

ENGLISH-MALAY-ENGLISH DICTIONARY

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ABSTRACT

English-Malay-English Dictionary is a solution to the problems that always occur to the tourist from abroad when they come to Malaysia. This thesis was about what had done in order to try to solve the problem by develop the English-Malay-English Dictionary in mobile. The English-Malay-English Dictionary was develop in mobile because nowadays mobile is an important gadget for everyone. This is because mobile is easy to carry with its size which is small and the price that suitable for everyone. The dictionary is choosing for the case study since there are many tourists got problems to communicate with the Malaysian. From the research, they are having done the dictionary in mobile that had cover two language which are Mandarin and English language that caused the dictionary is Mandarin-English dictionary. That is means English-Malay-English Dictionary is a new application that can attract tourist to come to Malaysia because they can understand and communicate with the Malaysian by using this dictionary. The English-Malay-English Dictionary is developing to make the newest dictionary for Android Smartphone. By having this dictionary, tourists no need to worry about the communication problem with Malaysian.

ABSTRAK

Kamus Inggeris-Melayu-Inggeris merupakan penyelesaian kepada masalah-masalah yang sering berlaku kepada pelancong dari luar negara apabila mereka datang ke Malaysia. Tesis ini adalah mengenai apa yang telah dilakukan dalam usaha menyelesaikan masalah ini dengan membangunkan Kamus Inggeris-Melayu-Inggeris dalam telefon mudah alih. Kamus Inggeris-Melayu-Inggeris telah dibangunkan dalam telefon mudah alih kerana telefon mudah alih masa kini adalah alat yang penting bagi semua orang. Ini adalah kerana telefon mudah alih mudah untuk dibawa ke mana-mana kerana saiznya yang kecil dan harga yang sesuai untuk semua orang. Kamus Inggeris-Melayu-Inggeris dipilih untuk kajian kes memandangkan terdapat ramai pelancong mendapat masalah untuk berkomunikasi dengan rakyat Malaysia. Daripada kajian, terdapat kamus dalam telefon mudah alih yang meliputi dua bahasa iaitu bahasa Mandarin dan Bahasa Inggeris yang dikenali sebagai Kamus Bahasa Mandarin-Bahasa Inggeris. Ini bermakna Kamus Inggeris-Melayu-Inggeris adalah satu aplikasi baru yang boleh menarik pelancong untuk datang ke Malaysia kerana mereka dapat memahami dan berkomunikasi dengan rakyat Malaysia dengan menggunakan kamus ini. Kamus Inggeris-Melayu-Inggeris dibangunkan sebagai kamus terbaru untuk Telefon Pintar Android.. Dengan adanya kamus ini, pelancong tidak perlu risau tentang masalah untuk berkomunikasi dengan rakyat Malaysia.

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CHAPTER I

INTRODUCTION

This chapter briefly describes the “**English-Malay-English Dictionary**” that had been developed. This chapter comprises five sections: The first section describes the background of the project. The second section describes the problem statement and motivation of the project. The third section describes the objectives for the project. The fourth section describes the scopes for the project. Finally the thesis organization is described in section five.

1.1. Background

A dictionary which also called as wordbook, lexicon or vocabulary is a collection of words in one or more specific languages, often listed alphabetically, with usage information, definitions, etymologies, and other information. According to the Nielsen, a dictionary may be regarded as lexicographical product that is characterized by three significant features. It also known as book that contains data that been selected for the purpose of fulfilling those functions. It is also known as lexicographic structures link and establish relationships between the data so that they can meet the needs of users and fulfill the functions of dictionary. Even though there are have digital dictionary, but it too much to buy and difficult to bring [1].

Malaysia is a country that now very success in tourism part. This is due to number of tourists that come to Malaysia and choose this country as their place for vacation. Since Malaysia has many states in, thus there are many dialects that have always used by the residents of each state. Everyone that lives

in Malaysia can speak freedom according to their dialects or use the standard language or official language of Malaysia which is Malay. But, as we know the tourists that come to Malaysia consists of oversea tourists likes from United States of America, New Zealand and also the other Asia' state likes China, Korea and etc. Every tourist that comes to Malaysia usually cannot speak in Malays because that not uses the Malays as their language. They always use the English as their language for communication. But for Malaysian, the English not usually is taken as communication language. Therefore, it is difficult for the tourist to communicate with the Malaysian when they need to ask for help. This is because they need someone that really good to communicate when they in trouble when they in travel. The tourist need to go the Help Center to ask help or called them when they needed a help just because they cannot understand what the Malaysian speak to them. It usually occurs when they go to visit a village. The villagers usually do not know how to speak in English thus it give them a problem to communicate with the tourist. Since the Malaysia now very success in development, thus everything information of Malaysia can get easily via any websites [2].

