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JUDUL: ACRONYMS & TCP/IP DICTIONARY

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ACRONYMS & TCP/IP TRANSLATOR

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2008

DECLARATION

I hereby declare that this project report entitle

ACRONYMS & TCP/IP DICTIONARY

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

STUDENT: _____ Date: _____
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SUPERVISOR: _____ Date: 24/6/08
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DEDICATION

I would like to dedicate these special thanks towards my beloved parents and sister for their endless encouragement, who inspired me throughout my journey of education. I would also like to thank to all my colleagues.

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In the name of Allah,The Most Gracious, Most Graceful.

Alhamdulilah, with full report and patience in taking all challenges, Projek Sarjana Muda (PSM) finally accomplished successfully.

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THANK YOU.

ABSTRACT

Acronyms & TCP/IP Dictionary is a standalone system that is developed to help user in finding acronyms description and getting the idea of what actually contained in TCP/IP layer stack model. This system serve user with a systematic way that explain about TCP/IP according to their stack which provide an easier reference and there are also images of each layer that provided for user further understanding about TCP/IP. This system which is only focusing to TCP/IP is also an alternative way of finding for networks acronyms, terms or protocol description of TCP/IP efficiently when there is no internet connection so there will be no problem for will not facing any problems if the cyber café and library are full or close. Besides, this system hold a few strengths especially in terms of end user interfaces for the client side because the interfaces are attractive, simple and user friendly so that user even a first time user can easily browse through this system in order to understand the concept and learn the system flow.

ABSTRAK

Acronyms & TCP/IP Dictionary adalah satu sistem yang dibangunkan untuk membantu pengguna mencari penerangan kata singkatan dan sedikit idea tentang kandungan model TCP/IP. Sistem ini menyediakan penerangan secara sistematik yang berkaitan tentang TCP/IP kerana sistem ini membahagikan penerangan-penerangan tentang TCP/IP mengikut lapisan TCP/IP beserta ganbarajah bagi setiap lapisan bagi membantu pengguna mendapatkan penerangan lanjut. Sistem ini yang mana hanya memberi fokus terhadap TCP/IP juga merupakan satu sistem yang merupakan cara alternatif bagi pengguna untuk mendapatkan penerangan bagi kata singkatan dan protokol yang berkaitan rangkaian TCP/IP semasa ketiadaan rangkaian internet jadi pengguna tidak akan menghadapi sebarang masalah sekiranya kafe-kafe siber dan perpustakaan ditutup. Sistem ini mempunyai kelebihan yang mana antaramuka bagi pengguna adalah menarik, ringkas dan mesra pengguna jadi pengguma akan dapat menggunakan sistem ini dengan mudah dan sekaligus membantu pengguna memahami konsep dan mempelajari aliran sistem ini.

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LIST OF ABBREVIATIONS

API	-	Application Programming Interface
ARP	-	Address Resolution Protocol
DBMS	-	Database Management System
DFD	-	Data flow diagram
ERD	-	Entity Relationship Diagram
FTP	-	File Transfer Protocol
GUI	-	Graphical User Interface
ICMP	-	Internet Control Message Protocol
IP	-	Internet Protocol
OOAD	-	Object Oriented Analysis and Design
OSI	-	Open System Interconnection
PING	-	Packet Internet Groper
SQL	-	Structured Query Language
SSADM	-	Structured Systems Analysis and Design Methodology
TCP/IP	-	Transmission Control Protocol/Internet Protocol
TELNET	-	TELecommunication NETwork
TRACERT	-	Traceroute
UDP	-	User Datagram Protocol
UML	-	Unified Modeling Language
U.S	-	United States
VB	-	Visual Basic

LIST OF ATTACHMENTS

CHAPTER I

INTRODUCTION

1.1 Project Background

A dictionary has become a very popular and important thing especially in the field of study. People nowadays browse to the internet or using manual dictionary to get description and explanation of words.

