

**UTP e-Summon @nywhere**

by

Muhammad Heikal bin Ismail

Dissertation submitted in partial fulfillment of  
the requirements for the  
Bachelor of Technology (Hons)  
Business Information Systems

July 2007

Approved by:

Mr. Ahmad Izuddin Bin Zainal Abidin

Universiti Teknologi PETRONAS  
Bandar Seri Iskandar  
31750 Tronoh,  
Perak Darul Ridzuan

CERTIFICATION OF APPROVAL

**UTP e-Summon @nywhere**

by

Muhammad Heikal bin Ismail

A project dissertation submitted to the  
Business Information Systems Programme  
Universiti Teknologi PETRONAS  
in partial fulfillment of the requirements for the  
BACHELOR OF TECHNOLOGY (Hons)  
(BUSINESS INFORMATION SYSTEMS)

Approved by,



(Mr. Ahmad Izuddin Bin Zainal Abidin)

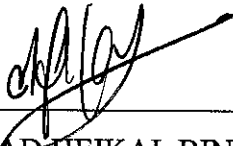
UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

JULY 2007

## CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



---

MUHAMMAD HEIKAL BIN ISMAIL

## ABSTRACT

This paper covers the development of the UTP e-Summon @nywhere as a mobile application. The report consists of FIVE (5) major topics. First, Chapter 1 Introduction explains background of the study, problem statement, system objectives and scope, the relevancy of the project, and the feasibility of the project within the scope and time frame. Second, Chapter 2 Literature Review discusses the literature review from journals, books, magazines, and the Internet as the major references for the project. Third, Chapter 3 System Approach describes the approach to be implemented to develop the project including the system development methodology and requirements-gathering techniques. Fourth, Chapter 4 Result and Discussion explains the findings of the project including the database design, graphical user interfaces, and security measures of the system. Finally, Chapter 5 Conclusion entails the overall development of the system including the system future enhancements and the future usage of the system. The methodology that will be implemented for system development is phased development-based methodology and to elicit the system information requirements, several methodologies will be adopted including one-to-one interview with the security guards, observations, and document analyses. The results explain on the interfaces and the output of the system. As a conclusion, UTP e-Summon @nywhere is developed as a mobile summon application in Universiti Teknologi PETRONAS as part of the existing computerized summon application.

## ACKNOWLEDGEMENT

First and foremost, the author would like to recite his greatest gratitude to the Most Merciful Allah for giving the opportunity to complete the Final Year Project. High gratitude goes to the project supervisor, Mr. Ahmad Izuddin bin Zainal Abidin for his guidance and assistance throughout the whole project.

Greatest appreciation goes to the author's parents and family for the encouragement and valuable advices in making this project completed

Highly appreciation goes to all the Universiti Teknologi PETRONAS's staff, colleagues and friends who had contributed to the completion of this project. They are:

- i. Mr. Norazizi – Staff, Security Department
- ii. Mr. Mohamad Asrul bin Jamaludin – Student
- iii. Ms. Lim Qi Hua – Student
- iv. Mr. Mohd Azim bin Zainudin – Student
- v. Mr. Khairul Ashraf b. Mohd. Nor – Student
- vi. Mr. Mohammad Afshar B. Jamalulalam – Student
- vii. Mr. Mohamad Asrul Jamaludin – Student
- viii. Mr. Mohd Faiz Kamaruzzaman – Student
- ix. Mr. Faizal b Mohamad Nasir – Student
- x. Mr. Shakawi Efendy bin Jamaludin – Student
- xi. Mr. Norhazarudin Bin Mat Siat – Student
- xii. Ms. Farrah Diana Kamaruddin – Student
- xiii. Ms. Noor Halizah Mohd Muhajir - Student

Last but not least, thank you to all the individuals whom their names are not mentioned here who have contributed either directly or indirectly towards the completion of the project.

Muhammad Heikal bin Ismail

## TABLE OF CONTENT

<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1. Background of Study.....	1
1.2. Problem Statement.....	2
1.3. System Objectives.....	4
1.4. System Scope.....	5
1.5. The Relevancy of the Project.....	6
1.6. Feasibility of the Project within the scope and Time Frame.....	7
<b>2. LITERATURE REVIEW.....</b>	<b>8</b>
2.1. Electronic Business and Electronic Commerce.....	8
2.2. Security Issues .....	9
2.3. Graphical User Interface.....	11
2.4. Mobile Applications in Malaysia.....	12
<b>3. SYSTEM APPROACH.....</b>	<b>13</b>
3.1. System Methodology.....	13
3.2. System Architecture.....	15
3.3. Requirements-gathering Techniques.....	16
3.4. System Tools.....	17
3.5. Activity Diagram.....	18
3.6. Use Case Diagram.....	20
3.7. Database Structure.....	20
3.8. System Functionalities.....	21
3.9. System Features.....	22

<b>4. RESULT AND DISCUSSION.....</b>	<b>23</b>
4.1. System Graphical User Interface – Security’s Pocket.....	23
4.2. System Graphical User Interface – Student’s Pocket.....	32
4.3. Database Management System .....	35
4.4. File Management System .....	37
4.5. Security Measures .....	38
4.6. User Privileges.....	44
4.7. System Evaluation.....	45
<b>5. CONCLUSION AND RECOMMENDATION.....</b>	<b>46</b>
5.1. Overview.....	46
5.2. Conclusion.....	46
5.3. System Enhancements.....	47
5.4. Recommendation.....	47
<b>REFERENCE.....</b>	<b>48</b>
<b>APPENDICES.....</b>	<b>49</b>
Appendix 1: Students Disciplinary Rules & Regulations.....	50
Appendix 2: Offline summon record checking advertisement .....	53
Appendix 3a: UTP e-Summon @nywhere Security’s Pocket Questionnaire.....	55
Appendix 3b: UTP e-Summon @nywhere Student’s Pocket Questionnaire.....	57

## List of Figures

Figure 1.1: Processes in UTP manual summon system.....	1
Figure 3.1: Phased development-based methodologies.....	14
Figure 3.2: The network architecture of UTP e-Summon @nywhere.....	15
Figure 3.3a Activity Diagram for Security’s Pocket.....	18
Figure 3.3b Activity Diagram for Student’s Pocket.....	19
Figure 3.4 UTP e-Summon @nywhere Use Case Diagram.....	20
Figure 3.5 UTP e-Summon @nywhere auto-generated summon report.....	22
Figure 4.1 Login process interfaces.....	23
Figure 4.2 Logout process interfaces.....	24
Figure 4.3 Change password process interfaces.....	25
Figure 4.4 Discipline summon process interfaces.....	26
Figure 4.5 Traffic summon process interfaces.....	27
Figure 4.6a Discipline Offence Configuration process interfaces.....	28
Figure 4.6b Discipline Offence Configuration database.....	29
Figure 4.7a Traffic Offence Configuration process interfaces.....	30
Figure 4.7b Traffic Offence Configuration.....	31
Figure 4.8 Login process interfaces.....	32
Figure 4.9 Change password process interfaces.....	33
Figure 4.10 Summon report process interfaces.....	34
Figure 4.11 File Management System – picStudent folder.....	28
Figure 4.12 Last login date log.....	29
Figure 4.13 Last password change date log.....	30
Figure 4.15 Password-protected user-blocked login log.....	31
Figure 4.16 Password expiry remaining days check.....	42
Figure 4.17 Password expiry check.....	43
Figure 4.18 Administrator privilege and User privilege.....	44



## List of Tables

Table 4.1(a) <b>tblGuard</b> - Store the data about the Guards.....	35
Table 4.1(b) <b>tblOffenceD</b> - Store the data about the Discipline Offence.....	35
Table 4.1(c) <b>tblOffenceT</b> - Store the data about the Traffic Offence.....	36
Table 4.1(d) <b>tblStudent</b> - Store the data about the Student.....	36
Table 4.1(e) <b>tblVe</b> - Store the data about the student's vehicle.....	36
Table 4.1(f) <b>tblSummonT</b> - Store the student's traffic summon record.....	36
Table 4.2a Result of user testing for Security's Pocket.....	45
Table 4.2b Result of user testing for Student's Pocket.....	45

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of Study

Universiti Teknologi PETRONAS adopts the summon approach to control the discipline of the students and to ensure the healthy academic environment. The Security Department of the university is responsible for the approach and to implement that, the department is using a manual summon ticketing system to record the summon transaction and the recorded summon data will be entered into the existing computerized summon system for record management purposes.

However, the manual summon ticketing system and the existing computerized summon system seems to have some drawbacks that creates problems in terms of record management and data processing and it will further be discussed in Section 1.2 Problem Statement.

Figure 1.1 illustrates the UTP manual summon system processes:

1. The security guards issue summon ticket to the student who commit offence
2. The security guards submit the copy of the ticket to the data entry clerk in Security Department
3. The data is entered into the UTP computerized summon database

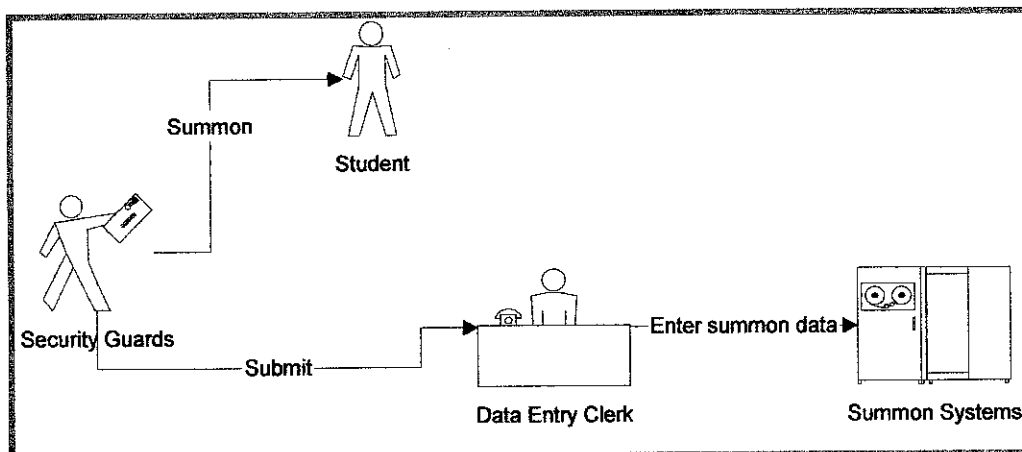


Figure 1.1: Processes in UTP manual summon system

## **1.2 Problem Statement**

In this manual summon system, the security guards are currently using manual pen-and-ink summon ticketing system. The security guards will write down all the details of the students' offences on the summon forms and submit them to the Security Department. Then, the data entry clerk will key in all the data into the existing computerized summon system.

### **1.2.1 Problem Identification**

This manual ticketing system and the current computerized system leads to several problems:

- i. **Lack of student information integrity**  
The manual summon ticketing system requires security guards to manually write down the details of student personal information. The security guards might wrongly record the personal information including the student's name and student ID.
- ii. **No standardization of the offence rules and regulations**  
There is no standardization of the offence rules and regulations in the manual summon ticketing system. For example, there is no fix offence charges provided. Therefore, the security guards might record the offence types and charges differently among each other.
- iii. **Error-prone summon recording approach**  
Manual summon ticketing system requires data entry clerk to enter the offence data into the existing computerized system. There is a risk of handwriting misinterpretation and wrong data might be wrongly recorded that will result in data redundancy and erroneous output.

### **1.2.1 Significant of the Project**

UTP e-Summon @nywhere provides solutions to the current manual summon ticketing approach as it serves as a new method of computerized summon ticketing approach in the very first place for summon management.

i. UTP e-Summon @nywhere as Business Process Improvement

UTP e-Summon @nywhere utilizes the current digital technology to digitize the manual summon system. The system will automatically load the data from the computerize database and allows the security guards to use the handheld device on which the system is embedded and perform the transactions. This approach will ensure the information integrity and accurate summon transactions. Furthermore, it improves the summon process through student authentication feature and assists the students to generate their summon report through the system's one-click auto-generated summon report feature.

ii. UTP e-Summon @nywhere as new nation's ICT business solution

To be aligned with K-Perak 2010, UTP e-Summon @nywhere is one of the ICT solutions that can be one of the products offered to the government. Since mobile applications are still growing in Malaysia and mobile summon has never existed in this country, UTP e-Summon @nywhere could serve the government's Royal Malaysian Police (PDRM) summon system.

### 1.3 System Objectives

UTP e-Summon @nywhere aims to promote better summon recording approach in a wireless way. The objectives of the system are:

- i. To ensure the student information integrity  
UTP e-Summon @nywhere will retrieve the student personal information from the system database and the security guards will not have to write down all the student personal details.
- ii. To standardize the offence rules and standards  
UTP e-Summon @nywhere will enable the security department to configure the offence rules and standards such as offence codes, types, and charges. The system will retrieve the configured rules and standards for every summon transaction avoiding the security guards to easily setting up the summon charges.
- iii. To reduce the risk of errors  
UTP e-Summon @nywhere eliminates the manual data entry task. There is no more handwriting interpretation and the summon transaction data will be directly stored electronically into the database.
- iv. To assists the students with summon record checking  
UTP e-Summon @nywhere enables the students to do the online summon record checking and generate the excel sheet report that will be automatically saved in their workstations. This will eliminate the hassle of offline checking in the security's office. Refer to Appendix 2 for offline summon record checking advertisement in the university.

## 1.4 System Scope

UTP e-Summon @nywhere consists of TWO (2) different applications for TWO (2) groups of personnel within UTP:

- i. Security guards – UTP e-Summon @nywhere Security’s Pocket  
The security guards are the primary users of UTP e-Summon @nywhere. In this system, they can use the UTP e-Summon @nywhere Security’s Pocket to:
  - Perform the summon transactions
  - Configure the offence rules and standards
  
- ii. Students - UTP e-Summon @nywhere Student’s Pocket  
Students are the secondary users of UTP e-Summon @nywhere. In this system, they can use UTP e-Summon @nywhere Student’s Pocket to:
  - Receive the summon notification through online report system
  - Generate summon report through the one-click auto-generated report feature

## 1.5 The Relevancy of the Project

UTP e-Summon @nywhere could be relevantly developed because of the following factors:

i. There is a sufficient wireless fidelity technology in UTP

UTP is current establishing the WiFi area to improve the Internet connection within the university. The connection is could be used in the new complex building, cafes and the student colleges. By using this WiFi technology, UTP e-Summon @nywhere could be developed and used within the university.

ii. There is sufficient ICT infrastructure in UTP for the system

UTP e-Summon @nywhere requires moderate ICT devices such as computer server, workstation, wireless access points, and networks and UTP has the sufficient ICT infrastructure that consists of the required devices. There are no extensive additional hardware requirements for the development of the system.

iii. User-friendly system for security guards and student

The system uses Visual Basic which is the Microsoft's programming language. The system screen will look exactly the same as Microsoft Office products. Based on the informal interview, the security guards do have the experience in using Microsoft Office products. Hence the security guards will have no problems in using the system. In fact, the system is easy to used with additional training.

iv. Could cater for both discipline summon and traffic summon

The system is developed to cater for all summon businesses and hence the system could be used for traffic summon and discipline summon. The UTP e-Summon @nywhere adopt the one-system-fits-all approach.

## **1.6 Feasibility of the Project within the scope and Time Frame**

UTP e-Summon @nywhere could be developed and used within the scope and could be developed on track within the time frame.

### **1.6.1 Feasibility of the Project within the scope**

UTP e-Summon @nywhere could be developed and used within the scope. This system will be developed within the university itself and will be used by the university's security guards and students. For the development part, the author could easily interview the security guards and students of the university to gather the information requirement, develop and test the system in the university for the feedback. Thus, the development of the system could be done easily without having to be outside for requirement gathering techniques and for the system development and testing.

### **1.6.2 Feasibility of the Project within the time frame**

Based on the schedule, the UTP e-Summon @nywhere could be developed and deployed. At the current moment, the prototype has been developed and several important features have been included. For the rest of the development and extra features to be developed, the author confident that the tasks could be done within the predetermine time frame.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Electronic Business and Electronic Commerce

Electronic business is defined as digital enablement of transactions and processes within a firm, involving information systems under the control of the firm while electronic commerce is the digital enablement of commercial transactions and processes between and among organizations and individuals with the user of the Internet and the Web [1].

However, most of the time, people get confused between electronic business and electronic commerce. Most people use the term electronic commerce and electronic business interchangeably [2]. The author thinks that it is important to make a working distinction between e-commerce and e-business because they are technically different.

Some argue that e-commerce encompasses the entire world electronically based organizational activities that support a firm's market exchanges – including a firm's entire information system's infrastructure [3]. Others argue, on the other hand, that e-business encompasses the entire world of internal and external electronically based activities, including e-commerce [4].

An e-business does not include commercial transactions involving an exchange of value across organizational boundaries unlike the e-commerce that involve the commercial transactions across the firm's boundaries.

