

ENGLISH MALAY TRANSLATOR: THE CASE STUDY OF
PROGRAMMING TECHNIQUE SUBJECT (BITP 1113)
(EMT)

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This report is submitted in partial fulfillment of the requirements for the
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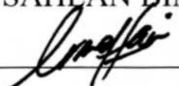
DECLARATION

I hereby declare that this project report entitled
**ENGLISH MALAY TRANSLATOR: THE CASE STUDY OF
PROGRAMMING TECHNIQUE SUBJECT (BITP 1113)
(EMT)**

is written by me and is my own effort and that no part has been plagiarized
without citations.

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DEDICATION

To my beloved parents, your moral support is my greatest divine inspiration. To my friends, your encouragement is the essence of my determination. To Miss Nor Haslinda Ismail, my supervisor, your recommendations has truly been my source of inspiration in the quest of completing this application. To Miss Intan Ermahani bt. A. Jalil, my previous supervisor, your dedication and effort has truly been my core of strength in the quest of completing this application.

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ABSTRACT

English Malay Translator (EMT) is an application that will be act as a translator that can translate all the terms in Programming Technique subject. This translator will replace the old manual method to search all of the terms needed. Besides, this translator will save a lot of time for the users to find the terms that they do not understand, so all their work can be more efficient. The expected users that use this translator are the lecturers and students at UTeM. This system is developed by using Java NetBeans IDE 6.0 and MySQL server as it database application. The main objective of the development is to help and accommodate especially the lecturers and students that teach and study Programming Technique subject. Before this, there were no translators that provide the specific terms about this subject. Besides, this translator will replace the traditional way to find the translation of terms in Programming Technique subject. Before this, if the lecturer wants to translate a terms from English to Malay, they need to open a dictionary and search the word manually. Sometimes the dictionary did not match with the terms they want to know. With this translator, user only need to type the word they want to know, so it will save a lot of time instead to find the word manually by using current dictionary. Beside, some added features enable the user to add, edit or delete any terms included in this translator.

ABSTRAK

English Malay Translator (EMT) adalah satu aplikasi yang akan berfungsi sebagai penterjemah yang akan menterjemah semua terma di dalam subjek Teknik Pengaturcaraan. Aplikasi ini akan menggantikan kaedah lama untuk mencari semua terma yang diperlukan. Di samping itu, aplikasi ini akan menjimatkan masa untuk mencari terma yang tidak difahami, ini akan membuatkan kerja mereka menjadi lebih efisien. Sasaran pengguna untuk aplikasi ini adalah pensyarah dan pelajar di UTeM. System ini dibangunkan dengan menggunakan aplikasi Java NetBeans IDE 6.0 dan MySQL sebagai aplikasi untuk pangkalan data. Objektif utama di dalam pembangunan aplikasi ini adalah untuk membantu dan memudahkan terutamanya pensyarah dan pelajar yang mengajar dan belajar subjek Teknik Pengaturcaraan. Sebelum ini, tidak terdapat satu pun penterjemah yang menyediakan terma khas untuk subjek ini. Di samping itu, penterjemah ini akan menggantikan cara lama untuk mencari penterjemahan terhadap terma-terma di dari Bahasa Inggeris ke dalam Bahasa Melayu, pengguna perlu untuk menggunakan kamus dan mencari terma tersebut secara manual. Kadangkala kamus tersebut tidak mempunyai terma yang dikehendaki. Dengan menggunakan penterjemah ini, pengguna hanya perlu memasukkan perkataan yang dikehendaki, maka ianya akan menjimatkan masa berbanding untuk mencari perkataan secara manual menggunakan kamus. Di samping itu, terdapat beberapa ciri-ciri tambahan yang membolehkan pengguna untuk menambah, mengubah atau memadam mana-mana terma yang terdapat di dalam penterjemah ini.

