

Universiti Teknologi MARA

**E-Scholarship System for UiTM Jasin
Student using
Web Scraping Technique**

Nur Diana Fazreena Binti Mohd Fauzi

**Thesis submitted in fulfillment of the requirements
for
Bachelor of Information Technology (Hons.)
Information Systems Engineering
Faculty of Computer and Mathematical Sciences**

July 2018

SUPERVISOR'S APPROVAL

E-SCHOLARSHIP SYSTEM FOR UITM JASIN STUDENT USING WEB SCRAPING TECHNIQUE

By

**NUR DIANA FAZREENA BINTI MOHD FAUZI
2016694712**

This report was prepared under the supervision of the project supervisor, Dr. Elin Eliana Binti Abdul Rahim. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Information Technology (Hons) Information Systems Engineering.

Approved by

.....
Dr. Elin Eliana Binti Abdul Rahim
Project Supervisor

JULY, 2018

STUDENT'S DECLARATION

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

.....
NUR DIANA FAZREENA BT MOHD FAUZI
2016694712

JULY, 2018

ABSTRACT

The E-Scholarship System is developed to help the student and admin of UiTM (Melaka) Kampus Jasin which are Bahagian Hal Ehwal Pelajar (HEP) and Bahagian Hal Ehwal Akademik (HEA) for finding the scholarship information and apply letter through a centralized portal. The aim of this project is to developed a centralized portal that gather and provide scholarships information available over the Internet. There are several objectives that has been achieve which are to gather and analyse the requirement needed to develop an e-scholarship system, to analyse and identify the suitable web scraping technique, to design an e-scholarship system based on the analysed requirement and to develop an e-scholarship system based on the design. There are few problems occurred which are the student had difficulty to search for scholarship information and opportunities. Besides, there are no portal that gather and provide the scholarships information that allow students to find about scholarships. Next, the student had difficulty to contact with administrators of UiTM (Melaka) Kampus Jasin to apply for confirmation letter. In order to minimize the problems, a centralized portal is developed to improve the process of finding scholarships opportunities. Furthermore, the student can apply for confirmation letter through this system. From the findings, the suitable technique can be used to develop the system is web scraping technique to obtain the data from desired website and it will be stored into database. The system was developed using Waterfall model. The JAVA programming language is chosen for this system while the SQL Developer is used for store the system's data into database. The recommendations for future enhancement of the system that can be made is the E-Scholarship System can be integrated with another existing system that use by the student and admin of UiTM (Melaka) Kampus Jasin in order to create the better system and it can reduce certain features that no longer needed in the system.

TABLE OF CONTENT

CONTENTS	PAGE
SUPERVISOR'S APPROVAL	
STUDENT DECLARATION	
ACKNOWLEDGEMENT	iv
ABSTRACT	v
TABLE OF CONTENT	vi
LIST OF FIGURES	ix
LIST OF TABLES	xi
CHAPTER ONE: INTRODUCTION	
1.1 Background of Study	1
1.2 Problem Statement	4
1.3 Project Aim	5
1.4 Project Objectives	5
1.5 Project Scope	6
1.6 Project Scope	6
1.7 Project Outline of the Thesis	7
1.8 Summary	8
CHAPTER TWO: LITERATURE REVIEW	
2.1 Scholarships	9
2.2 Information System	9
2.2.1 Standalone System	10
2.2.2 Web Based System	11
2.2.3 Comparison between Standalone System and Web Based System	12
2.3 Portal	13
2.3.1 Types of Portal	13
2.4 Web Page Data Extraction	14
2.4.1 Web Scraping	15
2.4.2 Web Crawling	16
2.4.3 Web Mining	18