

HEPA AUTOMATED FILING SYSTEM

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DECLARATION

I hereby declare that this project report entitled
HEPA AUTOMATED FILING SYSTEM

is written by me and is my own effort and that no part has been plagiarized
without citations.

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DEDICATION

I would specially dedicate this report to my beloved family members, my supervisor, En. Amir Syarifuddin Bin Kasim and also my classmate who had tirelessly given me the support and help I need. I would like to express my deepest gratitude to all of you for the never ending support and guidance. If it was not for those encouragement, the completion of this Project Sarjana Muda would had never been achieved.

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ABSTRACT

HEPA Automated Filing System is a computerized system specially design to overcome the problems which rises from practicing the traditional manual method of filing in the HEPA faculty. This system was proposed to be developed as the manual system was seen to be vague with the rapidly growing technology state. This system aims to digitally store all the files (letters and etc.) into the database, and no longer in a physical filing system. Also, this system aims to help the faculty manage the filing in a better manner so that file retrieving could be much easier compared to as it is now. The target user for this system includes the whole of the HEPA faculty, from the highest, dean of HEPA to the staffs of the faculty. The system modules are determine by user levels which are divided into three groups; Super-user, Admin and Normal user. Super-user are given full authority on all of the modules whereby the Admin are given main modules such as storing files and composing minutes. Normal users in the other hand are given very limited access to this system.

ABSTRAK

HEPA Automated Filing System (HAFS) adalah satu system berkomputer yang direka khas untuk menyelesaikan permasalahan yang timbul ketika menjalankan proses untuk menyimpan serta merekod fail menggunakan system tradisional iaitu menggunakan fail kertas. Sistem ini telah dicadangkan untuk dibangunkan supaya system sedia ada yang kelihatan tidak relevan dengan arus pembangunan yang sedang pesat membangun. Sistem ini bertujuan untuk menyimpan fail-fail (surat dan sebagainya) secara digital kedalam pangkalan data dan tidak lagi menggunakan fail kertas secara fizikal. Juga, sistem ini bertujuan untuk membantu fakulti ini untuk menguruskan fail-fail ini supaya ianya dapat digunapakai dengan cara yang lebih mudah berbanding dengan sistem sedia ada. Sasaran pengguna bagi sistem ini merupakan setiap staf yang berada di dalam fakulti HEPA, dari kerusi yang tertinggi, iaitu Dekan HEPA sehingga staf biasa yang berkenaan dalam menguruskan hal ehwal di HEPA. Modul di dalam sistem ini telah ditapis mengikut tahap yang telah ditentukan oleh sistem. Sistem ini mempunyai tiga tahap pengguna iaitu Pengguna 'Super', Admin serta Pengguna Biasa. Pengguna 'Super' mendapat capaian sepenuhnya keatas setiap modul yang telah disediakan di dalam sistem manakala Admin pula mendapat modul sama seperti pengguna biasa, tetapi telah diberikan tambahan modul memuat turun fail kedalam sistem serta menulis minit.

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LIST OF ABBREVIATIONS

ABBREVIATIONS	FULL
CSS	Cascading Style Sheet
DFD	Data Flow Diagram
ERD	Entity Relationship Diagram
FTMK	Fakulti Teknologi Maklumat Dan Komunikasi
GUI	Graphical User Interface
HAFS	HEPA Automated Filing System
HEPA	Hal Ehwal Pelajar dan Alumni
HTML	Hypertext Markup Language
IS	Information System
JSP	Java Server Pages
MVC	Model View Controller
OOP	Object Oriented Programming
PSM	Projek Sarjana Muda
SDLC	Software Development Life Cycle
SSADM	Structure System Analysis and Design Method
SU	Super User
UTeM	Universiti Teknikal Malaysia Melaka

CHAPTER I

INTRODUCTION

1.1 Project Background

It is a norm for an organization to receive and send numerous letters during its daily operations. These letters were either received or sent from throughout the organization itself or from other organizations or company. Either way, these letters need spaces in order to store them. Apart from that, these letters need to be sorted in a manner where the users can easily retrieve them in time of needs.

In Universiti Teknikal Malaysia Melaka (UTeM), as an institution of higher learning, receiving and sending out letters is known to be a major daily task. Specifically, in one of its office known as Hal Ehwal Pelajar dan Alumni (HEPA) which currently uses the manual mailbox system found it to be a troublesome task and should be able to be ease with the rapid growth of technology.

Manually, when a letter arrives, the letter will be sorted accordingly and will be passed to the Dean of HEPA. After considerations and approval, the dean would minute the letter to those who are supposed to be responsible in handling the task. This will be done by the dean's personal assistant. After the responsible unit receives the minute, he/she will either get the task done, or it will be again, minute to another person who works under the unit. This task flow was seen to take time and the letter will be duplicated time after times, thus needing more spaces to store them.

