

E-VEHICLESTICKER SYSTEM

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**This report is submitted in partial fulfillment of the requirement for the
Bachelor of Computer Science (Database Management)**

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2010

DECLARATION

I hereby declare that this project report entitled

E-VEHICLESTICKER SYSTEM

is written by me and is my own effort and that no part has been plagiarized

without citations

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(SITI MASTURA BAHARUDIN)

DEDICATION

To my beloved family, friends of UTeM and Nazri, thank you for all of your supports.

ACKNOWLEDGEMENTS

Alhamdulillah, Firstly, I would like to show my gratitude to Allah the Almighty for giving me the strength and good health to complete this Bachelor's project for the student of Bachelor of Information Technology Communication.

I like to thank my parents who had given me all the supports that I need not only to complete this project but also from the very beginning of my life in Universiti Teknikal Malaysia Melaka. This includes all aspects such as economics. All of their good deeds could never be repaid even to the end of my life. Besides that, I would like to thank to my family, Kakak, Ain and Atiq because give me full support to complete my project.

My thanks are also dedicated to my supervisor, Cik Siti Mastura Baharudin who had helped me through a lot for finishing this project. She had thought me everything that I should know and she also had given me moral supports to ensure that I complete this project successfully.

Lastly, I also would like to thank to other lecturers especially Dr. Yahya Ibrahim and all my friends who had helped me to complete this project. Thank you so much for all of them who were involved in this project and their good deed will always remain in my memory forever.

ABSTRACT

This system is about registering vehicle online. User must register to the system and then they may proceed to register their vehicle to system. This system allow user to renew the registered vehicle. This system will keep data and will help administrator to reduce redundancy of data.

ABSTRAK

Sistem ini adalah mengenai pendaftaran kenderaan secara atas talian. Pengguna dikehendaki mendaftar akaun sebelum mendaftar kenderaan. Kenderaan pengguna yang telah didaftarkan sebelum inidi benarkan untukdiperbaharui. Pihak pentadbir akan lebih mudah untuk menyimpan data secara teratur tanpa berlaku pengulangan data

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LIST OF ABBREVIATIONS

Universiti Teknikal Malaysia Melaka	UTeM
Entity Relationship Diagram	ERD
Data Flow Diagram	DFD
Software Development Life Cycle	SDLC
Relation Database Management System	RDBMS
Database Life Cycle	DBLC
Data Definition Language	DDL
Data Control Language	DCL
UTeM Vehicle Sticker	UVR

CHAPTER I

INTRODUCTION

1.1 Overview

This project is about registering vehicle that going to be park in campus area. As to get the pass sticker, User must register their vehicle. After register the vehicle, user can used the registered vehicle to enter the campus zone. When the sticker reaches its expiration, user can renewal the sticker online but without have to follow the same procedural during registering. Administration is the person that going to manage the information, here, they may find out current total of registered vehicle and many other. At the same time, administrator can add any additional information like report of the vehicle reported by the Security Officer.

Current existing system is using manual and user must register every time they wanted to renew the vehicle sticker. Due to the redundancy of information, this project is hopefully can help the Security Department of Universiti Teknikal Malaysia Melaka (UTeM) on managing lots of data efficiently.

For that reason of the problem, a new system will be build to replace the current system. The system will ease the user and administration because this system is using online system.

1.2 Problem Statement

The current system used by User and Administrator has caused some problems.

The problems are:

- User must come for few times to the Security Department, firstly, for to get the Vehicle Register Form and for the next time is when the form is completely fill with other photocopy of important document as prove before user can get the vehicle sticker.
- User have to register manually during the duration of change new sticker and queue for long time only to get the renew sticker especially during peak time of renewal.
 - Administrator must manage the document manually every time there is new registered vehicle and renewal of sticker. It is hard for data to be managed efficiently.

1.3 Objective

From the system development, the objectives are:

- To easier the user to register their vehicle where user do not have to queue during registration and usually registration takes more than a day during peak time because of user must include photocopy of certain document during the registration.
- To easier the administration of Security Officer to manage and keep records in both ways likes the used and unused records.
- To easier both administration and user during renewal of sticker.

1.4 Scope

In this system, we must focus on the development of the database. So, we are assuming that the interface for this system will be online (using computers). There will be divided into two scopes that are the user's scope and the system's scope.

- User Scope

This system will focus on two groups of users who are divided by two types of categories that are the administrator who will manage the system and users who are stand of registered staff and student of Universiti Teknikal Malaysia Melaka (UTeM). Administrator in this system is the Security Officer of Security Department in UTeM.

- System Scope

In the system that will develop contains a few function or characteristics that will develop. Such as:

- a. Account.

This account is created for user that wanted to register their vehicle that going to be used in UTeM' zone. It is compulsory for the user to register and fill the required information before they can proceed with the next procedure. Information that required is registered UTeM id and IC number. This account also contains other private information of users. Users can be staff and student of UTeM.

- b. Vehicle.

In vehicle module, user may register more than one vehicle. Types of vehicle are like car and motorcycle. User must fill the required information like plat number of the vehicle.

- c. Vehicle report.

Vehicle report can only exist if the user vehicle is having problem such as key left, parking violation and many others. Based on the registered plate number, the administrator can trace the owner of the vehicle.

d. **Payment.**

Payment module is use to manage the payment paid by user for to get the vehicle sticker. User is differentiating by student and staff. Student must renew the sticker every year while staff will renew the sticker once for every two years. The cost of payment is one ringgit for a year. Payment is managed by the administrator.

e. **Staff**

Administrator of the system is the Security Officer of Security Department of UTeM. This module is contains of information like staff id, name and password.

f. **Backup and recovery**

Back and recovery module is use to backup the data that are stored in the system. Transaction logs of the database file will be backups as well if failures occur.

