

DEPARTMENT OF INFORMATION TECHNOLOGY

ESDC FINAL REPORT

EASY MANAGE SYSTEM

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Contents

1	Cha	apter 1: Topic Overview	1
	1.1	Introduction	1
	1.2	Purpose and Scope	1
	1.3	Motivation	1
	1.4	Report Structure	1
2	Cha	apter 2: System analysis and design	2
	2.1	Use-case and Description	2
	2.2	DFD Diagram	8
		2.2.1 Introduction	8
		2.2.2 Context Diagram	8
		2.2.3 level-0 Diagram	9
		2.2.4 level-1 Diagram	9
	2.3	ERD Diagram	11
		2.3.1 Introduction	11
		2.3.2 ERD	12
		2.3.3 Physical Model	12
3	Cha	apter 3: Implementation System	13
•	3.1	Framework Used	13
		3.1.1 Boostrap	13
		3.1.2 PHP	13
		3.1.3 HTML	13
		3.1.4 CSS	14
		3.1.5 Javascript	14
		3.1.6 Tools	14
	3.2	Database	14
	3.3	System architecture	15
		3.3.1 System study	15
		3.3.2 Feasibility Study	15
4	Cha	apter 4: Demo	16
	4.1	Log-in page	16
	4.2	Admin page	16
		4.2.1 Manage Account	16
		4.2.2 Add Contribution	18
	4.3	Candidate page	24
	4.4	Recruiter page	24
	4.5	Manager page	26
		4.5.1 Recruitment List page	27
5	Cha	apter 5: Conclusion	29
6	Ref	erence	29

1 Chapter 1: Topic Overview

1.1 Introduction

In any organization, human resource must be managed easily over system design. Software and Employee Data base are no exception to this. This system which will be implemented on Web platform is designed to manage employee in organization.

1.2 Purpose and Scope

The objectives of this project is:

- To cut down on paper-based record storage
- To create a web platform for the company
- To create a database to store employee information
- To create an interface for managers to track, search and edit list of employees
- To create an interface for the company's recruiters to easily track and approve candidates' profiles during the recruitment process.
- To create a connection between admins, managers, recruiters, employees and candidates.
- To provide a form to fill out information for candidates who want to apply to the company
- To make human resource management easier.

With the original idea of an internal website in a company and used only by managers. Now we have expanded the data range, allowing candidates to submit their profile through the system's application form

1.3 Motivation

Our country now has many professional companies. In every company, the need of human resource management is essential. In addition, businesses in all fields always want to select employees carefully. Therefore, this project of ours was created to store employee information easily and track the recruitment process conveniently.

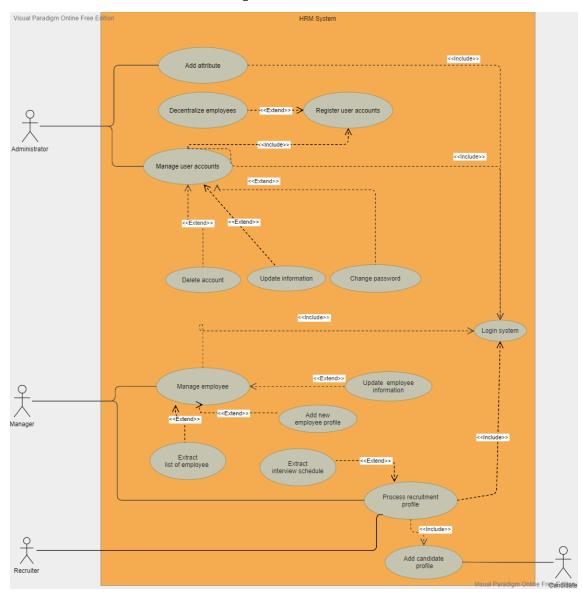
1.4 Report Structure

Chapter one has demonstrated an introduction to the project with its introduction, purpose and scope, motivation, report structure.

- Chapter two will have System Analysis and Design.
- Chapter three will have Implementation System.
- Chapter four will have Demo.
- Chapter five will have conclusion.

2 Chapter 2: System analysis and design

2.1 Use-case and Description



Use Case Name	Add attribute		
Scenario	On administrator interface	On administrator interface	
Triggering event			
Brief description	Admin selects the list of content	t, clicks the 'add' button and	
_	fills out information, then save.		
Priority	Must have		
Actor(s)	Administrator		
Pre-Condition(s)	Admin must login.		
	Admin account has been authorized		
Post-	The added data must be saved and displayed on the list		
Condition(s)	immediately.		
Flow of activities	Actor	System	
	1. Admin selects the list of	1.1 Display the whole list of	
	content.	content.	
	2. Admin chooses the 'Add'	2.1 Display the form of the	
	button	corresponding content.	
	2 Admin fill and the farms	2.1.77	
	3. Admin fill out the form,	3.1 Verify the data.3.2 Store the data in database	
	then click the 'Save'		
	button.	3.3 Update the data on the list	
Exception	1.1 Fail to connect to database		
Condition(s)	3.1 The added data is duplicated and cannot be saved.		
Condition(s)	3.1 The added data is duplicated and camiot be saved.		

