



Faculty of Computing and Information Technology

Assignment 2020/2021

AACS1084 Programming Concepts & Design II

Programme : Diploma in Computer Science
Tutorial Group : DCS 3
Tutor : MR CHAN ZHEN HUI

Student Name	Module Handled
Choo Wei Sern Vincent	Visitor Information Module
Tan Yan Pin	Venue Information Module
Cheng Ling Ern	Administrative Staff Module
Tan Jenny	Visits and Exits Module
Cheng Cai Yuan	Sanitization Records Module

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Signature : *Choo*

Date : 2/4/2021

ID : 20PMD04930



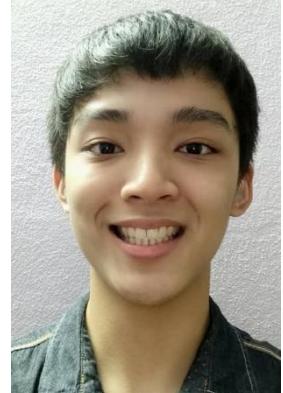
Name: Choo Wei Sern Vincent

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Signature : Yuan

Date : 2/4/2021

ID : 20PMD04044



Name: Cheng Cai Yuan

Assignment Evaluation Form

Student Name						
Module Handled						
Assessment Criteria	Marks Awarded					
<i>Application of Programming Knowledge</i>						
Structures						
Basic + Extra Fields	12					
Use of Nesting & Arrays						
Appropriate usage						
File Processing						
Successful Processing	12					
Validation of Data						
Appropriate Usage						
Functions						
4 Basic File Functions	12					
Extra File Funcs, useful/correct						
Approp. Menu Design & process						
Others						
Use of parameters; correct usage	12					
Subsidiary working functions						
Minimized global variables						
Teamworks						
Main menu, logo etc	12					
System/module integration						
Report integration/content						
Sharing of files, functions						
Communication, cooperation						
Program originality, efficiency and readability						
Innovation, uniqueness	10					
Approp. Logic structures						
Code readability						
Report (individual section)						
Clarity of decription	20					
Narrated screens for all processes						
(Basic + Extra)						
Penalty - Late Submission						
1 - 3 days late -10						
4 - 7 days late -20						
> 7 days late Total mark = 0						
Subtotal (i)		0	0	0	0	0
Presentation						
Punctual, within time limit	10					
Organization, explnation						
Enthusiasm, preparedness, attitude, understanding						
Q&A handling, on-spot coding						
TOTAL MARK		0	0	0	0	0

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1.0 Introduction

Taruc contact-tracking system is a system that is used extensively throughout Taruc college to ensure the safety of the students as well as staff. This system is a part of the Government's law as everyone must check-in and check-out when they visit a place. The covid-19 situation is serious day by day and this system used to be tracked the movement of students when they contact the covid-19 patients. It is utmost importance in areas where there is a high risk of contact status. This system requires students to provide information about themselves such as address, email, phone number so it can be contacted if needed during the pandemic. Everyone who is visiting the venue must supply their information such as purpose , check-in venue, temperature and current status. Besides, this system is categorized as an auto-save data system so that students or staff are unnecessary to manual key in their details when they want to check-in or check-out. Hence, the contact data that will be collected by the system will only be accessed by the admin, others are not allowed to access. Admin is fully accessed to the system such as add, update or modify ,delete records. This system completely preserves students or staff privacy and also their personal information .

