

Universiti Teknologi MARA

**Food Recipe Mobile Application for The Sensitives
Using Application Programming Interface (API)**


Muhamad Harith Bin Noor Affandee

**Thesis submitted in fulfillment of the requirements for
Bachelor of Computer Science (Hons)
Faculty of Computer and Mathematical Sciences**

January 2022

DECLARATION

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



.....
MUHAMAD HARITH BIN NOOR AFFANDEE
2019335369

JANUARY 28, 2022

ABSTRACT

Geographical background and religions make us human different from one another. This diversity plays many roles in affecting our diet and disease. Health issues are often related to a person of dietary pattern. Some growth to be stronger but some become sensitives to these changes. People that develop allergy reaction often have limited access to certain type of food. This group of people is minority compared to others. Due to limited access of food this people choose to have certain diet adjusting with their body. This project presents an application that can assist people with strict dietary and allergies problem to find suitable recipes for them. Reliable and accurate food data source is gathered and used in this mobile application. Android environment will be the main focus for this project and application programming interface serve as medium to interact with the application developed. Proper planning, design, implementation, and testing steps are taken to ensure the reliability of the application. Charts and results are presented to show the functionality and acceptance of the works done. The application proof to be a reliable source and assist those affected by strict and sensitives food dietary. Despite the great outcome, there is still some limitation and updates that can further increase the value of this project.

TABLE OF CONTENTS

ABSTRACT.....	5
CHAPTER 1	11
INTRODUCTION	11
1.1 Background of Study.....	12
1.2 Problem Statement	13
1.3 Project Question	13
1.4 Project Objective	13
1.5 Project Scope.....	14
1.6 Significance of Study	14
1.7 Summary	15
CHAPTER 2	16
LITERATURE REVIEW	16
2.1 Overview of Diet and Health	18
2.2 Application Programming Interface (API).....	21
2.3 Type of Web Application Programming Interface.....	22
2.3.1 Simple Object Access Protocol (SOAP).....	22
2.3.2 Remote Procedure Call (RPC).....	22
2.3.3 Representational State Transfer (REST)	23
2.4 Web Application Programming Interface Comparison	23
2.5 Application Programming Interface Technique Comparison	24
2.6 Related Application.....	24
2.6.1 Faced Recognition System Based on API	24
2.6.2 SaveMyLife Mobile Application	25

2.6.3	Augmented Reality (AR) Application for Remote Collaboration Scenario	26
2.6.4	Application Comparison	27
2.7	Summary	28
CHAPTER 3		29
METHODOLOGY		29
3.1	Operational Framework	29
3.1.1	Planning	30
3.1.2	Data Collection	31
3.1.3	Implementation	31
3.1.4	Testing	32
3.1.5	Documentation	33
3.2	System Architecture	34
3.3	Hardware and Software Requirement	35
3.4	Summary	36
CHAPTER 4		37
IMPLEMENTATION AND RESULT		37
4.1	Analysis of Requirement	37
4.1.1	Choosing Web API	37
4.2	Application Design	37
4.2.1	Interface Design Storyboard	37
4.3	Application Development	48
4.3.1	Application Flowchart	48
4.3.2	Application Use Case	49
4.4	Application Implementation	52