoming requests originating from the clients. This layer will communicate only with the service layer in order to fulfil the client requests. Once the response is received from the service layer, the data will be organized in a user-friendly manner and sent over to the client. The main technologies/frameworks used for this layer are ASP .NET Core [5] with Angular [8] Frontend. In addition, Web API and JSON are used to enhance the user experience on the rendered content and the functionality offered to clients.

## **Services Layer**

The main responsibility of this layer is to handle the API requests originating from application Frontend. For this purpose, will be using ASP .NET Core [5], MVC 6, Web API project just as an API. This will also be using Dependency Injection using the controller's constructor method. In order to achieve this ASP .NET Core [5] default Dependency injection will be use, so that the controller class can resolve the relevant class at runtime.

## **Common Layer**

This layer will be used for all common functionalities that will be needed across the entire application such as Log4Net, Enums and other general functions.

## **Contract Layer**

This layer will contain all the contract or the interface for all the business classes.

### **3.5.1 Technologies Used**

#### **ASP.NET Core**

The ASP.NET Core [5] MVC framework is an open-source and light weight framework that offers a patterns-based way to build dynamic websites that permits a clean separation of concerns. When developing project backend, it's totally built on under MVC core platform following software engineering principles.

#### **Angular**

Angular [8] is a structural framework that can be used to build dynamic web apps. It lets using HTML as template language and lets to extend HTML's syntax to express application's components clearly and succinctly. Angular supports data binding and dependency injection to eliminate much of the code would otherwise have to write all by starch. When developing project frontend, it's totally deepened on angular framework. The main advantage of the framework is consistency because the overall framework is based on components and services and also it supports rich code maintainability.



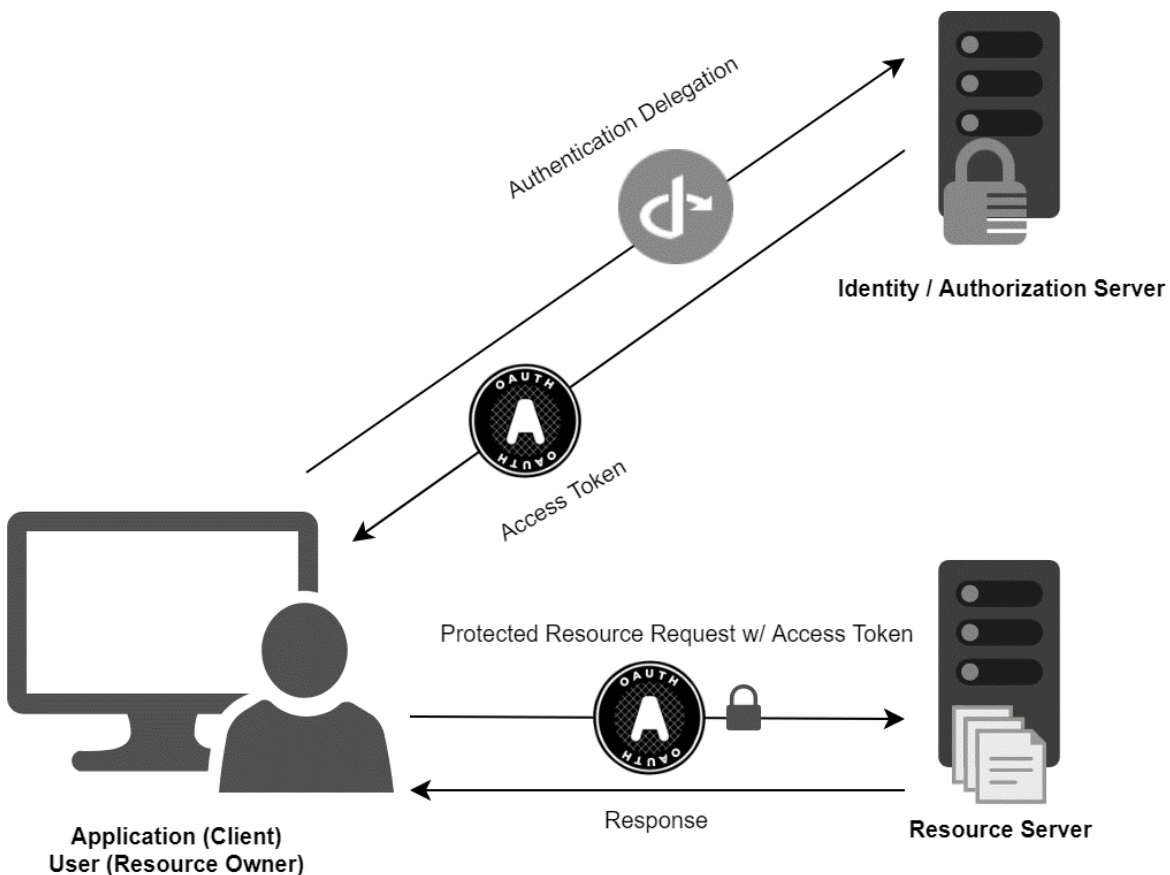
## SQL Server

Structured Query Language [10] is a standardized programming language that can be used to managing relational databases and performing various operations. When implementing system SQL became a key database language and SQL server management studio 2016 used for configuring, managing, and administering all components within Microsoft SQL Server.

## Entity framework

Entity Framework [9] is an object-relational mapper which will be used to work with relational data. EF eliminates the need for most of the data-access layer code that developers usually need to write by starch. When developing the system data layer totally handled using entity framework database first approach.

## 3.6 Security Architecture



**Fig. 3. 13. Security Architecture**

Token based authentication allows the client application to access the restricted resources of a server-side application by using a bearer token and to get the token, client application first sends a request to Authentication server endpoint with appropriate credentials. If the username and the password are correct then the Authentication server sends a token to the client as a response. Then the client application uses the token to access the restricted resources in the next requests [11]. Also, in this process the token will be encrypted when it passes to the client side, then the token will be decrypted

from the client side before using the claims. If the user requests for a specific route without login, then the user will be redirected to login first and after login successful user will again be redirected to the requested route automatically.