2.0 Overall System – Module Structure Chart

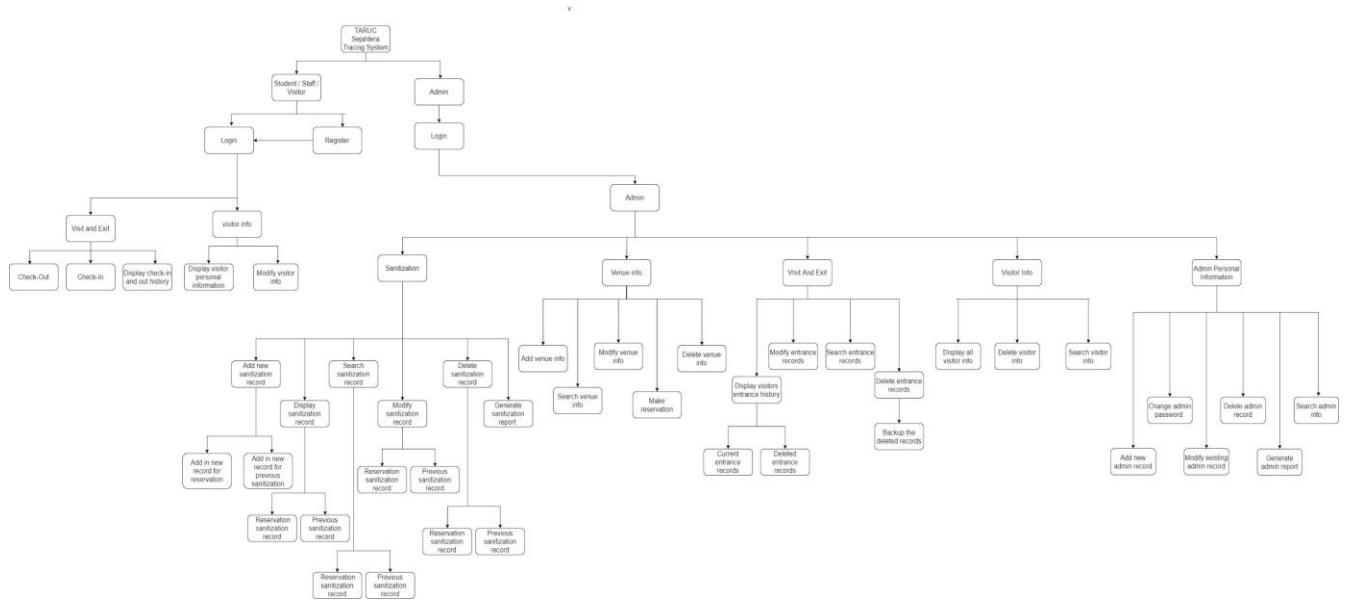


Figure 2.1 Show overall structure chart

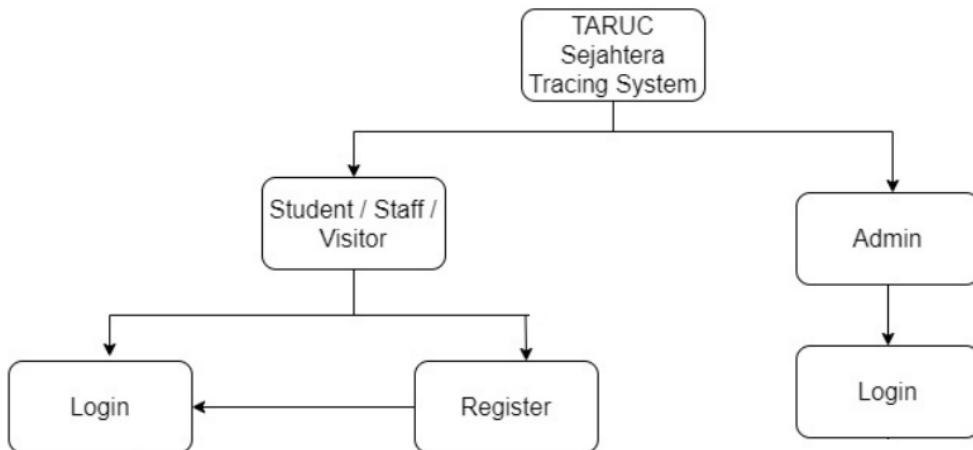


Figure 2.2 Show login part of student/staff/visitor or admin in structure chart

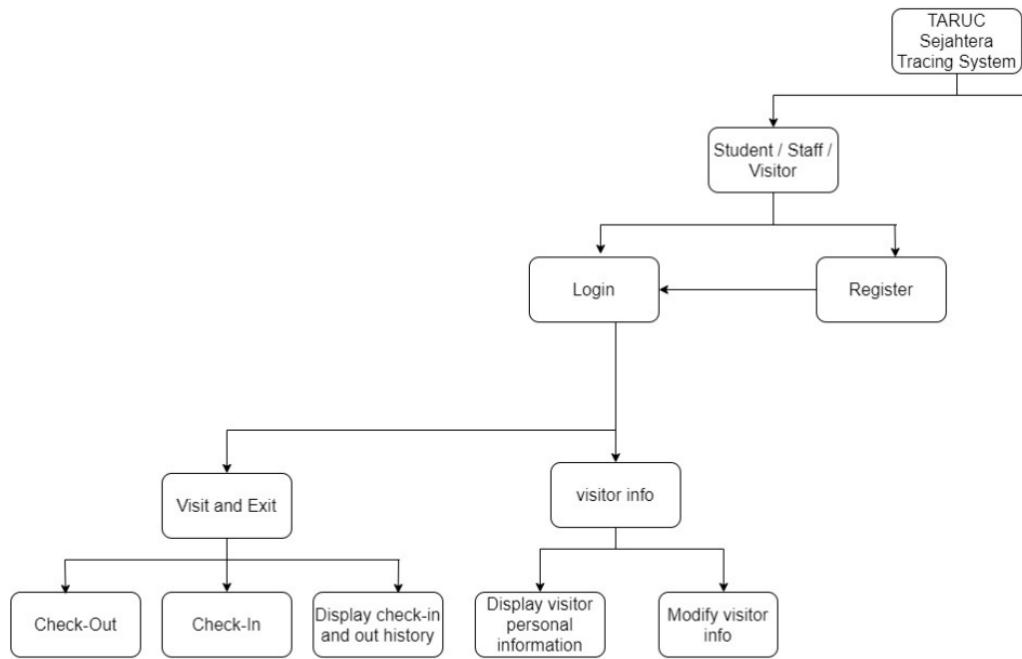


Figure 2.3 Show login part of student/visitor/staff in structure chart

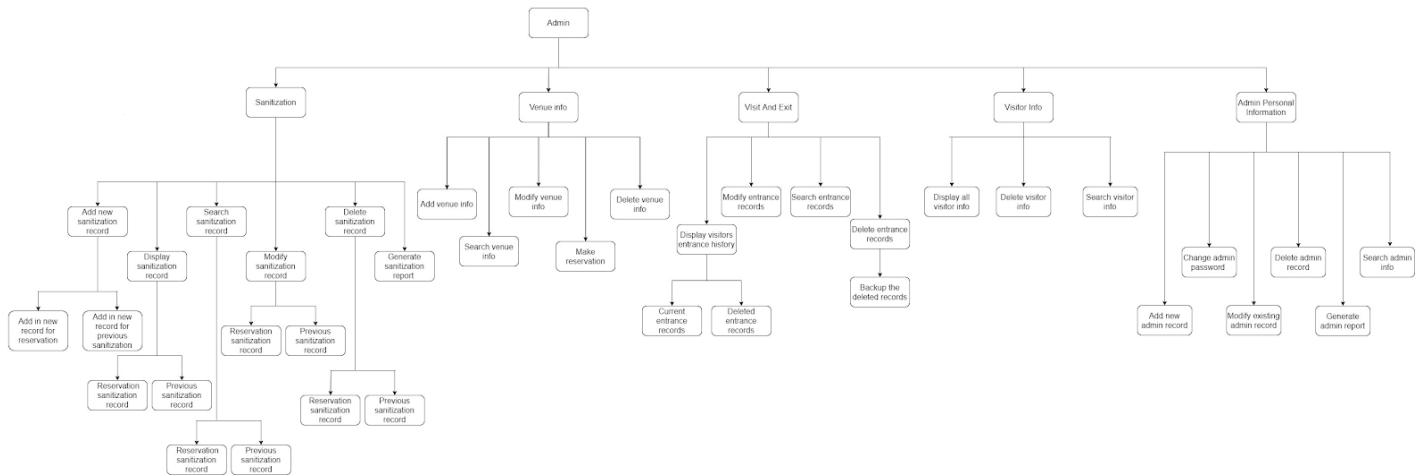


Figure 2.4 Show login part of admin function in structure chart

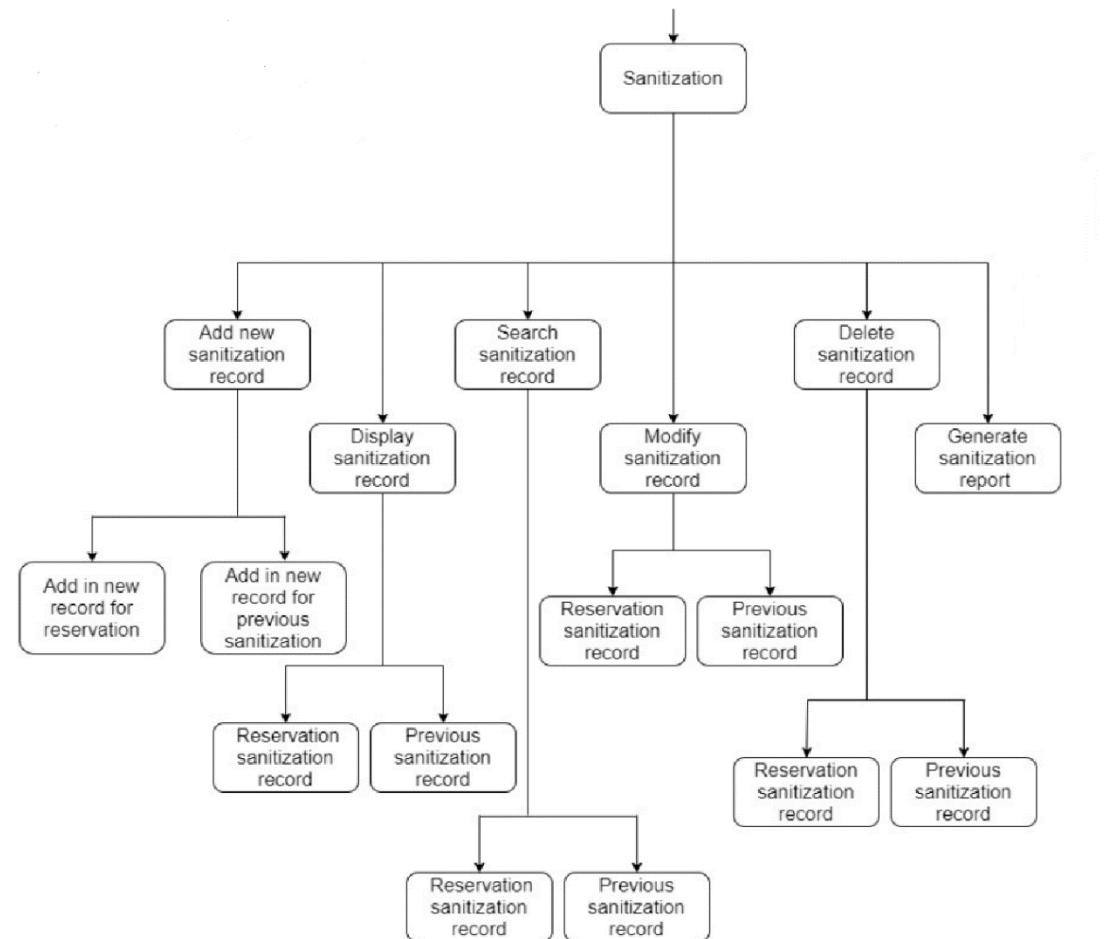


Figure 2.4.1 Show sanitization module of admin function in structure chart

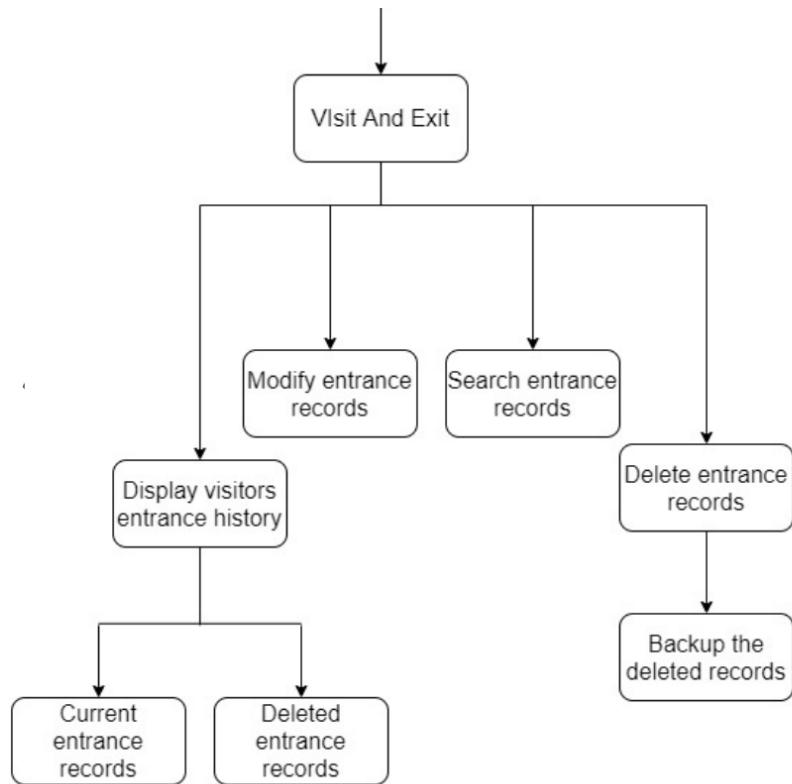


Figure 2.4.2 Show visit and exit module of admin function in structure chart

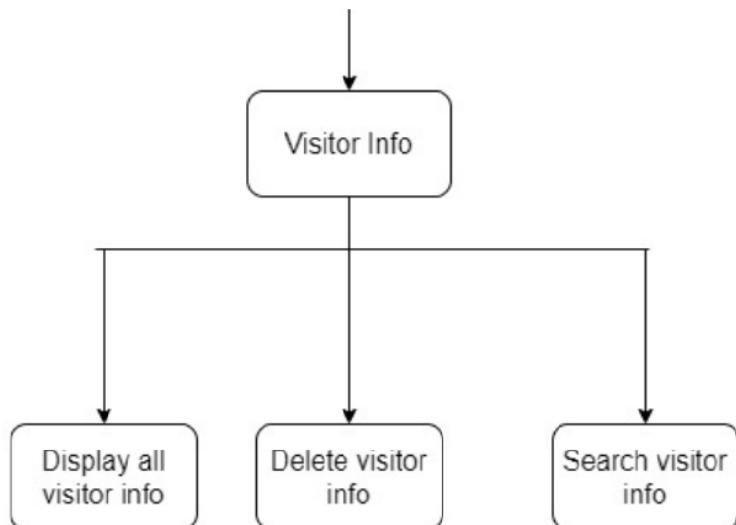


Figure 2.4.3 Show visitor module of admin function in structure chart

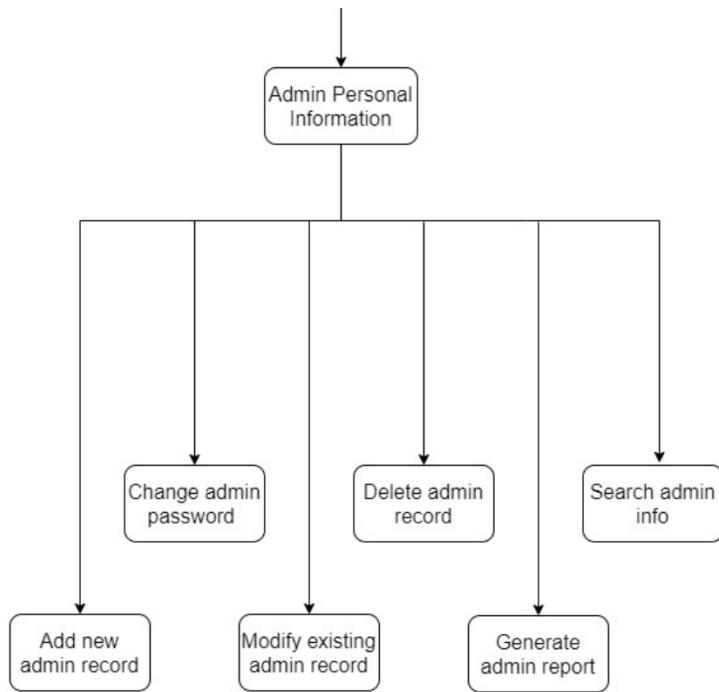


Figure 2.4.4 Show admin personal information module of admin function in structure chart

3.0 Main Screen Design

The screenshot shown is the home page of the Taruc contact-tracing system. The design is using the people to stand with each other on a specific distance in order to remind each other of social distancing to safeguard everyone's safety .

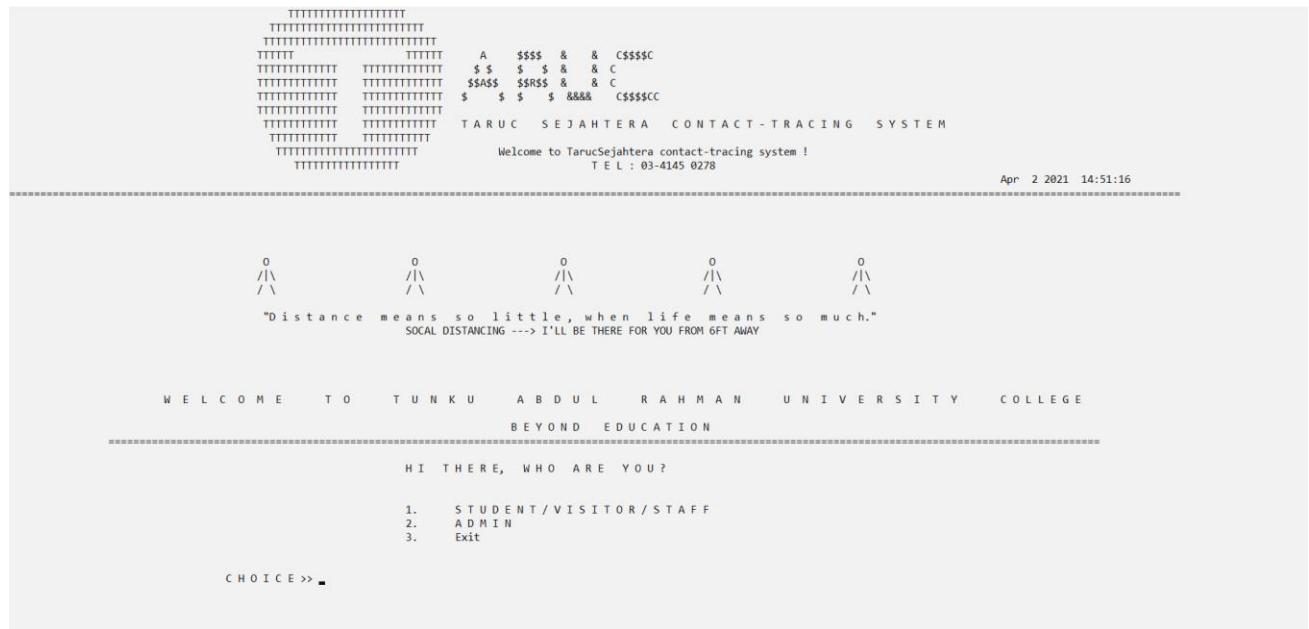


Figure 2.3.1 Show screenshot of homepage

4.0 System modules

4.1 Visitor Information Module by < Choo Wei Sern Vincent>

4.1.1 Brief Description.

- The visitor information module is the module that stores all data and information of existing visitor accounts into the system. Furthermore, it also allows new users to sign up for a new account to enjoy the benefits of the system. The visitor information is divided into 5 modules. As a normal visitor, he or she can only access the display user module, modify module and as an administrator, they can access the display all module, search module and delete module.

4.1.2 Output and File Contents

Main menu



1. Register Function

- When a user enters the program, the user will be greeted with the following interface with 3 options, which are Login, Register and Exit. Upon choosing the Register option, the new user will be directed to the register interface. The new user is prompted to enter the required personal information such as identification card number, full name, gender, date of birth, personal email address, contact number and home address. If the new user is a foreigner, the new user would be prompted to enter their passport number instead of identification card number.

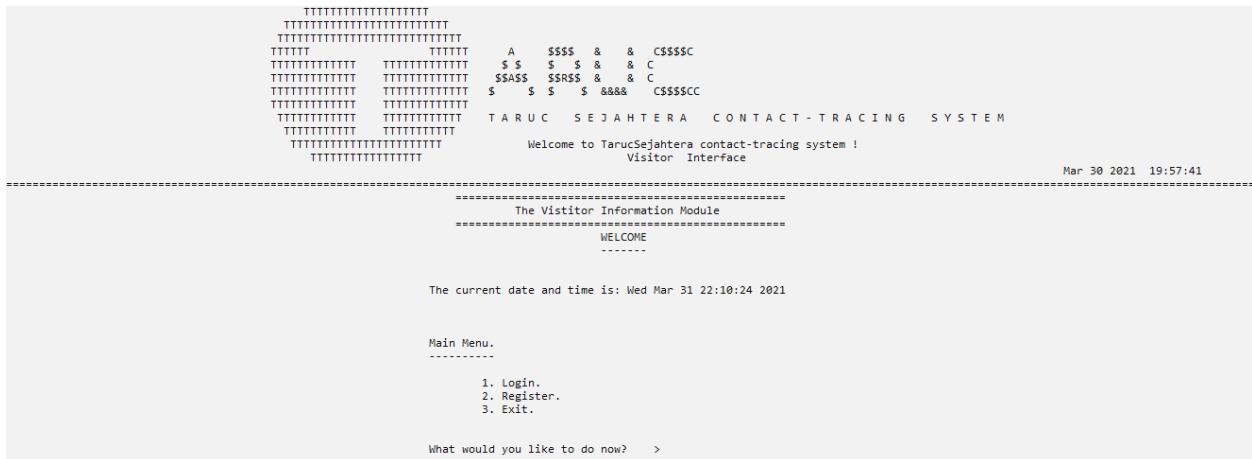


Figure 4.1.1 shows the main menu interface for student, visitor and staff.