However, e-business infrastructure provides support for online e-commerce exchanges. E-commerce and e-business systems blur together at the business firm boundary, at the point where internal at the business systems link up with supplier or customers.

Thus, UTP e-Summon @nywhere is an e-business application, not the e-commerce application.

## 2.2 Security Issues

Mobile applications are similar to all other electronic applications in terms of security needs. To ensure that all data are accessible to the authorized person and to ensure that the authorize person could access certain area of the application, several security measure must be incorporated into the system. The security measures could range from simple methods to the more complex methods that involve extensive costs.

A simple way yet very effective as a gateway to application is the username and password. The username and password are used as authorization and authentication methods. The username identify the authorize user who could access the system and the password proves that the user is who he or she claims to be [5]. They act as the first layer of defensive security measures. Hence, they ensure that all data are accessible to the authorized person and to ensure that only certain area of the system are accessible to the authorize user.

Apart of username, password, and encryption, another useful and effective technique is to create transaction log in the system database. In this approach, the system records several transactions data into the database including:

- i. Last login date
- ii. Last password change date
- iii. Account status

This approach allows the system administrator to view the transaction logs and detect any hacking attempt or unauthorized access by examining the last login date, last password change date. Furthermore, failure login attempts for several times would suspend the user from using the system and the account status will be changed.

To ensure that all users periodically change the password, one security measure could also be adopted which is the password expiry check. This security measure checks the user last login date and calculate the remaining days left for password change based on predetermined password usage days. The system will:

- i. Prompt the user how many days left before the password expires
- ii. Prompt the user to change the password once the remaining days is less or equal to zero

This password expiry check will ensure that the users' passwords are changed periodically to avoid a long-term of fake authorize access [6].

## 2.3 Graphical User Interface

When an application needs to provide many functions from which the user can choose, it might not be practical to use buttons to trigger these functions. A large number of buttons can clutter the form, making it look messy as well as making it difficult to the user to locate the needed function or button. In such cases, a menu will be a good alternative [7].

Implementing the menu is not the only decision for graphical user interface. Another additional approach is multiple document interface (MDI). In MDI, several documents of similar nature are loaded in different windows of the same project at the same time. Each document appears on a window (forms) and handles different data (document), but behaves in the same manner and share the same menu bar. All these documents are child forms of the MDI (parent). There is a parent-child relationship between these documents and the MDI form [8].

Since UTP e-Summon @nywhere is planned to be developed in Microsoft Visual Basic.NET, the author plan to incorporate both menu and MDI application.

Menus will be used to group all functions into summon processes for example summon traffic summon report and discipline summon report could be grouped as 'Report'. MDI application enables security guards to view the system's screens in more organized way, allowing one screen (the child) to be opened within another screen (parent) and appears to be just like a single screen.

## **2.4 Mobile Applications in Malaysia**

Malaysia, to realize Vision 2020 which is the nation's strategic plan to elevate the country to developed nation status by 2020, has created Multimedia Super Corridor (MSC). MSC is one of the world's most exciting Information & Communication Technology (ICT) initiatives offered by Malaysian government to the global community

Six flagship applications have been developed in the MSC to accelerate the realization of Vision 2020. These flagship applications are:

- i. Electronic Government
- ii. Multi-Purpose Card
- iii. Smart School
- iv. Telehealth
- v. R&D Cluster
- vi. E-Business

[9]

UTP e-Summon @nywhere conform to the MSC efforts to establish an electronic government. It could serve an electronic application and the university acts as an incubator for the development of the mobile summon application. Once proven to be successfully deployed, the UTP e-Summon @nywhere could be further extended for PDRM use for Malaysia's summon system. Thus UTP e-Summon @nywhere is worth developing as it supports Malaysia's MSC effort and Malaysia's Vision 2020.

## **CHAPTER 3**

### **PROJECT APPROACH**

#### **3.1 System Methodology**

UTP e-Summon @nywhere will be developed based on Phased Development-based methodology. The phased development-base methodology breaks overall UTP e-Summon @nywhere into a series of versions that are developed sequentially.

As TWO (2) applications in the system, they are SIX (6) major components in UTP e-Summon @nywhere that will be developed sequentially (see Figure 3.1):

1. UTP e-Summon @nywhere Security's Pocket:
  - i. System version 1 – System Log functions
  - ii. System version 2 – Summon functions
  - iii. System version 3 – Configuration functions
  
2. UTP e-Summon @nywhere Student's Pocket:
  - i. System version 4 – System Log functions
  - ii. System version 5 – Summon Notification functions
  - iii. System version 6 – Summon Report function

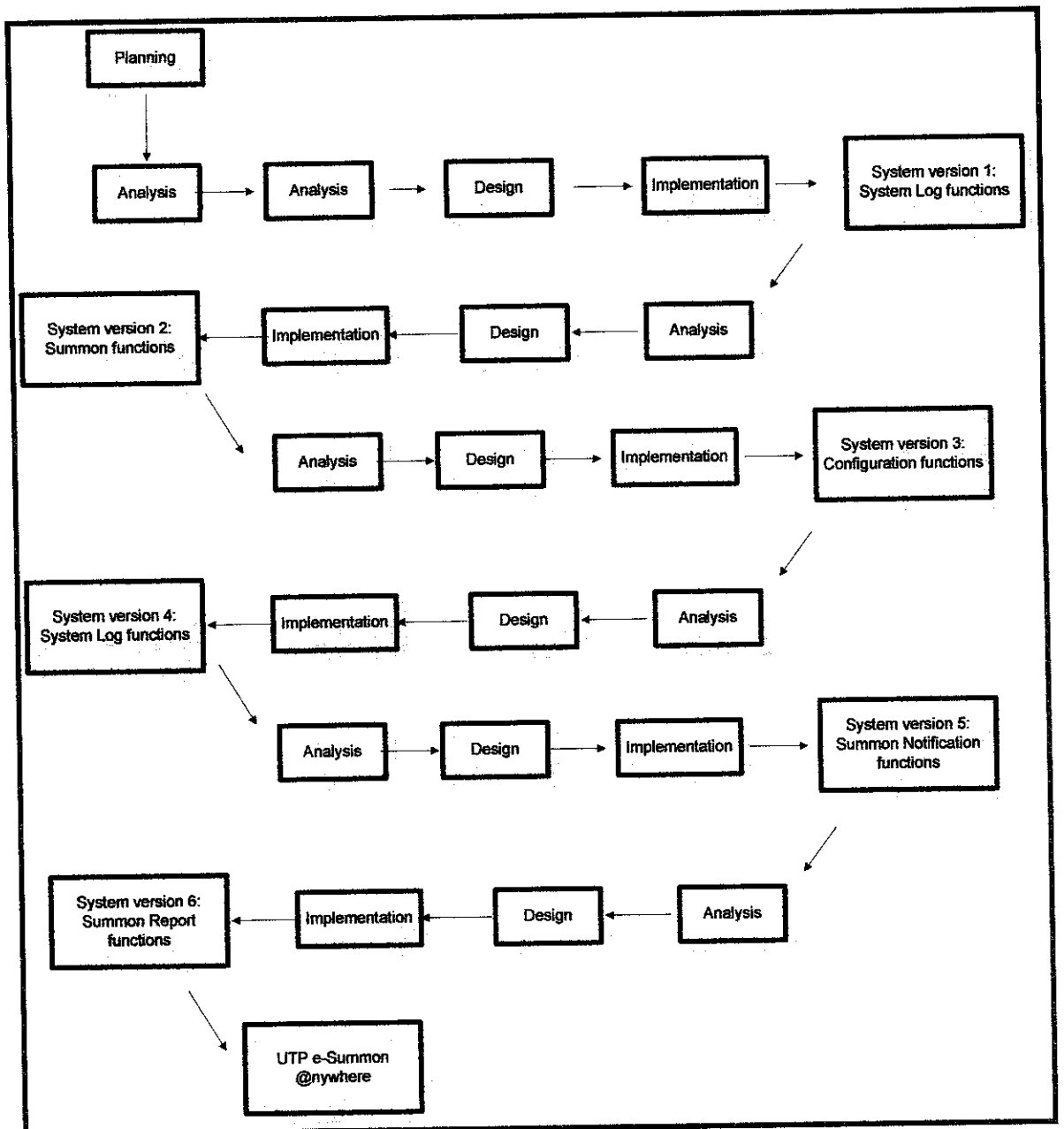


Figure 3.1: Phased development-based methodologies for UTP e-Summon @nywhere

### 3.2 System Architecture

The architecture of UTP e-Summon @nywhere comprises of FOUR (4) components (see Figure 3.2):

i. Personnel

Personnel are the users of UTP e-Summon @nywhere. They are security guards and the students.

ii. Handheld device/Workstation

Tablet PC is used as handheld device to conduct the transactions for security guards. Workstation is the students' computer to view the summon notifications and generate summon report.

iii. Network

In UTP e-Summon @nywhere comprises of TWO (2) types of local area network which are wireless local area network and wires local area network.

iv. Database server

Database in UTP e-Summon @nywhere consists of ONE (1) central databases which are the system core database.

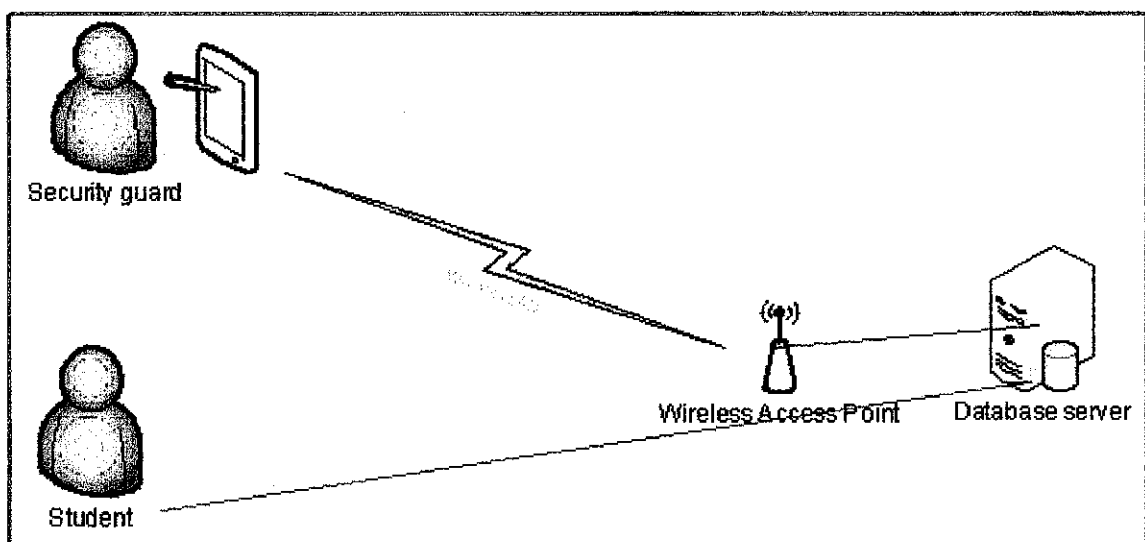


Figure 3.2: The network architecture of UTP e-Summon @nywhere



### **3.3 Requirements-gathering Techniques**

In UTP e-Summon @nywhere, there are several information gathering methodologies to be adopted include:

i. One-to-one interview

One-to-one interview involves interviewing the security guards that stationed at the summon area to determine how the summon transactions are conducted and what kind of offences included in the summon rules and regulations.

ii. Observation

To determine what are the processes that should be included in the system, observation could be used to analyze the system weaknesses.

iii. Personal experience

The experience of being summoned by the security guards could be used by the author to analyze the summon ticketing system and determine what are the data to be collected during summon transaction by analyzing the summon tickets.

iv. Document analyses

All the summon offences details could be extracted from the university's student disciplinary rules and regulations handbook to determine what offences should be included in the system and other related offence details including the offence charges.

v. Questionnaire

To see whether the users would like to implement the system, a structured questionnaire will be given to the security guards and students to analyze the effectiveness of the system to both potential users. Refer to Appendix 3a and Appendix 3b for the questionnaire forms.

### **3.4 System Tools**

The system tools are the hardware and the software that are crucial for the development of the system. Below are the lists of the hardware and software requirements for UTP e-Summon @nywhere.

#### **3.4.1 Hardware**

- i. Workstation that act as a server
- ii. Tablet PC
- iii. Wireless access point
- iv. Router

#### **3.4.2 Software**

- i. Microsoft Office Access
- ii. Microsoft Office Excel
- iii. Microsoft Visual Studio.NET 2003

### 3.5 Activity Diagram

Figure 3.3a shows the activity diagram for Security's Pocket.

