

INTERNSHIP APPLICATION SYSTEM

NOR HANIS AFIFAH BINTI HARUN



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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(TANDATANGAN PENYELIA)

Alamat tetap:
NO 18, JALAN SG 7/1, TAMAN SRI
GOMBAK, 68100 BATU CAVES,
SELANGOR

TS. DR. UMMI RABAAH BINTI
HASHIM

Tarikh: 2/9/2021

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INTERNSHIP APPLICATION SYSTEM

NOR HANIS AFIFAH BINTI HARUN

This report is submitted in partial fulfillment of the requirements for the Bachelor of [Computer Science (Software Development)] with Honours.



**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY UNIVERSITI
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2020 / 2021

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is written by me and is my own effort and that no part has been plagiarized
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SUPERVISOR



Date : 2/9/2021

TS. DR. UMMI RABAAH BINTI HASHIM

DEDICATION

To my beloved parents, Harun Bin Mohamed and Nor Ruzita Binti Yusof, thank you for all your support that you gave throughout this project. To my siblings, thank you for understanding and giving me space and time.



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ABSTRACT

For Internship Application System, this report studies cover five (5) chapter, which are Introduction, Literal Review and Project Methodology, Analysis, Design and Implementation. The problems to be solved are the difficulties of the student to apply for their internship and sometimes the company lost track of the applicants. The solutions are developing a system that will connect the student and company in a website called Internship Application System. Many researches have been done and throughout the research processes, many results have been obtained.



ABSTRAK

Untuk Sistem Permohonan Pelatih, kajian laporan merangkumi lima (5) bab, iaitu Pengenalan, Kajian Literasi dan Metodologi Projek, Analisis, Reka Bentuk dan Implementasi. Masalah yang harus diselesaikan adalah kesukaran pelajar untuk memohon latihan dan kadangkala syarikat kehilangan jejak pemohon-pemohon. Penyelesaiannya adalah membina sebuah sistem yang akan menghubungkan pelajar dan syarikat di laman web iaitu Sistem Permohonan Pelatih. Banyak kajian telah dilakukan dan sepanjang proses penyelidikan, banyak hasil telah diperoleh.



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List of abbreviations

1. Information Technology – IT
2. Internship Application System – IAS
3. Data Flow Diagram – DFD
4. Entity Relationship Diagram – ERD
5. User Interface – UI
6. Data Definition Language – DDL
7. Data Manipulation Language – DML
8. Functional Requirements – FR
9. Integrated Development Environment – IDE
10. Hyper Text Markup Language – HTML



CHAPTER 1: INTRODUCTION

1.1 Introduction

Internship program is one of the concern for any internship applicant. It will be a waste for both companies and applicants if their skills are not used properly. Therefore, there will be a need to have a smart internship application system. There are two users for this system. From this system applicants will be able to upload their resume to be reviewed by companies that are available in the system once the applicants applied for the particular position. Not only that, the applicants will be able to view a list of companies that are looking for intern in their dashboard suitable with their qualifications as stated in their resume. Besides, the company will get notified through email when any applicants applied for the company.

1.2 Problem Statement

Some of the problem statements that has been identified are:

1. Applicants have problem to identify positions that are suitable with their qualifications. Some of the students are confuse if they are qualified enough to apply for the internship place.
2. Applicants need to browse through various positions instead of a specific position. Since the existing system is focusing on permanent job rather than internship, students will waste their time browsing the positions.
3. The company sometimes lost track of the applicants that applied as there are no proper database system to save the data. There will be a lot of students that will apply for internship, thus it will make the choosing proces harder for the company.

1.3 Objective

This system is focused to achieve some of the objectives:

1. To build a system that can help applicants to search for particular internship position as some students having difficulties to find internship places.
2. To build a system that will produce a list of available internship positions for applicants every day that is suitable with their qualifications.
3. To build a system that will notify the company if there are any applicant that applied for that company.

1.4 Scope

Scope has been divided into two categories, which are:

1. Module to be developed
 - a. Registration and authentication
 - Registration is needed to use the system for the first time. Student will need to register using name, contact number, gender, email and password while the company need to register using company name, contact person name, contact number, email and password. After registration is successful, user need to authenticate themselves. For authentication, user need to login using their respective email and password.
 - b. Search
 - Students are able to search by job name, field, salary, place and company name.
 - c. View intern position
 - Once a job is posted, it will be displayed in the student's dashboard. Therefore, this module allows student to view a list of intern positions in their dashboard.
 - d. Apply internship
 - The main objective of developing this system is to allow students to apply for internship. Thus, students will be able to apply for their suitable internship position.
 - e. Manage profile
 - Students and the company are able to view and update their profile.

f. View applicant

- The company will be able to view applicants that applied to a particular internship position. The person in charge also will be able to update the status of application from “Pending” to “Viewed” or “Accepted” or “Rejected”.

2. Targeted user

a. Internship applicant

- Internship applicant is the student that will applied the internship places for their industrial training.

b. Company

- The registered company will post available internship spot for the students.

1.5 Project Significance

The significance of this project are:

1. Able to help internship students to find their internship place.
2. Able to help company to view and sort out the internship student.