- After filling up the required fields, the user is required to insert a password and a confirmation to create a new account. The system will display the generated visitor user ID to the user.

Figure 4.1.2 shows the registration interface of the system.

Registration Validation

- Validation Check 1

When the new user did not choose the available option of nationality in the registration interface, the system will prompt the user to enter again

```
-----  
          Account Registration  
-----  
Please enter your credentials accordingly.  
  
Are you a Malaysia? (Y/N)      >1  
Are you a Malaysia? (Y/N)      >g  
Are you a Malaysia? (Y/N)      >y  
Identity Card number (according to the Identity Card)      >
```

Figure 4.1.3 shows the invalid input validation of nationality.

- Validation Check 2

When the new user enters an invalid identity card number, the system will display the error message and prompt the user to enter a valid input. The criteria of a valid Identity number is [12 digit characters].

```

Identity Card number (according to the Identity Card)          >0606060606066
ERROR. You have entered 13 character(s). Please try again

Identity Card number (according to the Identity Card)          >060606060606a
ERROR. You have entered 1 alphabet(s). Please try again

Identity Card number (according to the Identity Card)          >0606060606060!
ERROR. You have entered 1 special character(s). Please try again

Identity Card number (according to the Identity Card)          >06060606060606

Full Name (FULL CAPS according to the Identity Card)         >

```

Figure 4.1.4 shows the invalid input validation identity card number.

- Validation Check 3

When the user enters an invalid name, the system will prompt an error indicating the invalid characters in the name and prompt the user to enter a valid name. The criteria of a valid name is [85 maximum alphabetical character]

```

Full Name (FULL CAPS according to the Identity Card)          >1vincent choo
ERROR. You have entered 1 digits(s). Please try again

Full Name (FULL CAPS according to the Identity Card)          >vincent choo!
ERROR. You have entered 1 special character(s). Please try again

Full Name (FULL CAPS according to the Identity Card)          >

```

Figure 4.1.5 shows the invalid input validation full name.

- Validation Check 4

When the user enters an invalid gender, the system will prompt an error indicating the invalid characters of gender and prompt the user to enter a valid name. The criteria of a valid name is either [M = male or F = female]

```

Gender (M = MALE / F = FEMALE)          >u
ERROR. Please choose the available options.

Gender (M = MALE / F = FEMALE)          >1
ERROR. Please choose the available options.

Gender (M = MALE / F = FEMALE)          >!
ERROR. Please choose the available options.

Gender (M = MALE / F = FEMALE)          >m

Date of Birth [day] (1-31)               >

```

Figure 4.1.6 shows the invalid input of gender.

- Validation Check 5

When the user enters an invalid day of birth, the system will prompt an error indicating the invalid digit and prompt the user to enter a valid name. The criteria of a valid name is [between 1 - 31]

```

Date of Birth [day] (1-31)               >a
ERROR. Your input is invalid. Please try again.

Date of Birth [day] (1-31)               >!
ERROR. Your input is invalid. Please try again.

Date of Birth [day] (1-31)               >

```

Figure 4.1.7 shows the invalid input of day of birth.

- Validation Check 6

When the user enters an invalid month of birth, the system will prompt an error indicating the invalid digit and prompt the user to enter a valid digit. The criteria of a valid name is [between 1 - 12].

```

Date of Birth [month] (1-12)            >13
ERROR. Your input is invalid. Please try again.

Date of Birth [month] (1-12)            >!
ERROR. Your input is invalid. Please try again.

Date of Birth [month] (1-12)            >a
ERROR. Your input is invalid. Please try again.

Date of Birth [month] (1-12)            >-

```

Figure 4.1.8 shows the invalid input of month of birth.

- Validation Check 7

When the user enters an invalid year of birth, the system will prompt an error indicating the invalid digit and prompt the user to enter a valid digit. The criteria of a valid name is [between 1900 - 2021].

```
Date of Birth [year] >1899
ERROR. Your input is invalid. Please try again.

Date of Birth [year] >2022
ERROR. Your input is invalid. Please try again.

Date of Birth [year] >a
ERROR. Your input is invalid. Please try again.

Date of Birth [year] >-
```

Figure 4.1.9 shows the invalid input of year of birth.

- Validation Check 7

When the user enters an invalid email address, the system will prompt an error indicating the invalid character and prompt the user to enter a valid email. The criteria of a valid name is [must have '@' and '.' AND '@' must come before '.'].

```
Please enter your new Email Address (e.g. jsmith@example.com) >vincegmail.com
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com) >vince@gmaailcom
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com) >vince.gamil@com
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com) >-
```

Figure 4.1.10 shows the invalid input of email address.

- Validation Check 8

When the user enters an invalid contact number, the system will prompt an error indicating the invalid character and prompt the user to enter a valid contact number. The criteria of a valid name is [max 13 numerical character with one [SPACE]].

```
Contact Number (e.g. 012 3456789) >a
ERROR. You have entered 0 space(s). Please try again

Contact Number (e.g. 012 3456789) >066 666666!
ERROR. You have entered 1 special character(s). Please try again

Contact Number (e.g. 012 3456789) >■
```

Figure 4.1.11 shows the invalid input of contact number.

2. Login Interface

- As an existing user account, the system will display the splash screen menu. The user is required to choose option one which is for student, visitor and staff.
- The user is then directed to the login screen interface. The system will prompt the user to enter the 2 required fields which are the User ID number and the password.



Figure 4.1.12 shows the login interface of the system.

Login Validations

• Validation Check 1

- If the User ID entered does not have any matching account in the system, the following screen will be displayed, providing three options to the user, which are the register account, retry and exit options.

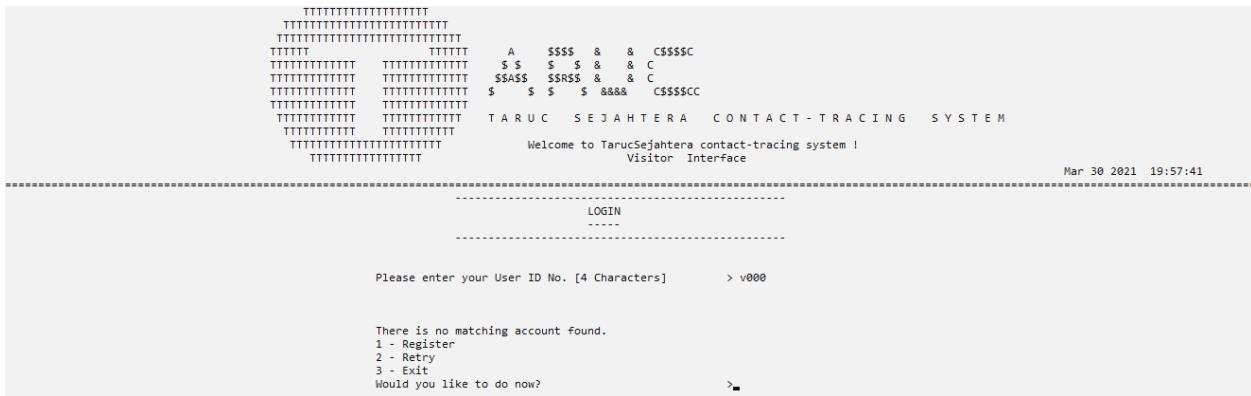


Figure 4.1.13 shows the display if the user ID is inexistent.

• Validation check 2.

After the user has entered an existing User ID, if the user entered an incorrect password, the system will display the following interface in Figure 4.1.5. The interface indicates to the user that the password does not match with the registered account and prompt the user to retry again. If the user wishes to exit the system, they can type 'XXX' to proceed.



Figure 4.1.14 shows the display if the user ID is invalid.

• Validation Check 3

When the user enters an invalid user ID, the system will prompt an error indicating the invalid character and prompt the user to enter a valid User ID. The criteria of a valid name is [4 characters consisting of 1 alphabet and 3 digits].

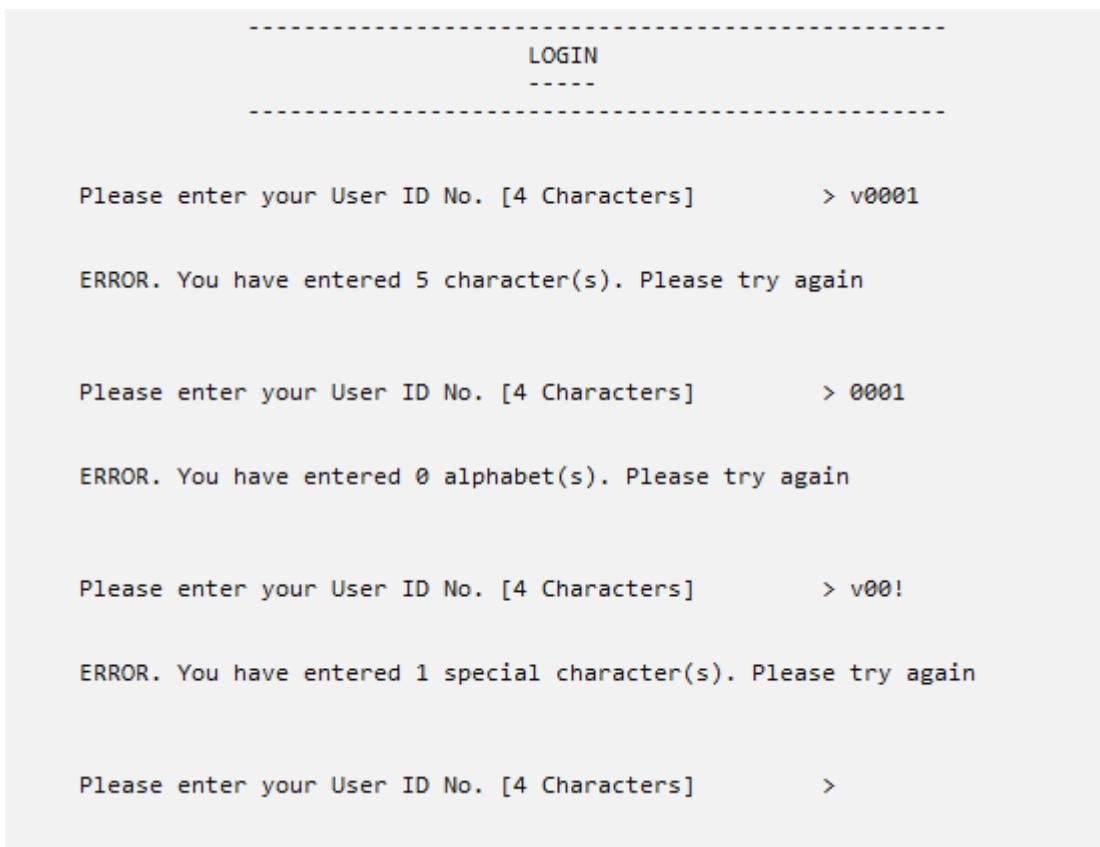


Figure 4.1.15 shows the display if the user ID is invalid.

3. Display User Information Interface (About Me)

- After login into the system, the system will display the profile menu options as shown. To display the profile information, the user needs to choose the first option, About Me, to check the profile credentials.



Figure 4.1.16 shows the profile main menu.

- In the About Me interface, the system displays the user's details in each dedicated field. The user can then choose to either remain in the About Me interface or return to the profile menu.

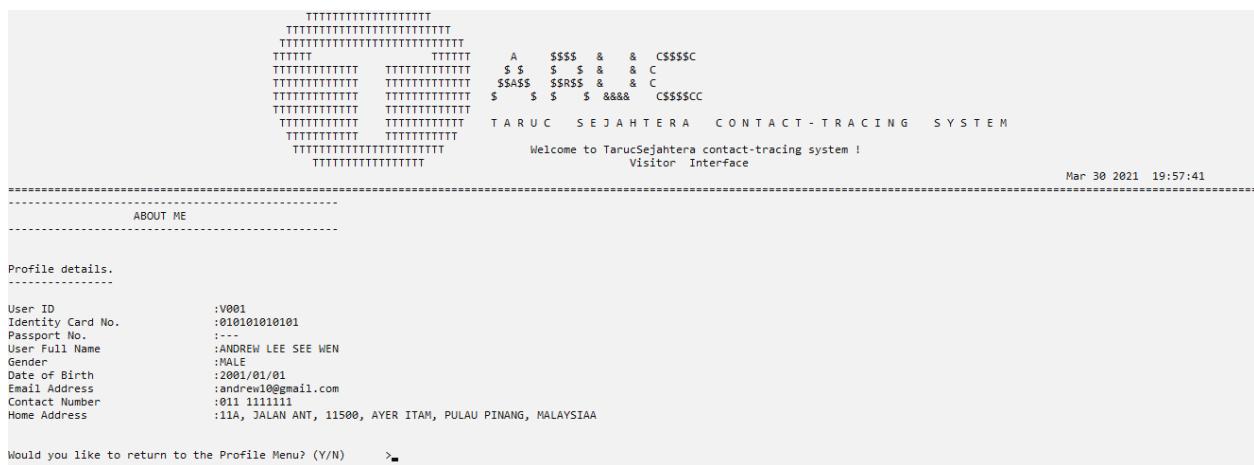


Figure 4.1.17 shows the About Me interface.