Figure 1: Add Attribute Use Case Description

Use Case Name	Register user account		
Scenario	On administrator interface		
Triggering event	Admin wants to interact with us		
Brief description	Admin selects 'Manage account	t', clicks the 'Register' button	
	and fills out information, then sa	ave.	
Priority	Must have		
Actor(s)	Administrator		
Pre-Condition(s)	 Admin must login. 		
	 Admin account has been 	authorized	
	 User must have staff ID. 		
Post-	The added data must be s	saved and displayed on the list	
Condition(s)	immediately.		
	User is provided with an account and password.		
Flow of activities			
	Admin selects 'Manage	1.1 Display the whole list of	
	accounts'.	available accounts.	
	2. Admin chooses the	2.1 Display the account	
	'Register' button.	registration form.	
	3. Admin fill out the form,	3.1 Verify the data.	
	decentralizes the user, then	3.2 Store the data in database	
	click the 'Save' button.	3.3 Update the data on the list	
Exception	1.1 Fail to connect to database		
Condition(s)	3 The user doesn't have staff ID.		
	3.1 The added data is duplicated and cannot be saved.		

Figure 2: Register Account Use Case Description

Use Case Name	Use Case Name Delete, update and change password		
Scenario	On administrator interface		
Triggering event	Admin wants to interact with user accounts.		
Brief description	Admin does the account manage	ement, including deleting,	
	updating and changing passwor	d.	
Priority	Must have		
Actor(s)	Administrator		
Pre-Condition(s)	 Admin must login. 		
	 Admin account has been 	authorized	
	 User account has been cr 	reated	
Post-	The action must be saved	d and updated on the list	
Condition(s)	immediately.	-	
Flow of activities	Actor	System	
	Admin selects 'Manage	1.1 Display the whole list of	
	accounts'	available accounts.	
	2. If admin clicks the 'Delete'	2.1 Eliminate the account data	
	button	from the database.	
	2 70 1 1 11 1	0.450.4	
	3. If admin clicks the	3.1 Display update/change	
	'Update' or 'Change	password form	
	password' button		
	4. Admin fill out new	4.1 Verify the data	
	information, then click	4.2 Save new data in database	
	'Save'	4.3 Update list of account	
	Save	opanic list of account	
Exception	1.1 Fail to connect to database		
Condition(s) 4.1 New data is duplicate and cannot be saved.		annot be saved.	

Figure 3: Manage Account Use Case Description

Use Case Name	Submit application		
Scenario	On candidate's application inter	On candidate's application interface	
Triggering event	event Candidate wishes to apply to the company		
Brief description	Candidate fills out the application form, then submit.		
Priority	Must have		
Actor(s)	Actor(s) Candidate		
Pre-Condition(s)	Database must be connected.		
Post-	The data is stored in the database		
Condition(s) • Candidate's profile		le must exist in recruitment list of	
	recruiter.		
Flow of activities	Actor	System	
	Candidate opens	1.1 Display the application	
	application form.	form.	
	2. Candidate fills out	2.1 Verify the data.	
	information, then submit	2.2 Store the data in database	
		3.3 Update the data in the	
	4	recruitment list.	
Exception	1.1 Fail to connect to database		
Condition(s) 2.1 The added data is duplicated as		d and cannot be saved.	

Figure 4: Candidate add New Profile Use Case Description

Use Case Name	Extract list of employees		
Scenario	On manager interface		
Triggering event	Manager wants to export list of	employee into excel format.	
Brief description	Manager view recruitment list, click 'Export' button and		
_	download file.		
Priority	Must have		
Actor(s)	Manager		
Pre-Condition(s)	Manager must logins.		
	 Manager account has been authorized 		
	Database must be connected.		
Post-	List of employees must be export into excel format		
Condition(s)	Manager can download this file.		
Flow of activities	Actor	System	
	Manager click the 'Export'	Extract list of employees into	
	button. excel format file (.xls)		
Exception			
Condition(s)			

Figure 5: Export list of employee Use Case Description

Use Case Name	Use Case Name Extract interview schedule		
Scenario	On recruiter interface		
Triggering event	Recruiter wants to export list of	candidates who are invited to	
	the interview into excel format.		
Brief description	Recruiter view candidates list, o	click 'Export' button and	
	download file.		
Priority	Must have		
Actor(s)	Manager		
Pre-Condition(s)	Recruiter must logins.		
	 Recruiter account has be 	en authorized	
	 Database must be connected. 		
Post-	List of candidate must be export into excel format		
Condition(s)	Recruiter can downloads this file.		
Flow of activities	Actor	System	
	Recruiter click the 'Export'	Extract list of candidates who	
	button.	are invited to the interview	
		into excel format file (.xls)	
Exception			
Condition(s)			