Figure 3.3b shows the activity diagram for Student's Pocket

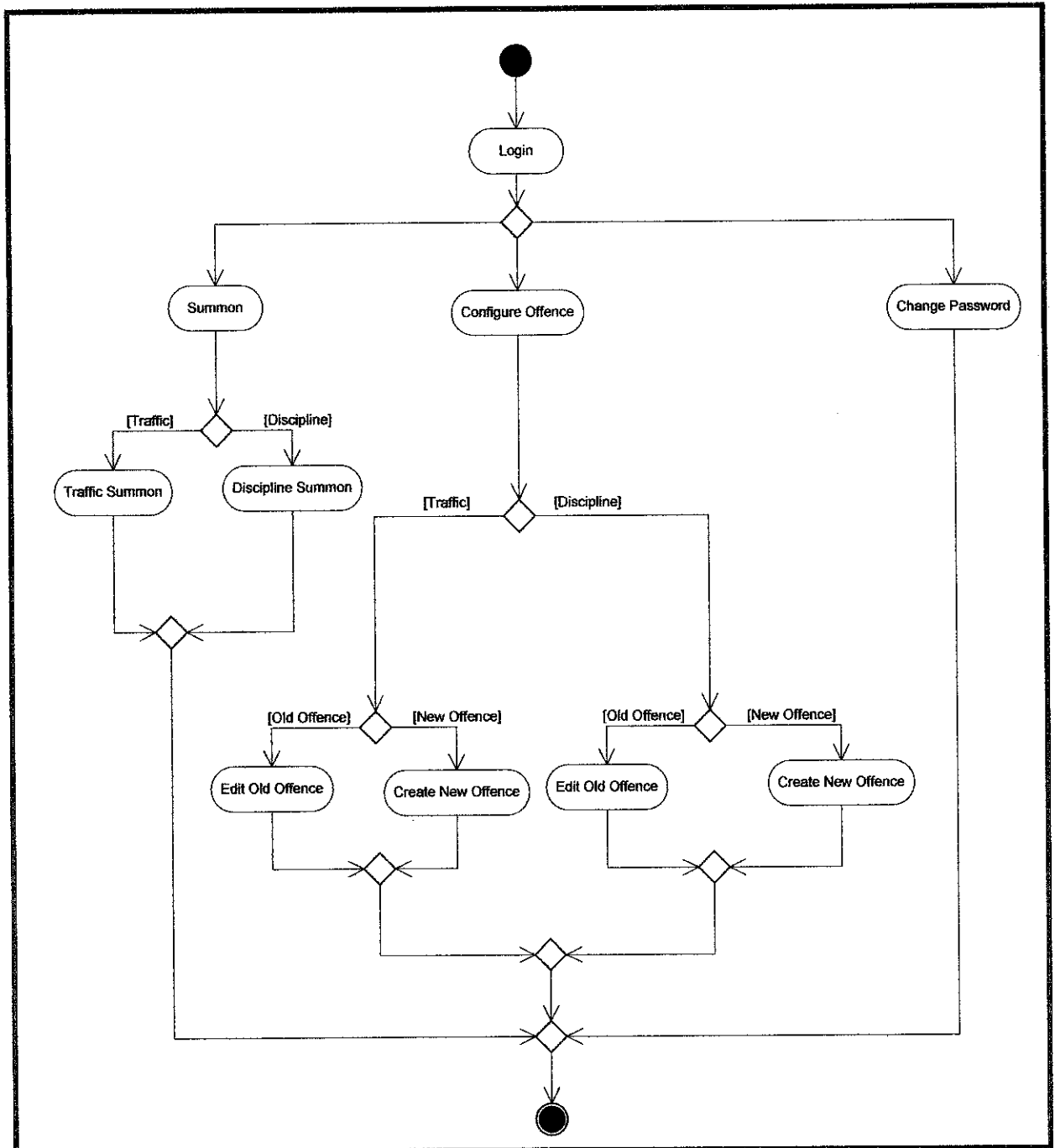


Figure 3.3a Activity Diagram for Security's Pocket

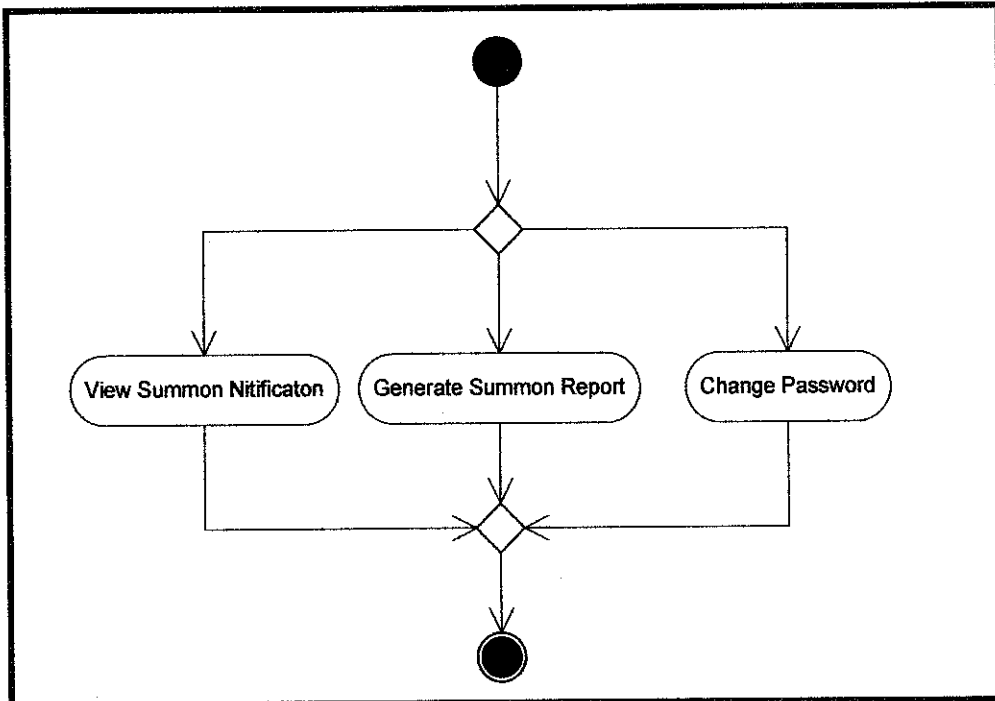


Figure 3.3b Activity Diagram for Student's Pocket

### 3.6 Use Case Diagram

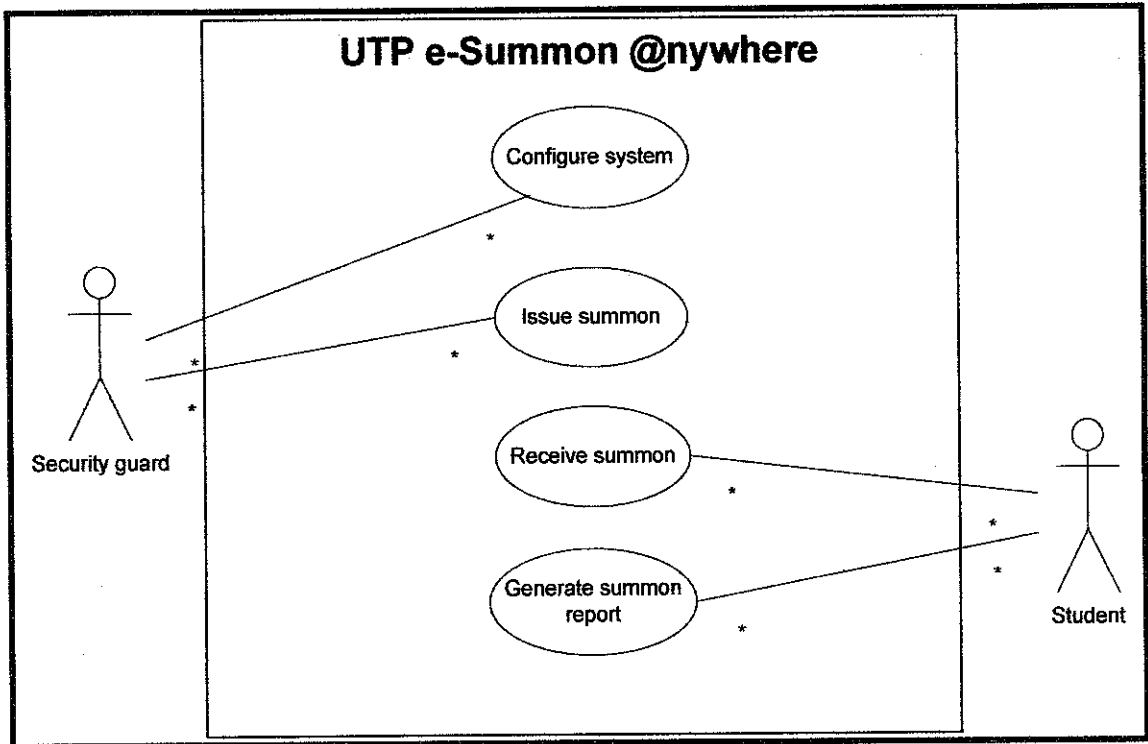


Figure 3.4 UTP e-Summon @nywhere Use Case Diagram

### 3.7 Database Structure

The description below is the structure of the database implementation in UTP e-Summon @nywhere:

- i. The database that will be used is Microsoft Office Access 2003 as the database will be located in one server using Microsoft platform
- ii. The system will consist of ONE (1) central databases
- iii. The database will be stored in one single database server

### **3.8 System Functionalities**

The system functions have been determined in the development process and the system consists of SIX (6) functions:

1. UTP e-Summon @nywhere Security's Pocket:
  - i. **Summon Ticketing**

This function is the main function of the system in which it allows the security guards to perform the summon transactions wirelessly.
  - ii. **Summon Configuration**

The system will allow the security guards that have the administrator privilege to configure the summon structure details including the offence code, the offence category and description, and the offence charges.
  - iii. **System Logging**

This function will concentrate on the system utilities including change password, login and logout processing.
  
2. UTP e-Summon @nywhere Student's Pocket:
  - i. **Summon Notification**

The system will notify the students all the summons they have been issued for both traffic and discipline summon.
  - ii. **Summon Report**

This function allows the students to automatically generate the summon report on the excel sheet that will be automatically saved in their workstations. This report could be used as summon slip for summon payment.
  - iii. **System Logging**

This function will concentrate on the system utilities including change password, login and logout processing.

### 3.9 System Features

Apart from the system functionalities, the system also offers other important features necessary for summon recording approach. There are:

i. Auto-generated summon report

UTP e-Summon @anywhere Student's Pocket enables the students to generate the summon report for themselves that will automatically saved in their computers. That report could be used for summon payment (See Figure 3.4).

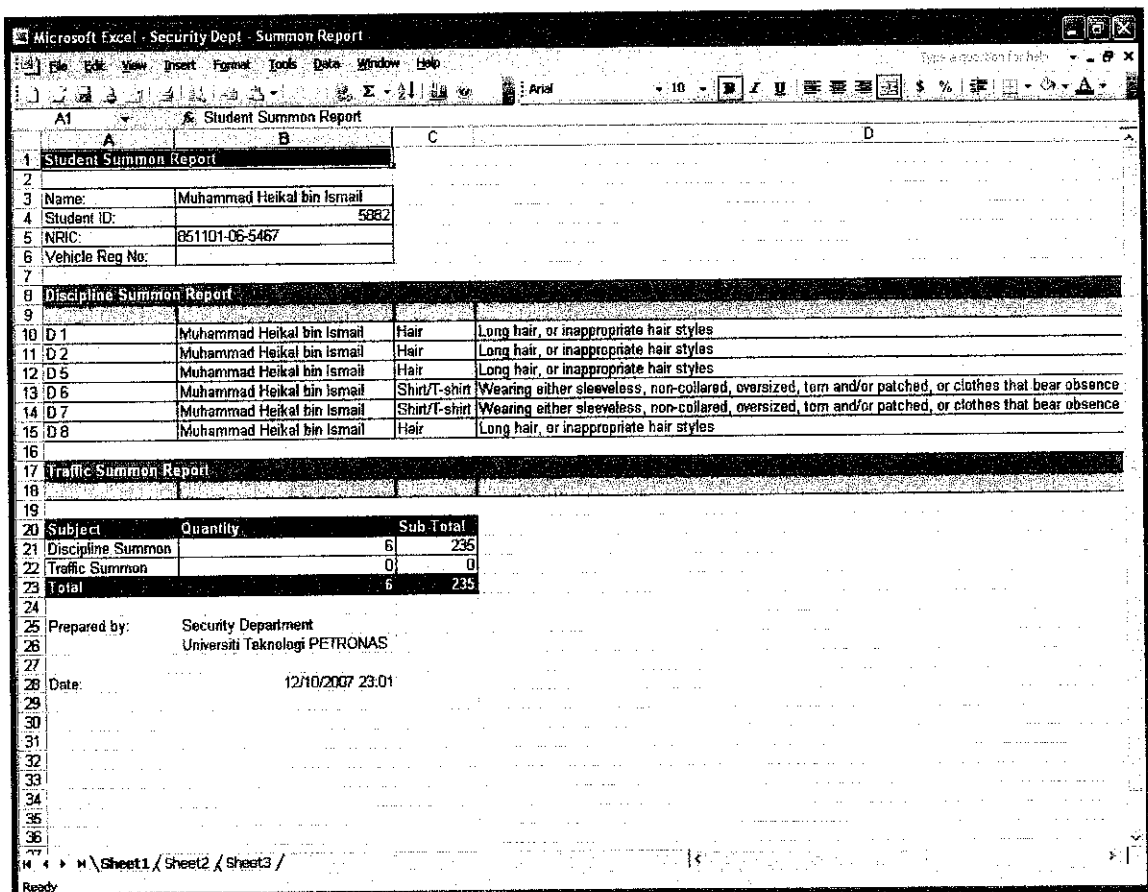


Figure 3.5 UTP e-Summon @anywhere auto-generated summon report

ii. Picture retrieval


In order to avoid false information from students who might provide false Student ID for example, the UTP e-Summon @anywhere Security's Pocket will retrieve the student picture direct from the database to ensure the students are as who they claim to be.

## CHAPTER 4

### RESULT AND DISCUSSION

#### 4.1 Graphical User Interface – Security's Pocket

##### 4.1.1 Login

- i. Go to System → Login OR click the Login button 
- ii. Enter the User ID and Password

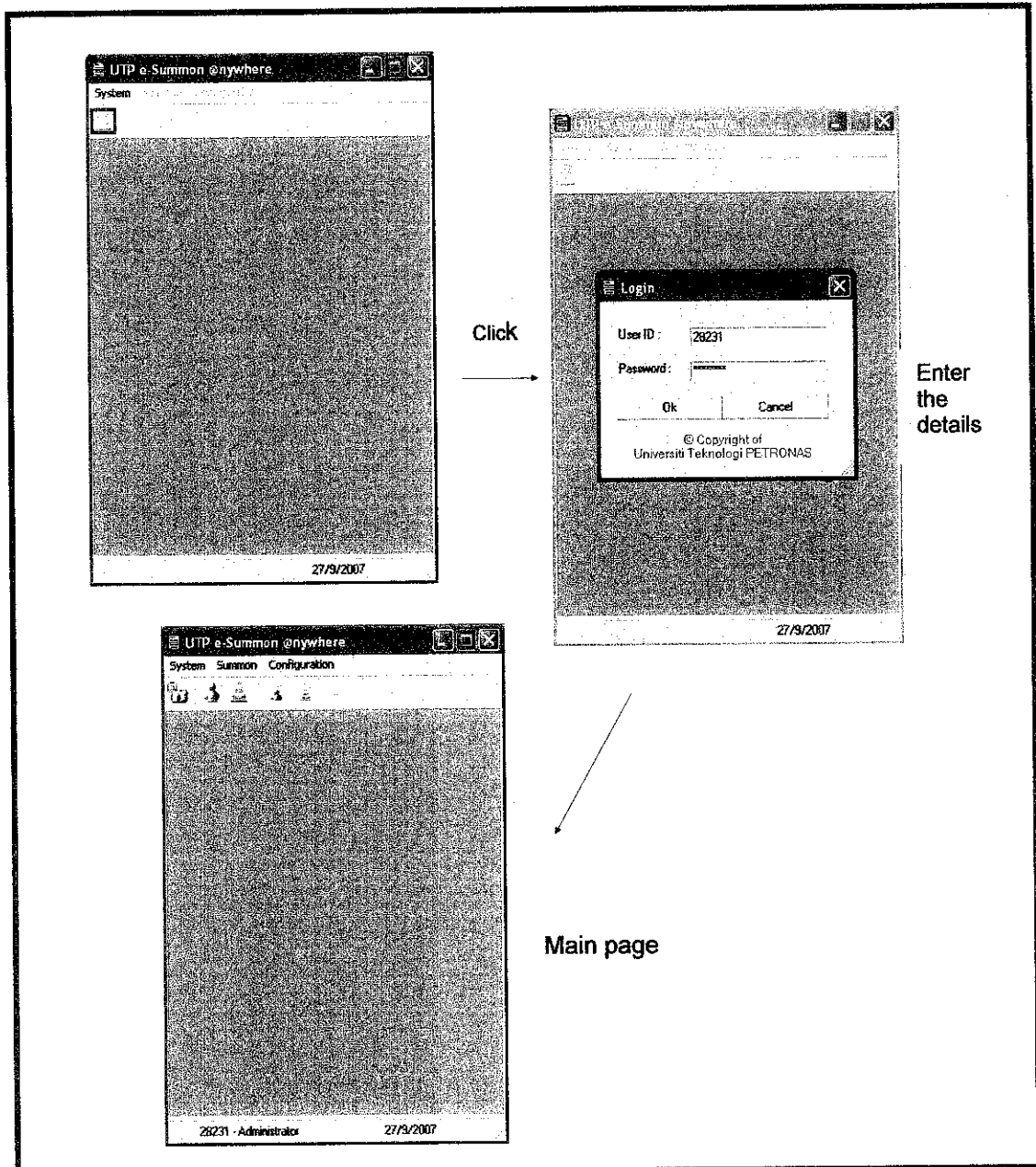



Figure 4.1 Login process interfaces



## 4.1.2 Logout

- i. Go to System → Logout OR click the Logout button 
- ii. Click Yes to Logout

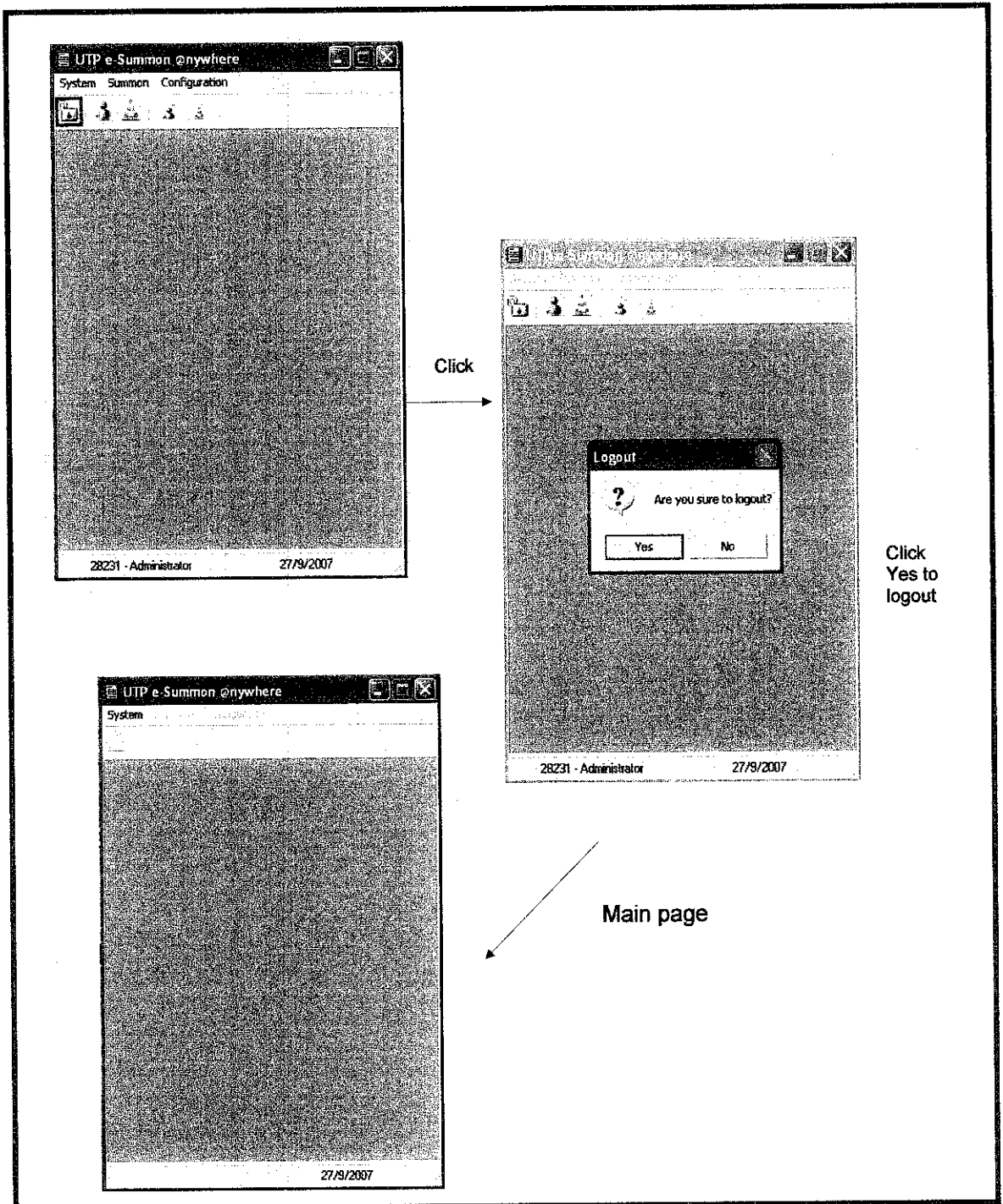


Figure 4.2 Logout process interfaces

### 4.1.3 Change Password

- i. Go to System → Change Password
- ii. Enter the details
- iii. Click Save button