### 3.7 Design Patterns

#### Dependency Injection

Dependency Injection [12] follows the Dependency Inversion Principle, which states that high level modules should not depend on low level modules. Also, both should depend on abstractions. Dependency Injection is a design pattern that exposes how to create loosely coupled classes. When it comes to the term “tight coupling”, when saying two classes are tightly coupled which refers that linked with a binary association. As an example, two classes, Class1 and Class2, that are joined together as an aggregation.

```
public class Class1
{
    public Class2 Class2 { get; set; }
}
public class Class2
{
}
```

**Fig. 3. 14. Tightly Coupled Code**

When Class1 and Class2 were loosely coupled, Class1 would have a reference to an interface instead of a direct binary reference to Class2.

```
public class Class1
{
    public IClass2 Class2 { get; set; }
}

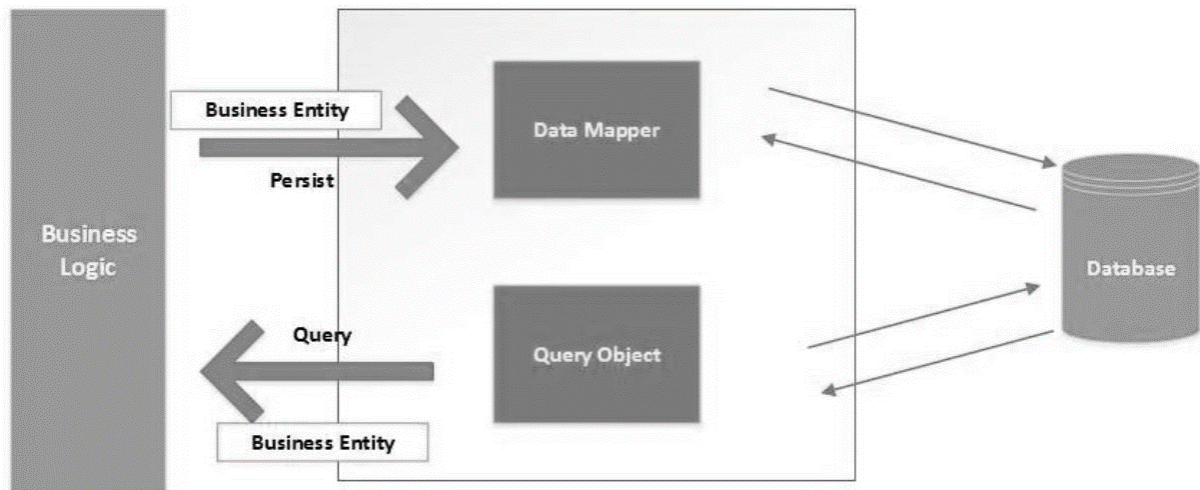
public interface IClass2
{
}

public class Class2 : IClass2
{
}
```

**Fig. 3. 15. Loosely Coupled Code**

When comes to ASP.NET Core [5] which provide inbuilt dependency injection for implementation.

## Repository Pattern



**Fig. 3. 16. Repository Pattern**

The main purpose to use the repository pattern is to build an abstraction layer between the business logic layer and the data access layer of an application. It is a data access pattern that calls for a more loosely coupled approach to data access. Here, the purpose is to create the data access logic in a separate class, or set of classes called a repository. This repository is responsible for maintaining the application's business model. Basically, here using a repository pattern with database first approach.

## 3.8 System Components Implementation



**Fig. 3. 17. Landing Page**

This is the 1st page that will load when a user tries to access the public site. The user can click 'Next' button to navigate to the next page if the user likes to proceed with our web site. Next page would be 'Select Source'.



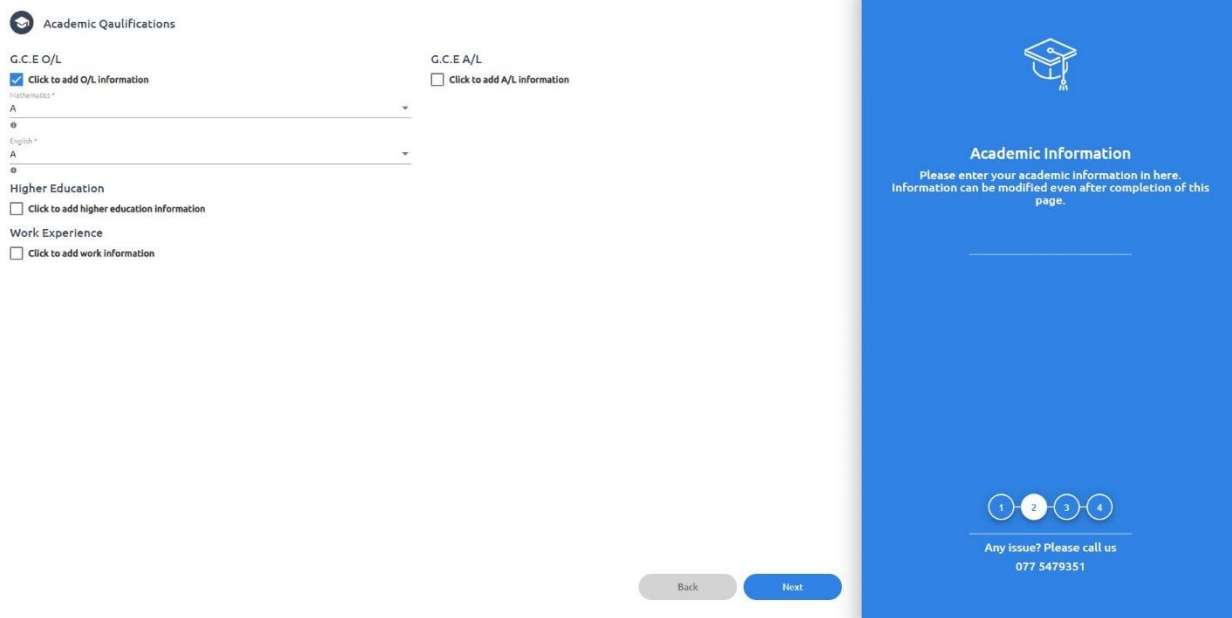
**Fig. 3. 18. Select Source Page**

‘Select Source’ page is all about how the candidate got to know about the job opening. So, the candidate can select one of the above radio buttons and select the ‘Job Source’ from dropdown. Eg: Newspaper (radio button), Dinamina (from dropdown). Next page would be ‘Personal Information’.

