

CHAPTER I INTRODUCTION

1.1. Background of the Study

Eating is an activity that becomes one of the basic needs for the life of living things. In addition, eating can also support all activities performed by living things. Without eating the body will become weak, so it cannot perform activities well. As a Muslim there are some foods that are forbidden for consumption, therefore we as Muslim should choose what foods can be consumed.

Why was that? Because it has been set by Al-Quran as a guideline for Muslim. Examples of the prohibitions contained in the al-Quran letter of Al-Maidah verse 3 which means "Forbidden to you (eat) carcasses, blood, pork, (animal flesh) slaughtered in the name other than God, choked, beaten, fallen Headlong, and pounced on a beast, except that you slaughtered it, and (forbidden you) slaughtered for idols. "With that explanation, we know what kind of food should not be consumed by Muslim.

As people who live in China or people who are visiting China, we must pay attention to what foods are available in the country because the available food is not the same as the food in the country itself even we have to know what ingredients are in use to make that food. In China, although the majority of the population is not Muslim, many of its Muslim population open Muslim restaurant which means it can be consumed by people who have Muslim religion in China. But not too many Muslim restaurants are available and also as new people coming to China we do not know the writing characters available in many places.

Not only food, people who have Muslim religion must know where the place to pray. Muslim should know where the mosque is available in its place. Because every Friday male Muslim must perform the Friday prayer in the mosque. And also mosques usually hold events to commemorate the big days of Islam. Therefore the existence of the mosque is needed by Muslim people.

Information retrieval methods via mobile devices such as smartphones, tablets are very widely used, the use of mobile devices today is very practical to facilitate users to search for information. This phenomenon is very potential as a means to find halal food and find the Mosque. So the author is interested in creating an application with the title "Developing of Muslim Restaurant and Mosque Finder on Android Devices by Using Global Positioning System (GPS) in The City of Nanjing". The design of this application development based on Android. This technology is necessary for tourists or people living in China who are Muslim and want to find halal food and mosque. In the application, there is a navigation system using GPS (Global Positioning System) as a direction to the location where the Muslim restaurant is located and where the mosque is located.

1.2. Problem Identification

Based on the background can identify problems faced in the development of this application, are follows:

1. How to design this Muslim Restaurant and Mosque Finder Application?
2. How the application to be able to get the location of Muslim restaurant and Mosque?
3. How the application to be able to display a route to the location of Muslim restaurant and Mosque to the intended location?
4. How can this application be easily understood by users?

1.3. Purpose of the Study

The purpose of the design of this system are as follows:

1. This application is designed to help tourists or Muslims in Nanjing who don't understand the Chinese language to find Muslim restaurant and Mosque.
2. This application is designed to navigate to the nearest Muslim restaurant and Mosque in Nanjing.
3. This application is designed to know the recommendation Muslim restaurant and Mosque in Nanjing.
4. Develop applications as Muslim restaurant and Mosque finder that is easy, practical and effective.

1.4. Limitations of the Study

Some limitations of this study are as follows:

1. This application focus on search Muslim restaurant and Mosque base on Baidu Map database with range 1-10 KM from current position.
2. This application display recommendations Muslim restaurant and Mosque only in Nanjing, China.
3. The navigation only can use by walk or by car.
4. This application is applied to the Android operating system version 5.0 (Lollipop) or higher.
5. The design of this system using the Eclipse application.

1.5. Benefits of the Study

The benefits of the design of this system are as follows:

1. Provide information facilities for tourists or Muslims in Nanjing where the location of Muslim restaurants and mosques are located.
2. This application can help to find the location of Muslim restaurants and mosques that we have not known before.
3. Can use this application as a guide to find the location and navigate the directions to the location easily.

1.6. The Collect of Data

This application use Baidu Map database to get the data. So the data that I get and show in this application is all from Baidu Map. The amount of data depends on the database owned by the Baidu Map. And in this application cannot add data manually.

1.7. Research Methodology

The methodology used in this research is *Rapid Application Development (RAD)* software development method. In the development of systems that use the RAD method, there are the following stages (Kendall, 2010):

a) Planning Phase

At this stage done Problem needs analysis for the manufacture of mobile applications with android operating system, determine the purpose of making the application, then determine the requisite requirements.

b) Design Phase

At this stage is done design process - the process that will occur in the system to be created, as well as doing interface design (user

interface). At this stage the authors use UML as a tool to simplify research and application design.

c) Construction Phase

At this stage, the implementation of program coding in accordance with requirements and designs that have been specified previously. In this study Android Studio used as an IDE (Integrated Development Environment) to create applications for the Android operating system.

d) Implementation Phase

At this stage testing the applications that have been made. Testing is done by black box method on all parts and functions of the application.

1.8. Schedule

No	Activities	March	April				May			
		4	1	2	3	4	1	2	3	4
1	Analysis of needs/requirements	■	■							
2	Design			■						
3	Prototype				■					
4	Coding					■	■	■	■	
5	Testing					■	■	■	■	
6	Documentation									■

Table 1 Table Schedule

Process to arrange this thesis takes approximately 9 weeks. With the first week starting on March 29 until May 31, 2017.

1.9. The Writing Structure

As for the systematically this thesis is divided into five chapters, with an explanation for each chapter is as follows:

CHAPTER I INTRODUCTION

In this chapter discusses the background of the study, problem identification, limitation of the study, purpose and benefits of the study, research methodology, framework, and schedules.

CHAPTER II THEORETICAL

BASIS In this chapter discusses the basic theories that support and relate to this research.

CHAPTER III ANALYSIS AND DESIGN

This chapter discusses the analysis and design of the system. Analysis of the general description or the current condition, analysis of the current system, analysis of system needs and write the conceptual framework to generate a new system. This chapter also discusses the system design.

CHAPTER IV IMPLEMENTATION AND TESTING

This chapter discusses the implementation of the results of analysis and design of the system into coding to produce a system that can be used by the user. Moreover, also illustrate the user interface of the system and conducted testing of the system to determine whether the system is already ok or still in need of repair.

CHAPTER V CLOSING

This chapter contains the conclusions of this thesis and advice that are used as a reference in future development.