1.6 Expected Output

The companies will not miss the opportunity to recruit a great intern for their internship program while the applicants will not miss the opportunity to choose a great company suitable with their qualifications and gain experience to improve themselves. This would increase the profitability of a company if they were able to hire the qualified internship student.

1.7 Conclusion

Overall, this chapter summarizes the introduction and the output of the system to be developed. For the next chapter, we will be discussing about literature review and project methodology.

CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

For a software project to be developed, it must go through some stages. In this chapter, we will be discussing about literature review and project methodology.

2.2 Facts and Findings

Facts and findings are important in carrying out a research before starting to develop a software project. Internship Application System are based on the website named 'Jobstreet.com'. In Jobstreet.com, we can see that there are many features that were build, such as the search function and the analytical data after a search has been done.

After a search has been done, Jobstreet.com will give some recommendations to user about related topic and based on their last search. For example, if a user search a job related to Information Technology (IT) field, it will suggests the jobs that is related to IT field and the next time the user visit the website, it will suggests the related job.

Jobstreet.com also gather all position whether it is a permanent job or an internship position. They enable the filter search for the field, salary, job type and date posted. User are able to choose from the filter given and search accordingly.

2.2.1 Domain

Internship Application System (IAS) is a web-based system that is built using a source scripting language, which is PHP. IAS also built using a markup language (HTML) and JavaScript. For database, IAS used MySQL and it is stored in phpMyAdmin. To run the system, we will be using Xampp as it is a free and open-source cross-platform web server.

2.2.2 Existing System

Students need to find their own internship place by visiting a lot of companies' website. They will spend a lot of time searching and sometimes it will lead them to confusion. This is because, they ponder whether they are qualified enough or not to be accepted for a particular company. For companies, it is harder to get an intern as they post in their own website. The student sometimes overlooked the internship offer made by the company as they go through the company's website. Thus, this will cause a great loss to both parties.

2.2.3 Technique

Research techniques are the strategies, processes or methods utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic. The technique that were used in this report is research. One of the research has been done through 'Jobstreet.com' website and there are a lot of facts and findings that have been found.

2.3 Project Methodology

For project methodology, agile type has been used in developing this system. Agile methodology meaning a practice that promotes continuous iteration of development and testing throughout the software development lifecycle of the project. In the Agile model in software testing, both development and testing activities are concurrent.

Agile software development methodology is one of the simplest and effective processes. Agile is a term used to describe software development approaches that employ continual planning, learning, improvement, team collaboration, evolutionary development, and early delivery. It encourages flexible responses to change. When there are any changes to be made in the system, agile are flexible enough to make sure that we can turn back to first step of development and review it again.

2.4 Project Requirements

2.4.1 Software Requirement

The software that are required for this project are:

1. Xampp

2. Sublime Text 3
3. MySQL
4. phpMyAdmin

2.4.2 Hardware Requirement

The hardware that are required for this project is:

1. Computer

2.4.3 Other Requirements

There are no other requirements needed to develop this system

2.5 Project Schedule and Milestones

In total, there are 14 weeks given to finish this system. During week one (1), there has been a meeting held with the supervisor to discuss about the title of the project. For week two (2) and three (3), student starts to do the proposal and submit it to be verified by the final year project's committee. Once the proposal has been accepted, student starts to discuss the problem analysis. On week four (4), student starts working on the design of solution. From week five (5) until seven (7), student has been doing the first progress for project implementation. The implementation continued until week 13 where student has final meeting with supervisor to check on the project progress. On week 14, the final presentation are held and the final report are to be submitted.

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Meet the supervisor	■													
Discussion / verification of title and synopsis	■													
Student submits proposal to Supervisor & Committee		■	■											
Discussion with Supervisor on analysis of problem			■											
Discussion with Supervisor on design of solution				■										
Project implementation (Progress 1)					■	■	■							
Project implementation (Progress 2)								■	■	■	■			
Project implementation (Progress 3)												■	■	
Final presentation & submission of final report														■

Figure 1: Gantt Chart

2.6 Conclusion

Identifying facts and findings are important in continuing to develop a system as it can help with data accuracy and it is the basis of developing a high quality system. For the next chapter, we will be discussing about analysis.

CHAPTER 3: ANALYSIS

3.1 Introduction

Requirement analysis is the process of determining user expectations for new or changed software. It is sometimes referred to as requirements gathering or requirements capture in the context of software engineering. The tasks that go into defining the needs or conditions to meet for a new or altered system are referred to as requirements analysis.

