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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Background**

Security office is one of the responsible team or department to maintain the security and safety in Universiti Teknologi PETRONAS (UTP). The team is eligible to issue a summon to student that commit a bad acts for example park car or motorcycle at a wrong place, wearing an improper attire in the campus and many more. Other than that, security office also is authorized to issue a sticker to be pasted at the student's vehicle. The sticker acts as a proof for a student that he or she is a UTP student in order to avoid from outsiders to simply come in UTP.

Another objective in having a sticker is that the security wants to keep track the registered transport in UTP. So that, when summon was issued to the particular car or motorcycle, security can key in the summon details to that particular car for doing wrong inside UTP.

When talking about sticker, people might want to know how a student can apply for a sticker for their transport. As stated earlier, security office will issue the sticker for that particular sticker. However, it needs the student's cooperation to go to the security office, fill in the required form, submit 4 required documents and pay for some fees.

## 1.2 Problem Statement

Currently the transport sticker application system for student in UTP is using a form. Student needs to fill in several details in the form such as transport details which is expired road tax and plat number of the transport. In addition, the student also needs to submit a copy of identity card, matrix card, transport grant and licence. Capacity of the students in UTP is about 6000. If one-third of the students bring transport in UTP no matter motorcycle or car, there are about 2000 papers need to be used and provided for the students to apply for the sticker. The quantity mentioned is not including the other four required documents.

This consumes so many papers that might be beneficial for other purpose. It does not apply green computing which nowadays green computing is much promoted around the world. According to greentechmalaysia.my, green computing is the development and application of products; equipment and systems used to conserve the natural environment and resources, which minimize and reduces the negative impact of human activities. Paper initially comes from the tree that has been cut. Tree is one of natural environment that functions as the Carbon Dioxide (CO<sub>2</sub>) absorber and it release Oxygen (O<sub>2</sub>) to the atmosphere. If tree has been cut day by day, the oxygen supplier will be decreased. Plus, CO<sub>2</sub> is not being absorbed by the decreasing tree and it will lead to global warming.

In addition, it is a lack in efficiency whereas student has to go at least two times to the security office to apply for transport sticker. At first student will come to take the form to be filled in. Only then he or she will know that they need to provide 4 important documents to apply the sticker. If the transport owned by other person for example the mother, the student needs to write a permission letter for using the transport in UTP. Last but not least the student will come back for the third time to collect the sticker.

Hence, I am proposing an idea to automate this system as it is lack of efficiency for the student to go to the security office, had a queue to only apply for transport sticker. My project is basically a web-based application that allows students to apply sticker using internet from their room. Internet nowadays is not yet a wants

but a needs. It is undeniable that students need internet to search for information regarding assignments or test. Therefore, I am adding a good function for UTP student to use internet to apply for the transport sticker in UTP. So, there is no problem for all students to access internet at anywhere and at whatever time to apply for the sticker. The student only needs to go once to the security office to collect the sticker and pay for the fee.

### **1.3 Objectives**

- To develop an automatic system for student to apply for transport sticker in UTP
- To simplify the workflow of the current system

### **1.4 Scope of studies**

In order to develop and complete this sticker application system, several scopes of studies has been specified as below :

- For UTP usage only
- Security Officer as an administrator
- Student as a user

### **1.5 Limitations**

The limitations of this project:

- System does not cover for staff sticker application system
- System for intranet usage only
- System does not cover online payment for fee

## **1.6 Feasibility Study**

In this project, online application is use as UTP student can access the system at all time and all place. The students can access the system as long as they have internet connection.

In addition, this project also has a specific scope which is UTP students and Security Office. UTP students act as sticker's applicant and security's function is to release the sticker.

Besides that, time allocation for this project is about 8months which is sufficient for the author to complete the project. To develop these project a full understanding and expertise on the software and project management. So, the duration in completing the project is quite sufficient.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Online system**

When we talk about online system, most of the time we will relate to an internet. Internet is a centre of information where people can get any data of other company, person and so on. Not only that, internet is a tool for communication and institution learning too [1]. Nowadays, internet is no longer a demand, it is a needs. The expansion of internet has been proved by the addition of electronic journal since its existence. Most of scientists really hope to have a scientific literature that can be accessed anytime and anywhere [2]. Currently, the dream is not only a dream but a reality. Not only that, more and more different types of databases are going online to make the sources available in manual print environment [3].

The rapid changes of Information Technology (IT) were brought many pros and cons. One of the popular problems is internet addictive [4]. Most of the youngsters addicted to the internet till they can access internet throughout their phone anytime and anywhere. Somehow, there is a good benefit with this kind phenomenon which it brings to the collecting competitive intelligence (CI) data where each people compete to produce a currency and accuracy data [5].

Other than that, online evaluation form for the students in a university is good step to fully utilise the internet usage in university. A website evaluation can be approached from users and website designers [6]. From the user's perspective, most of website evaluation focuses on the factors for a successful website. These researches concentrate on the development of a website evaluation tool which is also a good thing to be pondered in developing the system. These studies search for design and content elements of a successful website. The main areas for the website quality evaluation are accessibility, speed, navigability and site content [7].

In delivering this project, the author planned to make this system as an online system which UTP students can access the system anytime and anywhere. In order to adapt with the phenomenon of internet, it is a good effort to fully utilise the facilities provided by the university. Plus, the application can be done regardless of the distance of the students from the university. The internet facility provided in UTP is a great advantage for this project to be made online. Plus, the characteristics of a good website also must be taken into consideration as a user friendly website does not burden its user. In a nut shell, internet application is the best platform in realizing this project in order to meet the user requirement and demand.

## **2.2 Automate system ease the human life process**

The emergence of electronic records has been spread all around the world by the emergence of Information and Communication Technology (ICT). The widespread usage of information system has increase the dependency towards the need of a proper records management. An electronic record could be defined in a decontextualized way by identifying and defining the only necessary and sufficient components in such a manner that they could be managed by a digital information system [8].

Automate is also one of the technology used to electronically record information and data. The automate system would increase production and improved the technology used by certain organization. Several benefits and advantages are highlighted that are low cost, low human effort with a better result [9]. How does automatic system will low the cost? With the manual system, people use papers, ink and other device to keep data. Plus, to keep the bundle of data, a rack must be prepared to locate it nicely. With the enhancement and advancement of the system, any cost for papers, racks, inks and so on will not exist as automate system would use electronic device to keep it data well. Other than that, the automation system will decrease the human effort because one people will manage a specific data and information compared to the manual system which consume more human power.

In proposing a transport sticker application system, the student only need an internet connection, computer and scanner to apply the sticker rather than the student



needs to make a copy for the required documents, go to the Security Office and so on. Plus, the officers that are eligible to process the sticker application do not need to repeat many times manually to the students about the required documents to be submitted. By applying this system, the student just only needs to read from the online system and simply apply in the internet. In addition, the newly proposed system is actually eased on the data entry as it is a soft copy. The security officer does not need to re-entry the information fill in by the students as it directly capture in the database. By automating the system, it will also increase the competition in term of market value. Other campus or university will see UTP as an updated campus aligns with UTP's vision that is to be 'A Leader in Technology Education and Centre for Creativity and Innovation'.