Figure 6: Export Interview Schedule Use Case Description

Use Case Name	Recruitment Process		
Scenario	On recruiter interface		
Triggering event	When a candidate submit an application		
Brief description	Recruiter tracks the entire candi	date's recruiment process	
Priority	Must have		
Actor(s)	Recruiter, Candidate		
Pre-Condition(s)	 Candidate has submitted 	the application	
	 Candidate's profile must 	be displayed on recruitment list	
	 Recruiter must logins. 		
	Recruiter account has been	en authorized	
	Database must be connect	eted.	
Post-	Recruiment process shou	ld be completed	
Condition(s)	F		
Flow of activities	Actor	System	
	1. From the list of candidates,	1.1 Display profile of the	
	recruiter chooses one to	candidate	
	view detail		
		2.1 Update the candidate's	
	Recruiter checks the	1 -	
	profile. If acceptable,	profile status	
	profile. If acceptable, recruiter changes profile	profile status 2.2 Invite candidate to the	
	profile. If acceptable, recruiter changes profile status into 'Interviewing',	profile status	
	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click	profile status 2.2 Invite candidate to the	
	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click 'Update'.	profile status 2.2 Invite candidate to the interview	
	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click 'Update'. 3. When the interview is	profile status 2.2 Invite candidate to the interview 3.1 If the status is 'Approved',	
	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click 'Update'. 3. When the interview is done, recruiter can now	profile status 2.2 Invite candidate to the interview 3.1 If the status is 'Approved', the candidate's profile is now	
	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click 'Update'. 3. When the interview is done, recruiter can now changes profile status into	profile status 2.2 Invite candidate to the interview 3.1 If the status is 'Approved', the candidate's profile is now displayed in the recruitment	
	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click 'Update'. 3. When the interview is done, recruiter can now changes profile status into 'Rejected' or 'Approved',	profile status 2.2 Invite candidate to the interview 3.1 If the status is 'Approved', the candidate's profile is now	
	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click 'Update'. 3. When the interview is done, recruiter can now changes profile status into	profile status 2.2 Invite candidate to the interview 3.1 If the status is 'Approved', the candidate's profile is now displayed in the recruitment	
Example	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click 'Update'. 3. When the interview is done, recruiter can now changes profile status into 'Rejected' or 'Approved', then click 'Update'.	profile status 2.2 Invite candidate to the interview 3.1 If the status is 'Approved', the candidate's profile is now displayed in the recruitment	
Exception Condition(s)	profile. If acceptable, recruiter changes profile status into 'Interviewing', else 'Rejected', then click 'Update'. 3. When the interview is done, recruiter can now changes profile status into 'Rejected' or 'Approved',	profile status 2.2 Invite candidate to the interview 3.1 If the status is 'Approved', the candidate's profile is now displayed in the recruitment list of manager.	

Figure 7: Recruitment Process Use Case Description

TI C N	77 6 37 77 14 1 16 4		
Use Case Name	Update employee information		
Scenario	On manager interface		
Triggering event	Manager wants to interact with employee profile.		
Brief description	Manager view recruitment list, s		
	fill out new information, then sa	ve.	
Priority	Must have		
Actor(s)	Manager		
Pre-Condition(s)	 Manager must logins. 		
	 Manager account has been 	n authorized	
	Database must be connected.		
Post-	The action must be saved and the list must be updated		
Condition(s)	immediately.		
Flow of activities	Actor	System	
	Manager chooses an	1.1 Display the employee's	
	employee, click 'Detail'	profile.	
	Manager fills out new		
	information for the	2.1 Eliminate the account data	
	employee.	from the database.	
	3. Admin fill out the form,		
	then click the 'Save'	3.1 Verify the data.	
	button.	3.2 Store the data in database	
		3.3 Update the data on the list	
Exception	1.1 Fail to connect to database		
Condition(s) 3.1 The added data is duplicated and cannot be saved.		and cannot be saved.	

Figure 8: Manager Update profile Use Case Description

Use Case Name	Submit application	
Scenario	On candidate's application interface	
Triggering event	Candidate wishes to apply to th	e company
Brief description	Candidate fills out the applicati	on form, then submit.
Priority	Must have	
Actor(s)	Candidate	
Pre-Condition(s)	Database must be connected.	
Post-	The data is stored in the database	
Condition(s)	 Candidate's profile must exist in recruitment list of 	
	recruiter.	
Flow of activities	Actor	System
	Candidate opens	1.1 Display the application
	application form.	form.
	Candidate fills out information, then submit	2.1 Verify the data. 2.2 Store the data in database
		3.3 Update the data in the recruitment list.
Exception	1.1 Fail to connect to database	
Condition(s) 2.1 The added data is duplicated and cannot be saved.		d and cannot be saved.

Figure 9: Manager add New Émployee Use Case Description

2.2 DFD Diagram

2.2.1 Introduction

In this system, Admin has to log in to the system to conduct functions such as adding some attributes: department, branch, position, title religion, ethnic, salary, academy; and manage user accounts. In addition, the system will show a list of accounts for the admin to manage easily. For managers, managers also log in to the system. In the manager site, functions for them: manage employee profile, manage recruitment profile and export list of the employee. In the recruitment processing, the Candidate fills out the application form which has on the system and sends it to the Recruiter to check them and invite the candidate to interview or reject their profile, they can export the interview schedule. The candidate profile will be submitted on the system which is received by the manager and the recruiter. However, the manager only updates the candidate profile to the employee profile when it is approved.