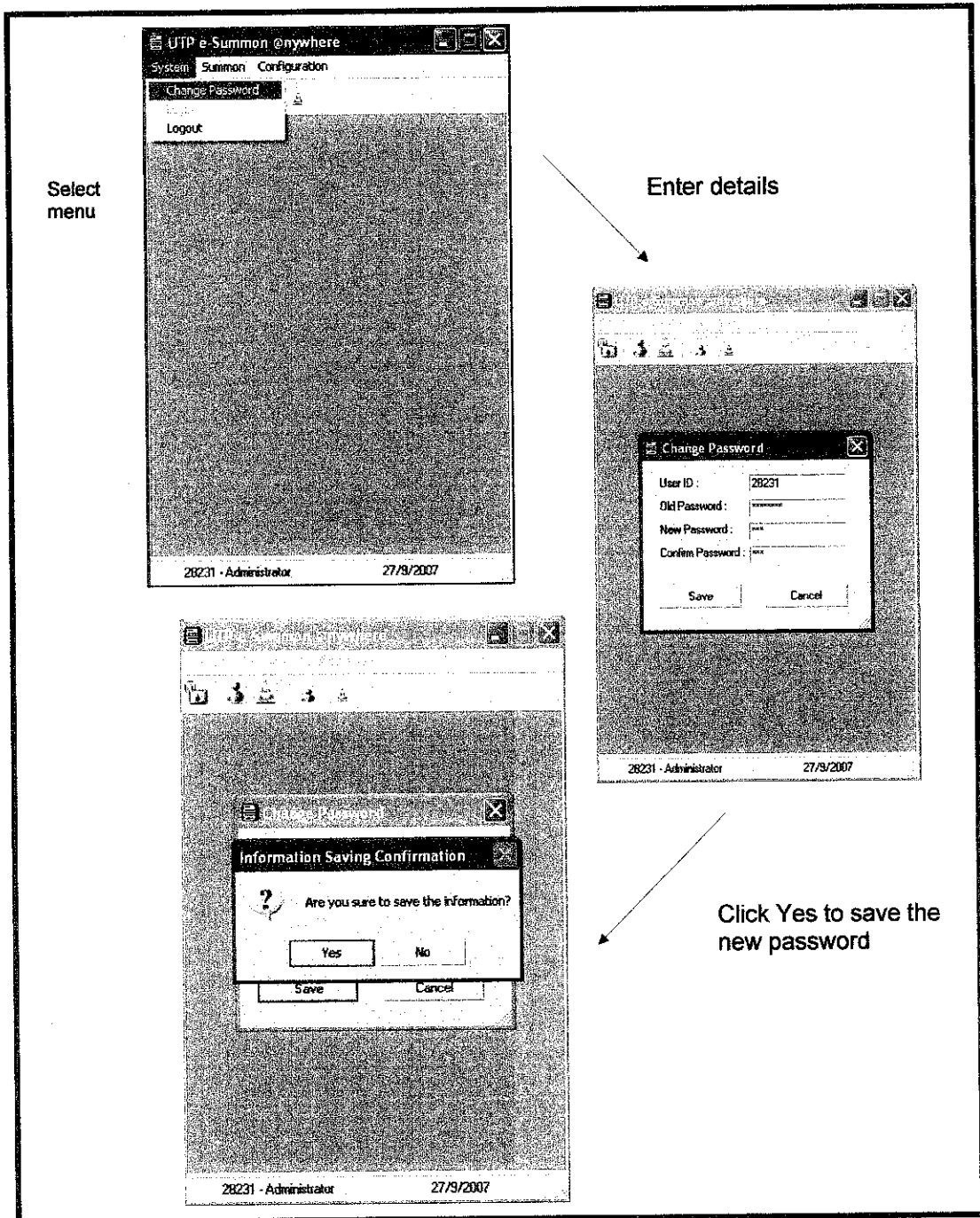


Figure 4.3 Change password process interfaces

#### 4.1.4 Discipline Summon

- i. Go to Summon → Discipline OR click the Discipline Summon button



- ii. Enter the Student ID and click Search button
- iii. Click the Summon button. The Summon Ticket screen will pop out
- iv. Enter the details and click Save button

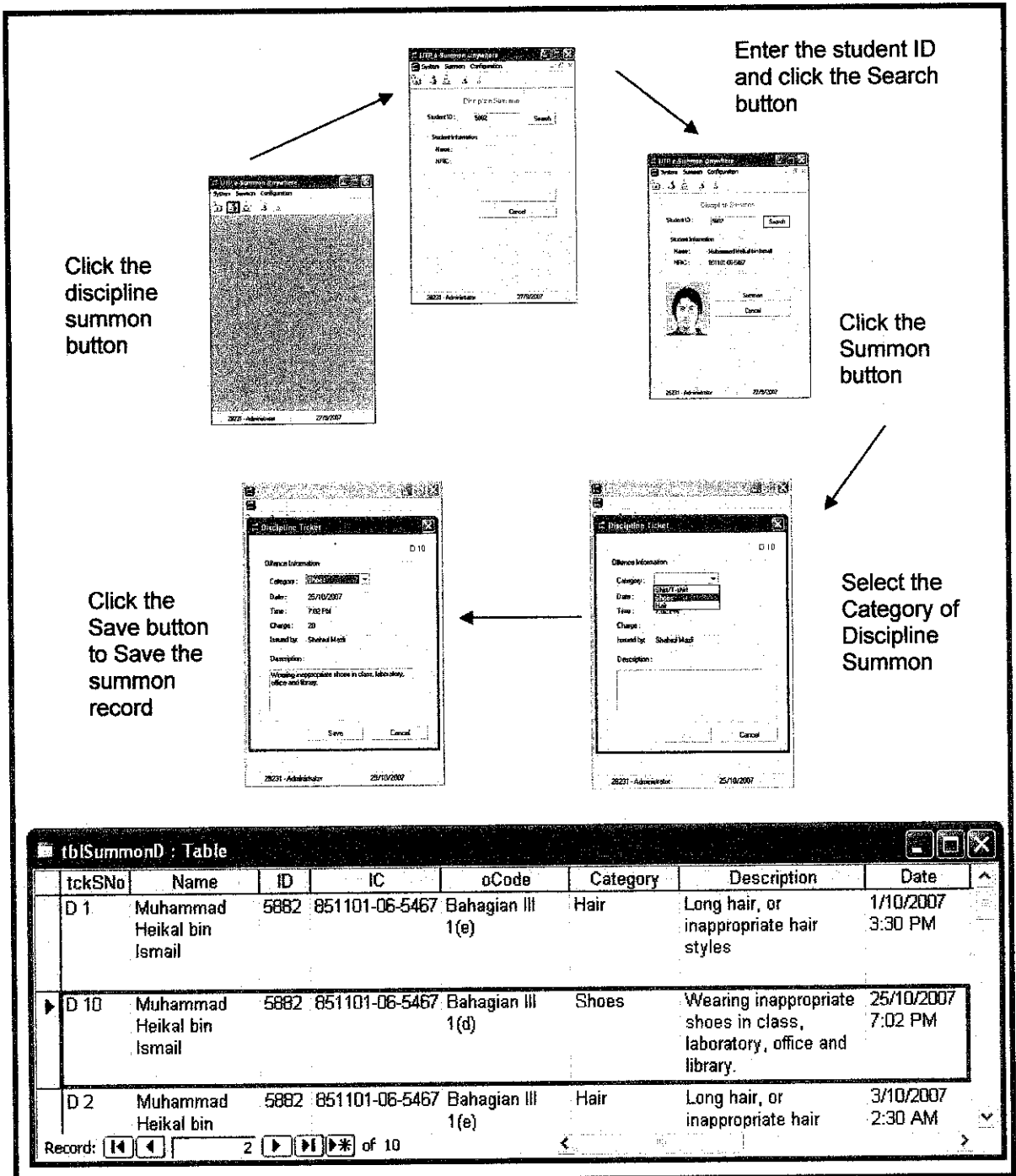



Figure 4.4 Discipline summon process interfaces

### 4.1.5 Traffic Summon

- i. Go to Summon → Traffic OR click the Traffic Summon button 
- ii. Enter the details and click Search button
- iii. Click the Summon button. The Summon Ticket screen will pop out
- iv. Enter the details and click Save button

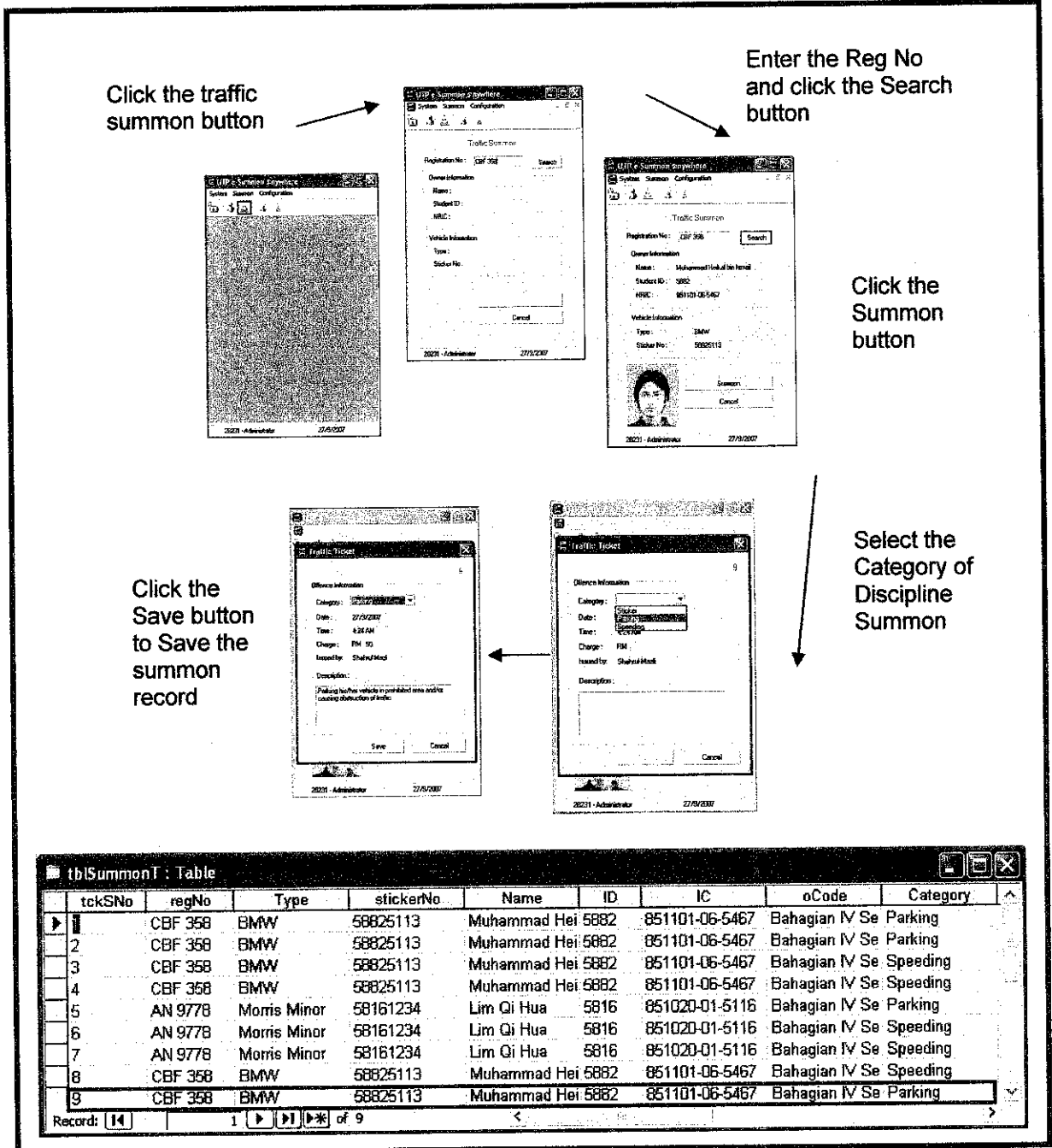



Figure 4.5 Traffic summon process interfaces

#### 4.1.6 Discipline Offence Configuration

- i. Go to Configuration → Discipline OR click the Discipline Offence Configuration button 
- ii. Select the Category to configure.
- iii. Click the Edit button. The Discipline Offence Configuration Editor screen will pop out
- iv. Enter the offence details and click Save button

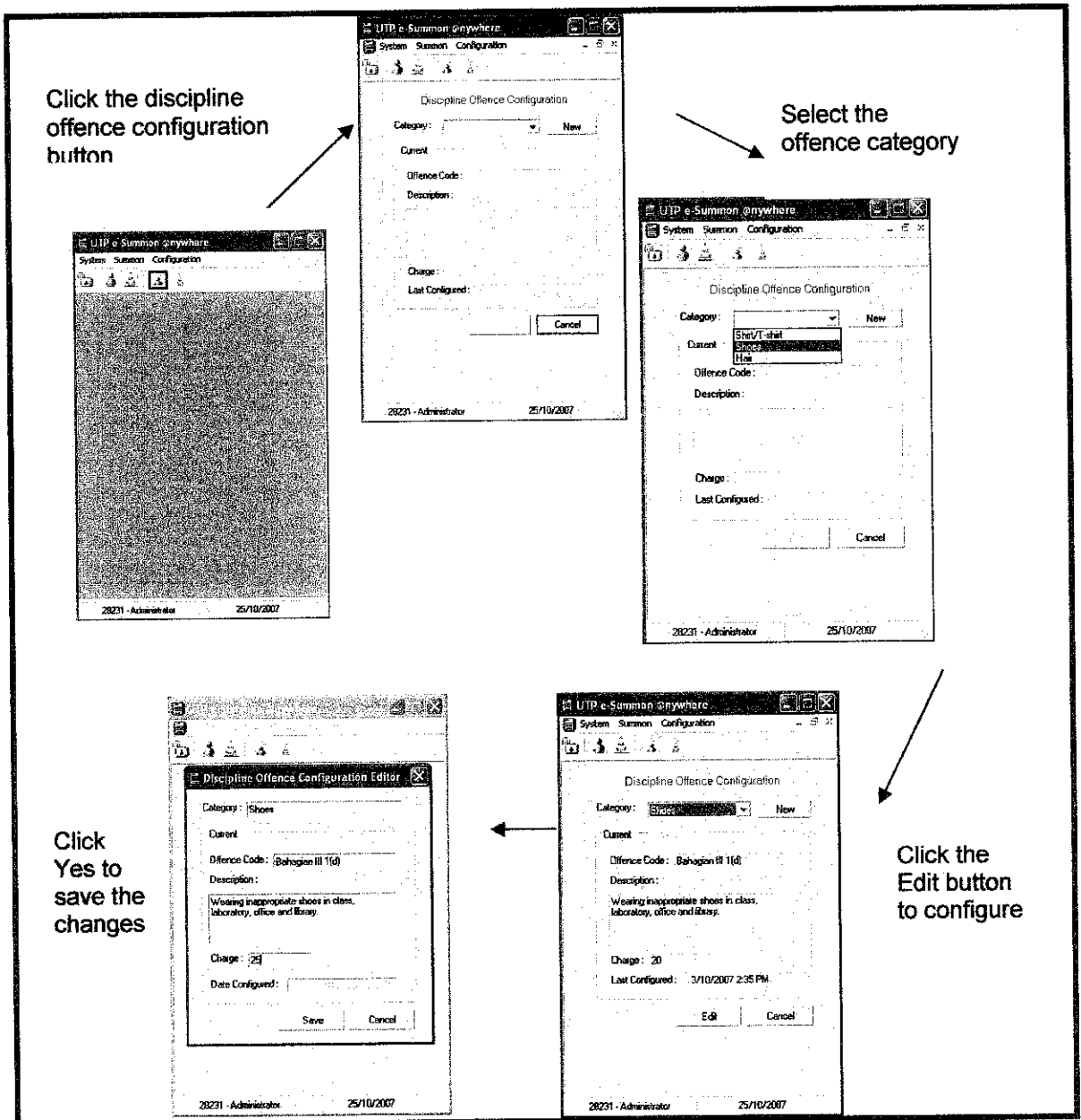


Figure 4.6a Discipline Offence Configuration process interfaces

tbIOffenceD : Table				
oCode	Category	Description	Charge	IstConf
Bahagian III 1(e)	Hair	Long hair, or inappropriate hair styles	10	4/10/2007 9:21 PM
Bahagian III 1(a)	Shirt/T-shirt	Wearing either sleeveless, non-collared, oversized, torn and/or patched, or clothes that bear obscence or rude messages	25	4/10/2007 9:21 PM
▶ Bahagian III 1(d)	Shoes	Wearing inappropriate shoes in class, laboratory, office and library.	20	3/10/2007 2:35 PM