### **2.3 Green Technology**

Green technology is a good initiative in order to preserve and protect an environment nowadays. It is a necessity, not an option. Green technology is highly related to the environment. An example of activity that supports green technology is paperless. Green technology need to be supported as today many hazard and threat harm the environment. Carbon dioxide is release during the burning of fossil fuels, exhalation of human breath and so on. The rate of carbon dioxide in the environment will increase day by day. By growing trees, the rate of carbon dioxide will decrease [10]. Tree will absorb the carbon dioxide release by human and other things and release oxygen to the atmosphere. If there are a lot of carbon dioxide released to the air, but there are little tree to absorb the carbon dioxide, those excessive carbon dioxide will be trapped in the air and later cause the global warming. Tree is the source of the paper. Hence, by using paperless we could decrease the global warming.

Africa had proposed an electronic paperless society [11]. They discussed the benefit of the libraries nowadays rather than an electronic library as people using an internet to find and search any relevant data. Even newspaper nowadays exists in electronic form and it cost zero tree and money. This supports the green technology as by doing paperless, fewer trees will be cut.

Several other entities were trying to get a feedback on a paperless classroom and paperless office. Paperless classroom is generally a classroom without a single paper [12]. It basically wants to apply web-based learning where the student needs to send an assignment or homework using Web. This team got positive feedbacks on the idea as it is highly support green technology and less cost. Meanwhile, paperless office is an office without paper [13]. They only use digital documents for their usage. All the staffs will be using computer to do their work. With that, the tree has no reason to be cut and carbon dioxide has no reason to be emitted.

With the current consumption rate of papers in the world, it may lead to the cutting of 78 million trees in a year. This issue is an important thing to be pondered. As an Information Technology (IT) student, technology is the solution for this issue. The current system used consumes so many papers for the forms and the documents required. For instance, the current drivers is UTP are 3000, so there are a number of 3000 forms were submitted by the students to apply the stickers excluding the documents submission. Hence, with the idea of automate the system, UTP indirectly as one of the entity that decrease the gas emission to the environment and support green technology.

## 2.4 Current Online System

The screenshot shows a web application interface for applying for a sticker. The top navigation bar includes 'Home', 'Info', 'Application Status', 'Apply Sticker', 'Check Fine', 'Department', and 'Credits'. The 'Apply Sticker' tab is active. The main content area is divided into three sections: 'System Capability' with a list of benefits, 'The Department' with a description of the Security Unit of UiTM Kelantan, and 'Sticker Application Form'. The form section contains instructions and a list of input fields: 'Vehicle Picture' (with a 'Choose File' button), 'Applicant IC' (with an example '840813036279'), 'Type of Vehicle' (with an example 'Viva, WVA, City, Accord, Wish'), 'Year' (with an example '1999, 2007, 2008'), and 'Plate Number' (with an example 'D892672, RH1306'). An 'Apply' button is located at the bottom of the form.

Figure 2.4: UiTM, Kelantan Sticker Application Form

The author takes one example of the car sticker application from Universiti Teknologi MARA (UiTM), Kelantan. UiTM Kelantan is one of UiTM branches in Malaysia. This university also use an online system to apply for a car sticker [14]. The system is shown in Figure 2.4.

There are only five attributes to be filled in by the student to apply the car sticker. The system can only detect the registered and active profile student to apply the sticker. Plus to know whether the sticker is being processed or ready to collect, the student need to check it frequently from the website. There is no notification email or message for the student on the sticker collection date. Moreover, the procedure states that applying for a third party is strictly prohibited. The proposed system for UTP opens to all UTP students that have UTP matric number. In addition, the student only needs to wait for a notification send by Security Office. The student does not need to check the status of application for couple times. Last but not least, the proposed system does not prohibit any application for the third party as long as the students attach an original matric ID with the proof of matric ID copy.

Other university that practice sticker online application is Universiti Malaya (UM) [15]. From the finding, the author found that UM students need to apply vehicle sticker to their own system. However the same problem faced by the UM students that are students need to print the form, bring documents required by the student and submit to their Security Office to apply for the sticker. There are two redundant works to be done by UM students.

Online Disability Application Form

Customers with a disability must apply to receive an Ohio University validation sticker. To expedite the process, please submit the Disability Registration Sticker Application prior to visiting Parking Services. Once you have submitted this application, you must bring the following items to Parking Services to obtain your disability registration sticker.

- A copy of the application submitted online.
- Your actual disability permit (copies will not be accepted).
- Your disability permit registration form. This form resembles a vehicle registration form and should have been issued to you along with your state-issued permit. If you do not have one, you may obtain a copy from your local BMV office.
- Photo ID.

Your Status:

Figure 2.5: Online Disability Application Form Requirement, Ohio University

Figure 2.5 and Figure 2.6 shows an online disability application form in Ohio University in Athens, Ohio. This online form mainly designed for a disability person

that brings transport in the university [16]. Those person need to apply sticker using this online form. The form created for 3 users that are student, staff and visitor. The system however require user to submit several documents to the respective departments that is Parking Services to apply the sticker.

**Online Disability Application Form**

**Personal Information**

First Name:

Middle Initial:

Last Name:

Student PID Number (Please include the P):

Email Address:

Street Address:

City:

Permanent Address

State: OH

Zip:

Campus or Local Address:

**Disability Permit Number**

State Issued Disability Permit Number:

This is printed near the bottom of your permits. Include any letters at the beginning of the number.

Issuing State: OH

Expiration Month:

Expiration Year:

**Vehicle Information**

License Plate Number:

State: OH

Vehicle Make:

Vehicle Color:

I authorize that the disability permit listed above has been issued to me for my personal use. I understand this permit is not intended for use by anyone other than myself and is not transferable. Parking Services reserves the right to remove my parking privileges on the campus of Ohio University if abuse of this privilege is found.

Figure 2.6: Online Disability Application Form, Ohio University

With the stated problems faced by systems from those universities, the author would like to enhance the proposed system with more efficient and effective. The proposed system does not require student to submit the hard copy form and documents to the Security Office which it will lessen time and number of paper use. Furthermore, the system must notify students through an email on the sticker collection date.

## CHAPTER 3 METHODOLOGY

### 3.1 System Development Lifecycle

The methodology chosen for this project is System Development Lifecycle. This methodology performs 5 phases as below:

- ✓ Analysis
- ✓ Design
- ✓ Implementation
- ✓ Testing
- ✓ Evaluation

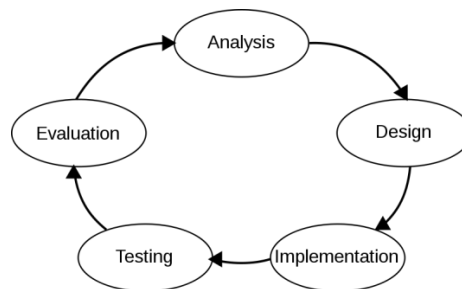


Figure 3.1 System Development Lifecycle

The systems development life cycle (SDLC) is a conceptual model used in project management that describes the stages involved in an information system development.

#### 3.1.1 Analysis

This phase will investigate the current available system and problem faced. The author will conduct a survey and interview regarding the current system. First interview session was done with Security Officer, Mr. Mohd Azian Montel. A long interview session will be arranged for the further discussion regarding requirements and so on.

During this phase, the author also developed a Gantt chart in Appendix A for the project to monitoring activities and time.

Appendix A shows Gantt Chart for the project proposed. It is divided based on the phases exist in System Development Lifecycle (SDLC). The system methodology is divided into five phases that are analysis, design, implementation, testing and evaluation. From the Gantt chart, we can see the tasks planned for each phases.