Display Validation

- Validation Check 1

When the user enters an invalid response, the system will prompt an error indicating the invalid character and prompt the user to enter a valid response.

```
-----  
ABOUT ME  
-----  
  
Profile details.  
-----  
  
User ID :V001  
Identity Card No. :010101010101  
Passport No. :---  
User Full Name :ANDREW LEE SEE WEN  
Gender :MALE  
Date of Birth :2001/01/01  
Email Address :andrew10@gmail.com  
Contact Number :011 11111111  
Home Address :45G, LORONG 4, JALAN PENANG, PENANG, MALAYSIA  
  
Would you like to return to the Profile Menu? (Y/N)      >h  
ERROR. Please choose the available options.  
  
Would you like to return to the Profile Menu? (Y/N)      >1  
ERROR. Please choose the available options.  
  
Would you like to return to the Profile Menu? (Y/N)      >
```

Figure 4.1.18 shows the display if the user input an invalid respond to exit display module

4.Modify User Information Interface (Change The Current Records)

- After login in and choosing the Change The Current Records option, the system will display the interface shown. The upper section shows the current saved profile details of the user in the system. Due to privacy and security restrictions, users are only permitted to modify three details in their profile settings , which are email address, contact number and the home address.



Figure 4.1.19 shows the Modify Function interface.

- After the modification, the system will prompt the user to Continue Modify or to Exit to the profile menu. If the user chose Continue Modify, the system will refresh the interface, and the profile details will be updated with the new profile details.



Figure 4.1.20 shows the options after the modification..

Modify Validation

- Validation Check 1

When the user enters an invalid email address, the system will prompt an error indicating the invalid character and prompt the user to enter a valid email. The criteria of a valid name is [must have '@' and '.' AND '@' must come before '.'].

```

Modify Menu.
-----
1.Email Address.
2.Contact Number.
3.Home Address.
4.Exit.

Which information would you like to modify?    >1

Please enter your new Email Address (e.g. jsmith@example.com)      >vincegmail.com
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com)      >vince@gmaailcom
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com)      >vince.gamil@com
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com)      >_

```

Figure 4.1.21 shows the display if the user input a new invalid email address.

- Validation Check 2

When the user enters an invalid contact number, the system will prompt an error indicating the invalid character and prompt the user to enter a valid contact number. The criteria of a valid name is [max 13 numerical character with one [SPACE]].

```

Contact Number  (e.g. 012 3456789)      >a
ERROR. You have entered 0 space(s). Please try again

Contact Number  (e.g. 012 3456789)      >066 666666!
ERROR. You have entered 1 special character(s). Please try again

Contact Number  (e.g. 012 3456789)      >_

```

Figure 4.1.22 shows the invalid input of contact number.

5.Delete Visitor Account Interface

- The delete visitor account interface can only be accessed by a registered administrator of the system. Upon login in the system as an admin, the system will prompt the administration menu with seven options shown below.

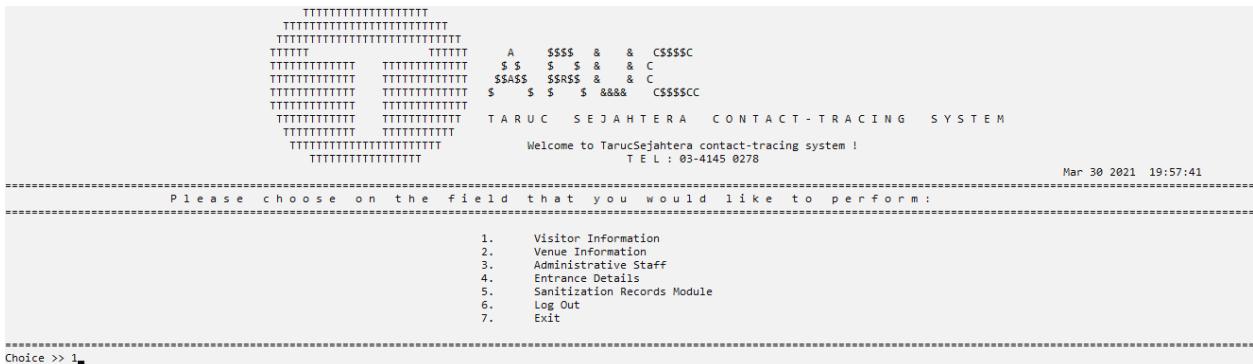


Figure 4.1.23 shows the administration main menu.

- After clicking on the Visitor information from the administration menu, the system will show the options related to the visitor information which is delete visitor account, display all visitor records and search user information.

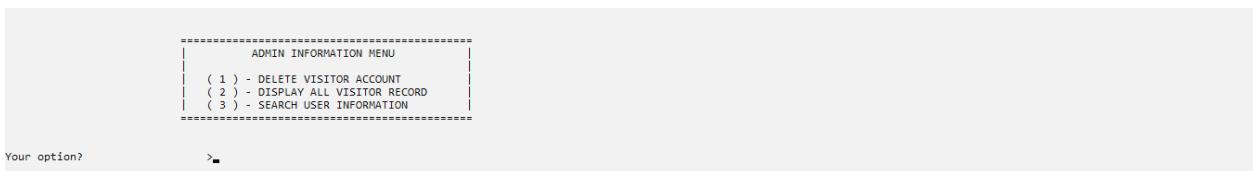


Figure 4.1.24 shows the administration option regarding the visitor information.

- Upon choosing the delete visitor account, the system will display the following interface. The administrator is prompted to input the intended User ID to delete. After verifying the User ID, the system will show the profile details of the User ID before prompting the confirmation to delete the existing user account. If the administrator proceeds the deletion, the system will prompt delete successful message and direct the administrator back to the profile menu, or else if the admin cancels the deletion, the administrator will just be directed back to the administration menu.

```

=====
|           ADMIN INFORMATION MENU
|   ( 1 ) - DELETE VISITOR ACCOUNT
|   ( 2 ) - DISPLAY ALL VISITOR RECORD
|   ( 3 ) - SEARCH USER INFORMATION
=====

Your option? >1
----- DELETE FUNCTION -----
----- 

Please enter your Visitor ID No. to be deleted [4 Characters] >v001

The Profile Details of User V001
-----
User ID          :V001
Identity Card No. :010101010101
Passport No.     :---
User Full Name   :ANDREW LEE SEE WEN
Gender           :MALE
Date of Birth    :2001/01/01
Email Address    :andrew10@gmail.com
Contact Number   :011 1111111
Home Address     :11A, JALAN ANT, 11500, AYER ITAM, PULAU PINANG, MALAYSIAA

Delete Function Options
-----
Y = Yes.
N = No.

Confirmation to delete your existing account.      >y
The termination the account of Visitor ID: V001 has been processed. You will now be directed to the Main Menu.
Press any key to continue . . .

```

Figure 4.1.25 shows the administration option regarding the visitor information.

Delete validation

- Validation Check 1

When the user enters an invalid User ID, the system will prompt an error indicating the invalid character and prompt the user to enter a valid User ID. The criteria of a valid User ID is [4 characters consisting of one alphabet and 33 digits].

```
=====
|           ADMIN INFORMATION MENU
|           ( 1 ) - DELETE VISITOR ACCOUNT
|           ( 2 ) - DISPLAY ALL VISITOR RECORD
|           ( 3 ) - SEARCH USER INFORMATION
=====

Your option?      >1
-----
        DELETE FUNCTION
-----

Please enter your Visitor ID No. to be deleted [4 Characters]      >v0001

ERROR. You have entered 5 character(s). Please try again

Please enter your Visitor ID No. to be deleted [4 Characters]      >vv01

ERROR. You have entered 2 alphabet(s). Please try again

Please enter your Visitor ID No. to be deleted [4 Characters]      >v00!

ERROR. You have entered 1 special character(s). Please try again

Please enter your Visitor ID No. to be deleted [4 Characters]      >
```

Figure 4.1.26 shows the invalid input of user ID in the delete module.

6. Display All Visitor Account Interface

- After choosing the Display All Visitor Record, the system will direct the administration to the display all visitor record interface.

ADMIN INFORMATION MENU						
(1) - DELETE VISITOR ACCOUNT						
(2) - DISPLAY ALL VISITOR RECORD						
(3) - SEARCH USER INFORMATION						
Your option?	>2					
DISPLAY VISITOR INFORMATION RECORDS MODULE						
User ID	User IC	Pp.No	Full Name	[Sex]	B.Date	Email
						Contact No
						Home Address
V001 010101010101 --- ANDREW LEE SEE WEN M 2001/01/01 andrew10@gmail.com 011 11111111 45G, LORONG 4, JALAN PENANG, PENANG, MALAYSIA 1						S
V002 020202020202 --- CANDANCE TEOH TEE KUAN F 2002/02/02 candance20@gmail.com 022 22222222 22B, JALAN BEAR, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V003 030303030303 --- MUHAMMAD ALI BIN SAID M 2002/03/03 ali30@gmail.com 033 33333333 33C, JALAN CAT, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
F004 --- G00001 ALFRED GREY STAR M 2002/03/03 greyStar30@gmail.com 044 44444444 44D,TANGLIN ROAD, 247964,SINGAPORE 1						
A005 040404040404 --- HANNAH YEOH WEI LEE F 2004/04/04 hannah@gmail.com 055 55555555 55E, JALAN EEL, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V006 050505050505 --- WILLIAM LIM SIN KANG M 2003/02/10 william1@gmail.com 017 8987876 7A, JALAN FAL, 11100, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V007 000201070091 --- BENJAMIN TEOH TEE KUAN M 2000/02/01 benjamin20@gmail.com 018 7012345 66G, JALAN KAS, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V008 001203072234 --- MUHAMMAD ALI BIN SEAD M 2000/12/03 ali3@gmail.com 013 4567891 6X, JALAN SAYD, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
F009 --- G00002 JAYDEN SMITH JORDON M 2002/03/03 jordon@gmail.com 013 3338976 4Y, BLOCK 10,LION ROAD, 247964,SINGAPORE 1						
F010 --- G00003 BRANDON LEE KEE MAI M 1999/03/03 brandon@gmail.com 018 8881123 9PP, BLOCK 6,YU ROAD, 247964,SINGAPORE 1						
V011 980101070666 --- AIDEN TAN TEE MAI F 1998/01/01 aiden@gmail.com 017 9999987 22C, JALAN BEAR, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V012 988202079988 --- SHANNON LIM WEI LEE F 1998/02/02 shannon98@gmail.com 012 3332321 55C, JALAN CAT, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V013 990404073454 --- ADRIANA CHU LING KANG F 1999/04/04 adriana@gmail.com 012 2345676 98B, JALAN KILO, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V014 991112074566 --- ALISON CARSON BRIE F 1999/11/12 alisonbrie@gmail.com 018 7776657 09C, JALAN HAMA, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V015 990807070988 --- SAMANTHA SAW SEE LEE F 1999/08/07 samantha@gmail.com 015 2029990 76B, JALAN BATU, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V016 001123078193 --- HILTON LEWAY TAN M 2000/11/23 hilton@gmail.com 017 9919987 5TF, JALAN KAM, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V017 970531078816 --- HAMILTON JESSE BROK M 1997/05/31 hamilton98@gmail.com 012 8812345 67A,JALAN QUO, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V018 961109070006 --- ADRIAN BROWN HEE M 1996/11/09 adrian@gmail.com 012 7765543 998T, JALAN SCOT, 11500, AYER ITAM, KEDAH, MALAYSIA 1						
V019 950320070987 --- ALISON JANE LEE F 1995/03/20 alijane@gmail.com 018 2276657 9B, JALAN BLUE, 11500, AYER ITAM, PULAU PINANG, MALAYSIA 1						
V020 940802071238 --- AMINATH JENIFFER GWEN F 1994/08/02 aminath@gmail.com 014 2026660 230N, JALAN NEOH, 11790, PERLIS, PULAU PINANG, MALAYSIA 0						

Press any key to continue . . .
Would you like to return to the Profile Menu? (Y/N) >

Figure 4.1.27 shows the display all users record interface.

- The system will read the text file which contains all the visitor information and display the details in a table format as shown. The table header consist of User ID, User IC, passport number, full name, sex, birth date, email address, contact number, home address and account status.