This project which is the acronyms and TCP/IP dictionary is more focusing on TCP/IP. As network dictionaries in the existing system nowadays are very helpful for networking students but there are still some problems about them because many of them are developed as web-based dictionaries which needs user to connect to the internet and then only user can get access to them. Furthermore, there are times when the internet is slow or not available. Besides, not everyone has the internet connection at home and it would be more difficult if the cyber café and library are closed. In the other hand, if users use the manual hardcopy dictionary, users need to browse through many pages before they get what they searched for. So, to overcome these problems, this stand-alone acronyms and TCP/IP dictionary is developed. This dictionary does not require the internet connection and but only a pc or notebook and then it will be fine for user to use this dictionary. This TCP/IP dictionary does classify the explanations of each word, protocol, or any term according to the layer of the TCP/IP model.

1.2 Problem Statements

There are several issues that always discuss by networking students such as:

- Web-based network dictionary needs connection to the internet and then only user can used them and for some people that does not have internet service at home it will create problems if cyber café and library are full or close.

- Manual hardcopy network dictionary needs user to find the meaning or explanation on their own and that is only after they go to many pages and read the all small words that require quite some time.

- Many network dictionaries in the current system nowadays are combining all related information related to network such as protocol, security and telecommunication in one system.

1.3 Objective

The objectives of developing acronyms and TCP/IP dictionary are:

- To develop an alternative way of finding for networks acronyms, terms or protocol description of TCP/IP efficiently where there is no internet connection.

- To create a new stand-alone acronyms application and network dictionary that only focusing on TCP/IP.

- To translate acronyms and to classify those acronyms, protocols and terms that relate to TCP/IP give description and explanation about them according to the TCP/IP model where they reside.

1.4 Scope

The target of this project is networking students. The acronyms and TCP/IP dictionary is designed and developed to serve user the information and explanation of network acronyms, protocols or terms that are related to TCP/IP according to their stack in the TCP/IP model. But as time goes by, this system must be updated to make sure that user get the latest and established information.

1.5 Project Significance

This system will help students in doing their assignment and studies. This application will provide description and explanation of acronyms, protocols or terms that are related to TCP/IP. The reason of developing this system is because it is stand-alone so it can be an alternative way of finding TCP/IP information. Furthermore, it is only focusing on the TCP/IP and the elaboration are systematically classify according to the TCP/IP model.

1.6 Expected Output

The expected output from this project is the stand-alone acronyms and TCP/IP dictionary that provide translation of acronyms search by users and the description of acronyms, protocols or terms that are related to TCP/IP according and all the information are systematically classify according to their stack in the TCP/IP model.

Conclusion

As the conclusion, the project background describes the introduction to the system as a whole. It includes the content of the project, target users and the important of the system. The problem statement describes the problems related to why this system should be developed and then only the objectives of the project are extracted. The scope of the system explains the boundary and target users of the system while the project significance elaborates the output and the approach used in this system. The target of this project is to ensure that the Acronyms & TCP/IP Dictionary is achievable.

In the next chapter, literature review and project methodology will be discussed. The literature review section will describes all the research and findings related to this system and the methodology will cover on the selected approach in developing this system.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter explains some of the fact and finding pertaining to the current methodology being used in this project. The fact and finding is the part where I actually surf the internet, and do some research to browse if there are any systems that are related to this project title in the current environment of information technology. This topic also explains the methodology that will be used in this project development such as the hardware and software requirements and beside that, project schedule and milestone will also be attached in this chapter.

2.2 Facts and findings

There are a lot of techniques to gather information that related to the project. It might be find from the internet web pages, books that are related to the project domain, journals or articles from passed research. These initial documents will provide some valuable information to determine the basic view of the project. The theory and concept from the passed research, references, references, case study and other can be applied in order to understand the project requirements.

2.2.1 Domain

This sub-topic explains the domain related to this project which is the TCP/IP. This will elaborate in details about the TCP/IP issues, and TCP/IP model.

