UNIVERSITI TEKNOLOGI MARA

The Development of Subnetting Mobile Learning Application Based on Android Platform (Calculator Module)

SITI SHAHIRA BINTI RAHMAN

BACHELOR OF SCIENCE (Hons.)
(DATA COMMUNICATION & NETWORKING)

JULY 2013

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful, Peace be upon the Holy Prophet, Muhammad S.A.W.

Alhamdulillah, with the gratitude and blessed from Allah S.W.T., finally we have been completed our project through all the hardships and cooperation within the period given. I take this opportunity to express my gratitude to the people who have been instrumental in the successful completion of this project

Firstly, I would like to express my gratitude to my supervisor, Madam Adora Endot, for the useful comments, remarks and engagement through the development of project. I cannot say thank you enough for her support and help. Without her encouragement and guidance, this project would not have materialized.

I would like to thank to my beloved family who have supported me throughout entire process, both by keeping me strong to complete my project. I will be grateful forever for your love.

Last but not list, I would to thank to all my group members for your cooperation. Also, thank you to all my friends for the comment and sharing your knowledge. Hopefully, this project will give benefit to others. Amin Ya Rabbal Alamin.

ABSTRACT

The increasing of mobile usage, expand the function of mobile itself. The changing in mobile device become more useful for user especially in education where mobile device give an effective way and create a learning environment for student. From this situation, it will be an opportunity to help CS225 and CS231 in subnetting subject. Subnetting subject is one of the important subjects in these courses where student found it difficult and hard to understand especially in subnet calculation. In the traditional classroom, lecturer could have more time to teach detail about subnetting calculation. The objective of this project is to develop a mobile application to calculate subnetting by providing a calculator for student. It will be the effective tool for student to calculate subnetting without engaging to lecture time only. Especially, it will develop in form of mobile device and will be implement in Android platform.

| TABI | LE OF CONTENTS | |
|-------|---|-----|
| TI | TLE PAGE | i |
| SU | PERVISOR'S APPROVAL | ,ii |
| ST | UDENT'S DECLARATION | iii |
| AC | CKNOWLEDGEMENT | iv |
| AB | STRACT | v |
| CC | ONTENTS | vi |
| LIS | ST OF TABLESvi | iii |
| LIS | ST OF FIGURES | ix |
| LIS | ST OF ABREVIATIONS | X |
| | | |
| Conte | | _ |
| | APTER 1: INTRODUCTION | |
| 1.0 | INTRODUCTION | |
| 1.1 | BACKGROUND OF STUDY | |
| 1.2 | PROBLEM STATEMENT | |
| 1.3 | PROJECT AIMS | .3 |
| 1.4 | PROJECT OBJECTIVE | .3 |
| 1.5 | PROJECT SCOPE | |
| 1.6 | PROJECT SIGNIFICANCE | .4 |
| CHA | APTER 2: LITERATURES REVIEW | .5 |
| 2.0 | INTRODUCTION | . 5 |
| 2.1 | MOBILE TECHNOLOGY | . 5 |
| 2. | 1.1 Platform | .6 |
| 2. | 1.2 Javascript and HTML Language | .6 |
| 2. | 1.3 Mobile Connection | .7 |
| 2.2 | RELATED WORK | .8 |
| | 2.1 Mobile math: Math Educators And Students Engage in Mobile Learning Frankly et.al,2008): | .8 |
| 2.2 | 2.2 Mobile Application For Mobile Learning (Riconscente. M, 2010): | 0 |

CHAPTER 1

INTRODUCTION

1.0 Introduction

IP subnetting is a fundamental subject which is should be learned by either network engineer or networking student. For student, subnetting is hard to understanding and they need to struggle and they need more practice to understand that. Detail explaination and time consumed needed to make them understand the basic of the subnetting.

Today, telecommunication came out with an intelligent mobile called smartphone. There are so many features of using smartphone. One of them is can provide useful application for student in education process. Traditionally students need to bring their book when they need to study the subnetting. Within advancement in mobile phone technology, there no limit to us to deal with subnetting they can calculate their subnetting everywhere, read the note anytime and also can test their knowledge by answer the quizzes. Our project is an application for the smartphone. We called it as EZsubnetting/24 where it is a mobile learning which is run in Android platform. It designed to help student in subnetting lesson by integrates. There important part which are calculator, notes and quizzes.