Display All User Record Validation

- Validation Check 1

When the user enters an invalid response, the system will prompt an error indicating the invalid character and prompt the user to enter a response. The criteria of a response is [Y = yes OR N = no].

```
Press any key to continue . . .
Would you like to return to the Profile Menu? (Y/N)      >a
ERROR. Please choose the available options.

Would you like to return to the Profile Menu? (Y/N)      >1
ERROR. Please choose the available options.

Would you like to return to the Profile Menu? (Y/N)      >!
ERROR. Please choose the available options.

Would you like to return to the Profile Menu? (Y/N)      >y
You will now be directed to the Profile Menu.
Press any key to continue . . . ■
```

Figure 4.1.28 shows the invalid response when exiting display all user record modules.

7. Search Visitor Information Interface

- After choosing the Search Visitor Information option, the system will direct the administrator to the search visitor information interface.



Figure 4.1.29 shows the display all users record interface.

- The Search interface will display the available category to search by in the current user account record in the system. The admin can search by User ID, identification card number, passport number, full name, gender, birth month, birth year, email address, contact number, home address and account status.
- After choosing one of the options, the admin is required to input the necessary keywords for the system to search by and compare with. The search result is then displayed in a list in a table as shown below.

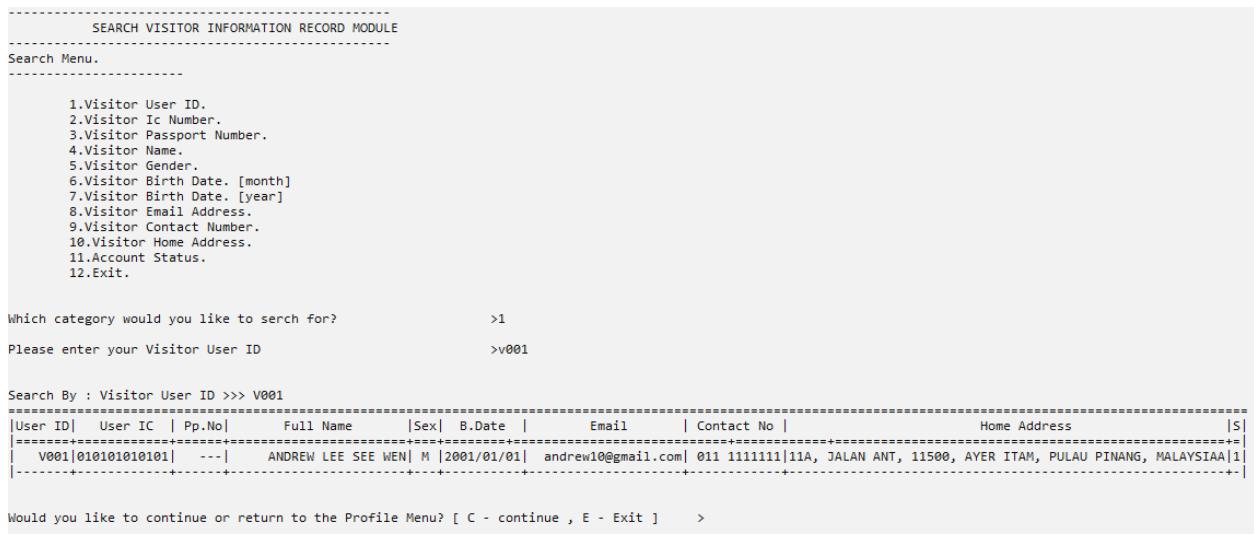


Figure 4.1.30 shows the search visitor information interface.

Search User Record Validation

- Validation Check 1

When the admin enters an invalid User ID, the system will prompt an error indicating the invalid character and prompt the user to enter a valid User ID. The criteria of a valid User ID is [4 characters consisting of one alphabet and 33 digits].

```

=====
|           ADMIN INFORMATION MENU
|           ( 1 ) - DELETE VISITOR ACCOUNT
|           ( 2 ) - DISPLAY ALL VISITOR RECORD
|           ( 3 ) - SEARCH USER INFORMATION
=====

Your option?      >1
-----
        DELETE FUNCTION
-----

Please enter your Visitor ID No. to be deleted [4 Characters]      >v0001

ERROR. You have entered 5 character(s). Please try again

Please enter your Visitor ID No. to be deleted [4 Characters]      >vv01

ERROR. You have entered 2 alphabet(s). Please try again

Please enter your Visitor ID No. to be deleted [4 Characters]      >v00!

ERROR. You have entered 1 special character(s). Please try again

Please enter your Visitor ID No. to be deleted [4 Characters]      >

```

Figure 4.1.31 shows the invalid input of user ID in the search module.

- Validation Check 2

When the admin enters an invalid identity card number, the system will display the error message and prompt the user to enter a valid input. The criteria of a valid Identity number is [12 digit characters].

```
Identity Card number (according to the Identity Card)          >0606060606066
ERROR. You have entered 13 character(s). Please try again

Identity Card number (according to the Identity Card)          >06060606060a
ERROR. You have entered 1 alphabet(s). Please try again

Identity Card number (according to the Identity Card)          >06060606060!
ERROR. You have entered 1 special character(s). Please try again

Identity Card number (according to the Identity Card)          >060606060606

Full Name (FULL CAPS according to the Identity Card)          >
```

Figure 4.1.32 shows the invalid input validation identity card number in search module.

- Validation Check 3

When the admin enters an invalid passport number, the system will display the error message and prompt the user to enter a valid input. The criteria of a valid Passport number is [e.g. G00001]

```

-----  

SEARCH VISITOR INFORMATION RECORD MODULE  

-----  

Search Menu.  

-----  

1.Visitor User ID.  

2.Visitor Ic Number.  

3.Visitor Passport Number.  

4.Visitor Name.  

5.Visitor Gender.  

6.Visitor Birth Date. [month]  

7.Visitor Birth Date. [year]  

8.Visitor Email Address.  

9.Visitor Contact Number.  

10.Visitor Home Address.  

11.Account Status.  

12.Exit.  

Which category would you like to search for? >3  

Please enter the Visitor Passport Number >g0001  

ERROR. You have entered 5 character(s). Please try again  

Please enter the Visitor Passport Number >000001  

ERROR. You have entered 0 alphabet(s). Please try again  

Please enter the Visitor Passport Number >g000 1  

ERROR. You have entered 1 special character(s). Please try again  

Please enter the Visitor Passport Number >g000!1  

ERROR. You have entered 1 special character(s). Please try again  

Please enter the Visitor Passport Number >

```

Figure 4.1.33 shows the invalid input validation identity card number in search module.

- Validation Check 4

When the user enters an invalid name, the system will prompt an error indicating the invalid characters in the name and prompt the user to enter a valid name. The criteria of a valid name is [85 maximum alphabetical character]

```
Full Name (FULL CAPS according to the Identity Card)          >1vincent choo
ERROR. You have entered 1 digits(s). Please try again
```

```
Full Name (FULL CAPS according to the Identity Card)          >vincent cho!
ERROR. You have entered 1 special character(s). Please try again
```

```
Full Name (FULL CAPS according to the Identity Card)          >
```

Figure 4.1.34 shows the invalid input validation full name in search module.

- Validation Check 5

When the user enters an invalid gender, the system will prompt an error indicating the invalid characters of gender and prompt the user to enter a valid name. The criteria of a valid name is either [M = male or F = female]

```
Gender (M = MALE / F = FEMALE)          >u
ERROR. Please choose the available options.
```

```
Gender (M = MALE / F = FEMALE)          >1
ERROR. Please choose the available options.
```

```
Gender (M = MALE / F = FEMALE)          >!
ERROR. Please choose the available options.
```

```
Gender (M = MALE / F = FEMALE)          >m
```

```
Date of Birth [day] (1-31)             >
```

Figure 4.1.35 shows the invalid input of gender in the search module.

- Validation Check 6

When the user enters an invalid month of birth, the system will prompt an error indicating the invalid digit and prompt the user to enter a valid digit. The criteria of a valid name is [between 1 - 12].

```

Date of Birth [month]      (1-12)          >13
ERROR. Your input is invalid. Please try again.

Date of Birth [month]      (1-12)          >!
ERROR. Your input is invalid. Please try again.

Date of Birth [month]      (1-12)          >a
ERROR. Your input is invalid. Please try again.

Date of Birth [month]      (1-12)          >■

```

Figure 4.1.36 shows the invalid input of month of birth in the search module.

- Validation Check 7

When the user enters an invalid year of birth, the system will prompt an error indicating the invalid digit and prompt the user to enter a valid digit. The criteria of a valid name is [between 1900 - 2021].

```

Date of Birth [year]          >1899
ERROR. Your input is invalid. Please try again.

Date of Birth [year]          >2022
ERROR. Your input is invalid. Please try again.

Date of Birth [year]          >a
ERROR. Your input is invalid. Please try again.

Date of Birth [year]          >■

```

Figure 4.1.37 shows the invalid input of year of birth in the search module.

- Validation Check 8

When the user enters an invalid email address, the system will prompt an error indicating the invalid character and prompt the user to enter a valid email. The criteria of a valid name is [must have '@' and '.' AND '@' must come before '.'].

```

Modify Menu.
-----
1.Email Address.
2.Contact Number.
3.Home Address.
4.Exit.

Which information would you like to modify?    >1

Please enter your new Email Address (e.g. jsmith@example.com)      >vincegmail.com
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com)      >vince@gmaailcom
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com)      >vince.gamil@com
ERROR. Please try again.

Please enter your new Email Address (e.g. jsmith@example.com)      >_

```

Figure 4.1.38 shows the display if the user input a new invalid email address in search module.

- Validation Check 9

When the user enters an invalid contact number, the system will prompt an error indicating the invalid character and prompt the user to enter a valid contact number. The criteria of a valid name is [max 13 numerical character with one [SPACE]].

```

Contact Number  (e.g. 012 3456789)      >a
ERROR. You have entered 0 space(s). Please try again

Contact Number  (e.g. 012 3456789)      >066 666666!
ERROR. You have entered 1 special character(s). Please try again

Contact Number  (e.g. 012 3456789)      >_

```

Figure 4.1.39 shows the invalid input of contact number in search module.

- Validation Check 10

When the user enters an invalid account status, the system will prompt an error indicating the invalid character and prompt the user to enter a valid input. The criteria of a account status is [1 = active OR 0 = deleted].

```
-----  
SEARCH VISITOR INFORMATION RECORD MODULE  
-----  
Search Menu.  
-----  
1.Visitor User ID.  
2.Visitor Ic Number.  
3.Visitor Passport Number.  
4.Visitor Name.  
5.Visitor Gender.  
6.Visitor Birth Date. [month]  
7.Visitor Birth Date. [year]  
8.Visitor Email Address.  
9.Visitor Contact Number.  
10.Visitor Home Address.  
11.Account Status.  
12.Exit.  
  
Which category would you like to search for? >11  
  
Please enter Visitor Account Status (1 = ACTIVE|0 = DELETED) >2  
ERROR. Please choose the available options.  
  
Please enter Visitor Account Status (1 = ACTIVE|0 = DELETED) >a  
ERROR. Please choose the available options.  
  
Please enter Visitor Account Status (1 = ACTIVE|0 = DELETED) >!  
ERROR. Please choose the available options.  
Please enter Visitor Account Status (1 = ACTIVE|0 = DELETED) >
```

Figure 4.1.40 shows the invalid input of account status in search module.

4.2 Venue information module by < Tan Yan Pin >

4.2.1 brief description

Venue information module is a module that stores all the information about the venue like venue id, venue name, venue operating time, and others. This module is mainly for admin only and visitors will not be able to access this venue information module. This module allows users to add, modify, display, search, make reservations and delete the venue record.

4.2.2 Outputs & Files Contents

First when the admin goes into the venue information module, this menu will show where all the available functions will display for admin and let admin to choose which function they want to perform, we have add, modify, display, search, make reservation and delete functions that can be performed by admin.



Figure 4.2.2.1 venue information menu

1. Add Menu function

If the admin chooses an add function, this menu will show up where it will let the admin key in the detail of the new venue like venue category, name, maximum visitor, etc.