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LIST OF ABBREVIATIONS

DDL	Data definition language
ER	Entity Relationship
EMT	English Malay Translator: The Case Study of Programming Technique Subject (BITP 1113)
ERD	Entity Relationship Diagram
FTMK	Fakulti Teknologi Maklumat dan Komunikasi
JDK	Java Development Kits
JSP	Java Server Pages
OOADM	Object Oriented Analysis and Design Method
RUP	Rational Unified Process
SCM	Software configuration management
SDLC	Software Development Life Cycle
SQL	Structured Query Language
SSADM	Data Flow Diagram
UML	Unified Modeling Language
UTeM	Universiti Teknikal Malaysia, Melaka

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CHAPTER 1

INTRODUCTION

1.1 Project Background

Currently, examination papers at Universiti Teknikal Malaysia Melaka (UTeM) have two multiple language, that are English and Malay. But there was some problem when lecturers want to translate some specific terms from English to Malay. This situation sometime can give some problems to the students, because if they didn't understand some of the meaning of terms, they will refer at Malay paper version. So if the terms has not been translate with correct meaning, it will cause a problem to the student to understand the meaning and the question itself.

The system, English Malay Translator (EMT) will be acting as a translator that can translate all the specific terms in Programming Technique subject. This translator will replace the old manual method to search all the terms needed. Besides, this translator will save a lot of time for the users to find the terms that they do not understand, so all their work can be more efficient. The expected users that use this translator are the lecturers and students at UTeM.

This system is a desktop tool application that is created for lecturer and student that teach and study Programming Technique (BITP1113) subject. Programming Technique is a subject that teaches the student to develop any system by using C++ language platform. By this course, students will be able to understand the concept of basic computer and software development methodology. Student will also learn about the basic concept of programming such as syntax, semantic and compilation. Nevertheless, to understand more about this subject, students must be able to understand all of terms that have in this subject. There are many terms in this

subject, such as “looping”, “array” and so on. The main concept of this translator is nearly the same with other electronic dictionary, but with a feature to help lecturers and student to find specific terms in an effective way. It is hoped with the project it will help all the users to understand more with the terms in Programming Technique subject.

1.2 Problem Statement

- **No translator for Programming Technique subject**

Many dictionary and translator today did not have specific terms to any specific subject like Programming Technique. This may cause a problem for student and lecturer at UTeM because sometimes the current translator did not have the computer terms that they want to know.

- **Consume lot of time to search the terms**

Current method to find the terms needed is not effective and consumes a lot of time to search. The other problem is, current method is using paper as a medium to store all the terms. By using paper, it cannot be stored in a long period and easy to lose.

- **Current dictionary not attractive to the user**

Current method did not have some attractive way to find the terms. Some people do not interested to use dictionary or manual translator because it not attractive and difficult to find the terms.

- **Problem to find two word together**

By using current translator, there was a problem when use want to find term that have two or more words. As an example, to find term “camera box”, user cannot type camera box, but need to type camerabox because the search engine cannot search two separate words.

1.3 Objective

- To help and accommodate especially the lecturers and students those teach and study Programming Technique subject. Previously, there were no translators that provide the specific terms about this subject.
- To replace the old way to find the translation of terms in Programming Technique subject. Previously, if the lecturer wants to translate a terms from English to Malay, they need to open a dictionary and search the word manually. Sometimes the dictionary did not match with the terms they want to know.
- Provide more systematic method to search all terms needed. By using this new translator, users only need to type the word they want to search and all the translation will appear with its description.
- Decrease the time needed to find all the terms. With this translator, user only need to type the word they want to know, so it will save a lot of time instead to find the word manually by using current dictionary.
- Provide a new technique to find two separate words. With this translator, user can simply insert the two words together, and the search engine will search the terms that match with the words.

1.4 Scope

1.4.1 Target User

- Lecturers at UTeM
- Students at UTeM

1.4.2 Project Module

- English to Malay general – With this module, user will be able to search the general terms from English to Malay that has been included into this translator. User needs to key in the word the want to search by single term or two terms together. As an example, user can insert a general word “input” to find the description of the word.
- English to Malay by chapter – With this module, user will be able to search the terms from English to Malay that has been separate by their chapters. As an example, user can only search the terms “algorithm” in the chapter that have this terms.
- Malay to English general – With this module, user will be able to search the general terms from Malay to English that has been included into this translator.
- Malay to English by chapter – With this module, user will be able to search the terms from Malay to English that has been separate by their chapters. As an example, user can only search the terms “alamat” in the chapter that have this terms.
- Terms Editor – With this module, user will be able to add, edit or delete any terms that included in this translator.