2.2.1.1 TCP/IP Issues

TCP/IP stands for Transmission Control Protocol/Internet Protocol and it is a protocol develops under contract from the U.S Department of Defense to allow communication between dissimilar systems. TCP/IP is defined as an industry standard suite of protocols that computers use to find, access, and communicate with each other over a transmission medium. in general, protocol is a set of standards and rules that need to be followed and in the case of networking computers, a protocol is the set of standards and rules that a machine's hardware and software must follow in order to be recognized and understood by other computers. The protocol suite is implemented via a software package most commonly known as the TCP/IP stack. This functionality ships with all versions of Windows from Windows 95 and up and can be easily installed using the network setup applets in the Control Panel.

2.2.1.2 TCP/IP Model

The TCP/IP architecture consists of several layers performing certain functions and in each layer there are protocols. There are four general layer of the TCP/IP stack which are application layer, transport layer, internet layer and physical or network interface layer. Below is the combination of OSI and TCP/IP reference model:

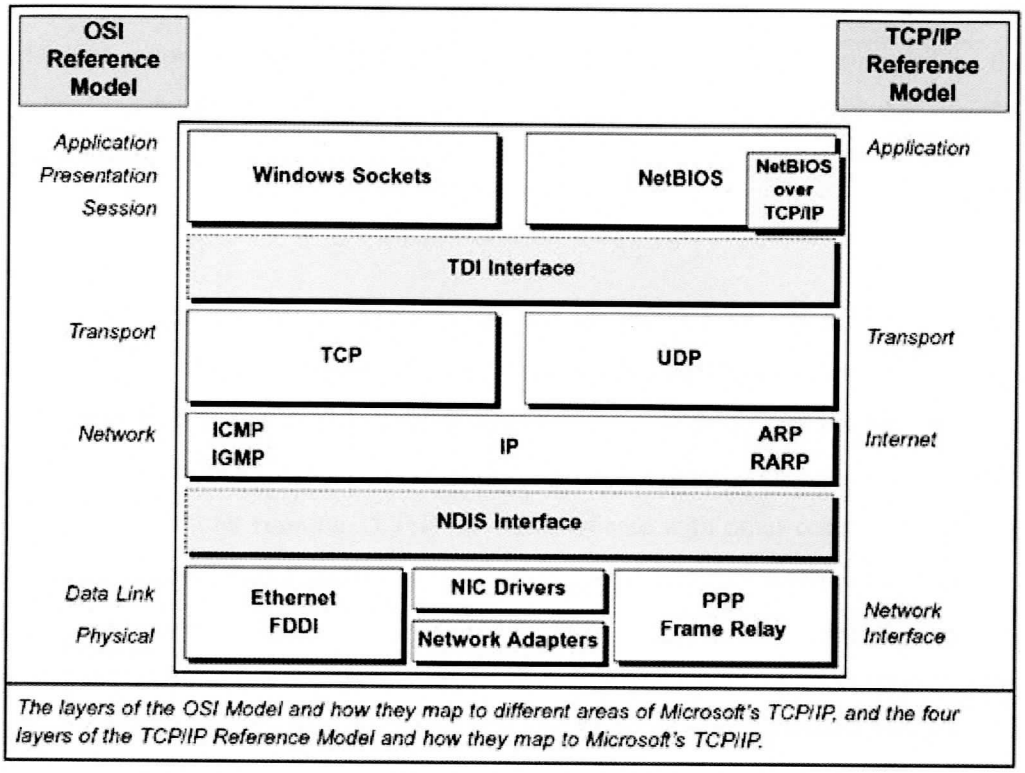

Figure 2.1: OSI Reference Model and TCP/IP Reference Model
(http://en.wikipedia.org/wiki/TCP/IP_model [viewed 01/16/2008])

Application Layer

The first layer in the TCP/IP model is application layer. This layer contains network application and services that user works with in order to use network communication. The Application Layer also contains the utilities for things like file and print services and name resolution. One example of this is NetBIOS, which is an application programming interface (API) that supports a desktop operating environment. Besides that, Application Layer provides the user with user with connectivity, file transfer capabilities, utilities for remote administration, and Internet utilities. Examples of these include programs like PING, TRACERT, FTP, and Telnet.

Transport Layer

Once data has gone through the Application Layer, it is then passed to Transport Layer and this layer has two components which are the TCP (Transfer Control Protocol) and UDP (User Datagram Protocol). Transport Layer is designed