In analysis phase, there are about 5 documents to be submitted. First of all is preparing project proposal. This proposal gives an overview of the project proposed by the author. After that, the author needs to prepare extended proposal. This extended proposal explains more about the project proposed. Then, user requirements will be collected from several stakeholders such as Security Officer. Next, the author needs to do a project defence to supervisor and lecturer. Project defence basically a presentation and question and answer between student and lecturers about the project proposed. Lastly, the author needs to prepare an interim report.

For the next phase that is design. The author needs to design an interface for the system by following the human computer interaction guideline. The third phase is implementation where the system will be developed using the chosen language. After that, testing phase is where it is divided into two tasks that are technical testing and User Acceptance Testing (UAT). Technical testing is conducted during the development phase. While UAT will be conducted after the project is fully developed. Last but not least is evaluation phase. During evaluation phase, final report needs to be prepared. The final report will consist of all documentation for the project reference.

### 3.1.2 Design

This phase will focus more on the technical part of the system. First of all the author will come out with the workflow of the current system and the newly system. During this phase, the author will come out with the flow chart of the system. In addition, UML diagram also will be developed to show how the system relates with different stakeholders such as use case diagram. Throughout this phase, the author will come out with the interphase diagram which it will be later put in the further report.

### 3.1.3 Implementation

In this phase, the author will start to develop the system. The author is using PHP as the main programming language in developing the system. PHP is general-purpose server-side scripting language, widely used for Web development. Currently, the author is at this stage.

### 3.1.4 Testing

The deliverable from this testing phase is User Acceptance Testing (UAT). It is a test for the end user before they accept the system. Test case will be created using various cases that come from the user requirement. The testing will be done in the real environment that stimulates the production environment.

### 3.1.5 Evaluation

In this phase, the whole system will be presented and evaluated by the end users.

## 3.2 Project Tools

### 3.2.1 Hardware

The hardware that will be used to develop the whole system is DELL personal computer. The specifications described as below :

Operating System	Window 7 Home Premium
Processor	Intel (R) Core (TM) 2 Duo CPU P8700 @2.35GHz
Memory	4.00 GB
Disk Space	300 GB

Table 3.2 Personal Computer Specifications

### 3.2.2 Software

- Platform used is Window 7 Home Premium
- Language used is PHP
- Database used is PHP MySQL

## CHAPTER 4 RESULT AND DISCUSSION

### 4.1 System Design

#### 4.1.1 Flow Chart

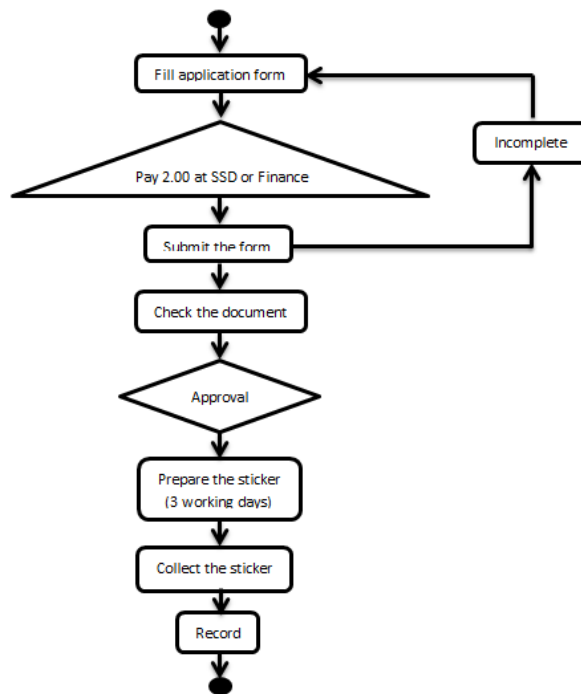


Figure 4.1.1.1 Current Flow Chart

Figure 4.1.1.1 shows the flow chart of the current system. First of all, the student needs to fill in several attributes in the Sticker Application Form manually, pay RM2 to Security Office or Finance and then submit to the Security Office. Next, the officer will check the form either it is complete or incomplete. If the form is not completed, the student needs to fill in completely first. With that, the Security Officer will check the information in the form and approve the document if there is no sense of fraud. After that, the officer will prepare the sticker in 3 working days and the student will collect



the sticker at the Security Office. Finally, Security Officer will key in the information into the database.

Figure 4.1.1.2 shows the new proposed flow chart. We can see the first step is to complete the online form. If the form is incomplete, the student cannot submit the form until it is completed. The system will capture the information in database form once the form is submitted. So, there is no more manual entry of the data. Then, Administrator that is Security Officer will check the originality of the request. If there is untrustworthy data, a reject notification email will be sent to the applicant and the data of the untrustworthy form will be removed from the system. If the form is trustworthy, acceptance notification email and date to collect the sticker will be sent to the applicant. Later, the student needs to collect the sticker and pay for the fee.

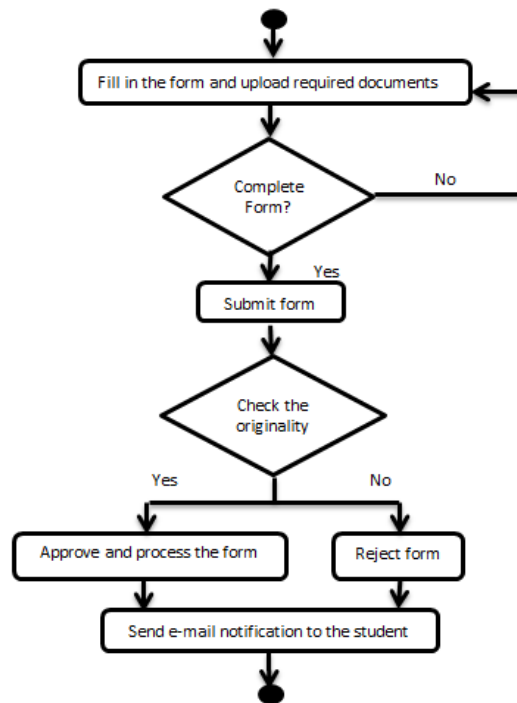


Figure 4.1.1.2 New Flow Chart

#### 4.1.2 Use Case Diagram

Figure 4.1.2 shows Use Case Diagram. The diagram shows parties involved in the system and the activity that can be done by all parties.

The parties involved are superadministrator, student and administrator. Student can do three tasks that are filling in the form, upload required documents and send request to the system. While administrator can log into the system, view request, check originality of the request form, approve or decline request, send notification to the system and log out from the system. The words extend that link between the two parties show choice that can be done by the administrator. For the superadministrator scope, he can log in the system, edit database, view database, delete database, maintain the system and log out the system. Superadmin has the highest access to the system.