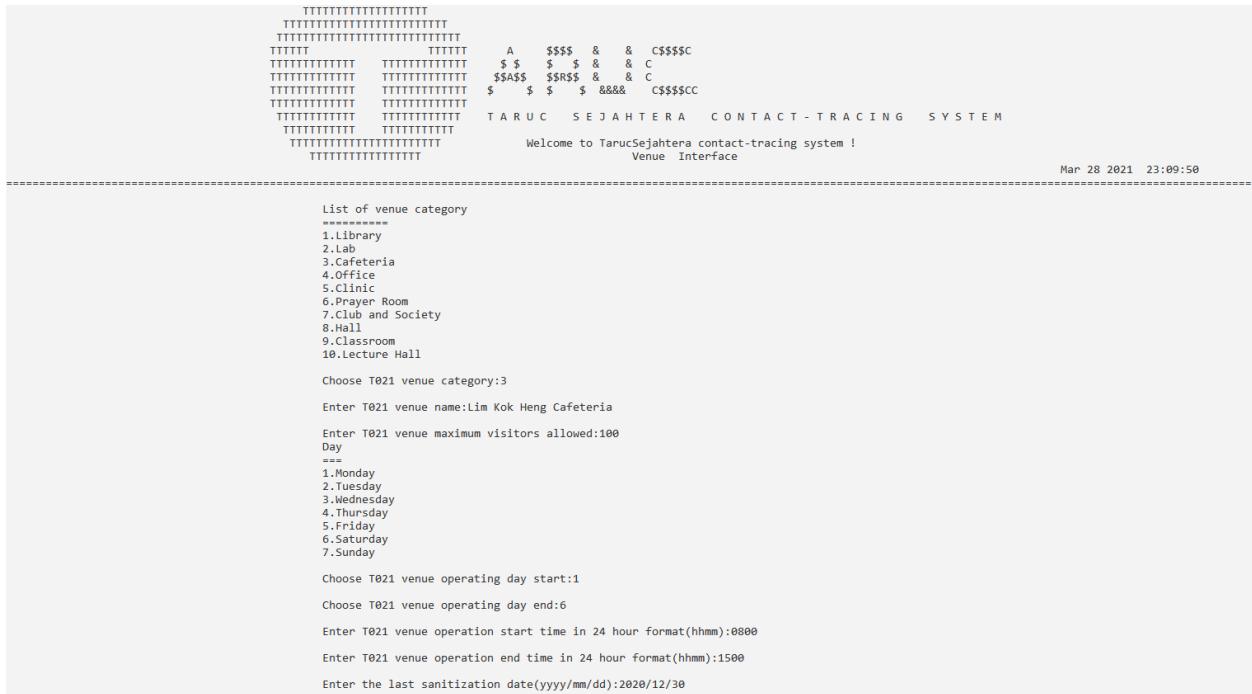


Figure 4.2.2.2 add function entering new information

After they choose the correct venue category, the program will

After the admin key in the detail, the newly inputted venue information will be displayed out for admin and ask the user if they want to continue adding another venue information or go back to venue information menu

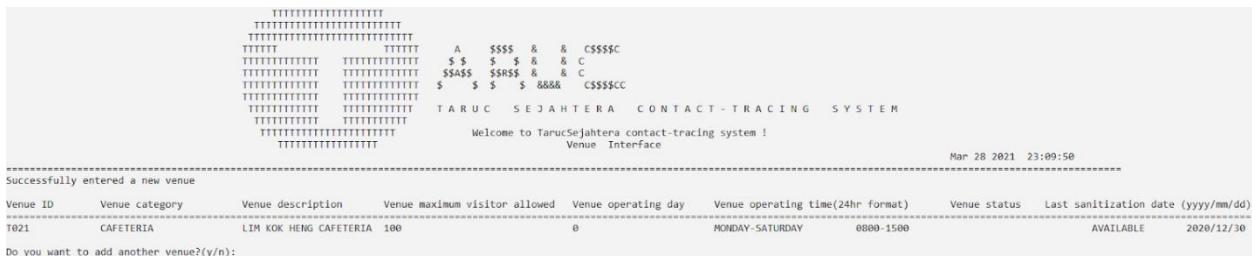


Figure 4.2.2.3 displays out the new venue information

Validation check for add function

- Validation check(1)

When the user key is in alphabet or any number that is greater than 10 or smaller than 0, the program will ask the user to enter again until the user enters the correct digit.

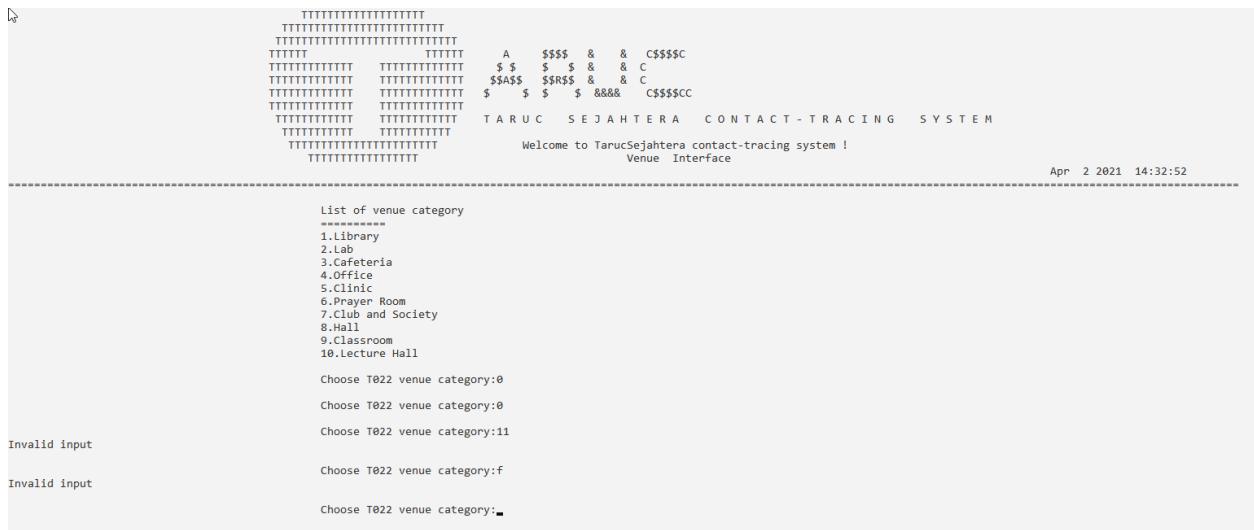


Figure 4.2.2.4 check if the input is digit and within the range of 1 to 10

➤ Validation check(2)

The program will run an existing check on the venue name, if the venue name already exists in the record, an error message will come out and prompt the user to re-enter again.

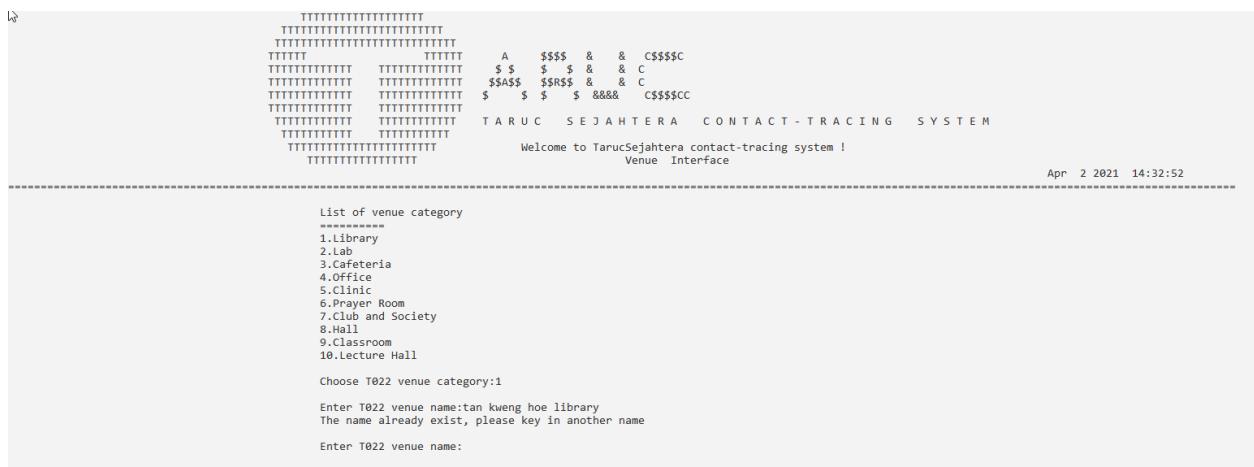


Figure 4.2.2.5 user entered existing name

➤ Validation check(3)

For maximum visitor allowed, the program will only check if the input is digit or not, if not, the program will prompt user to enter again

Figure 4.2.2.6 check digit

➤ Validation check(4)

If the operating day start time is earlier than the end time, the program will prompt the user to re-enter again

Figure 4.2.2.7 check operating day

2. Modify venue function

When the user selects modify venue information, a list of venue information will be displayed and let the user key in the ID of the venue that they wish to modify.

List of venue							
Venue ID	Venue category	Venue Name	Venue maximum visitor allowed	Venue current visitor	Venue operating day	Venue operating time(24hr format)	Venue status
T001	LIBRARY	DATUK LEE LIBRARY	100	1	MONDAY-SATURDAY	0800-1200	AVAILABLE
T002	LIBRARY	DATUK LEE LIBRARY	100	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
T003	LAB	COMPUTER LAB	30	2	MONDAY-SATURDAY	0800-1600	AVAILABLE
T004	LAB	SCIENCE LAB	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
T005	LAB	COMPUTER LAB 2	30	0	MONDAY-SATURDAY	0800-1600	AVAILABLE
T006	LAB	SCIENCE LAB 2	30	0	MONDAY-SATURDAY	0800-1600	AVAILABLE
T007	CLASSROOM	CLASSROOM 1	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
T008	CLASSROOM	CLASSROOM 1	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
T009	CAFFETERIA	MICHAEL CAFETERIA	100	2	MONDAY-SATURDAY	0800-1700	AVAILABLE
T010	OFFICE	LECTURE OFFICE	100	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
T011	CLINIC	STUDENT CLINIC	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
T012	PRAYER ROOM	MOSQUE	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
T013	CLUB AND SOCIETY	SOUTH CLUB AND SOCIETY	100	0	MONDAY-SATURDAY	0800-1700	AVAILABLE
T014	CLUB AND SOCIETY	NORTH CLUB AND SOCIETY	100	3	MONDAY-SATURDAY	0800-1600	AVAILABLE
T015	HALL	MAIN HALL	30	0	MONDAY-SATURDAY	0800-1600	AVAILABLE
T016	HALL	DATUK LIM HALL	30	0	MONDAY-SATURDAY	0800-1600	AVAILABLE
T017	CLASSROOM	CLASSROOM 3	100	0	MONDAY-SATURDAY	0800-1700	AVAILABLE
T018	CLASSROOM	CLASSROOM 4	100	3	MONDAY-SATURDAY	0800-1600	AVAILABLE
T019	LECTURE HALL	COMPUTER LAB	30	1	MONDAY-SATURDAY	0800-2300	AVAILABLE
T020	LECTURE HALL	SCIENCE LAB	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
T021	CAFETERIA	LIM KOK HENG CAFETERIA	100	0	MONDAY-SATURDAY	0800-1500	AVAILABLE

Enter the venue Id you wish to modify:

Figure 4.2.2.8 list out all venue information and let user choose

Once they select the venue that they want to modify, this menu will show up the venue detail and displays all time of the data field that the user can modify and let the user choose.

List of venue							
Venue ID	Venue category	Venue Name	Venue maximum visitor allowed	Venue current visitor	Venue operating day	Venue operating time(24hr format)	Venue status
T002	LIBRARY	DATUK LEE LIBRARY	100	1	MONDAY-SATURDAY	0800-1600	AVAILABLE
Modify menu							
1.Change venue category 2.Change venue name 3.Change venue maximum visitor allowed 4.Change operating day 5.Change venue operation time 6.Change last sanitization date 7.Modify all 8.Return to main menu							
What do you want to modify? (1/2/3/4/5/6/7):							

Figure 4.2.2.9 modify menu

Once they select the field type they want to modify, the program will prompt the user to key in the new data to replace the old one, below use “modify all” choices as an example as it updates all the datafield in the venue information.

Figure 4.2.2.10 entered new information to modify the venue information

After they key in every information for the venue, the program will ask the user if the user wants to modify the record, if they choose yes, then the record will be updated to the new data and display the updated record to the user, and ask if they want to modify other records.

Figure 4.2.2.11 display the updated venue information and prompt user to do again or quit

If the user chooses to modify another record, the function will loop and redo the first step where it lists out all the records and let the user choose which venue they want to modify.

Validation check on modify function

➤ Validation check (1)

The program will do an existing check on the record id, if the id that the user entered does not match to any existing record, the program will ask if the user wants to modify another record and then let the user enter the id again.