2.2.2 Context Diagram

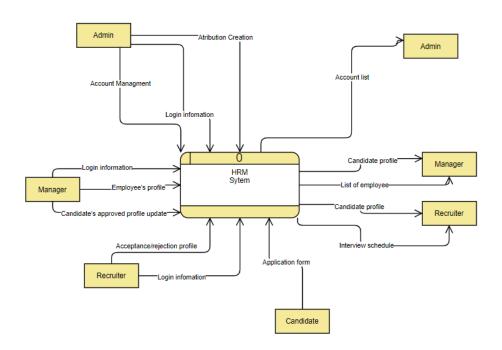


Figure 10: Context Diagram

2.2.3 level-0 Diagram

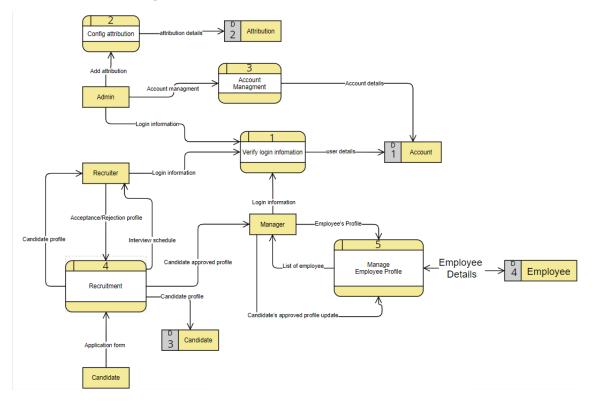


Figure 11: level-0 Diagram

2.2.4 level-1 Diagram

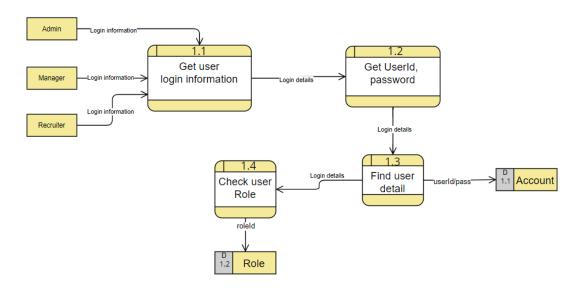


Figure 12: Level-1 Login Diagram

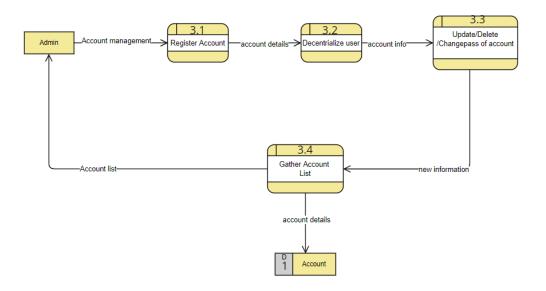


Figure 13: Level-1 Manage Account Diagram

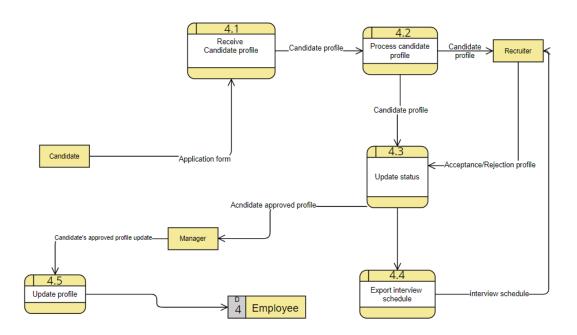


Figure 14: Level-1 Recruitment Diagram

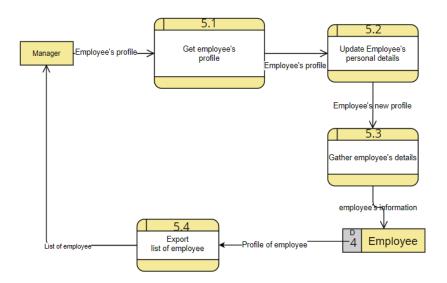


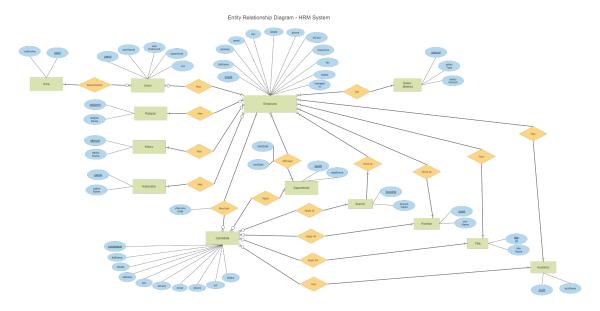
Figure 15: Level-1 Manage Employee Profile Diagram

2.3 ERD Diagram

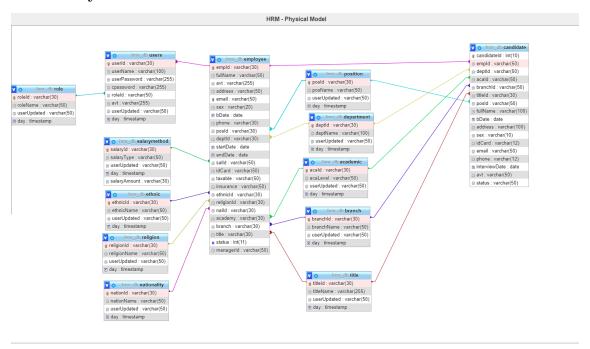
2.3.1 Introduction

Some employees will be supplied account followed by their roles such as Admin, Manager or Recruiter. The employee has one and only one entity: religion, ethnic, nationality, department, salary, branch, position, title and academy. For recruitment, an employee is the recruiter may have one or no candidates to recruit and the manager is the same. Each candidate just is recruited to one department and has one position, branch, title and academy.

2.3.2 ERD



2.3.3 Physical Model



3 Chapter 3: Implementation System

Implementation is an important part to manage an application of a planning process. It improves to develop the strategic systems which must expect to include a process for applying the plan. After implementation a plan we need to develop the process according to the system.

3.1 Framework Used

The selection of software platform of the previous and current phase of automation is as follows. We managed the web-based platform as work gains. We used PHP , JavaScript and Boostrap as the front end, MySQL server as back-end DBMS.