3.2 Problem Analysis

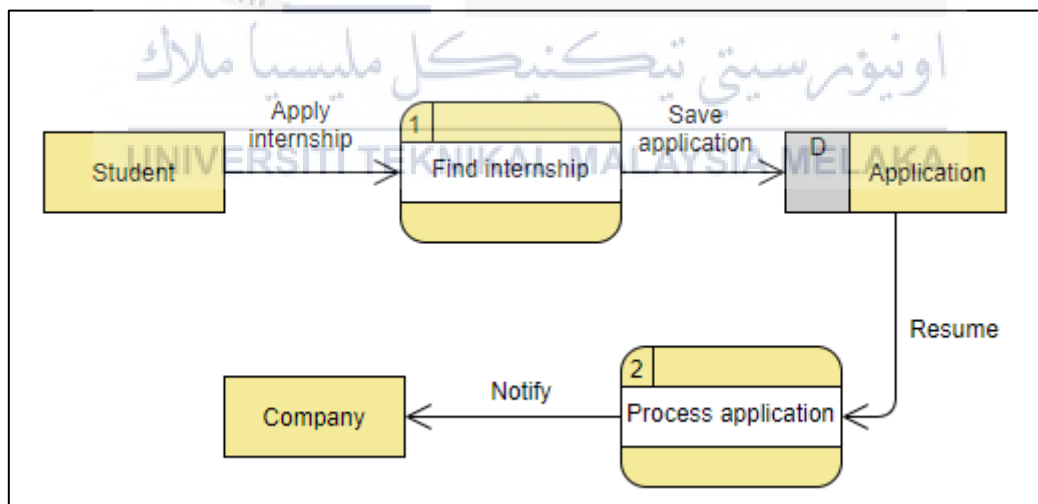


Figure 2: Data Flow Diagram for IAS

For this system, students want to find internship suitable with their own level. Therefore, they need to apply for an internship. The application will be saved in a database and the resume will be processed before it is send to company to be notified. The problem arises when student had a hard time choosing the internship place because they are unsure of their qualification. Company also will be facing problem if they were to lose a qualified candidate.

3.3 Requirement Analysis

3.3.1 Data Requirement

Table 1: Data Dictionary for Student

No.	Name	Data Type	Description	Null	Example Data
1.	studentID (PK)	Int (11)	A unique student's identification number for IAS	No	1
2.	firstName	Varchar (255)	The first name of the student	No	Nor Hanis
3.	lastName	Varchar (255)	The last name of the student	No	Harun
4.	gender	Char (1)	The gender of the student	No	f
5.	contactNumber	Int (11)	The contact number of the student	No	0102484969
6.	Email	Varchar (255)	The student's email used to register and login for IAS	No	hanis71s99@gmail.com
7.	password	Varchar (255)	The student's password used to register and login for IAS	No	hanis712

Table 2: Data Dictionary for Company

No.	Name	Data Type	Description	Null	Example Data
1.	companyID (PK)	Int (11)	A unique company's identification number for IAS	No	3
2.	companyName	Varchar (255)	The company's name	No	Maju Jaya Sdn. Bhd.
3.	companyAddress	Varchar (255)	The company's address	No	No.17, Jalan Plumbum Q7/Q, Seksyen 7, 40000 Shah Alam, Selangor
4.	companyBackground	Char (1)	The background of the company	No	Hi! We are Maju Jaya Sdn. Bhd.
5.	contactPersonName	Varchar (255)	The company's representative	No	Ariff bin Ismail

5.	contactNumber	Int (11)	The contact number of the company	No	0361809900
6.	Email	Varchar (255)	The email used to register and login for IAS	No	ariff.majujaya@gmail.com
7.	password	Varchar (255)	The password used to register and login for IAS	No	ariff@majujaya

Table 3: Data Dictionary for Job

No.	Name	Data Type	Description	Null	Example Data
1.	jobID (PK)	Int (11)	A unique job's identification number for IAS	No	1
2.	jobName	Varchar (255)	The first name of the student	No	Lawyer
3.	field	Varchar (255)	The last name of the student	No	Legal Services
4.	salary	Varchar (255)	The gender of the student	No	1000
5.	datePosted	date	The contact number of the student	No	21-06-24
6.	place	Varchar (255)	The student's email used to register and login for IAS	No	Shah Alam, Selangor
7.	jobDescription	text	The student's password used to register and login for IAS	No	Student will learn how to manage client's cases
8.	duration	int	The duration for the internship	No	3
9.	startDate	date	The start date of internship	No	21-09-27
10.	companyID (FK)	Int (11)	A unique company's identification number for IAS	No	3

Table 4: Data Dictionary for Application

No.	Name	Data Type	Description	Null	Example Data
1.	applicationID (PK)	Int (11)	A unique application identification number for IAS	No	1
2.	companyID	Int (11)	A unique company's identification number for IAS	No	3
3.	jobID	Int (11)	A unique job's identification number for IAS	No	1
4.	resume	text	The gender of the student	No	Nor Hanis_resume.pdf
5.	status	Varchar (255)	The status of application	No	Accepted

3.3.2 Functional Requirement

Functional requirement is a description of the service that the software must offer. It describes how the system should behave when user react to the system. The functional requirements for Smart Internship Application System are:

Table 5: Functional Requirement for IAS

Functional Requirement	Requirement	FR No.	Description
Authentication	Register	FR_01	The system should allow users to register into the system.
		FR_02	The system should validate format using the format given
		FR_03	The system should remind users not to leave any empty field
		FR_04	The system should notify user if they has successfully or unsuccessfully registered
	Login	FR_05	The system should allow user to access their own account
		FR_06	The system should verify the email entered according to the format
		FR_07	The system should check for correct password