

**UNIVERSITI TEKNOLOGI MARA**

**MOBILE APPLICATION:  
GENERAL USE CHATBOT FOR  
COVID-19**

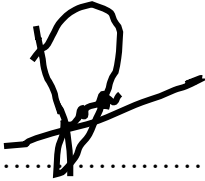
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## STUDENT DECLARATION

I certify that this thesis 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.



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## **ABSTRACT**

COVID-19 has been plaguing the world since late 2019 and is still a major problem today. Malaysian government made a lot of effort in countering the outbreak by imposing new laws and norms. It can be quite confusing for citizens with many new things introduced and enforced. This project aims to mitigate those confusion and questions by providing a chat-service bot that can answer user's inquiries regarding COVID-19 in Malaysia. This would also directly assist in the alleviation of the virus infections by raising and spreading awareness through the system. The effort made solely with the purpose to educate citizens of Malaysia with information related to the virus, standard procedures and vaccination. Various researches have been made to understand more regarding chatbot as a service through case studies, articles and published papers. All of the research sources can be found in the reference section. From the researches done, the approach and techniques to be used in developing the system became clearer after reviewing multiple alternatives available. By comparing different methods, the best option can be chosen when it is best suited for the system to serve its purpose. Part-of-speech tagging is the most suitable approach for this system as it covers all basis and requirements of a rule-based chatbot adequately. The completion of research phase helped tremendously in developing the chatbot system proposed due to clearer understanding of the architecture and framework. The process continues with system design, development and implementation undertaken in order to produce the system prototype as a deliverable. Rigorous testing, trial and error efforts was made to complete the development of the system. The system strives to serve its goals in educating and raising awareness to citizens by being engaging and interactive with users in a natural conversation. The analysis of the system does indicate that the system can be improved greatly in the future works with the implementation of Artificial Intelligence into the core system being one of them. The chatbot service would then be able to learn new queries and responses given time as it develops and evolves.

# TABLE OF CONTENTS

<b>CONTENT</b>	<b>PAGE</b>
<b>SUPERVISOR APPROVAL</b>	ii
<b>STUDENT DECLARATION</b>	iii
<b>ACKNOWLEDGEMENT</b>	iv
<b>ABSTRACT</b>	v
<b>LIST OF TABLES</b>	ix
<b>LIST OF FIGURES</b>	x
<b>LIST OF ABBREVIATIONS</b>	xii
<b>CHAPTER 1: INTRODUCTION</b>	1
1.1 INTRODUCTION	1
1.2 BACKGROUND OF STUDY	2
1.3 PROBLEM STATEMENT	3
1.4 PROJECT QUESTION	4
1.5 PROJECT OBJECTIVES	4
1.6 PROJECT SCOPE	4
1.7 SIGNIFICANCE OF STUDY	5
1.8 CONCLUSION	6
<b>CHAPTER 2: LITERATURE REVIEW</b>	7
2.1 INTRODUCTION	8
2.2 OVERVIEW OF DOMAIN	9
2.3 OVERVIEW OF RESEARCH AREA/ELEMENTS	11
2.4 SPECIFIC DESCRIPTION OF AREA	12
2.5 TECHNIQUES IN AREA	14
2.5.1 Parsing	14
2.5.2 Stemming	14
2.5.3 Part-of-Speech Tagging	15

2.5.4	Dialogue Planning and Policy	15
2.6	COMMON FEATURES RELATED TO PROJECT	17
2.6.1	Conversational Capabilities	17
2.6.2	Question and Answer	17
2.6.3	Straightforward and User-friendly Interface	17
2.7	SUMMARY	19
<b>CHAPTER 3: METHODOLOGY</b>		<b>20</b>
3.1	INTRODUCTION	20
3.2	OPERATIONAL FRAMEWORK	21
3.2.1	Phase 1	22
3.2.2	Phase 2	23
3.2.3	Phase 3	24
3.2.4	Phase 4	25
3.2.5	Phase 5	26
3.3	SYSTEM METHODOLOGY	27
3.4	SYSTEM ARCHITECTURE	28
3.5	SYSTEM DESIGN	29
3.6	HARDWARE AND SOFTWARE REQUIREMENT	30
3.7	SUMMARY	31
<b>CHAPTER 4: PROJECT DESIGN AND IMPLEMENTATION</b>		<b>32</b>
4.1	INTRODUCTION	32
4.2	ANALYSIS REQUIREMENT	32
4.2.1	List of algorithms	32
4.2.2	List of major functions	33
4.2.3	Inter-relationship of functions	33
4.2.4	Steps taken to develop	33
4.3	PROJECT DESIGN	34
4.3.1	Timing Problem and the Solution	34
4.3.2	Infrastructure Requirement	35
4.3.3	Road Map for System Build	36