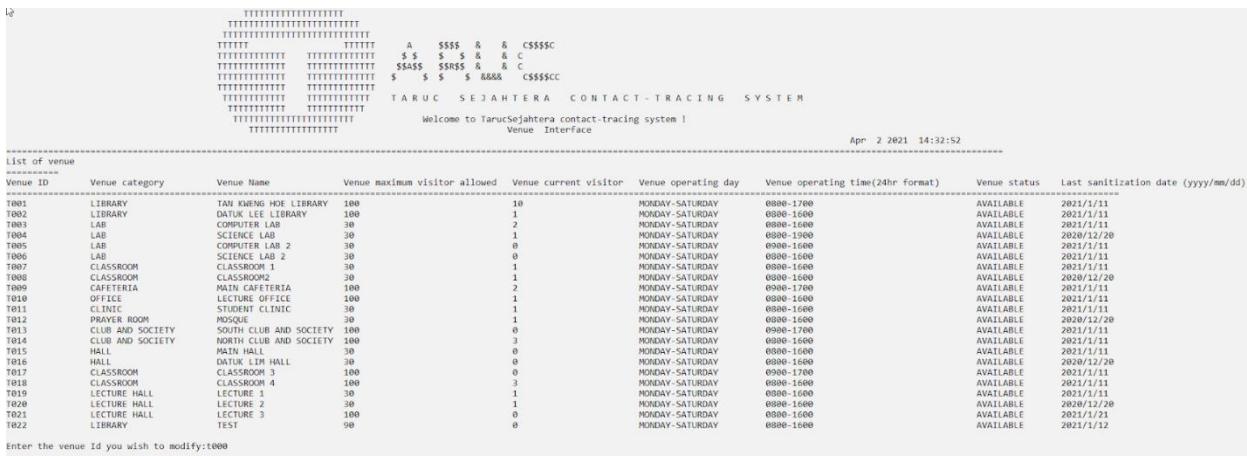


Figure 4.2.2.12 entering venue id that doesn't exist

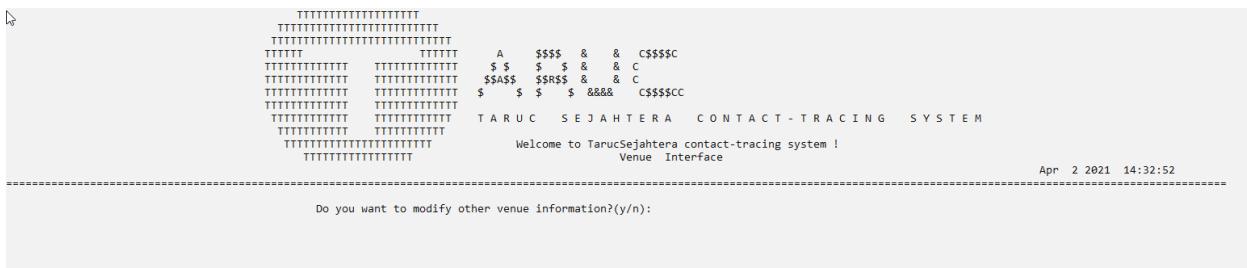


Figure 4.2.2.13 error message

➤ Validation check (2)

When the user key is either alphabet or number that is greater than 8 or smaller than 0, the program will prompt the user if they want to modify it again then let them enter the id again.



Figure 4.2.2.14 user entered alphabet



Figure 4.2.2.15 user entered invalid value

➤ Validation check (3)

When the user enters the alphabet or number greater than 10 or smaller than 1, the program will prompt the user to enter again.



Figure 4.2.2.16 invalid input error

➤ Validation check (4)

When the name entered already exist in the record, the program will prompt the user to enter again

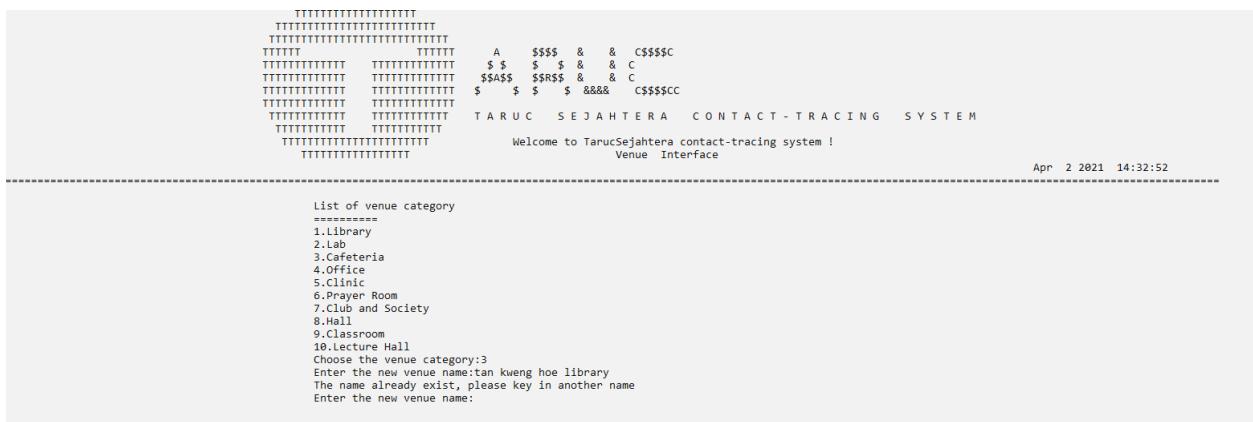


Figure 4.2.2.17 existed name

3. Display venue function

For display function, it's very straightforward. First, there are 2 types of records that the user can view. First one displays all the venue information and the second choice displays all the reservation records.

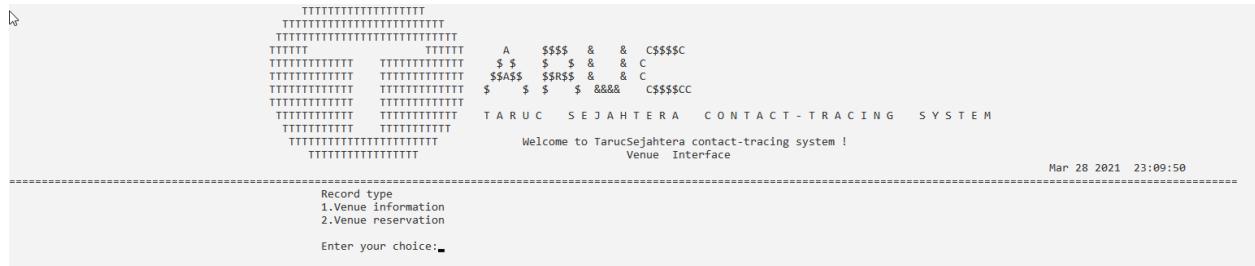


Figure 4.2.2.18 display menu

If the user chooses to display all the venue information, the program will display all venue information and prompt the user if they want to display again. If they choose yes, then the program will loop to the first picture and let them choose what record to display again.

TARUC SEJAHTERA CONTACT-TRACING SYSTEM								
Welcome to TarucSejahtera contact-tracing system !								
Venue Interface								
Mar 28 2021 23:09:50								
Record type								
1.Venue information								
2.Venue reservation								
Enter your choice:-								
Venue ID	Venue category	Venue Name	Venue maximum visitor allowed	Venue current visitor	Venue operating day	Venue operating time(24hr format)	Venue status	Last sanitization date (yyyy/mm/dd)
T001	LIBRARY	TAR KENG HOC LIBRARY	0	10	MONDAY-SATURDAY	0900-2300	AVAILABLE	2021/1/11
T002	LIBRARY	DATUK LEE LIBRARY	100	1	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T003	LAB	COMPUTER LAB	30	2	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T004	LAB	SCIENCE LAB	30	1	MONDAY-SATURDAY	0800-1900	AVAILABLE	2020/12/28
T005	LAB	COMPUTER LAB 2	30	0	MONDAY-SATURDAY	0900-1600	AVAILABLE	2021/1/11
T006	LAB	SCIENCE LAB 2	30	0	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T007	CLASSROOM	CLASSROOM 1	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T008	CLASSROOM	CLASSROOM2	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE	2020/12/28
T009	CAFFETERIA	MAIN CAFETERIA	100	2	MONDAY-SATURDAY	0900-1700	AVAILABLE	2021/1/11
T010	OFFICE	LIAISON OFFICE	100	1	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T011	CLINIC	STUDENT CLINIC	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T012	PRAYER ROOM	MOSQUE	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE	2020/12/28
T013	CLUB AND SOCIETY	SOUTH CLUB AND SOCIETY	100	0	MONDAY-SATURDAY	0900-1700	AVAILABLE	2021/1/11
T014	CLUB AND SOCIETY	NORTH CLUB AND SOCIETY	100	2	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T015	HALL	MAIN HALL	30	0	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T016	HALL	DATUK LIM HALL	30	0	MONDAY-SATURDAY	0800-1600	AVAILABLE	2020/12/28
T017	CLASSROOM	CLASSROOM 3	100	0	MONDAY-SATURDAY	0900-1700	AVAILABLE	2021/1/11
T018	CLASSROOM	CLASSROOM 4	100	3	MONDAY-SATURDAY	0800-1600	AVAILABLE	2021/1/11
T019	LECTURE HALL	COMPUTER LAB	30	1	MONDAY-SATURDAY	0800-1200	AVAILABLE	2021/1/11
T020	LECTURE HALL	SCIENCE LAB	30	1	MONDAY-SATURDAY	0800-1600	AVAILABLE	2020/12/28
T021	CAFETERIA	LIM KOK HENG CAFETERIA	100	0	MONDAY-SATURDAY	0800-1500	AVAILABLE	2020/12/30

Figure 4.2.2.19 displays all the record for the selected record type

4. Search venue function

For search function, the program will display all types of data fields that can be searched by the user. The user will have to choose which data field they want to search.



Figure 4.2.2.20 search menu

After they choose what data field they want to search, the program will prompt them to either key in the key word that they want to search or select a certain keyword to search.

Once they key in the keyword, the program will display all the records with the same keyword.



Figure 4.2.2.21 entered searching keyword and result

5. Reservation venue function

The extra function for venue information is reservation, where the user can make reservations for the venue for certain cases like cleaning, renovating and others. First the program will display all the venue information and let the user key in the venue id that they want to make reservations.

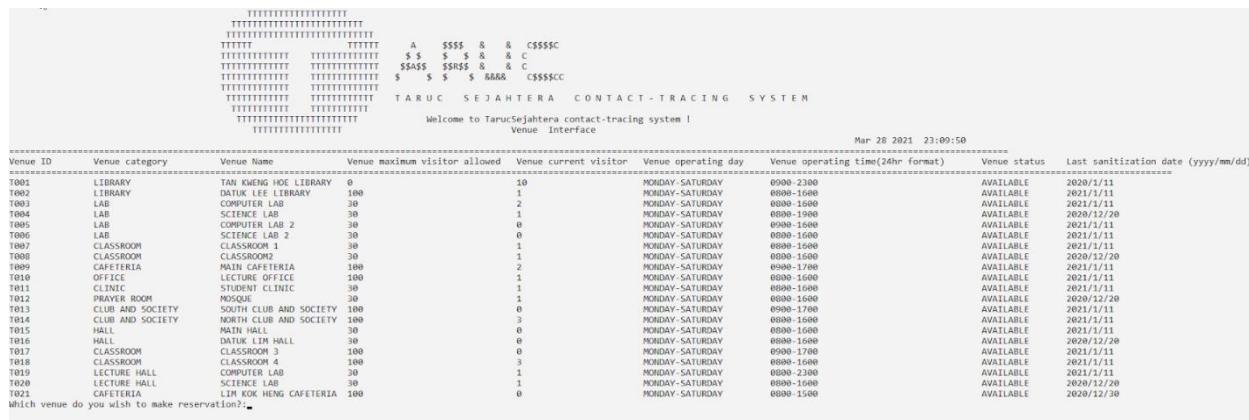


Figure 4.2.2.22 list of venue to let user choose

After they key in the venue id that they want to make a reservation, the program will prompt the user to enter the date and time of the reservation. Then the program will display the info that the user just entered and reservation will be made.



Figure 4.2.2.23 display the reservation date and time after they successfully make the reservation

➤ Validation check (1)

When the date that the user entered is earlier than today's date, the program will prompt the user to enter the date again.



Figure 4.2.2.24 entering past date

➤ Validation check (2)

When the user enters the time that is earlier or later than the venue's operating time, the program will prompt the user to enter the time again.



Figure 4.2.2.25 the user enter time earlier than starting operating time.

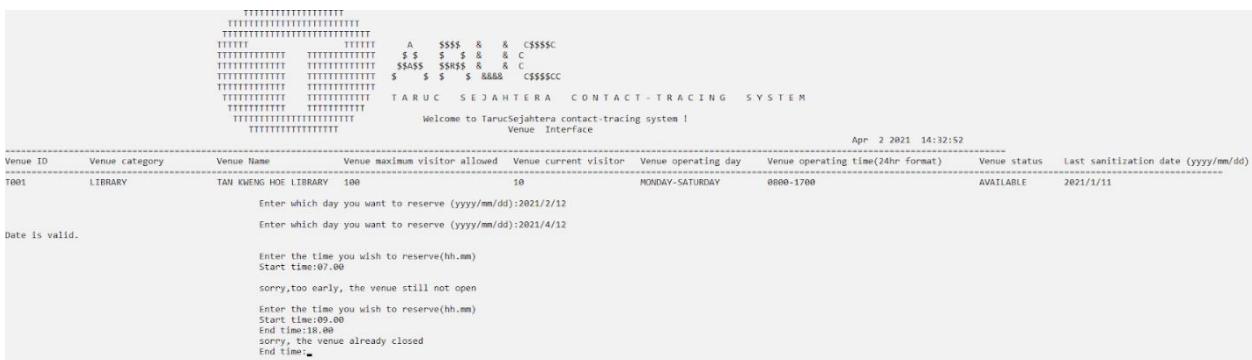


Figure 4.2.2.26 the user enters the ending time later than the operating time ends.