Back Next

**Fig. 3. 19. Personal Information Page**

After selecting the source, the candidate will enter to final four steps of the process of submitting the application. First step would be entering ‘Personal Information’.



**Fig. 3. 20. Academic Qualifications Page**

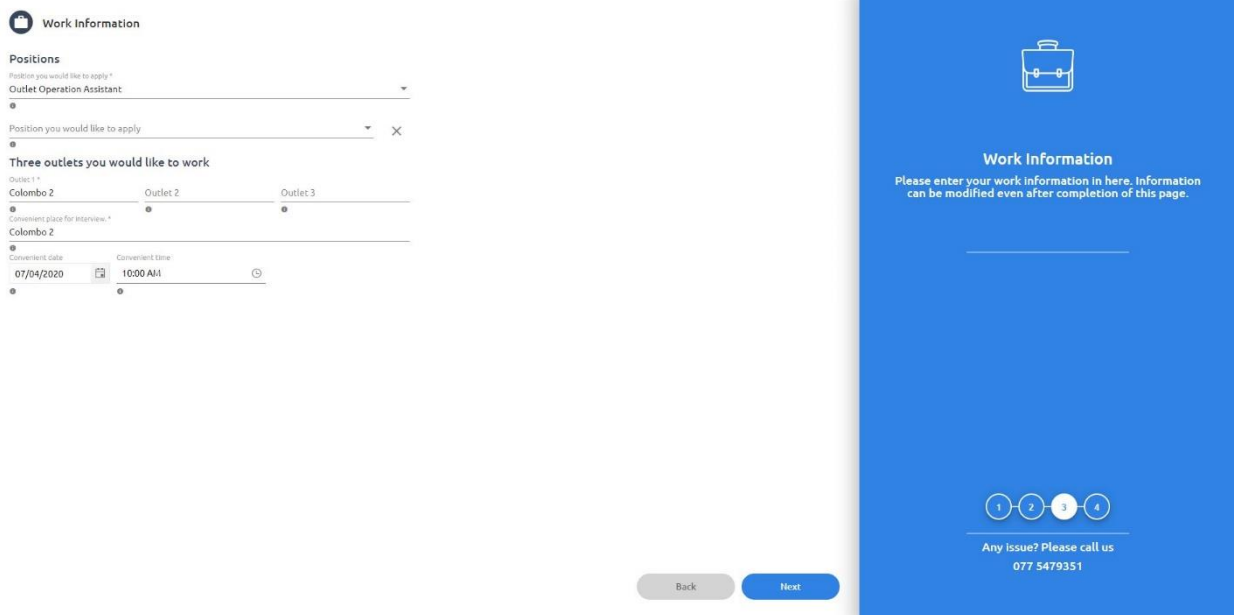
Second step would be entering ‘Academic Qualifications’. Based on data entered by the user system will generate the Job Positions. Rules are as follows,

Job	Min Age	Max Age	Sat O/L	O/L Result English	O/L Result Maths	Sat A/L	Qualified A/L	Higher Educated	Worked	Work Exp. Months
Customer Service Assistant	18	26	true	-	-	-	-	-	-	-
Senior Service Assistant	19	30	true	S,C,B, A	S,C,B, A	-	-	-	true	12
	19	30	-	-	-	-	-	true	true	12
Cashier	18	30	true	-	C,B,A	-	-	-	-	-
	18	30	-	-	-	true	-	-	-	-
Expert Cashier	20	30	-	-	-	true	true	-	true	12
	20	30	true	S,C,B, A	C,B,A	true	-	-	true	12
	20	30	-	-	-	-	-	true	true	12
Trainee Pastry & Bakery Chef	18	26	true	-	-	-	-	-	-	-

Management Trainee	20	30	-	-	-	-	-	true	-	-
Outlet Operation Assistant	18	35	-	-	-	-	-	-	-	-
Part Time Customer Service Assistant	18	60	-	-	-	-	-	-	-	-
Supervisor	22	32	-	-	-	true	true	-	true	24
	22	32	-	-	-	-	-	true	-	-

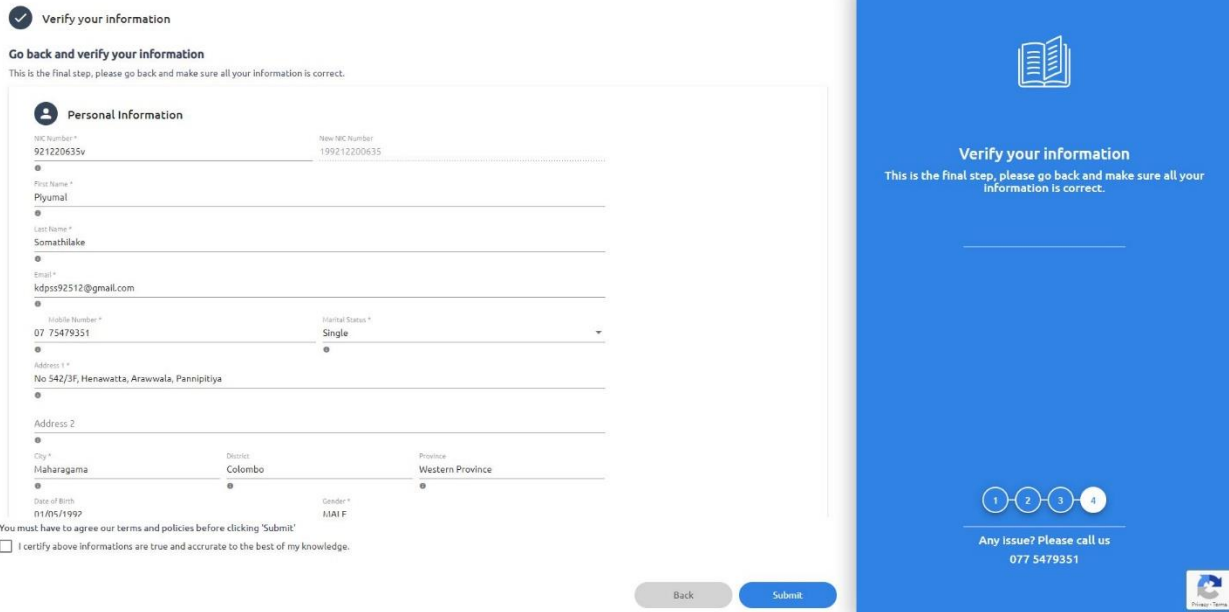
**Table 3. 1. Job Positions Metrix**

These are pre-defined job positions. So, no need to have a separate interface to add these details to the system.