3.1.1 Boostrap

Bootstrap is open-source front-end and free web framework for creating websites and web designs. It includes CSS and HTML based layout templates for typography, models, buttons, navigation and different interface components, as well as elective JavaScript extensions. Unlike various web frameworks, it just concerns itself with front-end development.

3.1.2 PHP

PHP is a universally-used open source general-purpose scripting language that is remarkably suited for web development and can be implanted into HTML. It is also necessary to think PHP regarding what it can do for us. PHP always us to:

- Reduce the time to create a large website.
- Create a customized user experience for visitors based on the report that we have gathered from them.
- Open up thousands of opportunities for online tools.
- PHP works on several platforms (Linux, Windows, Unix, etc.).
- We can free download PHP from the website "www.php.net."
- It is almost easy to learn and runs efficiently on the server side.

3.1.3 HTML

HTML stands for Hyper Text Markup Language. HTML is a language for defining the building of Web pages. HTML grants authors the means to,

- Distribute online documents with tables, lists, photos, titles, topic, etc.
- Improve online data via hypertext links, at the click of a button.

- Design schemes for operating activities with foreign services, for use in exploring for data, presenting licenses, ordering products, etc.
- Include covers-sheets, video clips, sound clips, and other applications immediately in their reports.

3.1.4 CSS

CSS is the language for describing the performance of Web pages, including appearances, layout design, and fonts. It enables one to adjust the presentation to various types of devices, such as big screens, small screens, or printers. CSS is confident of HTML and can be used with any XML-based markup language. The division of HTML from CSS performs it more comfortable to establish sites, receive style sheets pages, and original pages to different conditions.

3.1.5 Javascript

JavaScript is the world's most successful web-based programming language. It is the language for HTML, for the web, for servers, PCs, laptops, tablets, phones, and more. JavaScript is a Scripting Language.

- JavaScript is programming code that can be implanted into HTML pages.
- All modern web browsers can perform JavaScript code
- JavaScript is clear to learn

3.1.6 Tools

A software development tool is a program or applications that Software Developers use to design, debug, maintain, or otherwise maintain other programs and applications.

- Visual Studio Code
- Xampp Server
- PhpMyAdmin
- Browser

3.2 Database

A database is an arranged group of data. For our application, the database is a significant aspect. The database needs to be stable and secure because security is a significant problem for a web application. So to select a database is essential and more important than any other things for our project. We like MySQL because it is the most suitable database for us for some reasons. Those reasons will be given below.

A MySQL database is a hosting database that is used to store website information like blog posts or user report. A MySQL database is the usual general type of relational database on the web today. That is partly because it is free but also very important. In basic terms, a MySQL database is intelligent about saving any data that you want. It will let you quickly store and retrieve information and many website visitors can practice it at one time.

- MySQL is a database server
- It is ideal for both small and large application.
- MySQL Supports standard SQL
- It compiles on some platforms.

These are the purposes we used MySQL as our database because it is so important to select the right database for our application otherwise the whole hard work may go in vain. That's why considering all the options we've chosen this database, and it was so useful for our project as well as the web application.

3.3 System architecture

The system report is about learning what the system is going to handle, rather than determining how to do the handling. We require decaying a complex set of the requirement into the primary elements and relationships on which we will base our explication. An analysis is our first chance to get to handles with modeling the real world as objects.

3.3.1 System study

System study is an initial stage of system development life cycle. That gives a bright idea of what the real system is? After finishing the system study, a system proposal is prepared by the System Analyst (who studies the system) and placed before the user. The proposed method includes the findings of the present system and suggestions to overcome the shortcomings and problems of the modern policy in the light of the user's specifications

3.3.2 Feasibility Study

Feasibility or Probability study is the process used for the developing if the difficult can be solved or not solved, casual purposes, and evaluating the range of cost and benefits associated with various alternatives for solving the problem. Feasibility studies are necessary first to assess the feasibility of an application

4 Chapter 4: Demo

4.1 Log-in page

This is the homepage where users such as Admin, Manager and Recruiter may login from this page.





Figure 16: Login View of Users

4.2 Admin page

Admin site where Admin can update or edit anything what they want. In this site, they can add attributes (academy, branch, position, department, salary, ethnic, religion, role, nationality) and manage accounts via delete account, update information account or change its password if they are required.