Record: 3 of 3


  

tbIOffenceD : Table				
oCode	Category	Description	Charge	IstConf
Bahagian III 1(a)	Shirt/T-shirt	Wearing either sleeveless, non-collared, oversized, torn and/or patched, or clothes that bear obscence or rude messages	25	4/10/2007 9:21 PM
▶ Bahagian III 1(d)	Shoes	Wearing inappropriate shoes in class, laboratory, office and library.	25	25/10/2007 8:49 PM

Record: 3 of 3

Figure 4.6b Discipline Offence Configuration database before (upper) and after (lower) the configuration

### 4.1.7 Traffic Offence Configuration

- i. Go to Configuration → Traffic OR click the Traffic Offence Configuration button 
- ii. Select the Category to configure.
- iii. Click the Edit button. The Traffic Offence Configuration Editor screen will pop out
- iv. Enter the offence details and click Save button

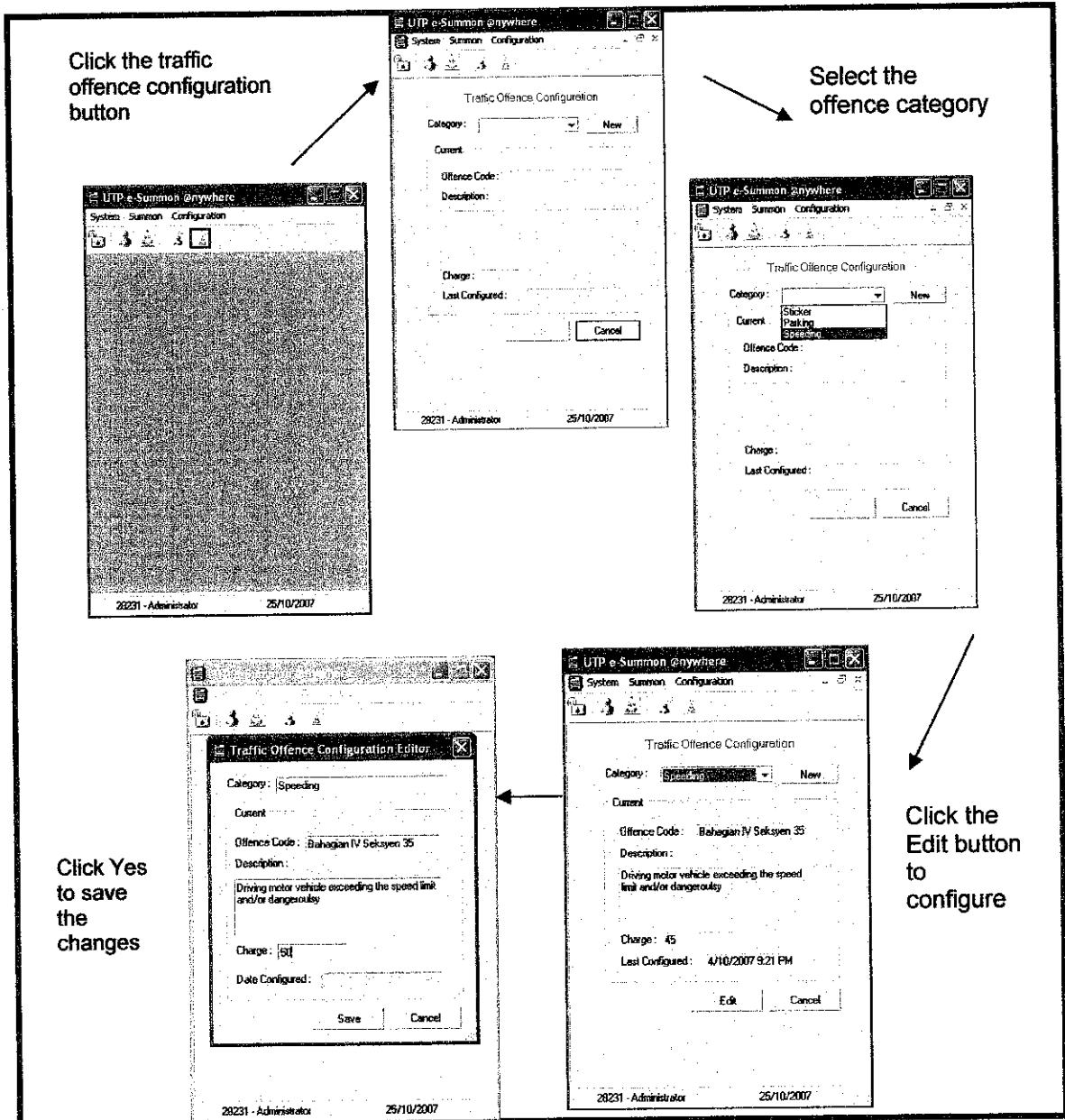


Figure 4.7a Traffic Offence Configuration process interfaces

tblOffenceT : Table				
oCode	Category	Description	Charge	IstConf
Bahagian IV Seksyen 38 dan 39	Parking	Parking his/her vehicle in prohibited area and/or causing obstruction of traffic	12	4/10/2007 9:21 PM
Bahagian IV Seksyen 35	Speeding	Driving motor vehicle exceeding the speed limit and/or dangerously	45	4/10/2007 9:21 PM
Bahagian IV Seksyen 33 (1) - (4)	Sticker	Using vehicle without displaying official sticker issued by University	50	1/10/2007 5:32 PM

Record: 4 of 4

tblOffenceT : Table				
oCode	Category	Description	Charge	IstConf
Bahagian IV Seksyen 38 dan 39	Parking	Parking his/her vehicle in prohibited area and/or causing obstruction of traffic	12	4/10/2007 9:21 PM
Bahagian IV Seksyen 35	Speeding	Driving motor vehicle exceeding the speed limit and/or dangerously	50	25/10/2007 10:17 PM
▶ Bahagian IV Seksyen 33 (1) - (4)	Sticker	Using vehicle without displaying official sticker issued by University	50	1/10/2007 5:32 PM

Record: 3 of 3

Figure 4.7b Traffic Offence Configuration database before (upper) and after (lower) the configuration



## 4.2 Graphical User Interface – Student's Pocket

### 4.2.1 Login

- i. Enter the Student ID and Password

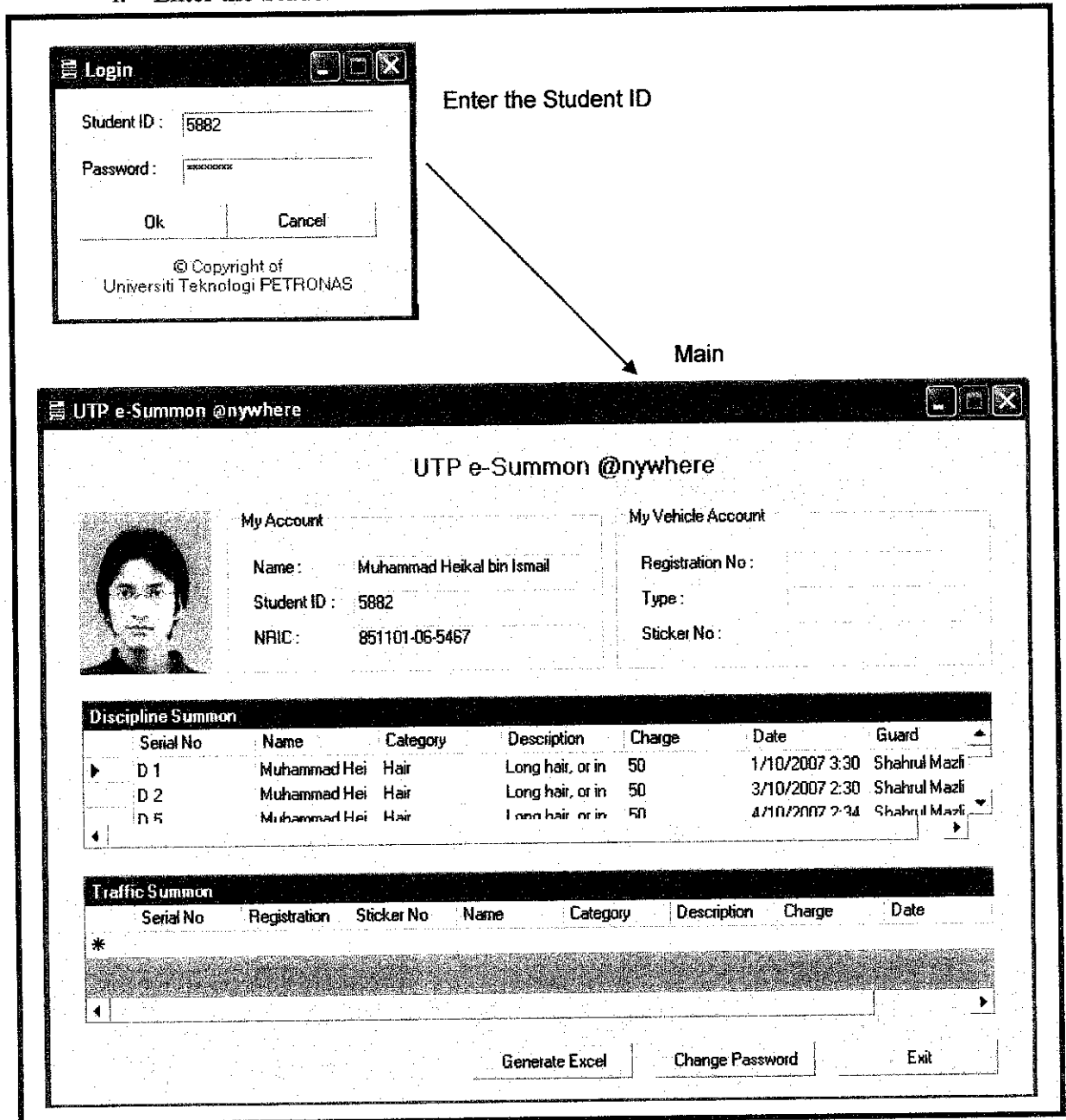


Figure 4.8 Login process interfaces

## 4.2.2 Change Password

- i. Click the Change Password button.
- ii. Enter the details
- iii. Click Save button to save the changes

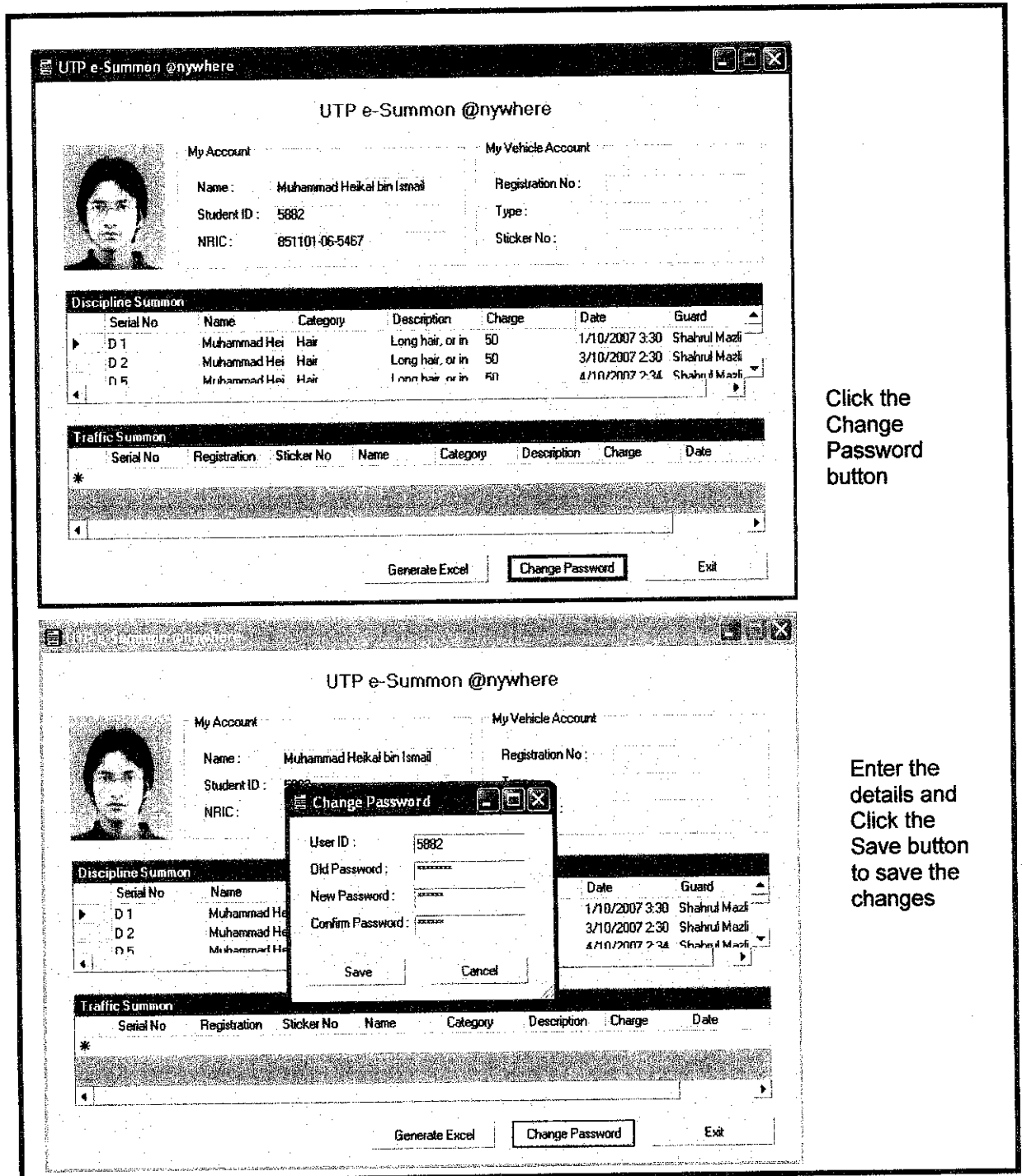


Figure 4.9 Change password process interfaces

### 4.2.3 Generate Summon Report

- i. Click the Generate Excel button.
- ii. The excel sheet will be automatically saved in the workstation.
- iii. The excel sheet will be automatically opened for view.

