

Universiti Teknologi MARA

Repository System For Capture The Flag

Nor Azimah Alias

Siti Sabariah Mohamed

Nur Hafizah Mohamed Salim

**Thesis submitted in fulfillment of the requirements for Bachelor of
Science (Hons) (Data Communication & Networking)
Faculty of Computer and Mathematical Sciences**

January 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 completed our project through all the hardships within the period given.

Apart from our efforts, the success of this project depends largely on the encouragement and guidelines of many others. We would like to take this opportunity to express our gratitude to the people who have been instrumental in the successful completion of this project.

Firstly, we want to wish special thanks go to my supervisor, Encik Mohd Ali B. Mohd Isa for his guidance, support, encouragement and constructive criticism that we had been receiving for the preparation of this thesis. We never forget all the experience during doing this project. We also wish to express our sincere appreciation to project coordinator, Dr. Fakariah Hani Bt. Mohd Ali for her guidance from last semester, also Dr. Zolidah Bt. Kasiran for his guidance from this semester until end of this semester, and also for our examiner, Puan Shapina Bt. Abdullah.

We are also would like to extend our gratitude and thanks to our parents and siblings for their endless encouragement and helpful thoughts. They have given us the opportunity, ideas and their support throughout the years and for that, we are blessed.

Lastly, not to forget our classmates and all of our friends, we would like to thank them for their cooperation and knowledge-sharing. Hope all of us will achieve the success in studies, career and life. Amin Ya Rabbal Alamin.

ABSTRACT

Capture the flag is one activity that widely exposed to the whole world nowadays. In UiTM, Faculty Mathematical Science always runs a program to train student in capture the flag either talk or competition. Students at university level tend to learn hacking skills from the internet nowadays. The problem is they may misuse their skills to attack people in cyber space. Besides that, student that has interest in capture the flag competition need to learn how to use this in the proper way. This system has being developed to overcome the problem in order to train student in capture the flag without commit in ethical issues. Student UiTM used this system to practice their skills of capture the flag. This system prepared interactive challenges or questions that student can answer. After they answer the challenge they got their performance status. The system can be access by student UiTM using their ID number after register in this system. The registration can help administrator monitor the system. Student can take the challenge anytime to improve their skill. Student will be monitor by system administrator and their good performance in answer the challenge can bring them to the level like participant in capture the flag competition. By using this system to test their skill of hacking, student also learn the ethical of hacking. In conclusion, this system might provide the education of hacking to student in ethical way and the can use their skills to participate in hacking competition then expose their skill to industry.

TABLE OF CONTENTS

CONTENTS	PAGE
SUPERVISOR’S APPROVAL.....	ii
DECLARATION	iii
ACKNOWLEDGEMENT.....	vi
ABSTRACT	vii
TABLE OF CONTENTS.....	viii
LIST OF FIGURES	xiii
LIST OF TABLES.....	xx
LIST OF ABBREVIATIONS.....	xxi
CHAPTER 1.....	1
INTRODUCTION	1
1.0 Introduction	1
1.1 Background of Study	1
1.2 Problem Statement.....	2
1.3 Objective	3
1.4 Project Scope.....	3
1.5 Significance of the Study	3
1.6 Conclusion.....	4
CHAPTER 2.....	5
LITERATURE REVIEW	5
2.0 Introduction	5
2.1 Repository System for Capture the Flag	5
2.1.1 Type and Method of Hacking.....	6
2.2 Related Works	8

CHAPTER 1

INTRODUCTION

1.0 Introduction

Nowadays, Hacking is an activity which is greatly favored by hardcore users on this website. Regardless of age, many of us conduct research on the world of hacking. For them, to learn this technique, they can hack websites to their liking. However, what they think is not as simple as that. To master this technique, one must know and understand the true meaning of hacking. As we know, all students at the university who took the cost of security will be introduced on the basis of hacking. This chapter describes the background of the study, statement of the problems statements, objectives, project scope, and research significance of this study.

1.1 Background of Study

Nowadays, Hacking competition is good for students to provide the opportunities for them to gain experience about the world of hacking. However, not all who participated in this competition have adequate preparation and some of them just trying their luck. They cannot learn about hacking apart in class because to master these techniques, they need require a lot of exercising and learning. This is because the hacking world is a vast phenomenon. So, the only appropriate if there is a system that is able to provide facilities for those who want to learn and conduct training on hacking. In this thesis, we explore the issues of teaching hacking in level university for students. Initially, we develop the Capture the Flag Learning System to give the proper training for student and for facilitate lecturers to select the best student for hacking competition.