1.5 Project Significance

The system will give some benefit to the students and lecturers that teach and learn the Programming Technique subject. The benefits are:

- By using this translator, it will give a new way for the lecturer and student in order to find all the terms in Programming Technique subject. After this, user does not need to find the meaning of the terms manually.
- With this translator, it will decrease the time needed by the users to find the terms they want to know.
- This translator will provide some systematic way to search the terms. An easy way to search and get the terms needed will give more accommodation for the users.
- This translator is a desktop application, so users only need a computer to use this system. Users do not need to use a book or dictionary to find the terms needed.

1.6 Expected Output

The expected output from this project is a translator that can translate all the terms in Programming Technique subject from English to Malay or vice versa. This translator can translate general word, or user can choose to translate any terms according to its chapter. This translator also can translate from Malay to English, and this will help lecturers and students their work and study. By using the Terms Editor menu, user also will be able to edit, add or delete any terms included in this translator. A Help Section will also be included to give a guide for the user to use this translator. It will included a tutorial on how to search a terms using this translator.

1.7 Conclusion

As the conclusion, this chapter gives a brief explanation on the system that will be developed, the problem that user had by using the current system, and the significant of this project. It has been explained that this system can give so much benefit for both lecturers and students at UTeM.

For the next chapter, a literature review and project methodology will be explained. Literature review will act as a summary and evaluation of previous research or work on the system that will be developed, while the project methodology will give an explanation about selected methodology or approach used in the project. This chapter also will explain the detail activities in the project.

CHAPTER 2

LITERATURE REVIEW AND METHODOLOGY

2.1 Introduction

In this chapter, a literature review and project methodology will be explained. Literature review will act as a summary and evaluation of previous research or work on the system that will be developed, while the project methodology will give an explanation about selected methodology or approach used in the project.

A literature review will give the researcher an understanding about other project on same topic that has been developed by other people. By doing the research, it will also help the researcher to see the result of other related studies. There are three basic types of source that are general references, primary source and secondary source. While a project, methodology is a way to identify on how to complete the project. There are some methods that can be used, such as quantitative method as forecasting modeling, qualitative method as analysis of interview, or combine both of this method. In software perspective, there are some methodology that can be used that includes the Object Oriented Method (OOAD), System Development Life Cycle (SDLC), and Data Flow Diagram (SSADM).

2.2 Facts and Finding

A dictionary is a book of alphabetically listed words in a specific language, with good definitions, pronunciations and other information. Dictionary also can be known as a book of alphabetically listed words in one language with their equivalents in another. Dictionaries are most commonly found in the form of a book, but some newer dictionaries, like StarDict and the New Oxford American Dictionary on Mac OS X, are dictionary software running on PDAs or computers. There are also many online dictionaries accessible via the Internet today.

The earliest dictionary that has been created was bilingual dictionaries. These were glossaries of French, Italian or Latin words, along with definitions of the foreign words in English. According to Richard (1582), an early non-alphabetical list of 8000 English words was the *Elementarie* created by Richard Mulcaster. While the first purely English alphabetical dictionary was *A Table Alphabeticall*, written by English school teacher Robert Cawdrey in 1604.

Dictionaries can vary widely in coverage, size, and scope. A maximizing dictionary lists as many words as possible from a particular speech community as for example the Oxford English Dictionary. Whereas a minimizing dictionary exclusively attempts to cover only a limited selection of words from a speech community as for example a dictionary of Basic English words.

2.2.1 Domain

This system will be applied in UTeM and used by the lecturers and students that register for Programming Technique subject. Other lecturers and student also can use this translator, but limited only to search the general terms included.

The system, English Malay Translator (EMT) will be acting as a translator that can translate all the specific terms in Programming Technique subject. Programming Technique is a subject that teaches the student to develop any system by using C++ language platform. By this course, students will be able to understand

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