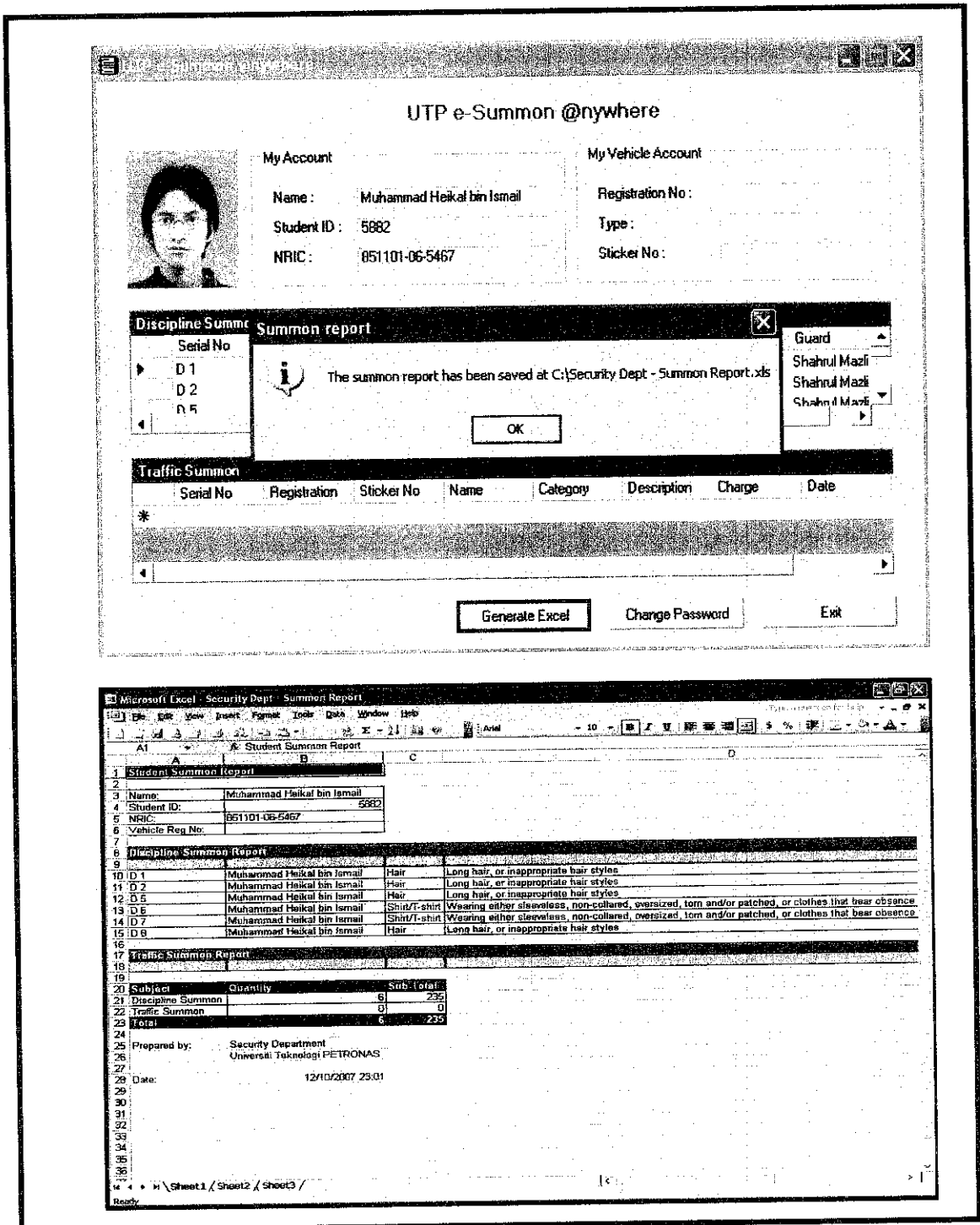


Figure 4.10 Summon report process interfaces

### 4.3 Database Management System

The author has decided to use Microsoft Office Excel 2003 for the system's database. The system's database comprises of FIVE (5) tables:

- i. tblGuard
- ii. tblOffence
- iii. tblStudent
- iv. tblSummon
- v. tblVe

<b>tblGuard</b>		
<b>Function: Store the data about the Guards</b>		
<b>Field</b>	<b>Type</b>	<b>Description</b>
gID	Text	The Guard's ID
gName	Text	The Guard's name
status	Text	The Guard's status i. Administrator ii. User
Password	Text	The Guard's password
lstLogin	Text	The Guard's last login date
lstChgPass	Text	The Guard's last password change date
acctStatus	Text	The Guard's account status i. Active ii. Locked

Table 4.1(a) **tblGuard** - Store the data about the Guards

<b>tblOffenceD</b>		
<b>Function: Store the data about the Discipline Offence</b>		
<b>Field</b>	<b>Type</b>	<b>Description</b>
oCode	Text	The Offence code
Category	Text	The Offence category
Description	Text	The Offence description
Charge	Integer	The Offence charge
lstConf	Text	The Offence's last configured date

Table 4.1(b) **tblOffenceD** - Store the data about the Discipline Offence

<b>tblOffenceT</b>		
<b>Function: Store the data about the Traffic Offence</b>		
<b>Field</b>	<b>Type</b>	<b>Description</b>
oCode	Text	The Offence code
Category	Text	The Offence category
Description	Text	The Offence description
Charge	Integer	The Offence charge
lstConf	Text	The Offence's last configured date

Table 4.1(c) **tblOffenceT** - Store the data about the Traffic Offence

<b>tblStudent</b>		
<b>Function: Store the data about the Student</b>		
<b>Field</b>	<b>Type</b>	<b>Description</b>
ID	Text	The Student's ID
Name	Text	The Student's name
IC	Text	The Student's NRIC

Table 4.1(d) **tblStudent** - Store the data about the Student

<b>tblVe</b>		
<b>Function: Store the data about the student's vehicle</b>		
<b>Field</b>	<b>Type</b>	<b>Description</b>
regNo	Text	The Student's vehicle registration no
sID	Text	The Student ID
Type	Text	The vehicle type
StickerNo	Text	The vehicle Sticker No

Table 4.1(e) **tblVe** - Store the data about the student's vehicle

<b>tblSummonT</b>		
<b>Function: Store the student's traffic summon record</b>		
<b>Field</b>	<b>Type</b>	<b>Description</b>
tckSNo	Text	The ticket's serial no
regNo	Text	The vehicle reg no
Type	Text	The vehicle type
stickerNo	Text	The vehicle's sticker no
Name	Text	The student's name
ID	Text	The student's ID
IC	Text	The student's NRIC
oCode	Text	The offence code
Category	Text	The offence category
Description	Memo	The offence description
Date	Text	The date of the summon issue
Charge	Number	The offence charge
gID	Text	The guard's ID
gName	Text	The guard's Name

Table 4.1(f) **tblSummonT** - Store the student's traffic summon record

## 4.4 File Management System

For system picture retrieval, the author has decided to implement the file management system in which all the pictures are stored as a file in a folder. Based on the Student ID searched, the system will locate the respective student picture in the folder `picStudent` and display the picture on the system screen.

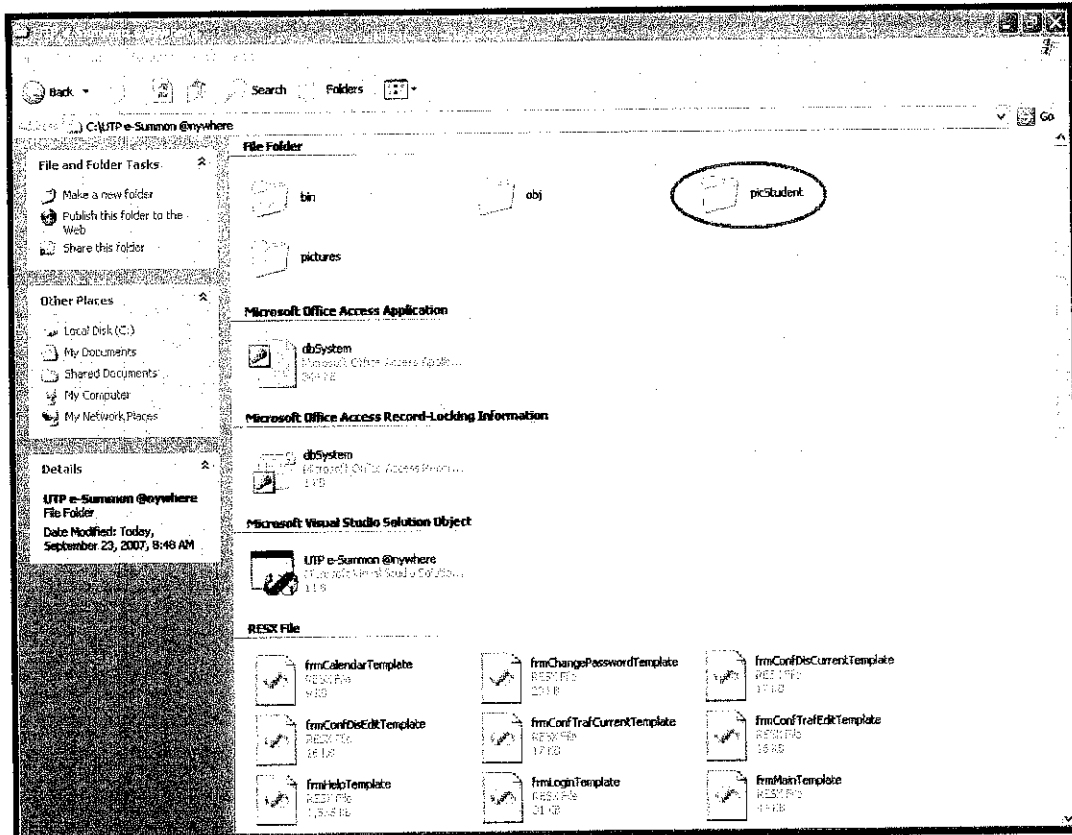
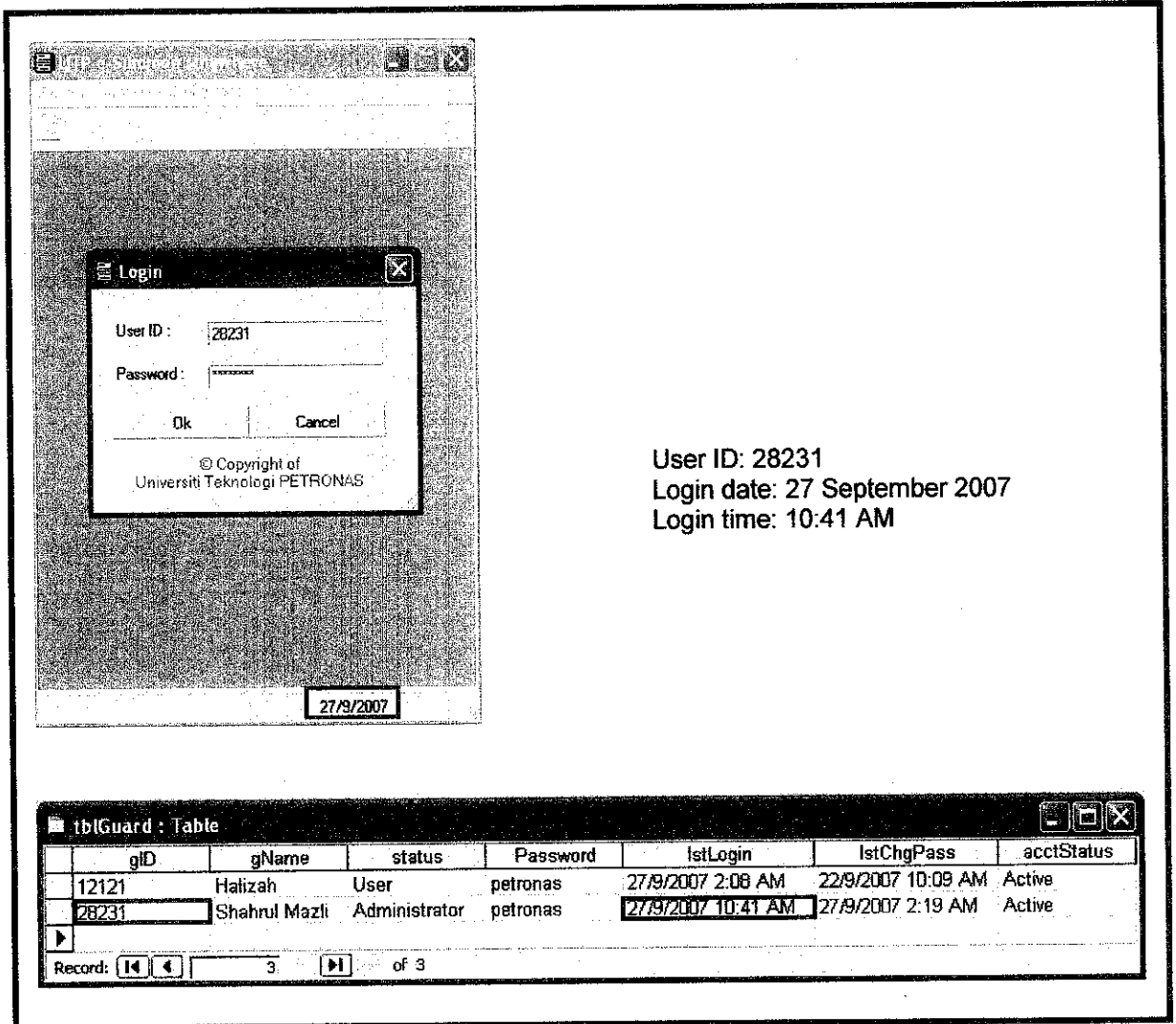


Figure 4.11 File Management System – `picStudent` folder

## 4.5 Security Measures

### 4.5.1 Last login date

UTP e-Summon @nywhere keep the log of the last login date data. This is important to keep track of the system security in which each user's login time is recorded indicating that ONLY the legitimate users use the system. The last login time will show not only the date but also the time the user login to the system. If the last login time is not in the duration of the system usage time interval, then an unauthorized user or an internal intruder could be detected.



The figure consists of two parts. The top part is a screenshot of a web browser window showing a 'Login' dialog box. The dialog box has fields for 'User ID' (containing '28231') and 'Password' (masked with asterisks). Below the fields are 'Ok' and 'Cancel' buttons. At the bottom of the dialog box, it says '© Copyright of Universiti Teknologi PETRONAS'. The date '27/9/2007' is visible in the bottom right corner of the browser window.

The bottom part is a screenshot of a table titled 'tblGuard : Table'. The table has the following columns: gID, gName, status, Password, lstLogin, lstChgPass, and acctStatus. The data is as follows:

gID	gName	status	Password	lstLogin	lstChgPass	acctStatus
12121	Halizah	User	petronas	27/9/2007 2:08 AM	22/9/2007 10:09 AM	Active
28231	Shahrul Mazli	Administrator	petronas	27/9/2007 10:41 AM	27/9/2007 2:19 AM	Active

User ID: 28231  
Login date: 27 September 2007  
Login time: 10:41 AM

Figure 4.12 Last login date log

#### 4.5.2 Last password change date

The system also store the record of the date the password was last changed. This is to ensure that the password is changed regularly to avoid the misuse of the password of the unauthorized users for a long period of time. Based on the last password change date, the system will prompt the user to change the password after 30 days for normal users and 20 days for system administrators.

The screenshot shows a web application interface. A 'Change Password' dialog box is open, displaying the following fields:

- User ID: 28231
- Old Password: xxxxxxxx
- New Password: xxx
- Confirm Password: xxx

Buttons for 'Save' and 'Cancel' are visible at the bottom of the dialog. Below the dialog, the user's current status is shown as '28231 - Administrator' and the date '27/9/2007' is displayed in a box.

To the right of the dialog, the following text is displayed:

User ID: 28231  
Login date: 27 September 2007  
Login time: 10:50 AM

At the bottom of the screenshot, a table titled 'tblGuard : Table' is visible, showing user login records:

gID	gName	status	Password	lstLogin	lstChgPass	acctStatus
12121	Halizah	User	petronas	27/9/2007 2:08 AM	22/9/2007 10:09 AM	Active
28231	Shahrul Mazli	Administrator	utp	27/9/2007 10:41 AM	27/9/2007 10:50 AM	Active

The table also includes a 'Record: 2 of 2' indicator at the bottom.

Figure 4.13 Last password change date log



### 4.5.3 Password protected

UTP e-Summon @nywhere is equipped with the password-protected login system. This is the first layer of securing the system from unauthorized person. This login system will detect any unauthorized login attempt and after three consecutive failed login attempts, the system will automatically block the respective user to avoid the unauthorized user who uses the legitimate user's ID from entering the system.