Therefore, this system was proposed to solve the problems that arises from the manual letter management system. The name proposed for the system was HEPA Automated Filing System (HAFS) as it is proposed to be internally used by the staff in the HEPA office. The system aims to aid the flow of the letter digitally instead of physically. This will be done whereby the letter will be stored inside a database and

then be forwarded / minute to anyone who was supposed to receive the letter. In addition, the users are allowed to reply or in other words, update the status of the task handed to them.

In addition, this system provides a platform in which the letters which were stored whether for inbox or outbox purposes to be able to be retrieved accordingly. This system also provides a filing intervention in which was adapted to the current manual system which uses the filing protocol in UTeM. These filings are created to store specific letters that falls under that exact filing specification.

1.2 Problem Statement

HEPA (Hal Ehwal Pelajar dan Alumni) office is the main office in UTeM which had been given the responsibility to handle the students' welfare and wellbeing in the institution. For that, they tend to receive and send out numerous number of letters daily. These letters are currently handled manually by the staffs. A number of problem arises from the current manual system.

The first is the flow of the letter, from when it is receive or being sent out, until it is minute to the respective staff for further actions. The flow of this letter are seen to have taken quite an amount of time. This system aims to cater this problem by introducing an e-mail-like function whereby the letters will be attached along with the minute to be sent to the respective officer/staff. This would be seen to save the amount of time taken for the letter to travel from one point to another.

The second problem which seems to arise from the current manual system is the spaces which are currently occupied due to the storage of these letters. As numerous letters are being processed each day, the files that stores these letters seems top abundant each day and have flooded the office area. These files do not only occupy extra spaces in the office, but sometimes these files seems to have contain errors and could have been misplaced, thus further increase the difficulties of letter retrieval.

Last but not least, this system is seen to be a more environmental-friendly system whereby it will lessen the usage of papers in the daily letter processes. The letters which are process in HEPA are not only stored by the original copy, but when it is minute to the respective officer/staff, it will be duplicated, thus increasing the number of papers used.

1.3 Objectives

- i. Accelerate the flow of letter from one point to another.
This system offers an e-mail-like functionality which covers the addition of receivers and also minute content to be sent to the respective receiver. In addition, this system also provides replying functionality whereby the current status of the minute may be tracked.
- ii. To reduce storage spaces needed to store the letters.
The letters will be digitally stored in the system, thus reducing the storage of storing them physically in the office. This also ease the retrieval of these letters when needed.
- iii. To reduce the usage of papers and ensure an environmental-friendly functionality.
As the letter are being passed from one point to another, it tends to be duplicated for safe-keeping, thus, adding the usage of papers. As these letters are stored digitally in the system, this problem may be overcome.

1.4 Project Scope

1.4.1 Modules

- i. Filing Creation Module
This module is used by the Super User (SU) of this system to create the handle the filing creation in this system. The filing protocol requires a number of needs in order to create one filing data. These data can be handle through this module.
- ii. Minute Module
This module is used by the Admin of this system in which they may minute the letters to other officers/staffs in the building through this system.
- iii. File Storing Module
This module is where the letters are stored digitally in the system. These letters will be attached to the minutes for references.

iv. Minute Reply Module

This module is a platform for officers/staffs who received the minute to reply to their superior about the current status of the task apprehended to them.

v. Login Module

This module is used as security to the system whereby login is required in order to proceed with the functionalities of this system.

vi. User Level Module

This module is also a security model in which the users of this system (in this case officers/staffs of HEPA) to only be able to use the module that are given to them through user levels.

1.4.2 Target User

i. Super User Scope

The super user is a user level that may use every module stated in the above module list.

ii. Admin Scope

Admin is a user level that gives the user an authority to compose minute, store files, reply and also login.

iii. User Scope

The normal of this system are given the least functionalities whereby these users can only login, view minutes and reply to the minutes.

1.5 Project Significance

The HEPA Automated Filing System that will be developed for the Hal Ehwal Pelajar dan Alumni (HEPA) office of Universiti Teknikal Malaysia Melaka (UTeM) will mainly benefit the officers and staffs in that particular office. This system was thought to have high potential as its aim to assist the daily operation of handling letters whether incoming or outgoing to be done digitally instead of the current manual system. To be

done digitally means saving an ample of time trying to get the letter from one officer / staff to another, saving storage spaces and also reduce paper usage whereby the letters were duplicated during the manual minute to respective officers or staffs. Other than that, it also helps to sort the letters better for later checking and retrieval.

1.6 Expected Output

The letters are to be stored in this system digitally and may be forwarded and minute to any respective officers and/or staffs for further actions. Apart from that, receivers may reply to the minute to update the current status of the task minute to them. These data are stored in a single data repository.