4.2.1 Manage Account

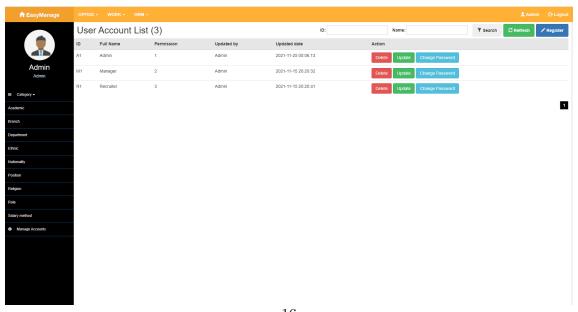


Figure 17: Manage Account View of Admin

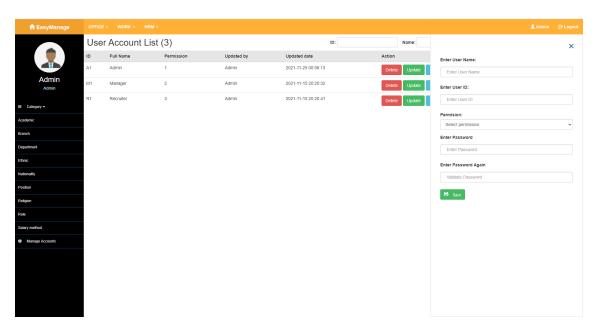


Figure 18: Register Accounts View of Admin

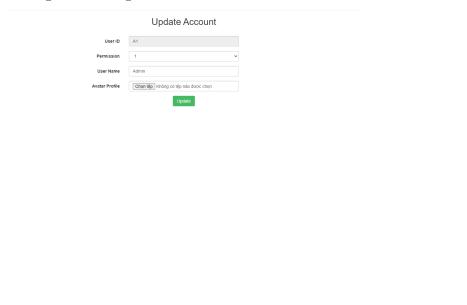


Figure 19: Update Account Info View of Admin



Figure 20: Change Account Password View of Admin

4.2.2 Add Contribution

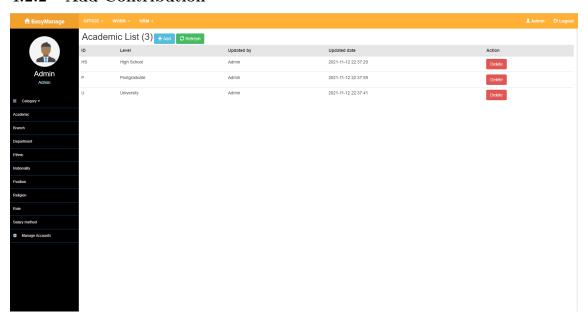


Figure 21: Academic View of Admin

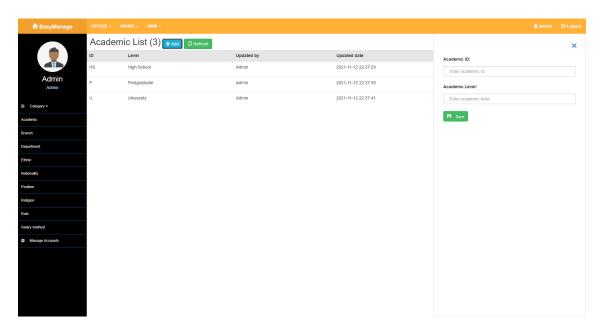


Figure 22: Add more Academic View of Admin

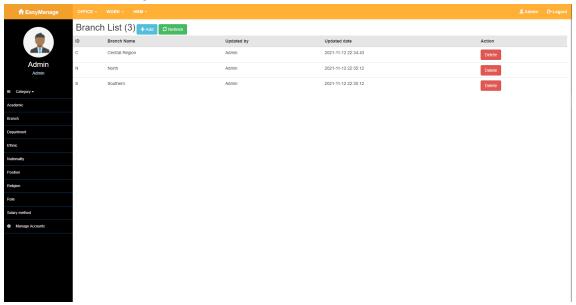


Figure 23: Branch View of Admin

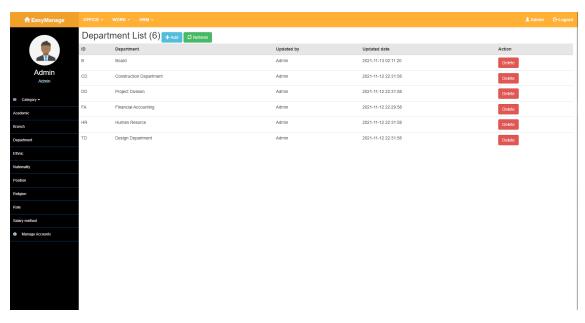


Figure 24: Department View of Admin

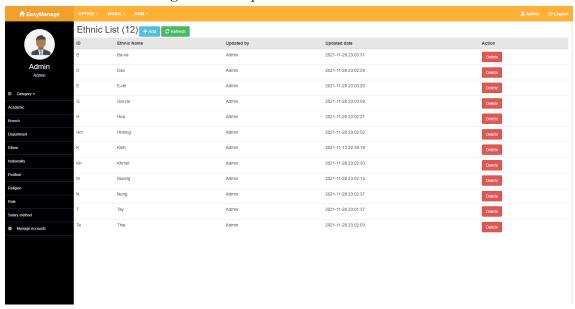


Figure 25: Ethnic View of Admin

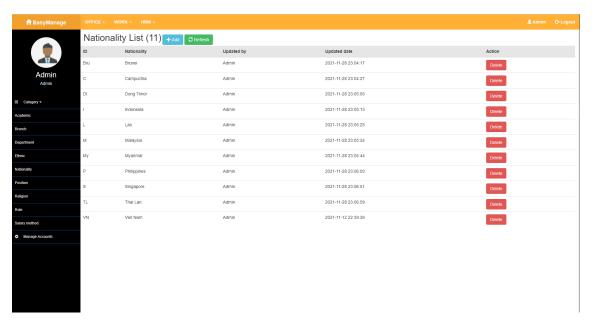


Figure 26: Nationality View of Admin

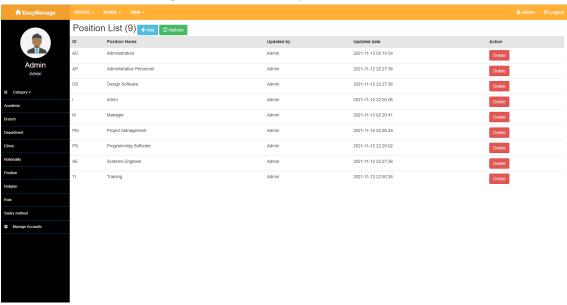


Figure 27: Position View of Admin

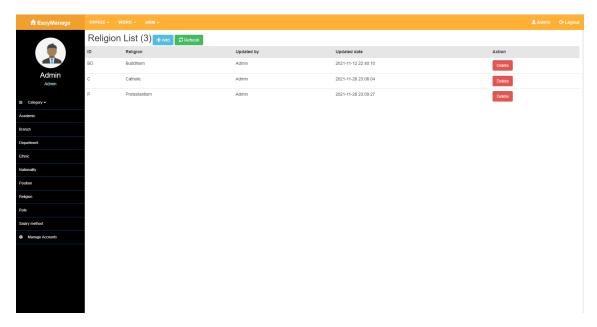


Figure 28: Religion View of Admin

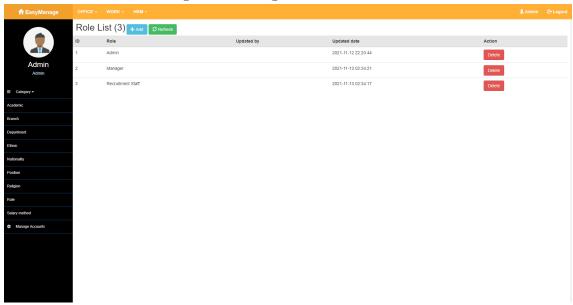


Figure 29: Role View of Admin

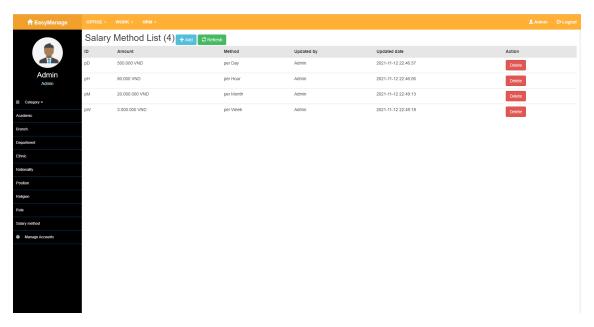


Figure 30: Salary View of Admin

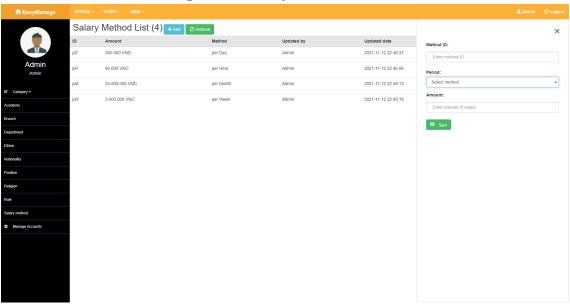


Figure 31: Add Salary View of Admin

4.3 Candidate page

This is the application form for candidate who wants to apply to Company. After filling out the form, form will be submitted to recruiter for checking the profile.