**Fig. 3. 21. Work Information Page**

Third step would be entering 'Work Information'. From this UI candidate can select the job position, outlet that he/she wants to work at and interview venue and time. Then the user can click 'next' button to move to the final step to submit the application.



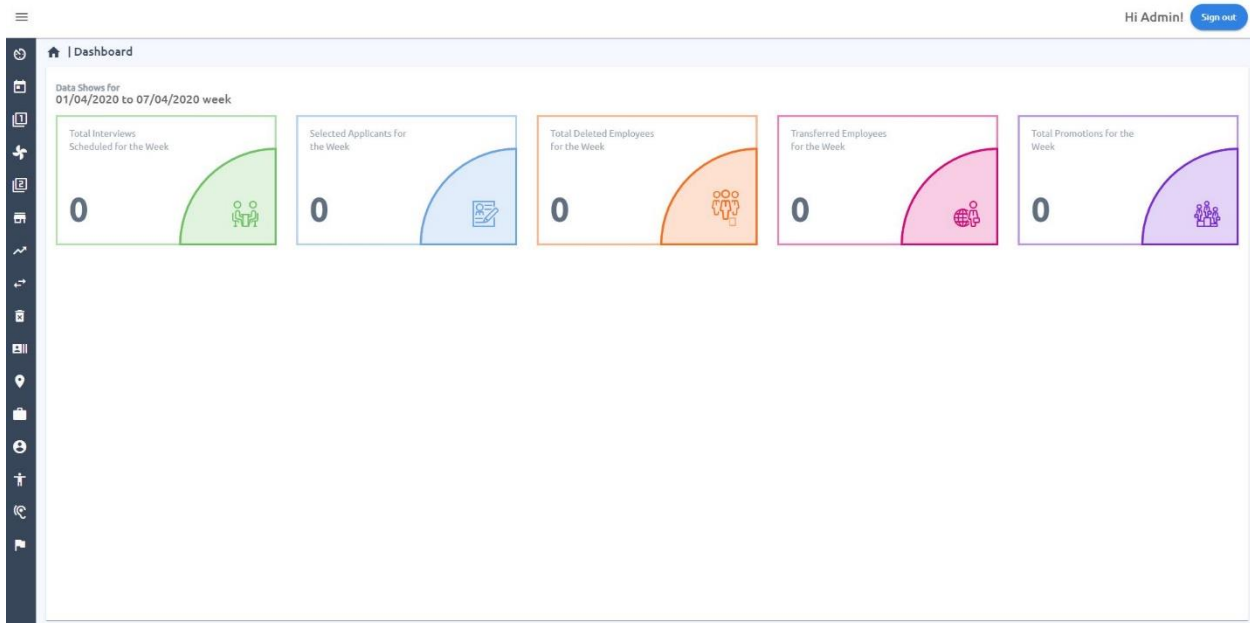
**Fig. 3. 22. Verify Information Page**

This is the fourth and final step. Candidate can verify all the details here before clicking the submit button. If the user wants to change any data, they can navigate to the previous tab by back button or clicking the tab numbers.



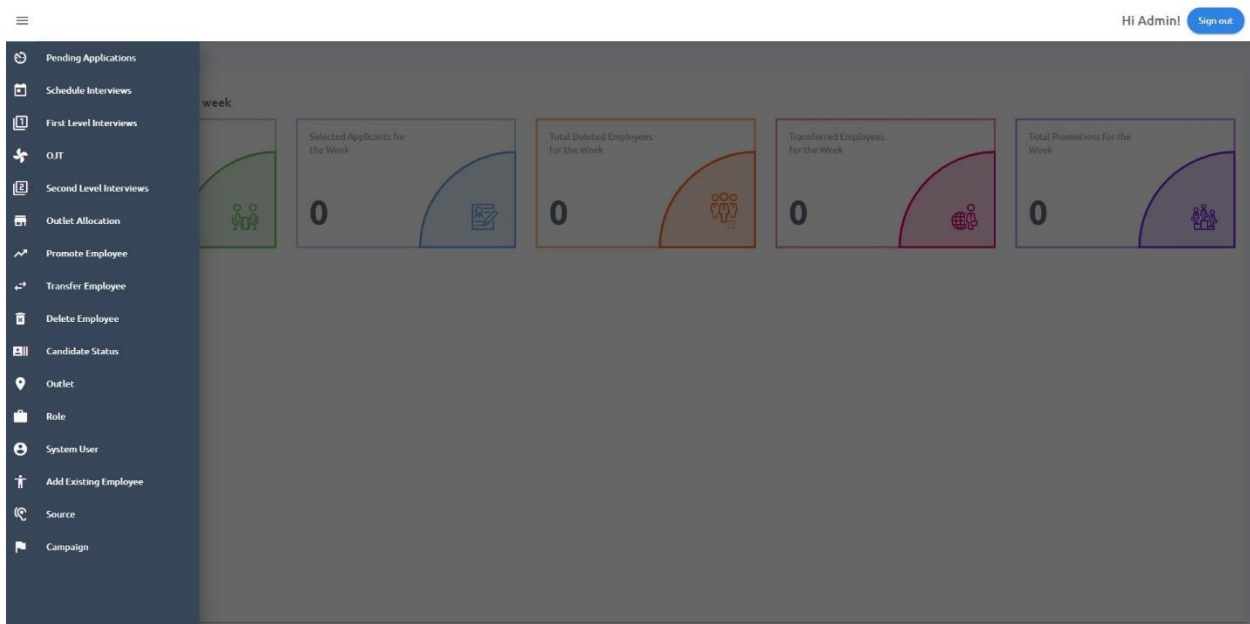
**Fig. 3. 23. Login Page**

User can enter the Username and the Password to login to the backend system. If the user has forgotten the password, he/she can click 'Forgot Password' and reset the password.