1.7 Conclusion

It is highly hoped that this system will be a great benefit to the users when it is later be launched or being in consideration for further development. The main objective of this system is to aid the officers and staffs of HEPA to run their daily letter processes by saving the amount of time taken for the letters to travel from one place to another, be stored in a digital manner rather than physically and also reduce the usage of paper when these letters are duplicated for safe-keeping.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

Chapter II encompasses thoroughly on the literature review and project methodology. This chapter is divided into several sections. The first section discusses on fact findings of current existing systems and case study. The second will discuss on the methodology that were used for the upbringing of HAFS. Project methodology plays an important role on determining the approach that will be used on how the project will be executed throughout the phases until it is completed. This will ensure that the project goes smoothly according to the timeline and would satisfy user's requirement. Then, project requirements such as software, hardware and also other requirements will be listed in detail in the third section. Third section will also contain project schedule and project milestone. As for the closure of this chapter, a conclusion for this chapter and also preview for the next, Chapter III will be provided.

2.2 Facts and Findings

The first and foremost section discusses on the researchers that were done on the existing domain and techniques used in each of the domains which are relatively related to this project. Analysis has been executed on the current system which are closely related to this project. Few current systems which involves file storage and attachment and also message forwarding has been examined.

2.2.1 Domain

HAFS is a domain which is related to Information System (IS). HAFS is mainly a system which stores attached files straight into the database or alongside a forwarded messages among users in a specific organization. Therefore, its biggest concern is to be able to store the large data into the database and may be retrieve in the best manner possible.

Other than that, the system manages files in manner which they are currently being stored, in named filing. This system acts exactly as if the files are stored physically in a specific filing, but this time, digitally. This will ensure that the files are stored in such a way so that retrieval for later usage to be easier. Apart from storing the files, this system caters to forward messages that currently, known as minute, to be forwarded to respective staffs in order for them to handle the case which were stated in the attached files.

Then, HAFS caters the need to reply to the minutes, as indicators that receivers had already received the messages and are currently handling the cases. This functionality happens in real-time manner, whereby the users may access the data as soon as they are stored.

2.2.2 Existing System

HAFS was solely an idea, an innovation raised from problems seen from current manual system, therefore, there is no such system in existence. However, the ideas taken in order to accomplish the system needs were taken from bits of few current existing system.

2.2.2.1 Existing system 1: E-mail system (Gmail)

Gmail is a subsystem under Google which caters the e-mail functionalities. This system covers both main modules of HAFS systems, which is to forward messages and also attach files along with the message. The messages are stored for the sender and also receivers. However, the retrieval of these messages depends solely on the date

it was stored, and not based on the title. Also, the files attached are only available if the messages are open.

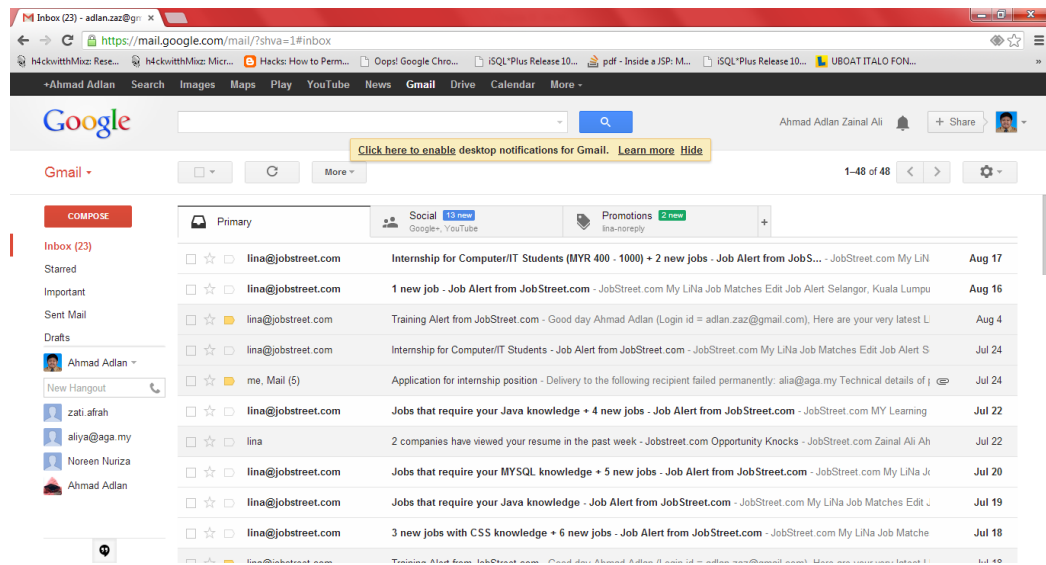


Figure 2.1: Screenshot of Gmail

2.2.2.2 Existing system 2: Dropbox

The second existing system examined is Dropbox. This system is mainly used to store files similarly to the files storage in the computer, in folders. This module was seen to be similar to the filing system of the current manual system that HAFS must follow. However, the disadvantage of this system is that, it does not provide message forwarding.