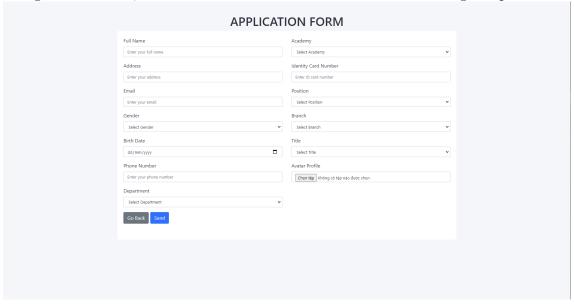


Figure 32: Application Form View of Candidate

4.4 Recruiter page

Recruiter site achieve some function such as adding new candidate profile, reading and checking the profile. If the recruiter approve profile, it will be sent to manager for updating remained information. There are 4 status for profile: interviewing, new, rejected and approved. When the new profile exists, the recruiter will be assigned to this profile and they can check the detail of the profile and set an interview date. In this site, the recruiter is able to extract their interview schedule.



Figure 33: Manage Candidate Profile View of Recruiter

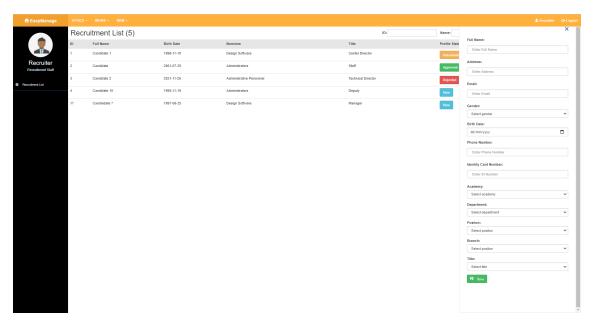


Figure 34: Add new Candidate Profile View of Recruiter

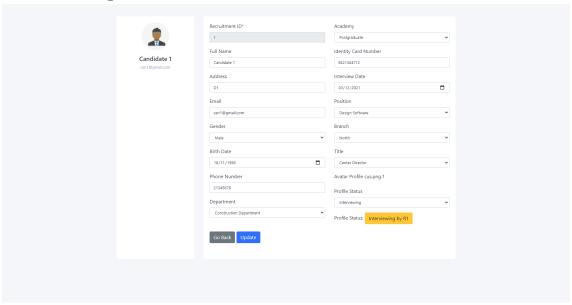


Figure 35: Candidate Profile View of Recruiter

4.5 Manager page

Manager site allows managers can manage recruitment list, employee list followed by department, position, title, branch, or gender. In this site, manager have the same function as the recruiter such as managing recruitment and profile of candidate, extracting report. In addition, manager also add new employee or update their status (working, retired, intermission).