**Fig. 3. 24. Dashboard Page**

Dashboard mainly shows the weekly progress of five key areas. They are ‘Total Interviews Scheduled for the Week’, ‘Selected Applicants for the Week’, ‘Total Deleted Employees for the Week’, ‘Transferred Employees for the Week’ and ‘Total Promotions for the Week’.



**Fig. 3. 25. Side Bar**

Side bar is categorised based on modules in the system. These sub menus will be shown based on user permissions. Eg: Super Admin can see all the sub menus.



Home | Add Existing Employee

Personal Information    Work Information

NIC Number \*

First Name \*

Last Name \*

Email \*

07 Mobile Number \*    Marital Status \*

Address 1 \*

Address 2

City \*    District    Province

Date of Birth    Gender \*

Submit    Clear

**Fig. 3. 26. Add Existing Employee Page**

Home | Pending Applications

Search    Excel To Export

Applied Date(From): 01/04/2020    Applied Date(To): 07/04/2020    Search    Clear

APPLIED DATE	NIC	FIRST NAME	LAST NAME	MOBILE	ACTION	DESIGNATION 1	DESIGNATION 2	CONVENIENT DATE	CONVENIENT TIME	CONVENIENT PLACE	JOB CATEGORY
No records available.											

0 - 0 of 0 Items

**Fig. 3. 27. Pending Applications Page**

Home | System User

Manage System Users    Create System User    Export to Excel

NIC NUMBER	FIRST NAME	LAST NAME	MOBILE NUMBER	ACTION	EMAIL	STATUS	OUTLET	USER TYPE	JOB ROLES
542330658v	Sumith	Nishantha	0795632512		kdps92512@gmail	Active	Colombo 2	HRP	
882653144V	Amal	Bandara	0776041567		kdps92512@gmail	Active	Colombo 4	Assistant Manager	
882653146V	Sunil	Pierera	0775479351		kdps92512@gmail	Active	Colombo 4	Assistant Manager	
882653145V	Kamal	Gunaratne	0772837259		kdps92512@gmail	Active	Colombo 4	CEO	

1 - 4 of 4 Items

**Fig. 3. 28. System Users Page**

Home | Roles

Manage User Roles    Create User Role    Export to Excel

ROLE NAME	DESCRIPTION	ROLE CODE	ACTION	STATUS
HRP	HRP	HRP		Active
Candidate Default	Candidate Default	CandidateDefault		Active
TA Source Default	Default assigned functionality of TA source	TASourceDefault		Active
SuperAdmin	Super Admin	Super Admin		Active

1 - 4 of 4 Items

**Fig. 3. 29. System Roles Page**

## Chapter 4. Evaluation

Basically, Testing is the process of executing a program or system with the intent of finding software bugs, errors or other defects which may cause damage to the project Stake holders and make sure that system functionalities are tally with user functional requirements. Shortcomings can be in any Stage of the Software development cycle and these shortcomings can cause the system to malfunction or cause serious issues in the system. It is important to identify all these errors and fix them before handing it over to the users.

### 4.1 User Evaluation

The evaluation needs to be started by introducing the new system to few outlets and training the staff to operate the new system. After a proper training as to the operation of the software, the testing outlets need to start using the system practically, incorporating all their recruitments into the system. Afterwards it has to be considered how has technology impacted and not impacted your recruitment performance over the period you have introduced the system to few outlets. All these factors relating to the performance of the system has to be considered after the trial period and if there are issues each of them has to be fixed before introducing the system to all the outlets. When the performance of the system is of satisfactory quality, it has to be advertised in the public site.

### 4.2 Testing

Testing can be performed in many ways as following to deliver a quality product to the customer,

- **Reliability Testing**

Reliability testing can be done as feature testing, load testing and regression testing. In feature testing each operation in the product is executed once. Then the load test is conducted to check the performance of the product under maximum work load to verify system is stable. Regression testing is applied to inspect if any new bugs have been introduced through previous bug fixes. To increase performance, we can perform Bundling and Minification.

- **Efficiency Testing**

Efficiency testing is all about amount of code and testing resources required by a program to perform a particular function. So, we can deliver this system on time to the user with good quality.

- **Accuracy Testing**

Performing accuracy testing data transmission, maintaining and retrieving data to/from a database can be evaluated.

- **Security Testing**

We are using JWT token to Authentication and Authorization. So, we can perform security test by updating JWT token manually and see whether we can access data. Also need to consider permission levels as well to maintain data confidentiality.

#### 4.2.1 User Stories

User Story Id	User Story
US1	As a user I want to submit new candidate from public web site
US2	As a user I want to create a System User from backend website
US3	As a user I want to create a User Role from backend website
US4	As a user I want to create an Outlet from backend website
US5	As a user I want to add an Existing Employee from backend website
US6	As a user I want to create Source from backend website
US7	As a user I want to create Campaign from backend website
US8	As a user I want to Promote Employee from backend website
US9	As a user I want to Transfer Employee from backend website
US10	As a user I want to Delete Employee from backend website