1.5 Project Significant

Significance of this project is to ease the user in data access and information needed through online. The system that will develop hopefully will provide system support and data support 24 hours a day. The aim of this system is to manage data storage with systematic way.

This database will provide management capability and security such as information backup. Activity will be guarantee and safe. This system also has security control which is database security. So the system will improve the quality of security in the system.

This system will develop base on the requirement from the company and also fill the requirement of the user. The system will provide amenity such as save time for insert, delete, and update the data and also simply to retrieve data from the database.

1.6 Expected Output

For this developed system, this system are expected to easier both user and administration in managing data as to avoid redundancy, to improve efficiency of data searching and to reused of the same data to avoid redundancy. Users are managing by registered id while vehicle is recognized by the number plate.

1.7 Conclusion

For conclusion, e-VehicleSticker system is important to replace the current manual system that has been used before this. It will ease the user during registering vehicle and renewal of sticker. At the same time, it will ease the Administrator in managing data of vehicle in UTeM.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

Literature review is an evaluation report of information found in the literature related to the selected area of study and has benefits in the organization. The review should describe, summarize, evaluate and clarify the literature.

The purpose of this chapter is to present a selected literature review which is important for the researcher. It is being conducted to give an idea on how to solve the problem that being identified previously and to find out the best solution in completing this project as it may improve overall performance to the system. In this chapter, we will highlight the project that will be developed to assure the system is far more effective.

Methodology consists of an approach to software development, a set of techniques and notations to structure the development process. There are several steps that have to be followed in order to complete this project. In case of that, Database Life Cycle (DBLC) methodology has been selected for this project.

2.2 Facts and Finding

In this section is about facts and finding that relate with the project based on research that has been made from the internet resources, books, articles and as well as interview. This section is divided into three sections. The sections are domains, existing system and technique. Furthermore, this chapter is more focused on the existing current system and facts related to the approach and technique in e-VehicleSticker System.

2.2.1 Domain

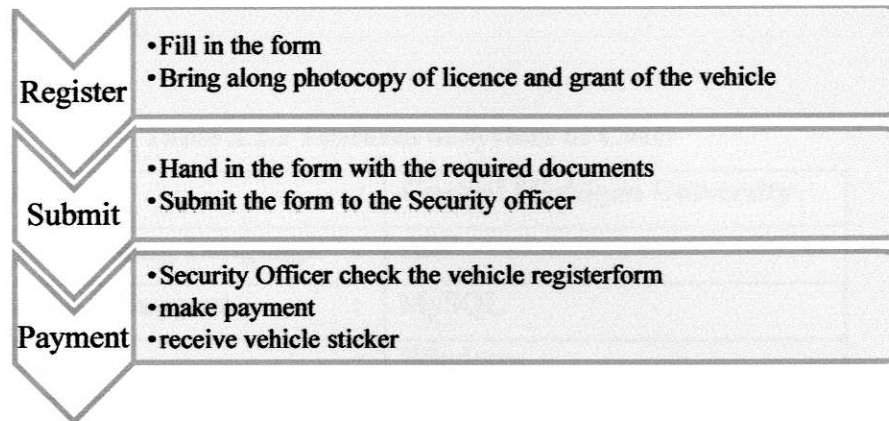
The domain of this system is more focus on services management and using online registering. This system is develop to make record reading more easily than before and has unlimited of using the system if we get connected to the internet.

2.2.2 Existing System

2.2.2.1 Case Study I

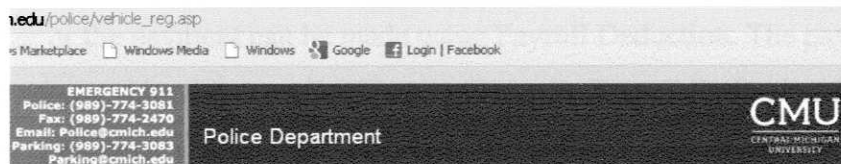
There is no registering for vehicle sticker online system is implemented in UTeM but there is an existing system that requires user to register their vehicle manually in UTeM

Current registering vehicle is implemented for students and staffs. Both users must bring their photocopy of license, grant and insurance, fill in the form and make payment for the sticker during registration of their vehicle. However, the duration of sticker is only last for a year for students and two years for staffs. If the users wanted to renew their vehicle sticker, they must fill in the renewal form of vehicle like the registration and make payment except that the users do not have to bring any photocopy of document as prove.

Table 2.2.1 Flow of manual system that implemented in UTeM

2.2.2.2 Case Study II

The next case study I found is from the Central Michigan University. This university is using online system. The user must register the information of user and the vehicle at the online vehicle registration form. Then, the student is required to collect the pass at the CMU Police Parking Services office. The user must present driver's license to obtain permit if registration is made before the dateline date.



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Figure 2.2.1 Log in interface of CMU

Features of the system:

Table 2.2.2 Features of system of CMU

Developer	:	Central Michigan University
Programming Language	:	ASP
Database Support	:	MySQL
Platform	:	Windows
Version	:	1.0
Advantages	:	- Well secured web based system

2.2.2.3 Case Study III

The next existing system I found that related to registering vehicle is the Tennessee State University. This system requires the user of this system to register their vehicle online before they can have their hand tag. They had two types of user that will be using this system; the users are students and employees. First, user must register their vehicle online and make payment. However for the employees, payment can be made at the Bursar or the payment can be made using Payroll Deduction. The payroll deduction must be approved by the Payroll Office by fill in the Payroll Deduction Authorization Form. Id number of TSU is required during registration and user must fill the information required. After users had done complete the form, the users can pick the parking decal from the Police Department by bringing the driver's license, vehicle registration and faculty/staff ID.