Nowadays, mobile phone is a gadget that really important for everyone. This is because the mobile phone is easy to carry and can need a small space to keep it. Mobile phone is used to communication with other that far distance, to take a picture or video, to listen the music and also for social networking. Mobile phone become more intelligent since the world is will turn to the technologies one day. Therefore, Smartphone is developing as intelligent gadget for the user. Smartphone consists several type which is it different based on the platform that use. The application on the phone also really upgrade because it can store type of application and games. Platform that always use for Smartphone likes Window platform, Android platform and also Symbian platform. But the most in trend today is Android platform and followed by Window platform.

1.2. Problem Statement and Motivation

Malaysia is a one of country that receive many tourist day by day, year by year, the government should take part to prevent from the tourist not come back to visit Malaysia. This is because tourists usually get many problems when they travel in Malaysia especially related to communication. They cannot travel by their own and need someone to be their tourist guide. When the tourist need help if they go to the cafe or any place to enjoy and their tourist guide cannot be on side with them, it will give big problem for the tourist. It consequently makes the tourist feel as an outsider because they cannot understand what the people say.

Even though that have digital dictionary now, there is really expensive to buy and not all people tends to buy the dictionary. It compare to the mobile application because everyone today must have at least a mobile phone since that technology become really important for everyone. So, the tourist no need to bring many gadgets since the dictionary just can put in mobile.

Dictionary nowadays usually need to connect with the internet for use. To find standalone dictionary application is difficult. Android also comes with many type of API and platform likes Honeycomb, Gingerbread and Ice-cream Sandwich. The dictionary also usually not provides the example of sentences that can help the tourist.

Since the issue nowadays really serious, this hopefully can help the tourist in order to avoid them from get problem during their vacation. It can see clearly in the objective that this is a good solution to the tourist.

1.3. Objective

From the research, there are a few objectives that can list out as a guideline in order to develop the system. The objectives are:

- To identify and analysis the Malay words that always use in communication.
- To develop English-Malay-English dictionary in mobile application.

1.4. Scope

The scope of the research may focus on Malaysia since this is about the Malaysia country and the tourist. This application make especially to the tourist from the overseas. This is due to the statistic of tourist come to Malaysia that increases year by year. The dictionary is make on mobile since nowadays people does not use to read dictionary book. This dictionary will include words in Malays and English and each word will provide with example sentences. This application will develop in Eclipse Indigo which is for the Android platform. The application also has several functions likes search and the meaning will display with the example in order to make it user friendly type. The words also have limited number that will be stored which is 100 words or above.

1.5. Contribution

This purpose was designed for the tourist that comes to Malaysia. The Malaysian also can use since it can help to improve English language for communication. The target user is also to the mobile phone user.

1.6. Thesis Organization

This thesis organization was summarizing all the chapter of the thesis. The thesis contains five chapters which are chapter 1, chapter 2, chapter 3, chapter 4 and chapter 5.

Chapter 1 is for introduction. In this chapter, the introduction, problems statement, objective, scope and contribution was included.

Chapter 2 is literature review. This chapter was describe the existing system and the comparison that make between all three existing system. The technique and method also describe in this chapter.

Chapter 3 is methodology. In this chapter, it describes the methods that choose for English-Malay-English Dictionary development. It also includes the storyboard.

Chapter 4 is implementation. This chapter is the continuing from the previous chapter.

Chapter 5 is result, discussion and conclusion. This chapter will conclude overall about this project.

CHAPTER II

LITERATURE REVIEW

This chapter briefly describes the review on existing techniques related with **“Intelligent Dictionary”**. This chapter comprises two sections: The first section describes the comprehensive review on existing related systems. The second section describes the review on method, equipment, and technology previously used in the same domain.

2.1 Existing Systems

This section is to review the current system and the existing system that related to dictionary in mobile.