**Table 4. 1. User Stories**

#### 4.2.2 Test Cases

Test Case #	Test Case Description	Test Procedure	Expected Result	Test Result
TC_US1_01	Verify whether candidate can submit new application from public website	First page would be the landing page. Click Next	User should be navigated to select source page	pass
		Select a source from dropdown and click Next	User should be navigated to personal information page	pass
		Fill all required fields in personal information page and click next	User should be navigated to academic information page	pass
		Fill academic information if any	User should be navigated to work information page	pass
		Fill work information if any	User should be navigated to verify information page	pass
		Verify all details entered from previous steps	User should verify information entered from previous pages	pass
		Tick terms and conditions checkbox and click submit button	Candidate application should be submitted and user should navigate to congratulations page. Also, user will receive	pass

			username and password via Email	
TC_US2_01	Verify whether user can create a System User from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on System User tab	User should be navigated to Manage System Users page	pass
		Click on Create System User button	User should be navigated to Create System User page	pass
		Fill all required fields and click on save button	New system user has been created and user should be navigated to Manage System Users page	pass
		Click on sign out button	User should logout from the website	pass
TC_US3_01	Verify whether user can create a User Role from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on Role tab	User should be navigated to Manage User Roles page	pass
		Click on Create User Role button	User should be navigated to Create User Role page	pass
		Fill all required fields and click on save button	New user role has been created and user should be navigated to	pass

			Manage User Roles page	
		Click on sign out button	User should logout from the website	pass
TC_US4_01	Verify whether user can create an Outlet from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on Outlet tab	User should be navigated to Manage Outlets page	pass
		Click on Create Outlet button	User should be navigated to Create Outlet page	pass
		Fill all required fields and click on save button	New outlet has been created and user should be navigated to Manage Outlets page	pass
		Click on sign out button	User should logout from the website	pass
TC_US5_01	Verify whether user can add an Existing Employee from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on Add Existing Employee tab	User should be navigated to Add Existing Employee page	pass
		Fill all required fields in Personal Information tab and	User should be navigated to Work Information tab	pass

		click on Work Information tab		
		Fill all required fields in Work Information tab and click on save button	New Existing Employee has been created	pass
		Click on sign out button	User should logout from the website	pass
TC_US6_01	Verify whether user can create a Source from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on Source tab	User should be navigated to Manage Source page	pass
		Click on Create Source button	User should be navigated to Source Create page	pass
		Fill all required fields and click on save button	New source has been created and user should be navigated to Manage Source page	pass
		Click on sign out button	User should logout from the website	pass

**Table 4. 2. Test Cases**

### 4.3 Critical Analysis

Challenges Faced	Solutions
Source code management	At the very beginning of the project, I had not used any repository to manage source codes. But when codes and files were getting updated day by day I realized that it was the time to move all source codes to a repository since it was hard to track changes and revert them. So, I have moved my codes to Bitbucket repository.
Workflow management	Workflow management is a critical component of planning which makes it easier to manage and change when projects deviate from initial plans. Failing to establish workflows leads to inconsistencies in the project.  To overcome this during project planning, I have created a visual workflow of the project timeline and process. Also, I have identified bottlenecks and leave slack in the system to account for delays.
Takes a long time to load the website	Initially I took a long time to load the website. To overcome this, it was needed to use lazy loading when loading the frontend modules. Otherwise the website will load all the modules at the first time.
Project Management	In the initial phase I had not used any project management tool. Due to that I was unable to complete the project milestones. As a solution I have logged my task on a Trello board.
Performance issue when using LINQ	Had to write a stored procedure to handle Candidate Status module, since it has some performance issue when using LINQ.
Issues with Integration	Could not access Identity server from another website. As a solution it was needed to add Cors from Identity Server Startup.cs class.

**Table 4. 3. Critical Analysis**



<b>Product</b>	<b>Product Features</b>	<b>Compare with our System</b>
BambooHR [1]	<ul style="list-style-type: none"> <li>• CRM</li> <li>• Internal HR</li> <li>• Job Requisition</li> <li>• Onboarding</li> </ul>	<p>The only related feature that we can get from BambooHR system is onboarding feature. So, investing lots of money on this software is not worthy. From our solution we can get interview management plus other HR related features as well. So, the domain prospective our solution is more suitable than BambooHR product.</p>
Recooty [2]	<ul style="list-style-type: none"> <li>• Interview Management</li> <li>• Job Posting</li> <li>• Onboarding</li> <li>• Recruiting Firms</li> <li>• Resume Parsing</li> </ul>	<p>Recooty is little bit advanced than BambooHR. The related features that we can get from Recooty system are interview management, onboarding and job posting features. As per the requirement in the interview management we need levels of interviews, like schedule interview, 1<sup>st</sup> level interview and 2<sup>nd</sup> level interview. So, these levels are not supported in Recooty product.</p>
Workable [3]	<ul style="list-style-type: none"> <li>• Interview Management</li> <li>• Job Posting</li> <li>• Onboarding</li> <li>• Recruiting Firms</li> <li>• Resume Parsing</li> <li>• CRM</li> <li>• Assessments</li> <li>• Reference Checking</li> </ul>	<p>Workable is more advanced than BambooHR and Recooty. This product will give many features that we will not need in our solution. Workable has multi-level interview management. But our solution is not 100% about interview management. It has other HR processes such as promotion, deletion, transfer of an employee, campaign, source, outlet, outlet allocation etc. These feature are not available in existing job recruitment systems. So, our system is 100% align with supermarket job requirement and this system can be apply to any supermarket in Sri Lanka and world-wide.</p>

**Table 4. 4. Compare Products**

## **Chapter 5. Conclusion**

### **5.1 Conclusion**

This project is an overall description of an automated solution for Supermarket Job Requirement system. With the first and second chapter it was expected of me to provide an introduction of the system and the background. Accordingly identified problem statement was clearly mentioned. Then a literature review of similar systems had to be conducted. Then project objective, project scope was provided. Here the study of requirement analysis had to be performed based on the actual environment of the organization to assess how those factors can be used to run core business functions. Here it has been discussed about current process, functional and non-functional requirements, proposed solution with entire system process flow and process diagram of the system, operating environment details and architectural mechanisms details. Chapter three provided the detailed description of the methodology of the system. Here it has been discussed about high level system diagram, module overview diagram, use case diagrams, database design, UI designs (wire frames), architecture with used technologies, security architecture, design patterns and system components implementation. Chapter four provides the different types of testing mechanisms which has contributed to the application of positive areas for an error free solution and raising the quality of the system. Here some user stories have been discussed with their relevant test cases.

