

**Universiti Teknologi MARA**

**Note Taking Organizer Application  
Based On #Hashtag**

**Shahrul Afiq Asyraaf Bin Shahrul Azman**

**Thesis submitted in fulfilment of the requirements for  
Bachelor of Information Technology (Hons.)  
Information Systems Engineering  
Faculty of Computer and Mathematical Sciences**

**January 2017**

## **STUDENT'S DECLARATION**

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

.....  
SHAHRUL AFIQ ASYRAAF BIN SHAHRUL AZMAN  
2014953737

JANUARY 3, 2017

## ABSTRACT

This research was about developing a mobile application that allows the user to create note by adding other media content such as images and audio. Besides that this application can be search by hashtag. The hashtag act as the header or title of each note. The problem statement was the user can actually create a same title to a different note. It may be hard and time consuming for the user to search or find the previous note and some notes even end up missing. There were three objectives that need to be achieved in this project which were, to gather and analyze the requirement from the students about their way of note taking using smartphones, to design mobile application that can store note taking and some media content and to develop a Note Taking Organizer Application Based On #Hashtag. There are one actor involved in this application which is the student. This project used the System Development Life Cycle (SDLC) which consists of three phases which are the requirement gathering and analysis, the design phase and development phase with each of the phases had its own activities involved and the deliverables. Each phases achieved each objectives of the project. The findings of this project is to enable the user to search or find their notes easier by using the hashtag tagging as their header or title. The application can be used by many user from their own device. The limitations for this project is the storage of the notes itself must be reliable with the space storage of the phone. The recommendations for the project are the **notes** can be shared among other users in the future.

## **TABLE OF CONTENT**

<b>CONTENTS</b>	<b>PAGE</b>
<b>SUPERVISOR’S APPROVAL</b>	<b>ii</b>
<b>STUDENT’S DECLARATION</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT</b>	<b>iv</b>
<b>ABSTRACT</b>	<b>v</b>
<b>TABLE OF CONTENT</b>	<b>vi</b>
<b>LIST OF FIGURES</b>	<b>ix</b>
<b>LIST OF TABLES</b>	<b>xii</b>
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
1.1    Background of Study	1
1.2    Problem Statement	3
1.3    Aim	3
1.4    Research Objectives	4
1.5    Research Scope	4
1.6    Research Significance	4
1.7    Expected Outcome	5
<b>CHAPTER TWO: LITERATURE REVIEW</b>	<b>6</b>
2.1    Overview of Note Taking Application	6
2.2    Information and Knowledge Management	6
2.3    Hashing Function	7
2.3.1    Hashing Function	8
2.3.2    Hashing Algorithm	8
2.3.3    Tag Usage	9
2.3.4    Hashtag	10
2.4    Mobile Application Development	11
2.4.1    Modeling Language for Mobile Applications	12
2.4.2    Databases for Mobile Applications.	13
2.5    Software Development Methodologies	20
2.5.1    Systems Development Life Cycle (SDLC)	20

2.5.2	Agile Development	21
2.5.3	Mobile Application Development Life Cycle (MADLC)	23
2.6	Related Works	14
2.6.1	Evernote	14
2.6.2	GoodNotes	16
2.6.3	ABC Notes	17
2.6.4	T-Memo	18
2.7	Comparison Functionalities On The Five Note Taking Application	19
2.8	Discussion	27
<b>CHAPTER THREE: METHODOLOGY</b>		<b>30</b>
3.1	Systems Development Life Cycle (SDLC)	30
3.2	Requirement Gathering and Analysis	33
3.2.1	Conduct a survey	33
3.2.2	Analyze the requirement	34
3.2.3	Document the requirement	35
3.3	Design Phase	36
3.3.1	Design Model	36
3.3.2	Design the System Interface	38
3.3.3	Design the Database	39
3.3.4	Document the system design model	39
3.4	Development Phase	39
3.4.1	Develop the Note Taking Organizer Application Based On #Hashtag	40
3.5	Hardware and Software requirement	40
3.5.1	Hardware Requirement	41
3.5.2	Software Requirement	41
3.6	Chapter Summary	42
<b>CHAPTER FOUR: RESULTS AND ANALYSIS</b>		<b>43</b>
4.1	Requirement Gathering	43
4.1.1	Identify The Situation	43
4.1.2	Conduct A Survey	43
4.1.3	Feedback From the Survey	45
4.2	Requirement Analysis	47
4.2.1	Use Case Diagram	47
4.2.2	Domain Class Diagram (DCD)	52