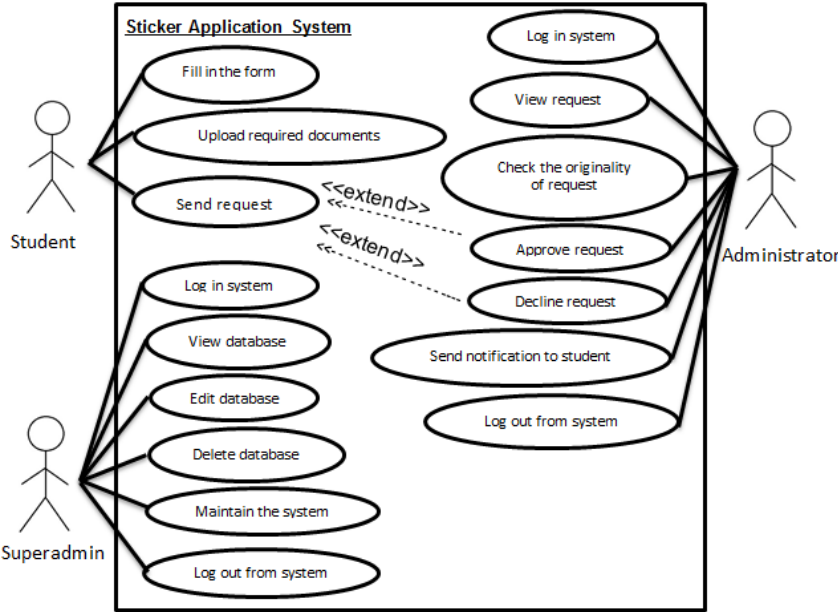


Figure 4.1.2 Use Case Diagram

**4.1.3 Activity Diagram**

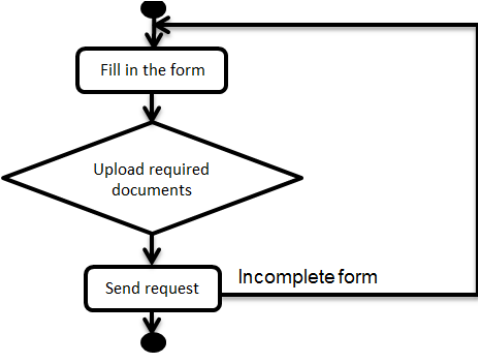


Figure 4.1.3.1 Activity Diagram for the Student

Figure 4.1.3.1 specifically shows the activity can be done by the student from start to the end. Student can fill in the online form and then upload required documents. Once the form is completed, the student can send request to the system. However, if the form is incomplete, the student needs to fulfil all the attributes required and by then the student can send the request to the system.

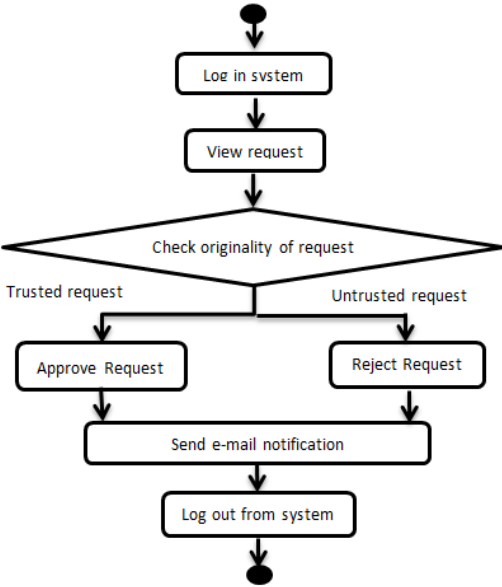


Figure 4.1.3.2 Activity Diagram for Administrator

Figure 4.1.3.2 shows activity diagram for Administrator. It shows activity can be done by the Security Office from start to the end. Administrator must firstly log into the system to see any request sent by students. Next, the administrator will check the originality of the request forms submitted. Only that, the administrator can approve or reject the request. Administrator will reject the form if the provided information does not relevant with the documents provided. Plus, the request also will be rejected if the student already registers for the second vehicle. Once the request rejected or accepted, the administrator will send a notification email to the applicant to inform that Security Office will process the request and the time to collect the sticker or reject the request with a concrete reason. Then, the administrator will have to log out the system.

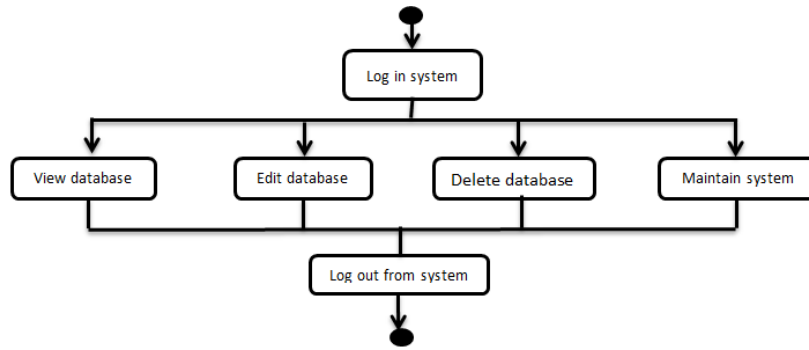


Figure 4.1.3.3 Activity Diagram for Superadministrator

Figure 4.1.3.3 shows the activity diagram for superadministrator for the proposed system. The superadministrator has the highest access compared to student and approval.

First of all, superadministrator must have its own user name and password to get into the system. Superadministrator is eligible to view the database of the system. He also can edit the database, delete the database and also maintain the system. Last but not least, he must log out from the system to preserve the security of the system.

## 4.2 System Architecture

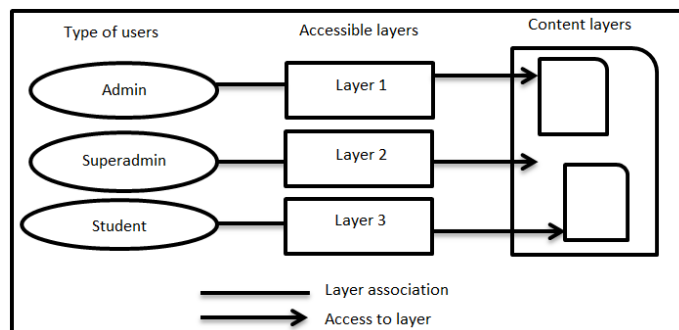



Figure 4.2 System Architecture

Figure 4.2 shows system architecture of the project. Student has the lower access than admin. Student will be able to fill in the required attributes in the form, upload documents needed and send a request. In student side, they have no profile or account to be created. The student will be detected directly from the UTP database to make sure

that he or she still further study in Universiti Teknologi PETRONAS or already own a vehicle sticker before. While for superadministrator has the highest authority to the system. He can view, edit, delete the data exists in database. The administrator contains information that the student fill in the form. The database will capture the student's information once the Administrator click approve to that particular request. Last but not least is the Administrator. Administrator also has the limited access to accept or reject the request. Administrator can view the request, accept and reject the request. Administrator only limited to one person who manage the request. If the Administrator approves the request, he needs to state the date for the sticker to be collected. Plus, if the administrator rejects the request, the Administrator needs to provide requestor a reason on why the request has been rejected.

### 4.3 Interface Design

## UTP Transport Sticker Application System



#### 1. Student Information

Name :  Matric ID :

IC Number :  Passport Number :

Country :  Year of Study :

Course :  Residential College :

Scholarship :  Telephone Number :

Driving Licence Number :  E-mail :

Driving Licence Expired Date :

#### 2. Vehicle Information

Vehicle Type:  Car  Motorcycle Registration Number :

Colour :  Brand :

Road Tax Expired Date :  Owner Name :

Relation with Owner :

Owner Adress :

#### 3. Document Required

Matric ID Copy :

IC Copy :

Licence Copy :

Transport Grant :

Does the car belong to you?

Yes

No \*permission letter from owner to use mentioned transport in UTP

Application Date:

Figure 4.3.1 Interface Design for the student form

22

Figure 4.3.1 shows an interface design for student to fill in the form. There are 3 parts all together that are

- Student Information
- Vehicle Information
- Document Required

The advancement of this system is by not using too much paper for the documents required. We convert it into an online system, so the student only needs to browse file from computer and upload the required documents in pdf format. As shown in Figure 4.3.1, the text field, radio button, drop down button, submit button and file upload is used.