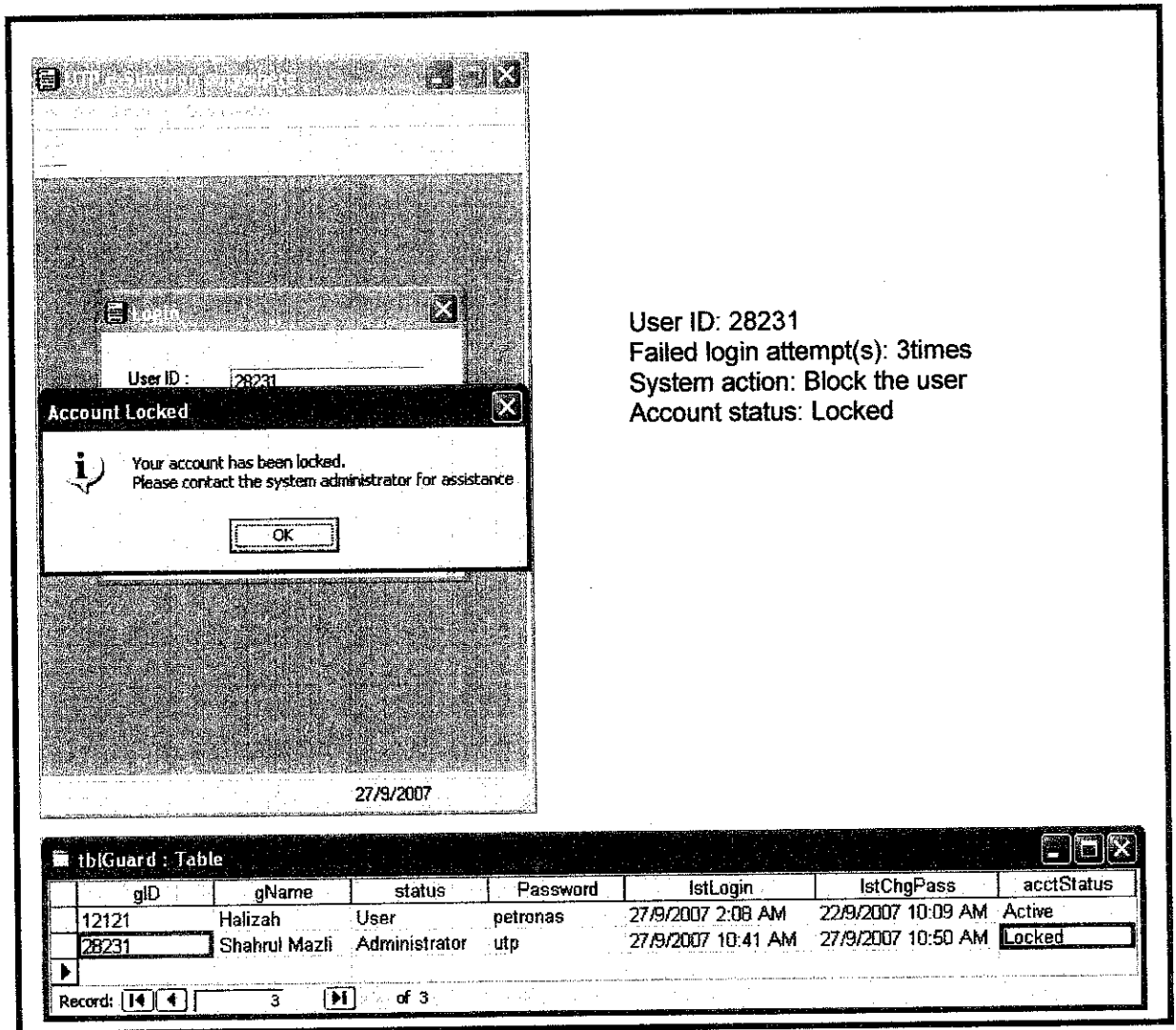


Figure 4.14 Password-protected user-blocked login log

#### 4.5.4 Password encryption

The system is using password encryption method encrypt the password to unreadable format so that the person who could access the password repository could not view the real password off all the system users. This feature also will prevent hackers from stealing the passwords and misuse the system.

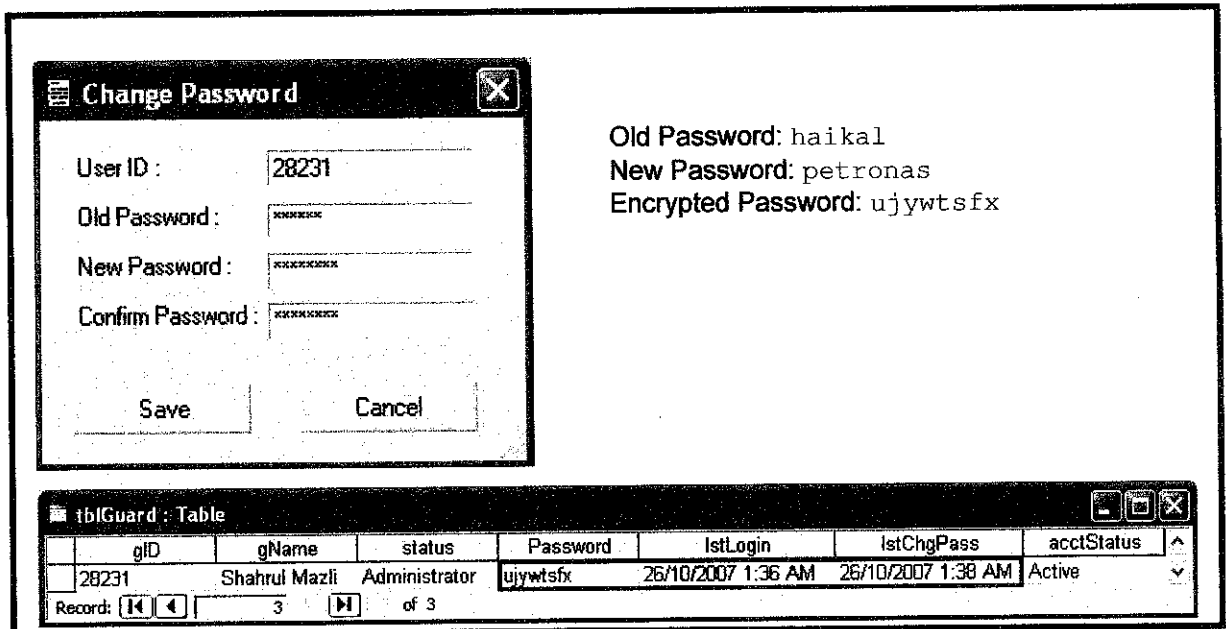


Figure 4.15 Password encryption

#### 4.5.5 Password expiry remaining days check

Once the system calculates the password usage days and found that the remaining days of the password usage is within FOUR (4) days, the system will automatically prompt the user to change the password. Changing the password periodically is very important to avoid long-term of fake authorize access.

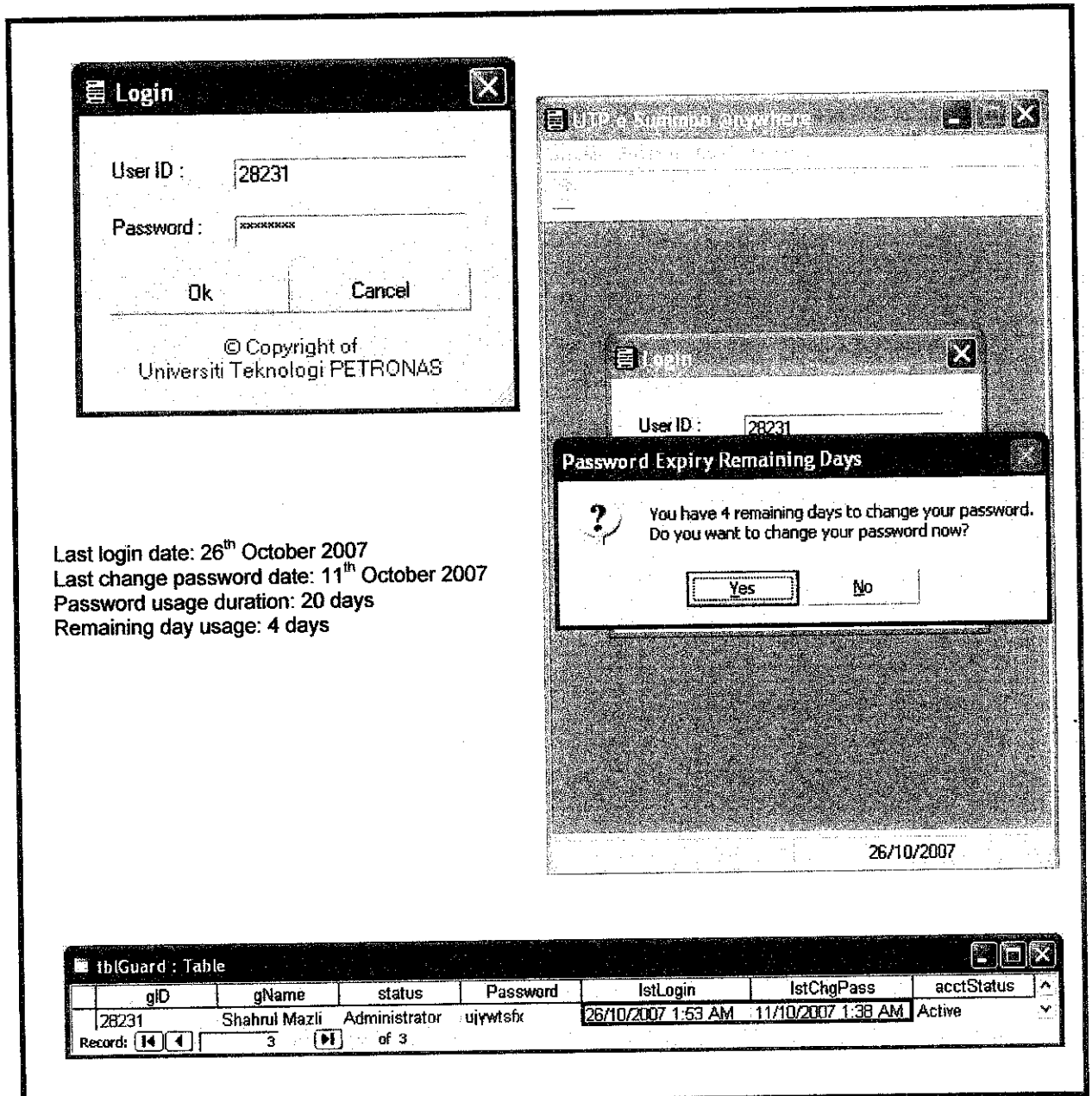


Figure 4.16 Password expiry remaining days check

#### 4.5.6 Password expiry check

The system will automatically prompt the user to change the password once the password expired. Changing the password periodically is very important to avoid long-term of fake authorize access.

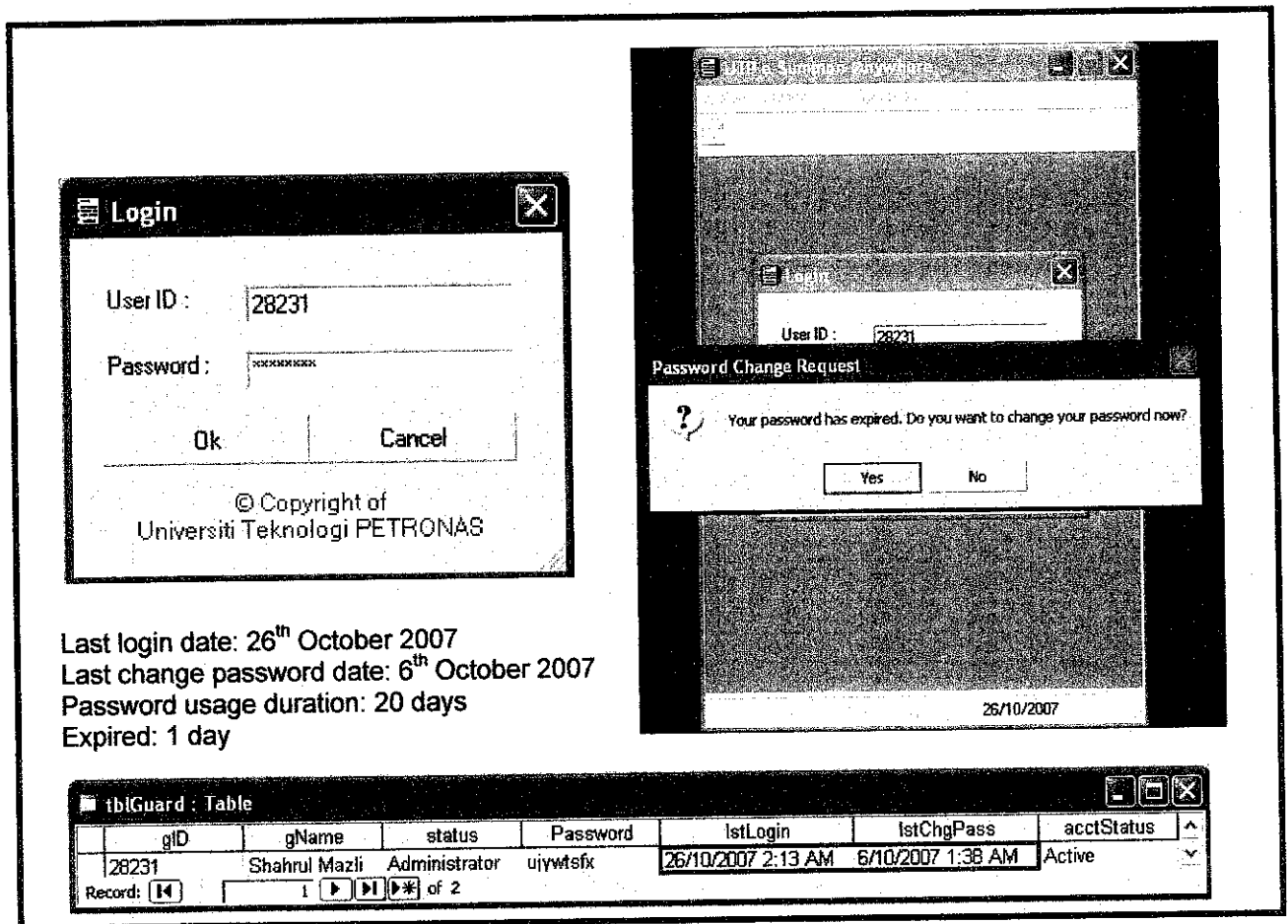


Figure 4.17 Password expiry check

## 4.6 User Privileges

UTP e-Summon @nywhere offers user privileges depending on the role of the user. There are TWO (2) types of users of the system:

- i. Administrator – The administrator gain the access to all system functions
- ii. User – The normal user does not have access to the Configuration function of the system

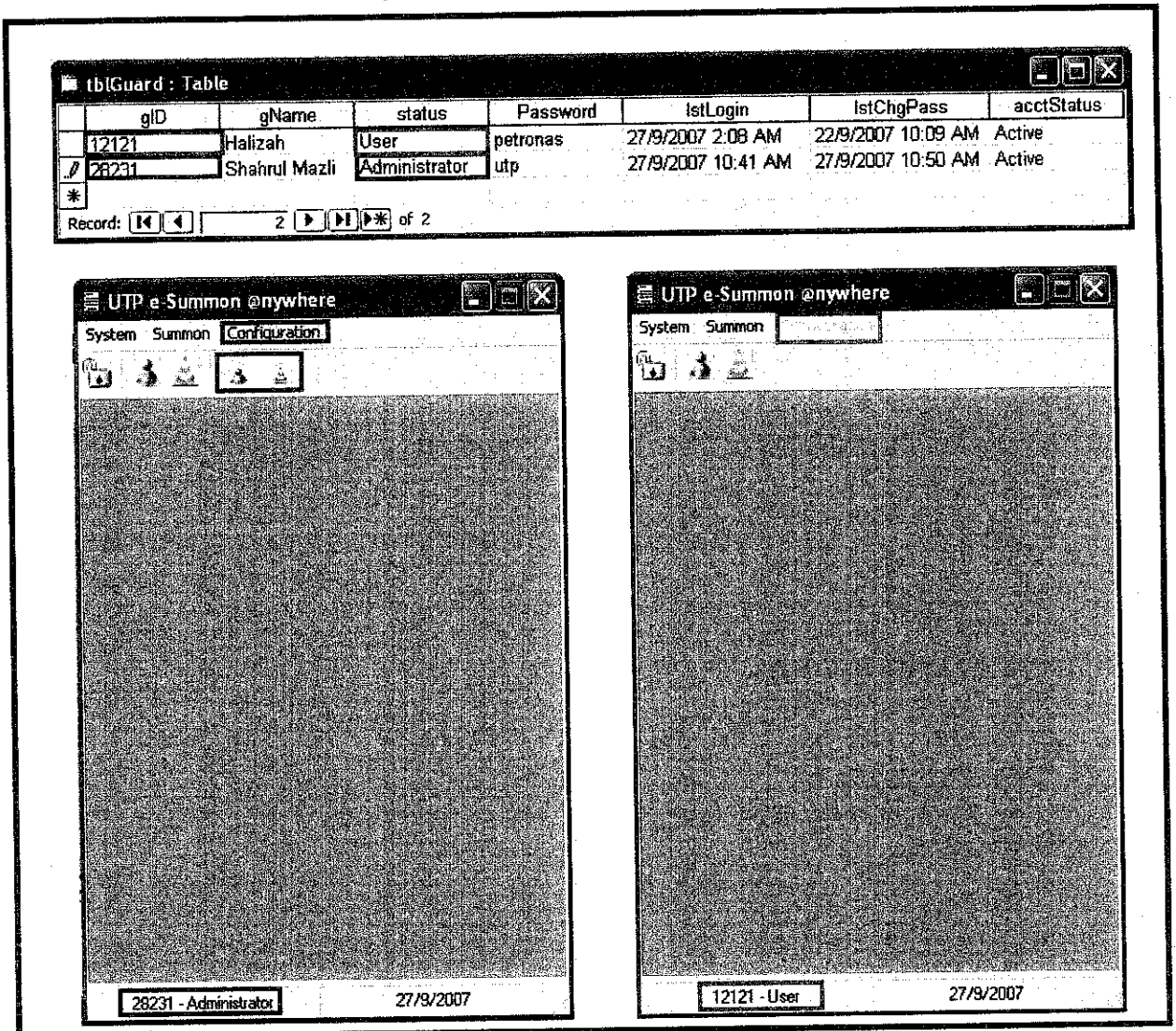


Figure 4.18 Administrator privilege and User privilege

## 4.7 System Evaluation

### 4.7.1 Result of User Testing

Based on the conducted questionnaire with both security guards and students, the system is applicable to be used in the university. The prototype testing was conducted by FIVE (5) security guards for Security's Pocket and TWELVE (12) students for Student's Pocket.