2.1.1 Chinese – English Dictionary

According to research that made by Yuxiang Li, Lijun Cao, Hongkui Yu, Cao Cheng and Shendong Li in their journal, it is show how the application in mobile can develop[4]. This dictionary was developed for the user that need Chinese-English dictionary or vice versa. It mainly to achieve the foundation of English-Chinese dictionary, as well as to query the Chinese meaning of English words, to add new words into dictionary to modify the Chinese meaning, delete the words in user’s dictionary. For this dictionary, the query is use to queue the Chinese word when the English words search. User will input the word or letter and the program will automatically match and display all the related words in dictionary. The user may click at

the word and the meaning in the Chinese will appear. While for the add function, the dictionary support the user-defined new word which that means the database can change and update. For the deletion, it divides to two parts which are the system and user dictionary. The Chinese – English dictionary was used the simple interface for the dictionary and it use Microsoft Visual Studio 2005 for developing. The summary of the design can see in the Figure 1 below:

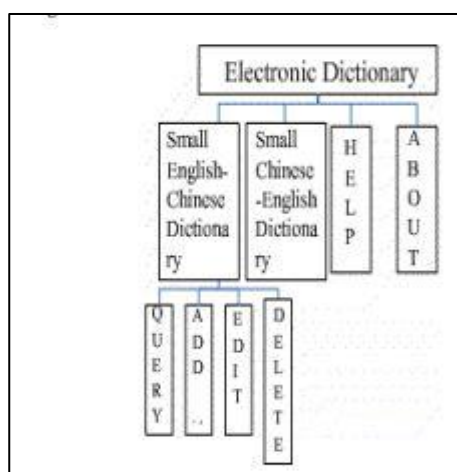


Figure 2.1: Summary design

The summary of the design was describe contains of the dictionary. As can see, the dictionary has four parts which are small English- Chinese dictionary that below it has query, add, edit and also delete. The others three are small dictionary Chinese – English dictionary, help and about.

For the interface design, the Chinese – English Dictionary was used simple tools like textbox, button and etc. For the main window, it shows the menu list of the dictionary. From the Figure 3 below, it show the menu that was arranged in the dictionary. As the main page, it always functions as the menu page. There are five menus that can choose by the user. The entire menu will explain more details in the

next. Figure 2 show the interface for the Chinese – English Dictionary.

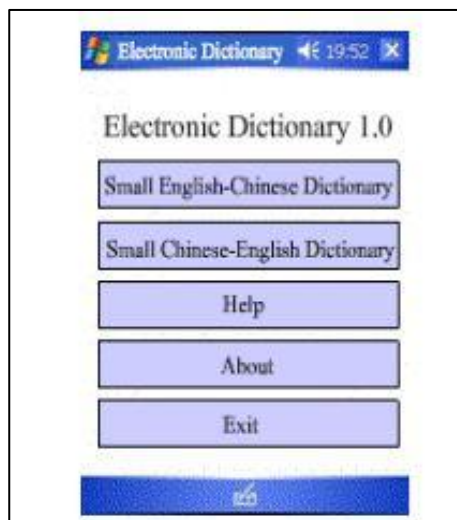


Figure 2.2: Main window

2.1.2 English Dictionary

From the research that made by Jia Yu and Min Liu [5], the journal was described the design and development of English electronic dictionary in intelligent mobile phone based on Android platform. Android nowadays get more attention from people because it quality and system that give much satisfied to them. Android was choosing because it is not only operating system, but also open source architecture. From this journal, android got important function characteristics likes with Linux Kernel, tailored and optimized by Google, with Davis VM which an modified JVM by Google, with a number of immediately available library and application software, with optimized Graphic system for 2D and 3D and also it support connectivity including Bluetooth, UMTS, GPS and Wi-Fi.

The Figure 3 below show the framework of the English Dictionary.

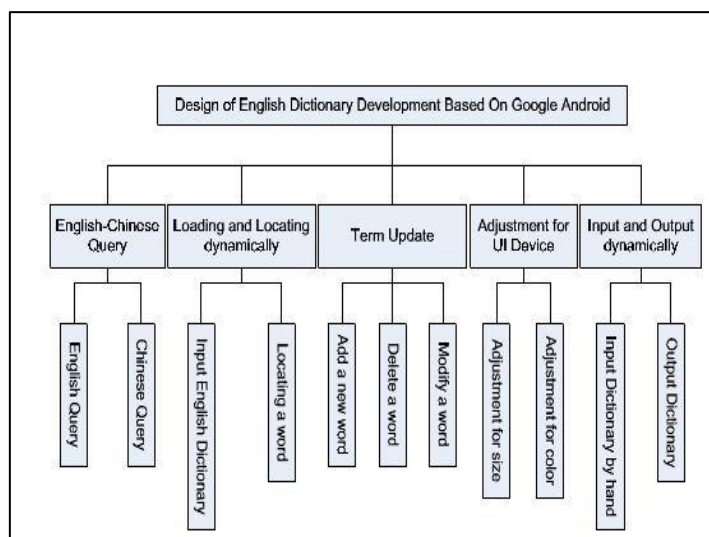


Figure 2.3: Framework of English Dictionary

For the interface, the English Dictionary five parts that acts as base of the dictionary. For the overall system, the number of words shown in the screen is adaptive to the size of screen. User can select relevant modules to retrieve, add, modify or delete words [2]. The interface for this English Dictionary can be seen in Figure 4 below:

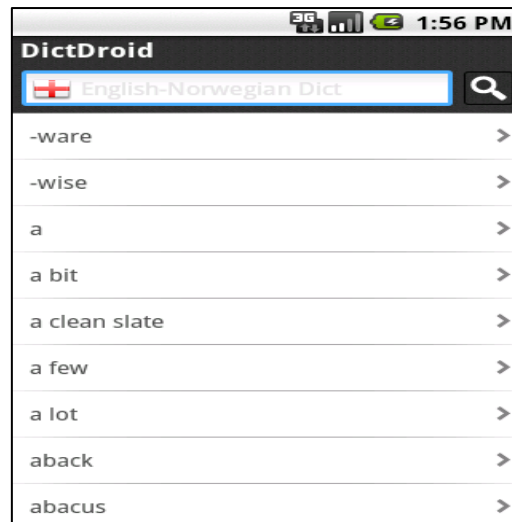


Figure 2.4: Interface English Dictionary

2.1.3 Multi-Touch Gesture Dictionary

According to John Greer Elias, Wayne Carl Westerman and Myra Mary Haggerty in research entitle Multi – Touch Gesture Dictionary, the dictionary entries can include a variety of motions associated with the chord and the meaning of gesture formed from the chord and the motion [6]. From the title multi-touch, that means the user can use the dictionary by touch the screen using the finger. In this journal, is tell about how to make the system and what the signal that can use or apply to the system. Multi-touch gestures may be considered to include at least two phases that taken together in sequence signal the beginning and the completion of a particular gesture. The first phase of a multi-touch gesture can include presenting a specific combination of hand parts. For the second phase is gesture can include motion of the specific part of hand. The structure of the development this Multi-Touch Gesture Dictionary can see in Figure 5:

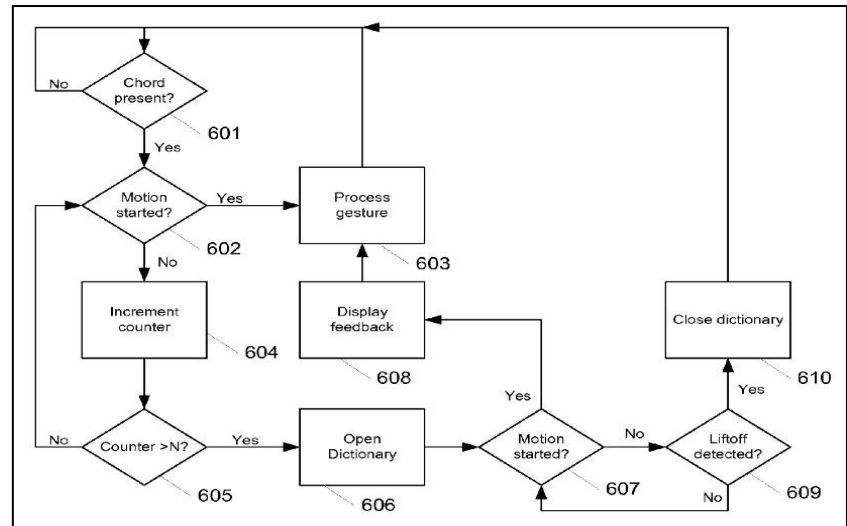


Figure 2.5: Development Structure

This motion may take the form of lateral motions such as rotation, translation and etc. Example of the motion that can use like in Figure 6 below:

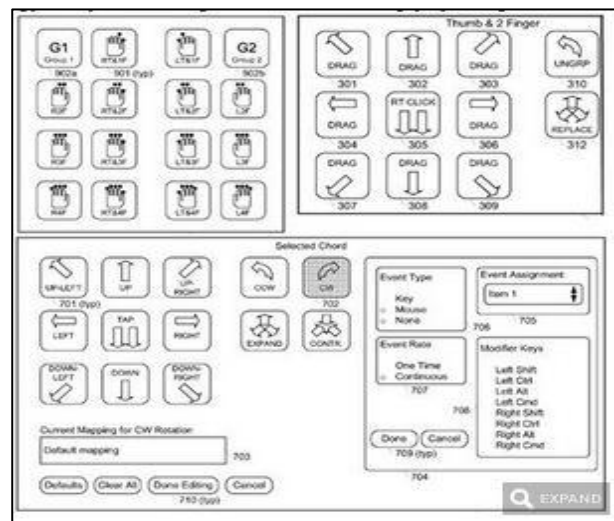


Figure 2.6: Example Multi-Touch Gesture function

2.1.4 Comparison between Chinese – English Dictionary, English Dictionary and Multi – Touch Gesture Dictionary.

Each of the dictionaries has similarities which are developing in mobile. The comparison will describe more details and the table of comparison will provide. For the explanation, next paragraph has describes the comparison.

Chinese – English Dictionary is an example of the existing dictionary that develops in the window mobile. It is because the software that use and database is for window mobile.

While English Dictionary, it is example the existing application in mobile that develop in Android. From the research, the Android dictionary is quite simple but it depends on the functions.

The Multi-Touch Gesture Dictionary is example of an existing system for the touch screen use. This research was referred to Apple Inc. which iPhone mobile. This is because the iPhone is a touch screen mobile.

Table 2.1.4: Comparison between Chinese – English Dictionary, English Dictionary and Multi-Touch Gesture

No	Features	Chinese – English Dictionary	English Dictionary	Multi – Touch Gesture Dictionary
1	Platform	Windows Mobile Platform	Android Mobile Platform	iOS (iPhone OS) [4]
2	Interface	The interface that used is simple and easy not complicated.	The interface not really user friendly and also not use many pages.	The interface can use by touch the screen and it will out with meaning.
3	Function	<p>This dictionary has functions likes:</p> <ul style="list-style-type: none"> • Add word • Edit word 	<p>This dictionary has functions likes:</p> <ul style="list-style-type: none"> • Retrieved word • Add word 	<p>This dictionary has functions likes:</p> <ul style="list-style-type: none"> • Add word • Edit word

		<ul style="list-style-type: none"> • Delete word • Query • Help <p>All this function has it interface and the buttons provide the function run according to the coding.</p>	<ul style="list-style-type: none"> • Delete word • Loading module <p>All the function is connect to database to make the application run smoothly without any problems.</p>	<ul style="list-style-type: none"> • Delete word <p>All the function is to make the dictionary can use by the user. This is because button is for show the function of that page to the user.</p>
4	Database	The database that use is Microsoft SQL Server 2005 Mobile Edition.	The database used to develop Android application is SQLite.	The database use Software Development Kit (SDK)
5	Model Available	Window Mobile	Android Mobile likes Sharp SH905i mobile.	IPhone

2.2 Technology of existing system

This section will describe the techniques, method, equipment and technology that will use by all the three existing system.

2.2.1 Chinese – English Dictionary

Chinese – English Dictionary uses technologies likes Operating System, Development Environment and Database Management System. For Operating System, it uses Microsoft Windows XP Professional Service Pack 2 and Windows Mobile 5.0. For Development Environment contains Microsoft Visual Studio 2005, .NET Compact Framework 2.0, Windows Mobile 5.0 Pocket PC SDK and Windows Mobile 5.0 Emulator Images for Pocket PC – CHS and Active Sync 4.5. For database, the system use Microsoft SQL Server 2005 Mobile Edition. The system uses method query and it because the user cans entry the word into the box. The equipment use by the system likes mobile phone that use window platform. [4]

2.2.2 English Dictionary

For this English Dictionary, the technology that uses likes Android Mobile Phone. The software that uses likes Web- Kit, SGL, Media Framework, OpenGL ES, Free Type, SQL lite, and others. The system also uses intelligence technique since it is the intelligence dictionary mobile phone. It use the fuzzy to retrieve the words to search in database when the user entry the words. For database, it uses the SQL technique to make table, field, the character and many things that related to database. [5]

2.2.3 Multi-Touch Gesture Dictionary

For the Multi-Touch Gesture Dictionary which multi touch gesture dictionary, it uses the technique of touch screen. The system was published by Apple Co. It may use by Mac OS to develop because it is the Apple Products. The system also interrupt with the coding that can make it translate the motion of the finger with the instruction that need dictionary to understand. It is for make sure the user get the information that they try to find. [6]

2.2.4 Comparison Chinese-English Dictionary, English Dictionary and Multi-Touch Gesture Dictionary

For the comparison between all the existing systems, the table below was describing the comparison by factors of software, technique and method that had use.