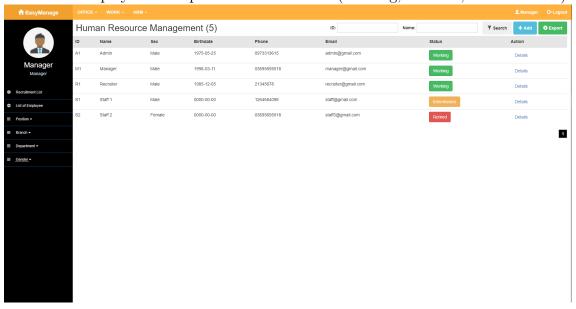


Figure 36: List of Employee View of Manager

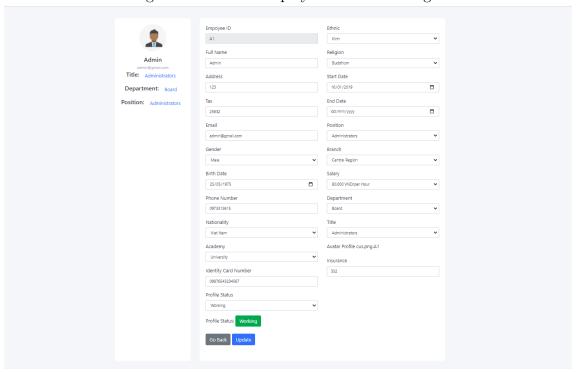


Figure 37: Employee Profile View of Manager

4.5.1 Recruitment List page

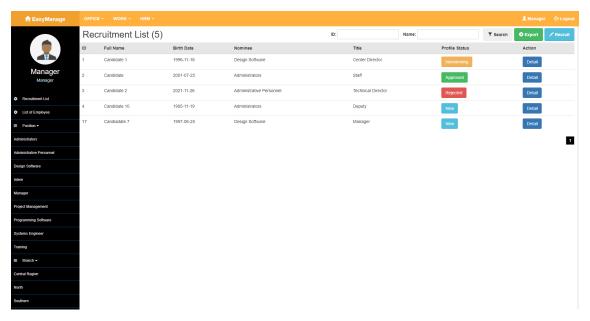


Figure 38: Manage Candidate Profile View of Manager

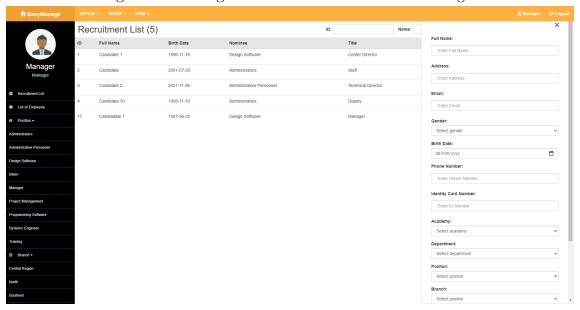


Figure 39: Add new Candidate Profile View of Manager

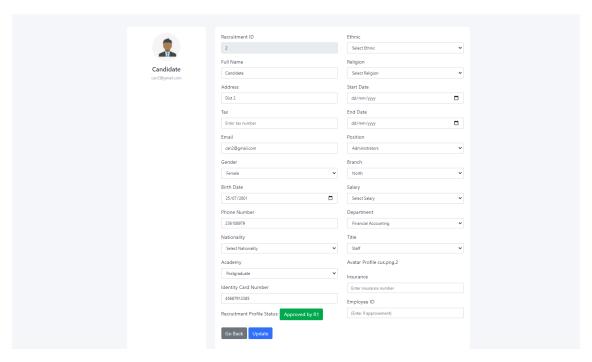


Figure 40: Candidate Profile View of Manager

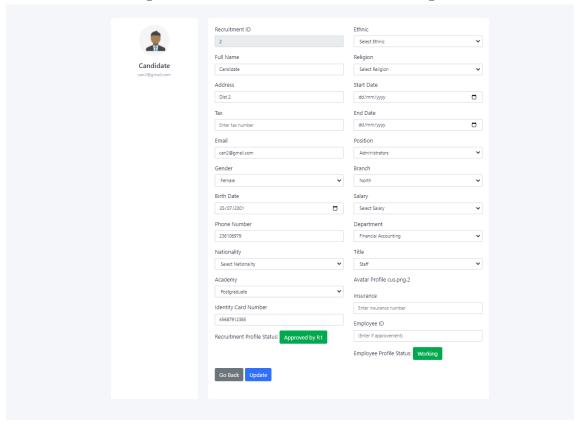


Figure 41: Update Finished Candidate Profile View of Manager

5 Chapter 5: Conclusion

We tried our best to complete the project and we successfully done it. HRM is a system that is very popular nowadays but joining with accounting system is not present or developed yet. We tried to do this.

In future we will try to add more functionality and more feature. We have a future plan for this project .Also we will update framework to Laravel or MongoDB when System need larger .

6 Reference

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