Then, when the student click submit button, the notification window will be appeared as below. While if the student click cancel button, the page will be refresh and the entire filled in column will appear blank.

#### **4.4 System Interface**

This section presents the system interface that has been developed. After some observations has been done, the author come out with the following system interface for Sticker Application System for Universiti Teknologi PETRONAS.

The page is divided into three parts that are header, content and footer. Basically for the main page, there are 5 sidebars that are Home, Register Now, Forgot Password, Contact Us and FAQ.

As Figure 4.4.1 shows Home Page. Home page basically tells user about the basic things of sticker application and about the site management that managed by Security Office of the university. Plus, the homepage also is the main page that require user to log in the system by using a registered username and password. There is also the link where student can ask for the system help if user forgot the password. When user(student) log in to the sytem, he/she can proceed to apply sticker by fill in the form.

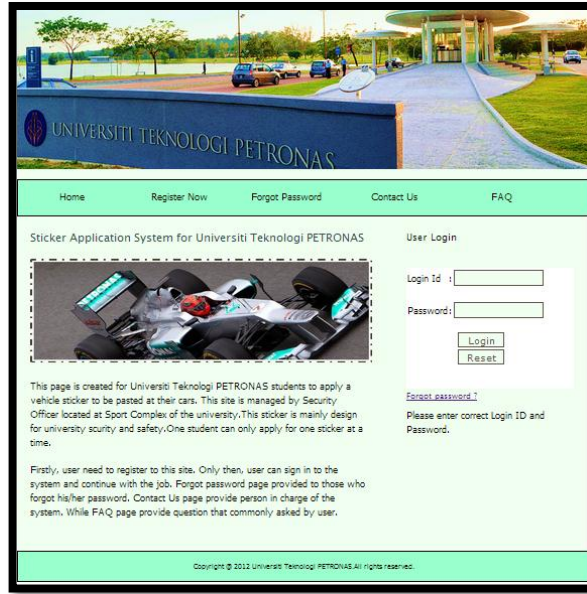


Figure 4.4.1 Home Page

Figure 4.4.2 shows Register Page for Sticker Application System. Students must register at this page first before they can log in the system to apply for a sticker. The database will detect the username and password registered and by that students can has its own username and password.

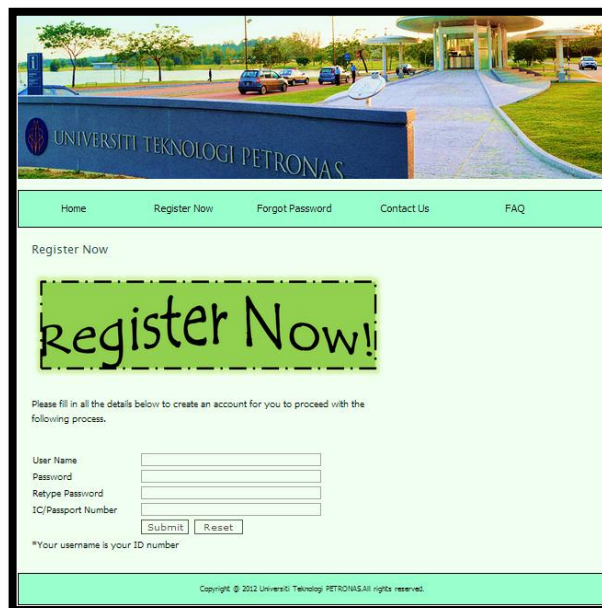


Figure 4.4.2 Register Page



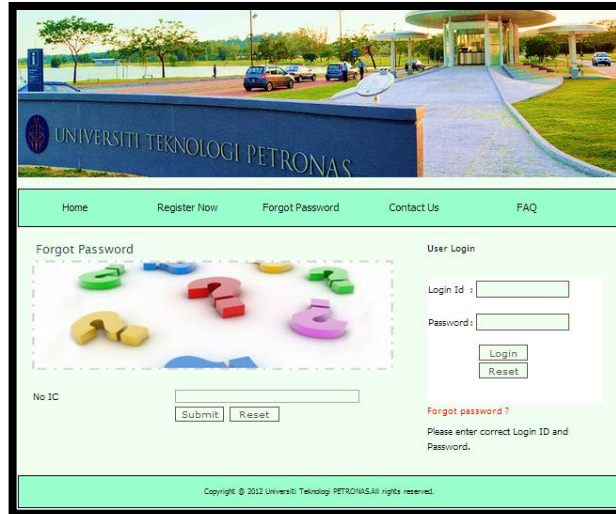


Figure 4.4.3 Forgot Password Page

Forgot Password Page as shown in Figure 4.4.3. This page come from the Home Page when user click forgot password link at the sidebar. User need to key in his/her IC and to get back the forgotten password. At the right side of the page user login side is provided.

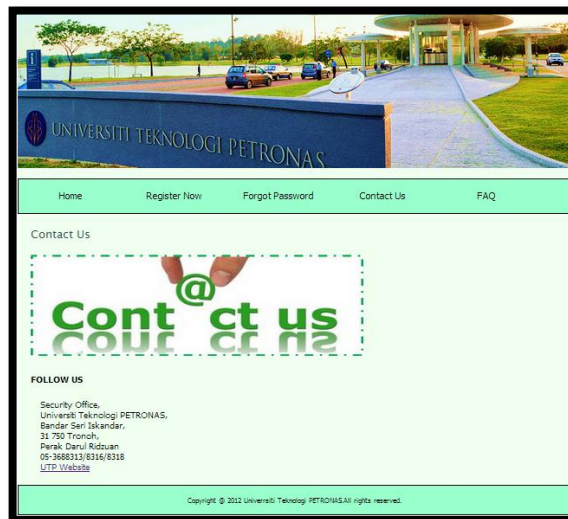


Figure 4.4.4 Contact Us Page

Figure 4.4.4 shows Contact Us Page for Sticker Application System. This page provides user with address and contact number of Security Office of Universiti Teknologi PETRONAS



Figure 4.4.5 FAQ Page

Figure 4.4.5 shows Frequently Asked Question (FAQ) page where it displays several questions that may be asked by the user regarding Sticker Application System. There are 3 type of users for this system that are student, administrator and superadministrator.

Once student log in to the system, 5 sidebars that can be seen are Home, Form, Change Password, Contact Us and Log Out.

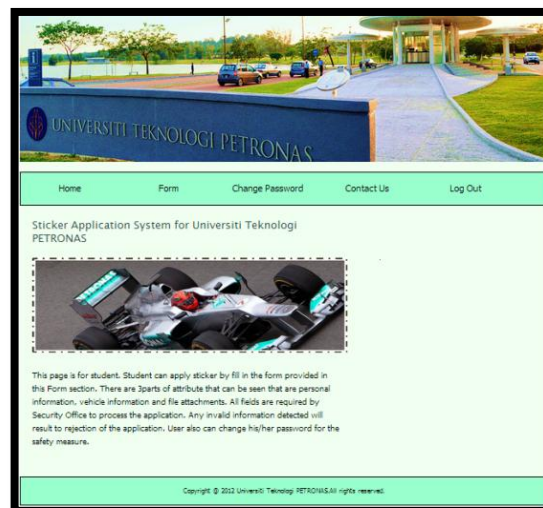


Figure 4.4.6 Student Home Page

Figure 4.4.6 shows Home Page that can be seen by the student. It shows the function that can be done by the student.