The system will also accommodate complete interview process, training programs and other HR processes such as promotion module, deletion module, transfer module of an employee, campaign module, source module, outlet module, outlet allocation module, edit application module, candidate status module, training module, existing employee module, user management module and dashboard module.

Each and every work flow was tested and overall manual test cases pass rate was 100%. From non-functional aspects, initially performance testing was not good. After applying the lazy loading for frontend, it was improved a lot. Now the average load time for a page is 3-5 seconds. To achieve security aspects, JWT token to Authentication and Authorization are used. So, security test can be performed by updating JWT token manually and see whether we can access data. Also need to consider permission levels as well to maintain data confidentiality. So, the non-functional testing pass rate also 100%.

Things that are missing in this initial phase are document upload, report generation, payment module and internal massaging module for users. These features will be added to the existing system in future versions. Finally, this system is 100% unique for Supermarket domain and this can be easily applied to any Supermarket domain in Sri Lanka and world-wide.

## **5.2 Future Work**

### **Upload Documents**

System should allow the user to upload documents in the system. Supported document types are,

- Document .doc, .docx, .pdf, .txt,
- Image .jpg, .jpeg, .png
- Presentation .ppt, .pptx
- Spreadsheet .csv, .xls, .xlsx

User can upload multiple files like Identity Card, Birth Certificate, O/L Certificate, A/L Certificate, Bank Information, Character Certificate and Grama Sewaka Certificate.

### **Report Generation**

System should allow the user to generate reports. Reports which are generated in the system has been listed below,

- Daily Interview Location wise
- Daily Interview Designation wise
- Monthly Recruitment Sources Report
- Daily Recruitment Status Report
- Transfer Report

### **Payments Module**

Payments can be categorized in to,

- Agent/Agency Payment
- Referral Payment

Conditions for payments has been mentioned below.

- Candidate should successfully get through the interview process.
- Candidate should complete minimum one month of employment in the selected designation.

### **Internal Messaging Module**

System should allow the user to communicate efficiently, within his/her outlet and in-between outlets.

### **Chat Bot**

Apply chat bot feature for candidate creation (public site) work flow, so we can automate our customer service up to some extent.

## References

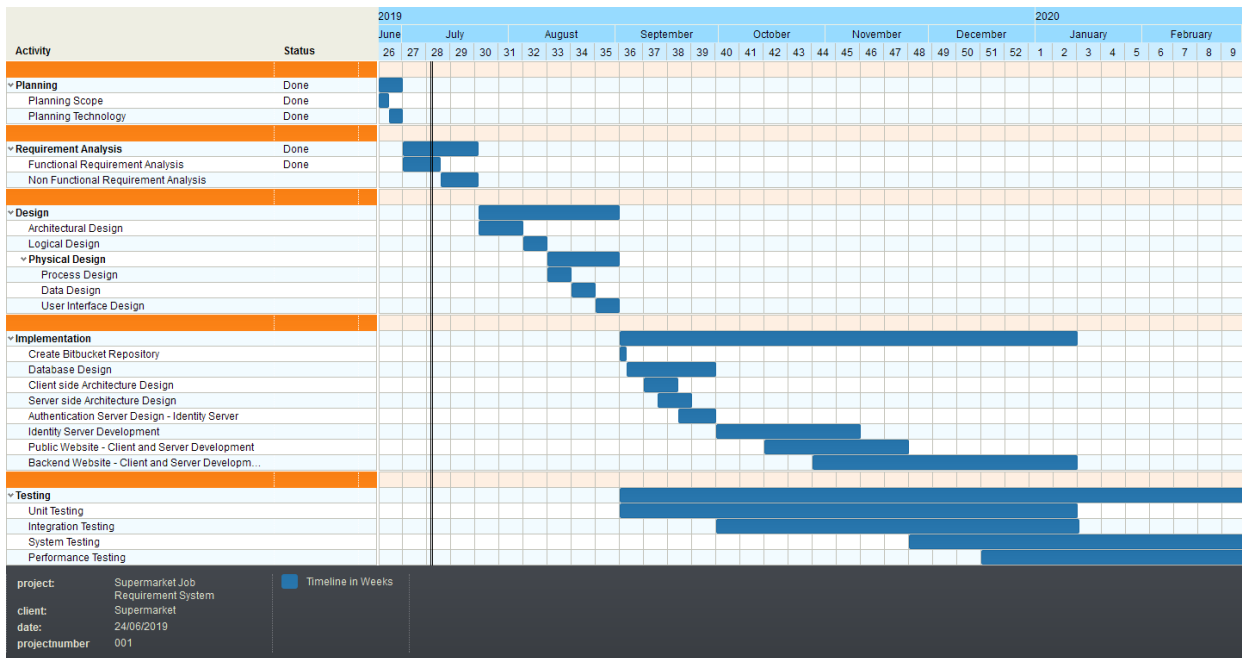
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# Appendices

## Tools and Technologies

- **SW Development Methodology** - Waterfall
- **Database** - MSSQL Server 2016
- **Development Tools** - Visual Studio 2017, Visual Code
- **Source Management** - Bitbucket
- **Technologies** - .Net Core, Web API, Entity Framework, Angular, MSSQL