The results of the user testing and the percentage of system effectiveness based on the post-test questionnaire with reference to the questionnaire in Appendix 3a and Appendix 3b are shown in Table 4.2a and Table 4.2b.

Respond	Pre-test			Post-test			
	Q1	Q2	Q3	Q1	Q2	Q3	Q4
Yes	0	0	5	5	5	4	5
No	5	5	0	0	0	1	0

$$\begin{aligned} \text{System effectiveness (Number of Yes responds for post-test)} &= (19/20) \times 100 \\ &= 95 \% \end{aligned}$$

$$\begin{aligned} \text{System ineffectiveness (Number of No responds for post-test)} &= (1/20) \times 100 \\ &= 5 \% \end{aligned}$$

Table 4.2a Result of user testing for Security's Pocket

Respond	Pre-test			Post-test			
	Q1	Q2	Q3	Q1	Q2	Q3	Q4
Yes	12	0	12	12	12	10	12
No	0	12	0	0	0	2	0

$$\begin{aligned} \text{System effectiveness (Number of Yes responds for post-test)} &= (46/48) \times 100 \\ &= 95.8 \% \end{aligned}$$

$$\begin{aligned} \text{System ineffectiveness (Number of No responds for post-test)} &= (2/48) \times 100 \\ &= 4.2 \% \end{aligned}$$

Table 4.2b Result of user testing for Student's Pocket

## CHAPTER 5

### CONCLUSION AND RECOMMENDATION

#### 5.1 Overview

This paper covers the development of the UTP e-Summon @nywhere as a mobile application. It focuses on the summon recording processes as well as its security measures from potential system threats. The system will be within the university scope and uses wireless and wired network architecture.

#### 5.2 Conclusion

UTP e-Summon @nwhere is a mobile applications that aimed to solve the current problem of university's manual summon recording approach. The manual summon recording approach incur several problems including lack of student information integrity and no standardization of the offence rules and regulations. The development of the system is to ensure the student information integrity, standardize the offence rules and standards, reduce the risk of errors. The system also has the picture retrieval function that display the student's picture for student's authentication. To ensure the security level of the system, UTP e-Summon anywhere is equipped with the log record including the login and password change log as well as password-protected login function. This system will enable the security guards to conveniently issue summon just by a few clicks and the summon record will be automatically stored in the database. Moreover, the system will enable the student to check their summon report online and save the report for future review.

### **5.3 System Enhancements**

i. **Summon payment feature**

The system could be enhanced to include summon payment feature that allows the student to pay their summons online using any applicable electronic payment method.

ii. **Notification using Short Message Service (SMS)**

Currently the system will notify the student online. However, the system could incorporate the SMS technology to notify the students about the summon.

iii. **Oracle 9i as database**

The database used in UTP e-Summon @nywhere is Microsoft Access and for future, the database could be upgraded to Oracle 9i

### **5.4 Recommendation**

UTP e-Summon @nywhere is developed in the university to ensure the system compatibility and the university acts as an incubator for the development. However, as Malaysia is moving towards the electronic government, UTP e-Summon @nywhere could meet the nation's e-government vision by extending its functionalities to the Royal Malaysian Police (PDRM) for traffic summon. Since Malaysia has wide wireless telecommunication coverage and the technology required for the system are all available, the system could be implemented without much problems.



## Reference

- [1] Kenneth C. Laudon and Cavol Guercio Traver.  
*E-Commerce business.technology.society.*, 3<sup>rd</sup> edition.  
Pearson Education (2007)
- [2] Gary Schneider.  
*Electronic Commerce*, 6<sup>th</sup> Annual edition.  
Thomson Course Technology (2005)
- [3] Rayport, Jeffrey F., and Bernand J. Jaworski.  
*Introduction to E-commerce*, 2<sup>nd</sup> edition. New York:  
McGraw Hill (2003)
- [4] Kalakota, Ravi, and Marcia Robinson.  
*e-Business 2.0: Roadmap for Success*, 2<sup>nd</sup> edition. Reading, MA:  
Addison Wesley (2003)
- [5] Thomas C., and Carolyn B. (2005).  
*Database Systems: A Practical Approach to Design, Implementation, and Management* 4<sup>th</sup>  
edn. Addison-Wesley, 546-547
- [6] Muhamad Heikal I. (2006).  
*Industrial Internship Training Program Report*,  
Computer and Information Sciences Department,  
Universiti Teknologi PETRONAS.
- [7] Dennis and Wixom (2000).  
*Visual Basic.NET Programming*  
*Business Applications with a Design Perspective*  
2<sup>nd</sup> edn. Wiley, 460
- [8] Dennis and Wixom (2000).  
*Visual Basic.NET Programming*  
*Business Applications with a Design Perspective*  
2<sup>nd</sup> edn. Wiley, 484-485
- [9] Technopreneur Academy Programme,  
Perak Techno Trade Centre, Ipoh, Perak,  
9 May 2007.

# APPENDICES

# Appendix 1

**III. APPEARANCE AND DRESS CODE RULES & REGULATIONS**

All Students are required to be suitably dressed at all times in Campus and comply to the following appearance & dress code rules & regulations:

NO.	RULES & REGULATIONS
1.	<b>ATTIRE (Male Students)</b>
1a.	<b>Shirt/T-shirt</b> a. With sleeves. b. Collared. c. Not oversized. d. Not torn and/or patched. e. Writing or picture on shirt/T-shirt must not contain obscene or rude messages. f. "Wind-breakers" are not allowed to be worn in library, classroom, laboratories, office and examination hall; if the temperature is too cold "sweaters" are permitted. g. National Malaysian costumes are encouraged. (National dress, batik etc).
1b.	<b>Pants</b> a. Not torn and/or patched. b. Hem of Pants not torn and/or bushy. c. Not too light or too loose. d. Seasoned pants are not allowed. e. Short pants are not allowed in class, laboratory, office and library.
1c.	<b>Sport Attire</b> a. Proper attire must be observed during any sport activities in sport venues. b. Sport attire should not be worn in class, laboratory, examination hall and library.
1d.	<b>Shoes</b> Students are advised to wear appropriate shoes when they are in class, laboratory, office and library. Slippers and sandals and the like are considered improper attire for the places mentioned above.
1e.	<b>Hair</b> a. In general, hair must look smart and not long. b. Hair at the back must not touch beyond the collar of shirt. c. Hair on the sides must not cover the ears. d. Hair in front must not cover the eyes brows. e. If shaven, it must be completely shaven. f. Hair must not be bleached or coloured. g. Hair styles like mohican, afro, punk etc are not permitted.

NO.	RULES & REGULATIONS
2.	<b>ATTIRE (Female Students)</b>
2a.	<b>Dress</b> a. In general, dress must cover from neckline up to the knee. b. Not too light and revealing c. With sleeve.
2b.	<b>Sarongs/Shirt</b> a. Must cover the knee area. b. Slits must not expose the light area. c. Must not see through.
2c.	<b>Pants</b> a. Not torn and/or patched. b. Hem of Pants not torn and/or bushy. c. Not too light or too loose. d. Seasoned pants are not allowed. e. Short pants are not allowed in class, laboratory, office and library.
2d.	<b>Sport Attire</b> a. Proper attire must be observed during any sport activities in sport venues. b. Sport attire should not be worn in class, laboratory, examination hall and library.
2e.	<b>Shoes</b> Students are advised to wear appropriate shoes when they are in the class, class, laboratory, office and library. Slippers and sandals and the like are considered improper attire for the places mentioned above.
2f.	<b>Hair</b> a. Hair must not be bleached or coloured. b. Hair must not be too short or bald. c. Hair styles like mohican, afro, punk etc. are not permitted

NO.	RULES & REGULATIONS
3.	<p><b>General Rules</b></p> <ol style="list-style-type: none"> <li>Male students are not permitted to wear women's attire and/or accessories such as necklace, bracelet, earring, nose rings, hair ribbons etc.</li> <li>Caps are not permitted in the library, classrooms, halls and offices.</li> <li>Students should always look neat, clean and presentable. Their attire and appearance should not embody/depict any undesirable or unacceptable culture/lifestyles by the society.</li> <li>All students must carry the Students' Identification Card (ID) at all times. The students ID card should always be clipped to the chest area of the students' shirt or dress with the photo facing the front.</li> </ol> <p><b>Disciplinary Action for Dress and Appearance</b></p> <ol style="list-style-type: none"> <li>Student who failed to abide on the above students' attire and appearance rules and regulation, the following actions can be take against them.                     <ol style="list-style-type: none"> <li>Warning.</li> <li>Fine up to a maximum of RM 50.00.</li> <li>Reported for the action of Student Disciplinary Committee.</li> </ol> </li> </ol>

**Nota Penting / Important Note**

Peruntukan ini adalah tertakluk kepada perubahan yang akan dibuat oleh Universiti mengikut budbubarannya dari semasa ke semasa.

*These provisions are subject to change by University at its own discretion from time to time.*

**IV. PERATURAN LALUANTAS/TRAFFIC RULES & REGULATIONS**

NO	KESALAHAN (OFFENCE)	DENDA/TINDAKAN (PENALTY/ACTION)	BAHAGIAN TATARTIB
1	<p>Menggunakan kenderaan tanpa mempamerkan pekat kenderaan yang telah disahkan dan dikeluarkan oleh pihak Universiti. <i>Using vehicle without displaying official sticker issued by University.</i></p>	<p>Denda maksima sehingga RM 50.00 <i>A maximum fine of RM 50.00</i></p>	<p>Bahagian IV Seksyen 33 (1) - (4)</p>
2	<p>Meletakkan kenderaan di tempat yang tidak dibenarkan dan/atau menghalang lalu lintas. <i>Parking his/her vehicle in prohibited areas and/or causing obstruction of traffic.</i></p>	<p>Denda maksima sehingga RM 50.00 <i>A maximum fine of RM 50.00</i></p>	<p>Bahagian IV Seksyen 38 dan 39</p>
3	<p>Memandu kenderaan bermotor melebihi had laju dan/atau secara merbahaya. <i>Driving motor vehicle exceeding the speed limit and/or dangerously.</i></p>	<p>Denda maksima sehingga RM 50.00 <i>A maximum fine of RM 50.00</i></p>	<p>Bahagian IV Seksyen 35</p>
4	<p>Memandu kenderaan bermotor dengan tidak mengindahkan jalan-jalan dan laluan yang telah disediakan/ditetapkan. <i>Driving motor vehicle on non-gazetted roads/path.</i></p>	<p>Denda maksima sehingga RM 50.00 <i>A maximum fine of RM 50.00</i></p>	<p>Bahagian IV Seksyen 36 Seksyen 37</p>
5	<p>Menunggang basikal, motosikal atau skuter yang mempunyai lebih dari seorang pembonceng. <i>Riding bicycles, motorcycles or scooters with more than one pillion rider.</i></p>	<p>Denda maksima sehingga RM 50.00 (pemandu dan / atau pembonceng) <i>A maximum fine of RM 50.00 (rider and/or pillion rider).</i></p>	<p>Bahagian IV Seksyen 40 (1)</p>
6	<p>Melanggar peruntukan-peruntukan Akta Pengangkutan Jalanraya 1967 dan perundangan kecil yang dikuatkuasakan oleh kerajaan Malaysia. <i>Violating the provisions of Transportation Act 1967 and other laws and bylaws which are enforced by the government of Malaysia.</i></p>	<p>Denda maksima sehingga RM 50.00 (pemandu dan/ atau pembonceng) dan/atau <i>A maximum fine of RM 50.00 (driver/pillion rider) and/or</i> Laporan di buat kepada Jawatankuasa Tatalembag Tatalertib Pelajar untuk tindakan. <i>Submission of report to the Students Disciplinary Committee for action.</i></p>	<p>Bahagian IV Seksyen 44 (1)</p>

**Nota Penting / Important Note**

Peruntukan ini adalah tertakluk kepada perubahan yang akan dibuat oleh Universiti mengikut budbubarannya dari semasa ke semasa.

*These provisions are subject to change by University at its own discretion from time to time.*

## Appendix 2

## Offline summon record checking advertisement

Unsettled Summon Debts  
MPPUTP

Sunday, 7 October (12:00 AM) » Wednesday, 31 October (12:00 AM)

Assalamualaikum and a very good day to all,

Kindly be informed that all students are required to settle all summons debts before the end of their final semester in UTP. It has been agreed that students with **outstanding summon debts** are to be **barred from attending the Convocation Ceremony next year and unable to obtain the Result Transcript and Degree Scroll**. All students are kindly advised to check their status at the security office located at the Chancellor Complex Basement.  
**(Please contact En. Mohd Ramli bin Abdul Razak or En. Khairul Anuar Bin Osman at 05-3688316)**

For further enquiries, please contact En. Raja Shoman at 05-3688417 or Pn. Norhayati at 05-3688410.

Any inconvenience caused is very much regretted.

Thank you & regards,  
Secretary  
UTP Students Minor Offences Disciplinary Committee

## Appendix 3a



**UTP e-Summon @nywhere Security's Pocket Questionnaire**  
**Bancian UTP e-Summon @nywhere Security's Pocket**

This questionnaire is very crucial to determine the efficiency and effectiveness of the development of the mobile summon system. There is no personal information required and your questionnaire will be private and confidential.

Bancian ini sangat penting bagi menentukan keberkesanan untuk membangunkan sistem saman mudah alih. Tiada maklumat peribadi diperlukan dan bancian ini adalah sulit.

1. Are you aware of each and every offence details and their respective summon charges?  
Adakah anda mengetahui setiap kesalahan dan jumlah denda yang dikenakan bagi setiap kesalahan?  
 Yes/Ya  No/Tidak
  
2. Do you refer to Student Disciplinary Rules and Regulations handbook as the guidelines for every summon transactions?  
Adakah anda merujuk Buku Peraturan Tata tertib Pelajar setiap kali anda menyaman pelajar?  
 Yes/Ya  No/Tidak
  
3. Do you prefer to have an electronic system that store the offence details and allow you to conduct summon transactions more effective?  
Adakah anda mahu menggunakan sistem electronic yang menyimpan maklumat kesalahan dan membolehkan anda menyaman pelajar dengan lebih berkesan?  
 Yes/Ya  No/Tidak

Please complete the following questionnaire once you have used the UTP e-Summon @nywhere Security's Pocket.

Sila lengkapkan bancian berikut setelah anda menggunakan UTP e-Summon @nywhere Security's Pocket.

1. Is the system easy to use?  
Adakah sistem tersebut mudah untuk digunakan?  
 Yes/Ya  No/Tidak
  
2. Are all the process flows are easy to be executed to conduct the transactions?  
Adakah semua proses mudah dikendalikan?  
 Yes/Ya  No/Tidak
  
3. Is the system applicable to be used in the university?  
Adakah sistem ini sesuai untuk digunakan die universiti?  
 Yes/Ya  No/Tidak
  
4. Does the system improve the current manual summon system?  
Adakah sistem ini menambahbaik sistem manual yang sedia ada?  
 Yes/Ya  No/Tidak

## Appendix 3b

**UTP e-Summon @nywhere Student's Pocket Questionnaire**  
**Bancian UTP e-Summon @nywhere Student's Pocket**

This questionnaire is very crucial to determine the efficiency and effectiveness of the development of the mobile summon system. There is no personal information required and your questionnaire will be private and confidential.

Bancian ini sangat penting bagi menentukan keberkesanan untuk membangunkan sistem saman mudah alih. Tiada maklumat peribadi diperlukan dan bancian ini adalah sulit.

1. Are you aware of summon transaction in the university?  
Adakah anda mengetahui transaksi saman di universiti?  
 Yes/Ya  No/Tidak
2. Do you know all you summon records in this university?  
Adakah anda tahu rekod saman anda di universiti ini?  
 Yes/Ya  No/Tidak
3. Do you prefer to have an electronic system that store your summon record online?  
Adakah anda mahu menggunakan sistem electronic yang menyimpan rekod saman anda secara online?  
 Yes/Ya  No/Tidak

Please complete the following questionnaire once you have used the UTP e-Summon @nywhere Student's Pocket.

Sila lengkapkan bancian berikut setelah anda menggunakan UTP e-Summon @nywhere Student's Pocket.

1. Is the system easy to use?  
Adakah sistem tersebut mudah untuk digunakan?  
 Yes/Ya  No/Tidak
2. Are all the process flows are easy to be executed to conduct the transactions?  
Adakah semua proses mudah dikendalikan?  
 Yes/Ya  No/Tidak
3. Is the system applicable to be used in the university?  
Adakah sistem ini sesuai untuk digunakan die universiti?  
 Yes/Ya  No/Tidak
4. Does the system facilitates you on your summon record checking?  
Adakah sistem ini memudahkan anda dalam menyemak rekod saman anda?  
 Yes/Ya  No/Tidak