Figure 4.4.7 Sticker Application Form Page

Figure 4.4.7 is Sticker Application Form Page. Student needs to fill in all the required fields to apply the sticker. There are 25 attributes altogether that are name, matric ID, IC number/passport number, country, course, year of study, village, sponsorship, phone number, driving licence number and expired date, e-mail, vehicle type, registration number, colour, brand, road tax expired date, owner name, relation with owner and owner address. 4 attachments are needed that are matric ID copy, IC copy, licence copy and transport grant copy. For those vehicle that owned by others, he/she needs a permission letter from the vehicle owner to be used in the university. Date of application is captured once form is submitted.

Figure 4.4.8 shows change password page. This page can change student password by retype password and key in new password. Later on, student can log in to the site using a new password.

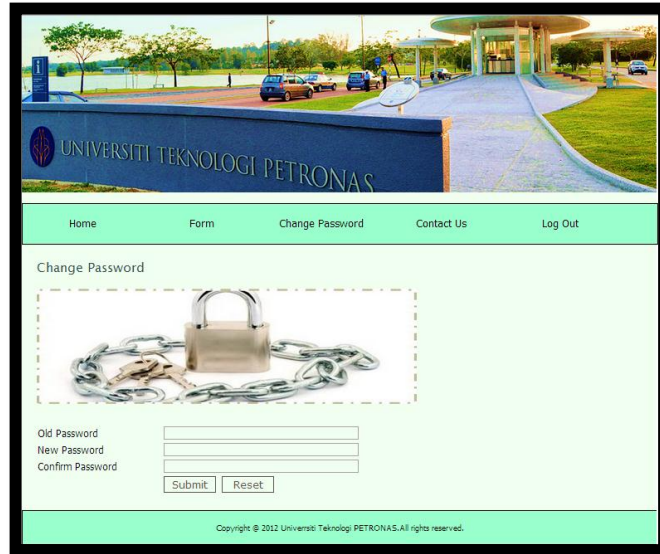


Figure 4.4.8 Change Password Page

Figure 4.4.9 shows Contact Us page where student can contact those person in charge for any inquiries.

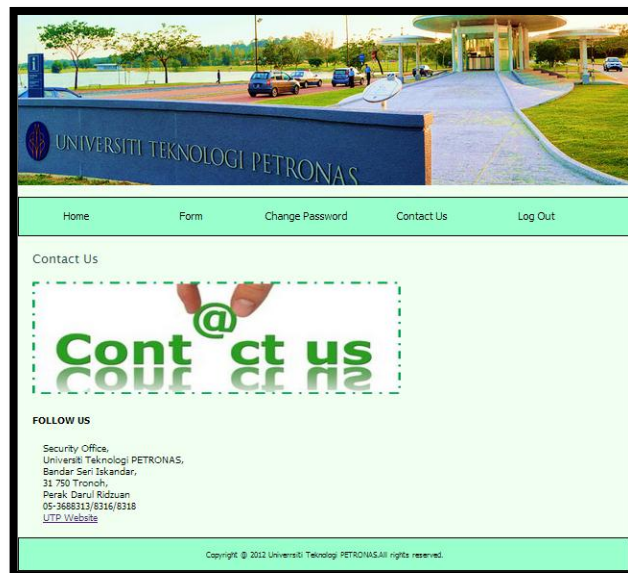


Figure 4.4.9 Contact Us Page

Next is the interface and function for administrator. Once administrator log in to the system, the page will have 5 sidebars options that are Home, Check for Applicant, Search List, Change Password and Log Out.

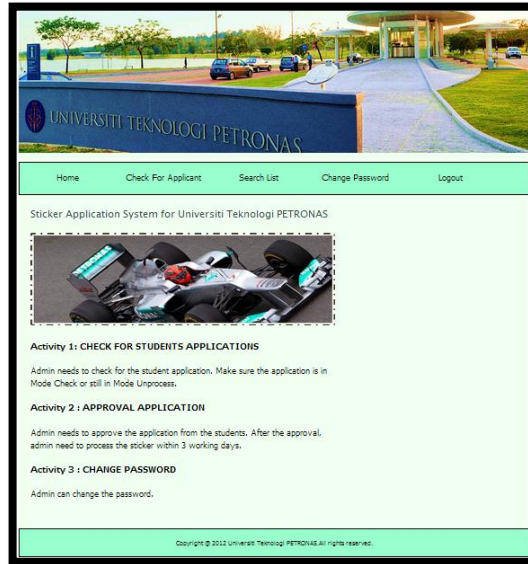


Figure 4.4.10 Administrator Home Page

Check for Applicant will show list of applications by the users. All unprocess application will appear in Check for Applicant page as Figure 4.4.11. Admin needs to click on the name appear to check information and approve or reject the application.

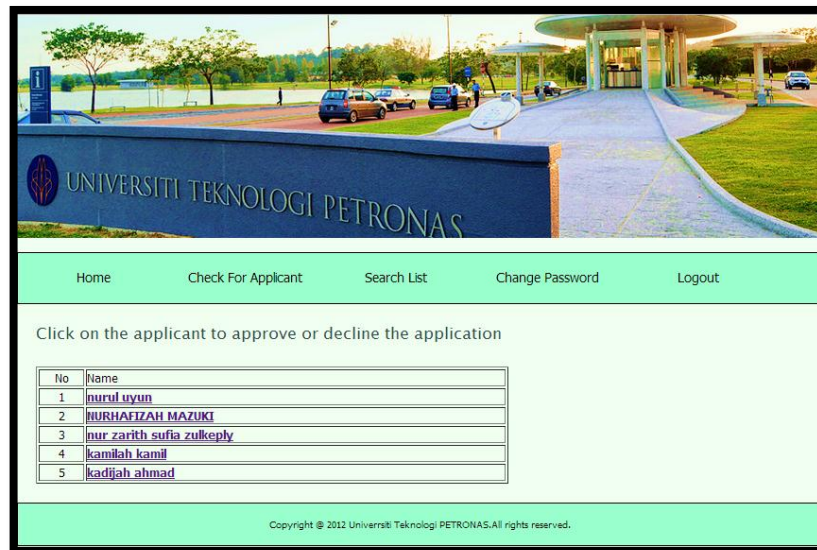


Figure 4.4.11 Check for Applicant page



Figure 4.4.12 Search List page

Figure 4.4.12 shows Search List page where admin can search the registered vehicle user in the system. Admin can search by name, type of vehicle or e-mail then the filtered lists will be appeared directly. By click check, admin can view their exists information.



Figure 4.4.13 Change Password page

Admin also can change password as Figure 4.4.113 to increase the security of the system. Last but not least is the Log Out where the admin will go offline from the system.

All this pages are connected to the specific database named sas using phpMyAdmin software. The system contains 2 tables that are signin and studinfo.