## Work Breakdown Structure

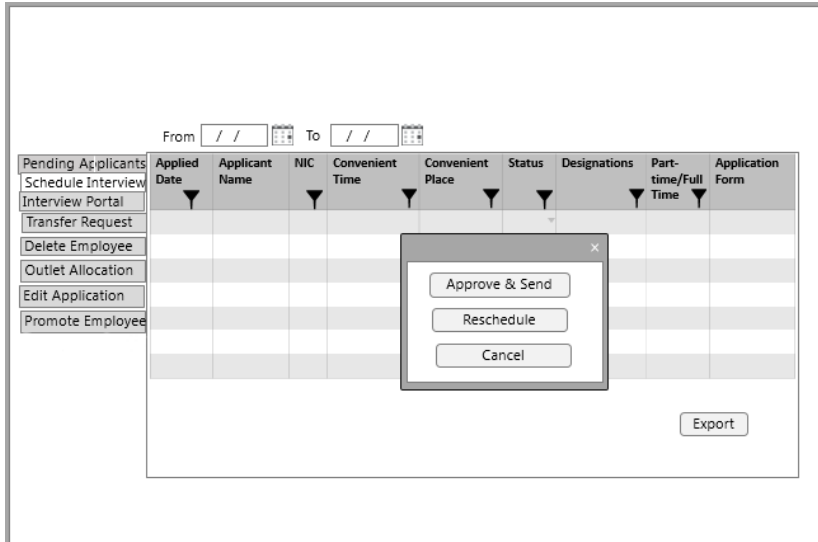


## UI Design (Wire Frames)

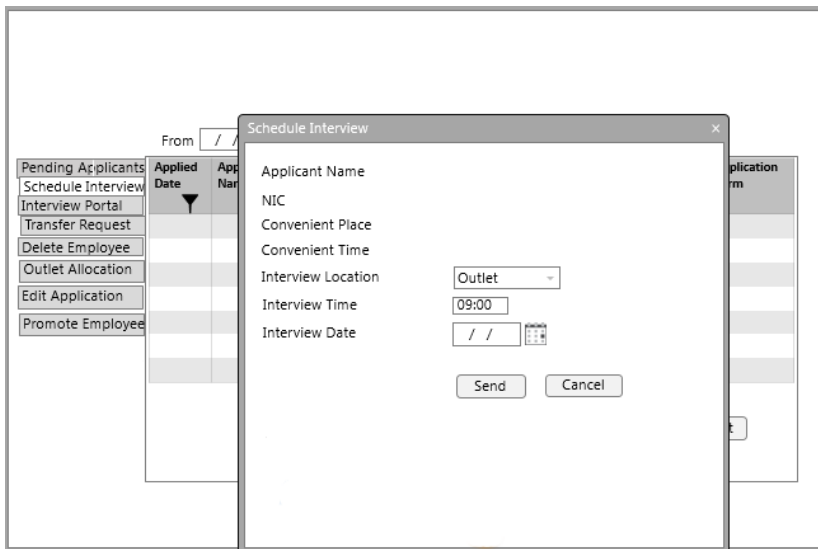
From 
To

	Applied Date	Applicant Name	NIC	Convenient Time	Convenient Place	Status	Designations	Part-time/Full Time	Application Form
Pending Applicants									
Schedule Interview									
Interview Portal									
Transfer Request									
Delete Employee									
Outlet Allocation									
Edit Application									
Promote Employee									

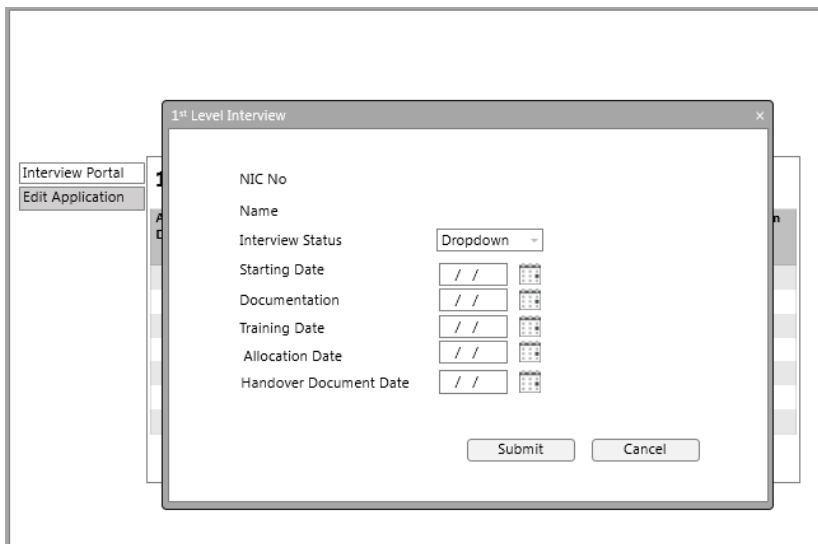
**Schedule Interview Grid**



**Schedule Interview Approve Popup**



**Schedule Interview Popup**



**1st Level Interview Popup**

## Test Cases

<b>Test Case #</b>	<b>Test Case Description</b>	<b>Test Procedure</b>	<b>Expected Result</b>	<b>Test Result</b>
TC_US7_01	Verify whether user can create a Campaign from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on Campaign tab	User should be navigated to Manage Campaign page	pass
		Click on Create Campaign button	User should be navigated to Create Campaign page	pass
		Fill all required fields and click on save button	New campaign has been created and user should be navigated to Manage Campaign page	pass
		Click on sign out button	User should logout from the website	pass
TC_US8_01	Verify whether user can promote an Employee from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on Promote Employee tab	User should be navigated to Promoted Employees page	pass
		Click on Promote Employee button	User should be navigated to Promote Employee page	pass

		Type a NIC number and click on Search button	Some of the employee details should be displayed	pass
		Fill all required fields and click on save button	Confirmation popup message should be displayed	pass
		Click Yes from confirmation popup	User should be navigated to Promoted Employees page	pass
		Click on sign out button	User should logout from the website	pass
TC_US9_01	Verify whether user can transfer an Employee from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on Transfer Employee tab	User should be navigated to Transfer Employees page	pass
		Click on Transfer Request button	User should be navigated to Transfer Employee page	pass
		Type a NIC number and click on Search button	Some of the employee details should be displayed	pass
		Fill all required fields and click on save button	Confirmation popup message should be displayed	pass
		Click Yes from confirmation popup	User should be navigated to Transfer Employees page	pass



		Click on sign out button	User should logout from the website	pass
TC_US10_01	Verify whether user can delete an Employee from backend website	Login into site with valid credentials	User should be logged into the dashboard page	pass
		Click side navigation bar and click on Delete Employee tab	User should be navigated to Deleted Employees page	pass
		Click on Delete Employee button	User should be navigated to Delete Employee page	pass
		Type a NIC number and click on Search button	Some of the employee details should be displayed	pass
		Fill all required fields and click on delete button	Confirmation popup message should be displayed	pass
		Click Yes from confirmation popup	User should be navigated to Deleted Employees page	pass
		Click on sign out button	User should logout from the website	pass