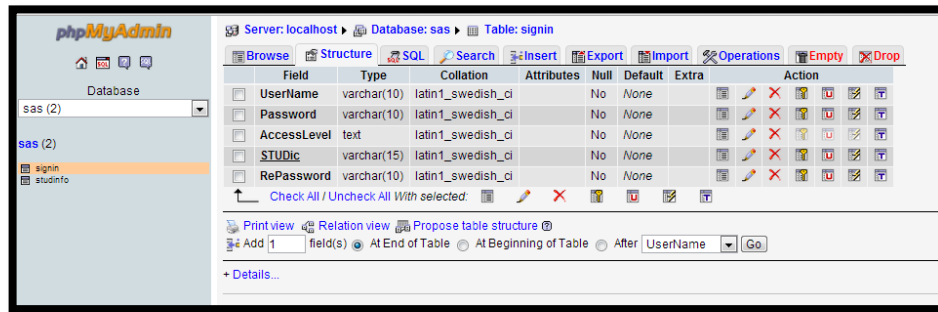


Figure 4.4.14 signin Table

Figure 4.4.14 shows signin table. This table contain 5 attributes that are UserName, Password, AccessLevel, studIC and RePassword. Register, sign in, forgot password and change password are connected to this table.

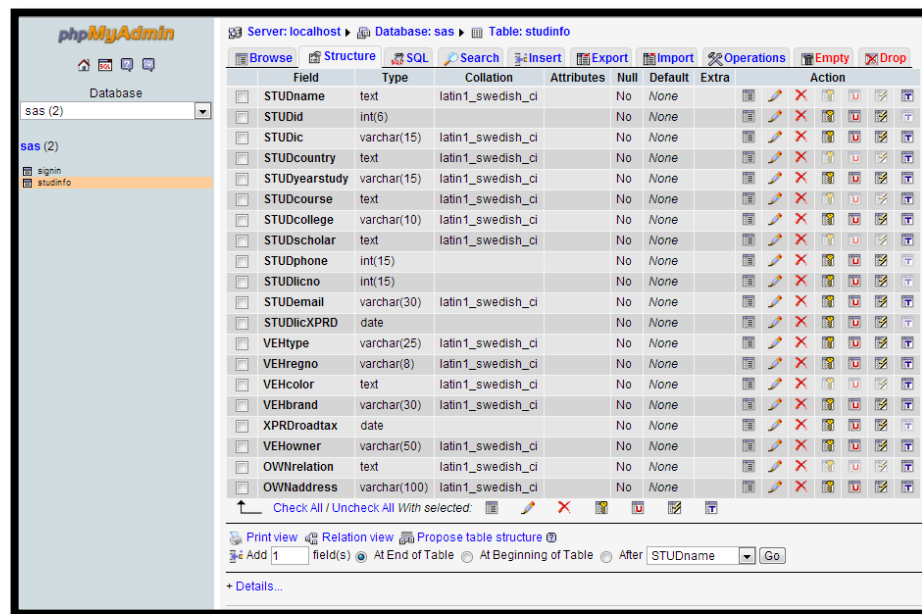


Figure 4.4.15 studinfo Table

Figure 4.4.15 shows studinfo table. This table contains 25 attributes including attachment files. The table connected to the sticker application form where student will fill in the form and submit. After that, this table will capture the information inserted by the student.

#### **4.5 Interview**

Several interviews had been done during the analysis phase in order to collect data about the current sticker application system. First interview had been done with Mr. Mohd Azian Montel which is one of the Security Officers. The objective of the interview is to gain several feedbacks and respond towards the proposed system. The outcome of the interview is the feedback of the project proposed from the first person of Security Services which is Senior Manager of Security Services which is Mr. Mustafa Idrus of the. He is very glad in the enhancement of the current sticker application system.

Second interview session was conducted in Security Office with Mrs Suhaila, Security Officer in Security Office. The objective of the interview is to gain the current workflow of the sticker application system. From the interview, the author got many information regarding the project such as the attributes need to be filled in by the student to apply sticker, the current flow of the system and also concern from the Security Office if the online application system will be applied.

#### **4.6 Discussion**

Survey form is attached in Appendix B. This survey contains 7 questions to get the end users feedbacks on the online sticker application system. The current sticker application system in UTP is by using manual system which the students need to fill in the application form, provides some required documents, pays the fee and then collects the sticker at security office once it was ready to be picked up. Hence, the author proposed to develop an online system to ease both parties that are students and Security Officers in managing this online application system.

The objective of this survey is to get the end users feedback about the current system used and try to know problems faced by student on the current system. Plus, the author also aims to gain users opinions on the suggested system which is online system application. In addition, the author would like to gather student's suggestions as those concerns by students or end users may not be in the author checklist.



The survey had been filled in by 54 respondents that comprise of male and female UTP students. 43% of them are female and 57% of them are male.

From the survey, one question asks about the day to be taken for the student to apply the sticker from Security Office once the vehicle was brought to the university. As Figure 4.6.1, 30% apply in 2-4days, 35% take 5-7 days to apply the sticker and 18% up to 8-10 days to apply sticker. In addition, 6% do take more than 10 days to apply sticker and the rest leave the answer blank. We can see more than 50% of the respondents took more than 5days to apply the sticker because of the problems arisen explain below. This shows that the system exists could not ease the student because students need to take some time to apply the sticker from the security office.

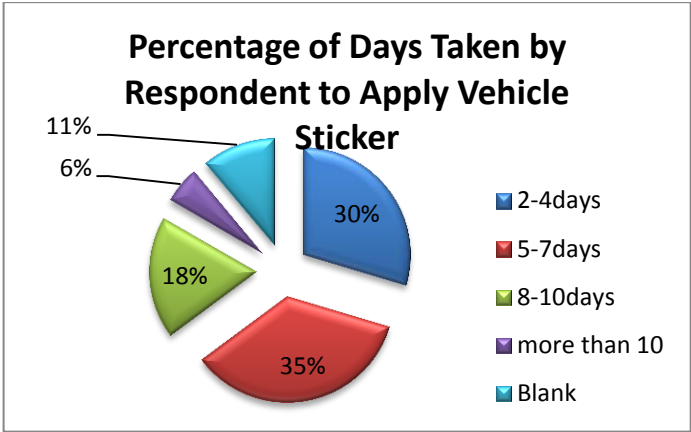


Figure 4.6.1 Percentage of Days Taken to Apply Sticker

Figure 4.6.2 shows percentage of the respondent that agree there is a difficulty in using current system. 54% of them agree there is a difficulty while 37% of them say no. However, there is some error where 9% of them did not answer either yes or now.

Several problems has been arisen by the respondents towards the current system. The current system has too much paperwork to be submitted. This problem does not apply green technology at all. Plus, the students need to queue during the sticker application at the Security Office. In addition, Security Office is also far from the village which student with lots of commitment hardly to do so. The student also needs to go to the Security Office more than one time to apply the sticker. Hence, it is lack of

efficiency. With the proposed sticker online application system, it will be able to settle down the problems faced by the students.

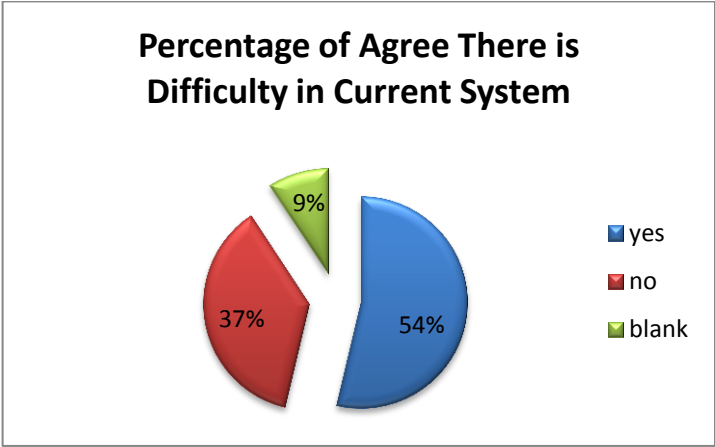


Figure 4.6.2 Percentage of Agree There is Difficulty in Current System

From the problems arisen, the author has come out with the idea to automate the system. As per Figure 4.6.3, 74% of the respondents agree to have an online system and 26% of them say no to online system.

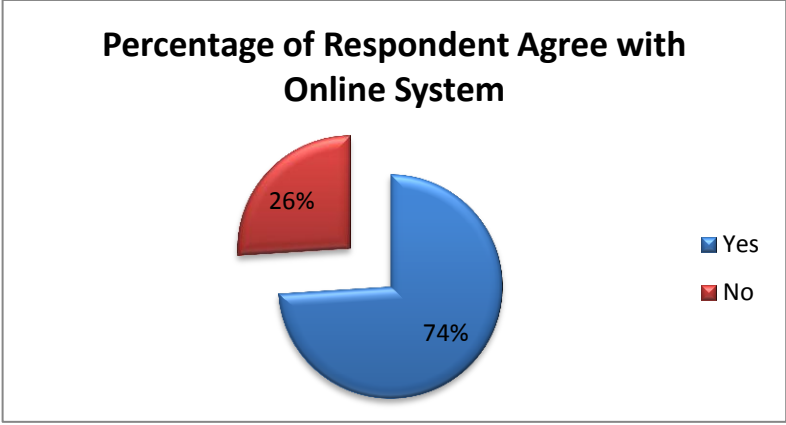


Figure 4.6.3 Percentage of Respondent Agree with Online System

Several suggestions were given by the students in order to enhance the project. The students suggest to make the online payment, give notification to the student on the sticker collection date, state the document clearly during the application and save the paper by using online system. All those suggestions are fairly considered by the author and the project supervisor.

## **CHAPTER 5**

### **CONCLUSION**

Developing Transport Sticker Application System is not really a new thing to be done. By applying this technology in the university, the complicated system turn to simple system ever. Manpower consume will be decreased. Less paper will be used and tree will be slowly growth as the deserve to. In other word, the proposed system would ease the parties involves that are students and Security Officers. Students do not need to go to Security Office many times as they can directly apply from the net. Moreover days taken for the student to apply the sticker will be lesser. Security Office also can efficiently manage the requests, database and information through web.

For this time being, the author is in the implementation phase where it might take lot of time to build a new system from zero. For the next step, the author will continue create page and connect the system to database. Furthermore, the author may add new functional to ease students and Security Officer if the project is built well.

As a conclusion, the author expects that the project can contribute and ease the society especially UTP students in applying transport sticker. The author believes the project will meet the project objectives and can deliver in the time given and good quality. In addition, the author hopes that the development of this project can encourage UTP to use green technology in all the way in align with UTP vision which is A Leader in Technology Education and Centre for Creativity and Innovation.

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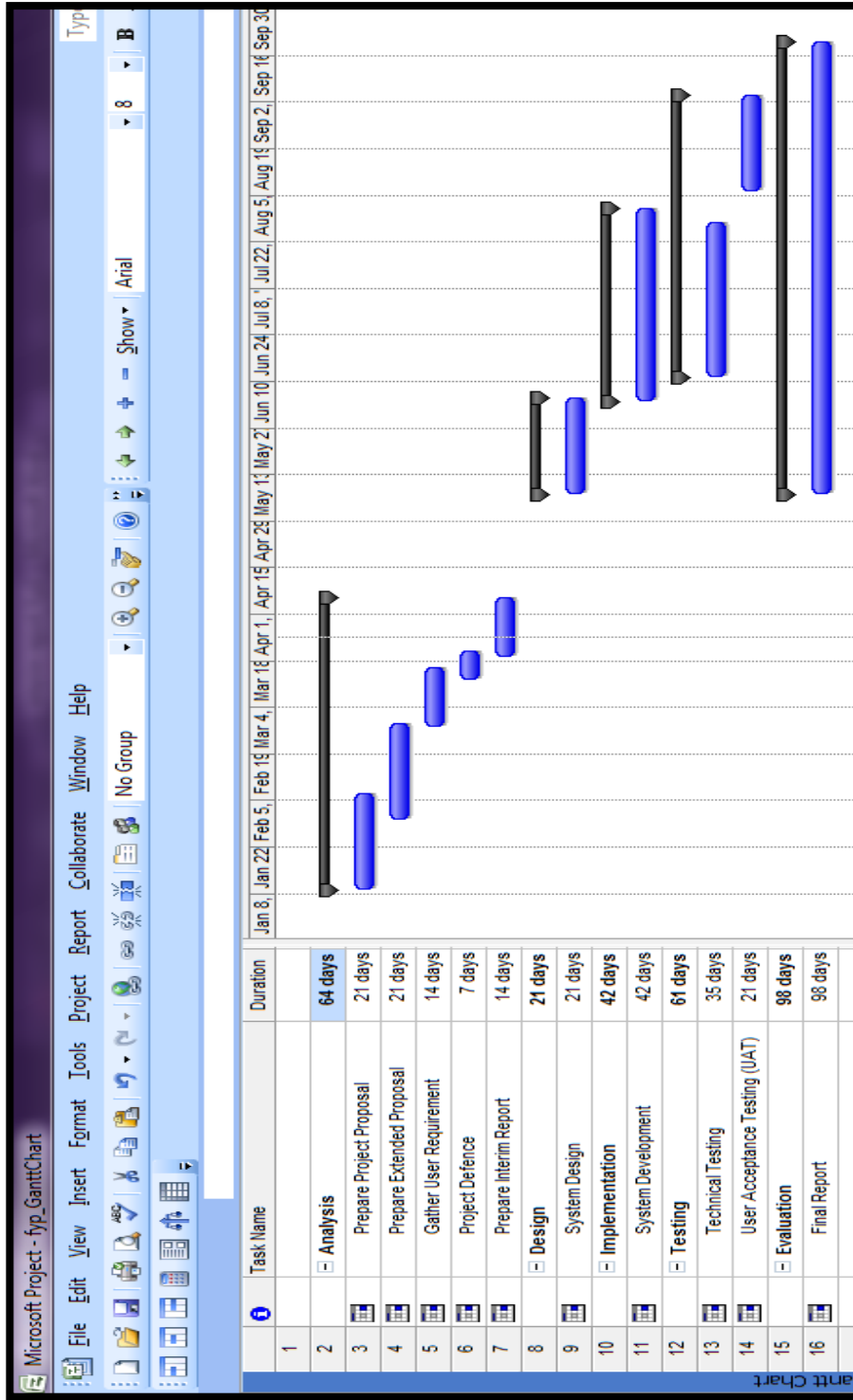
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# **APPENDICES**

# **APPENDIX A**





# **APPENDIX B**

# Transport Sticker System Application

This survey is mainly for UTP student who bring any transport inside campus. Currently, the student needs to go to Security Office to fill in the form and send a copy of Identity Card, Matric Card, Transport Grant and Licence.

## Male or Female

- Male
- Female

## Do you bring transport inside UTP?

- Yes
- No

## How long do you take to apply sticker once you bring your transport inside UTP?

- 2-4 days
- 5-7 days
- 8-10 days
- More than 10 days

## Is there any difficulty for you to apply sticker for your transport?

- Yes
- No

## If yes, define your difficulties

## Do you agree if you can apply transport sticker from your room?

1 2 3 4 5

Highly Agree      Highly Disagree

## What modification would you suggest if there is any online system for sticker application?

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# APPENDIX C