6. Delete venue function

When users want to delete the venue information record, they have to key in the venue id that they wish to delete, if the record is found, the program will display the venue information out and prompt users if they are sure they want to delete.



Figure 4.2.2.27 display the venue information and confirmation message

If yes then the reservation will be deleted and the program will ask if the user wants to delete another record.



Figure 4.2.2.28 deleted record message and prompt user if they want to repeat again

4.3 Administrative Staff Module by <Cheng Ling Ern>

4.3.1 Brief Description

The Administrative module of TarucSejahtera Contact-Tracing system is the module that stores all the administrative personal information, especially admin ID and password. This is because if the existing admin (*i.e. those who will log in and perform activities on various aspects of the system*) wants to perform any data modification on the existing records (e.g. admin record, visitor record, venue records etc.), then he/she has to first login into their personal account. (refer to figure 4.1.2) for authentication purposes.

4.3.2 Outputs & File Contents

1. Login Function

Before the admin is able to perform any actions of data modification, he/she has to first direct to the admin login interface for login authentication.

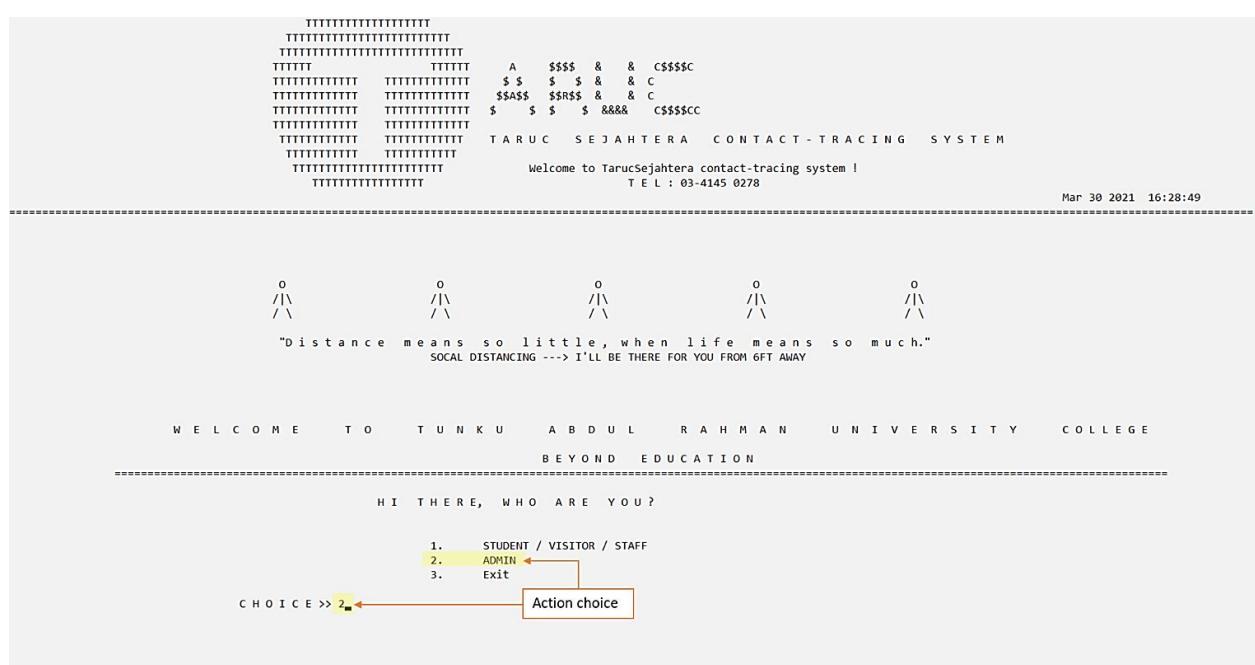


Figure 4.1.1 Home page (main)

Then, the user has to input his/her admin/staff ID, along with the corresponding account password. If the user has been verified successfully, he/she will be directed to the main menu (admin side). Else, login denied message will be prompted.

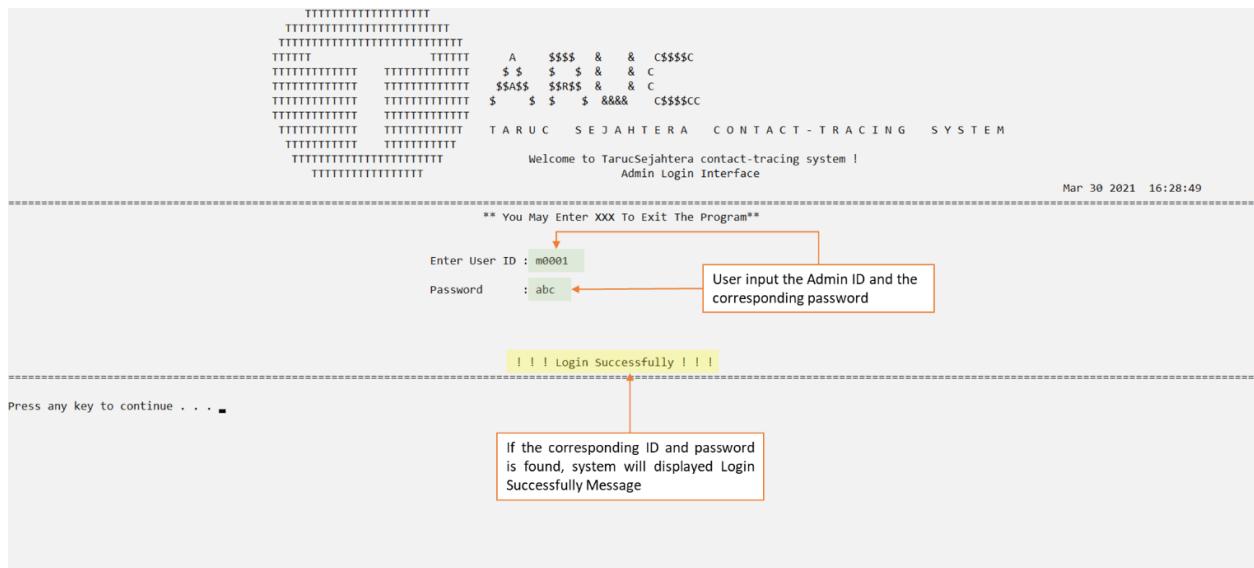


Figure 4.3.2 Admin Login Interface

User is directed to the main menu (admin side) after login successfully.

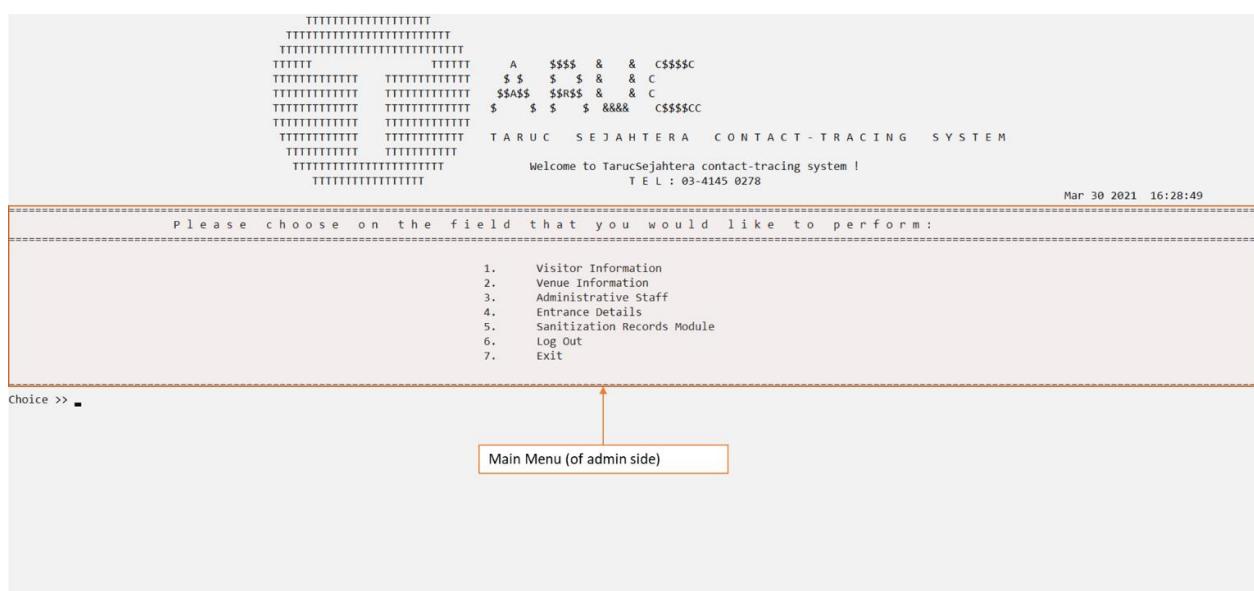


Figure 4.3.3 Main Menu (of admin side)

- **Login Validation Check**

Validation 1: For login module, if the user input the existed admin/staff ID with incorrect password, then the system will show error message of “Incorrect Password.”

```

  |-----| |-----| $>>> $>>> & & C
  TTTTTTTTTTTT TTTTTTTTTTTT $ $ $ &&& C$$$$CC
  TTTTTTTTTTTT TTTTTTTTTTTT TARUC SEJAHTERA CONTACT - TRACING SYSTEM
  TTTTTTTTTTTT TTTTTTTTTTTT
  TTTTTTTTTTTTTTTTTTTTTTTTT Welcome to TarucSejahtera contact-tracing system !
  TTTTTTTTTTTTTTTTTTTTTTT Admin Login Interface

=====
** You May Enter XXX To Exit The Program**

Enter User ID : m0001
Password : a (Incorrect Password)

```

Validation figure 1: Screenshot of wrong password entered (1)

```

  |-----| |-----| TARUC SEJAHTERA CONTACT - TRACING SYSTEM
  TTTTTTTTTTTT TTTTTTTTTTTT
  TTTTTTTTTTTTTTTTTTTTTTTT Welcome to TarucSejahtera contact-tracing system !
  TTTTTTTTTTTTTTTTTTTTTTT Admin Login Interface

=====
Incorrect Password !!! Please Try Again:
** You May Enter XXX To Exit The Program**

Enter User ID :

```

Validation figure 2: Screenshot of wrong password entered (2)

```

  |-----| |-----| > > > > > > > > > > > > > >
  TTTTTTTTTT TTTTTTTTTTTT TARUC SEJAHTERA CONTACT - TRACING SYSTEM
  TTTTTTTTTTTT TTTTTTTTTTTT
  TTTTTTTTTTTTTTTTTTTTTTTT Welcome to TarucSejahtera contact-tracing system !
  TTTTTTTTTTTTTTTTTTTTTTT Admin Login Interface

=====
Incorrect Password !!! Please Try Again:
** You May Enter XXX To Exit The Program**

Enter User ID : m0001
Password : abc (Correct Password)

=====
!!! Login Successfully !!!
=====
```

Validation figure 3: Screenshot of wrong password entered (3)

Validation 2: If the user input the admin/staff ID which is not existed, then the system will show error message of “User does not exist.”

```

TTTTTTTTTTTTTTT TTTTTTTTTTTTTT $ $ $ $ &&& C$$$$CC
TTTTTTTTTTTTTTT TTTTTTTTTTTTTT
TTTTTTTTTTTTTTT TARUC SEJAHTERA CONTACT - TRACING SYSTEM
TTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTT Welcome to TarucSejahtera contact-tracing system !
TTTTTTTTTTTTTTTTT Admin Login Interface

=====
** You May Enter XXX To Exit The Program**

Enter User ID : m9999 (User does not exist)

Password : x

```

Validation figure 4: Screenshot of invalid id entered (1)

```

TTTTTTTTTTTTTTT TTTTTTTTTTTTTT $ $ $ $ &&& C$$$$CC
TTTTTTTTTTTTTTT TTTTTTTTTTTTTT
TTTTTTTTTTTTTTT TARUC SEJAHTERA CONTACT - TRACING SYSTEM
TTTTTTTTTTTTTTT TTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTT Welcome to TarucSejahtera contact-tracing system !
TTTTTTTTTTTTTTTTT Admin Login Interface

=====
User does not exists. Please Try Again:
** You May Enter XXX To Exit The Program**

Enter User ID :

```

Validation figure 5: Screenshot of invalid id entered (2)

2. Register New Admin (Add New Record Function)

If the existing admin wants to add another employee of TARC UC as a new admin, he/she has to first login into their personal account. (refer to figure 4.1.2) After the authentication process has been succeeded proved, he/she can go into the Administrative module by choosing the number of 3 in the main menu (refer to figure 4.1.3), then he/she will be directed to the admin login interface (admin module) and now he/she can just choose 1 (action choice) to add new user admin.

Firstly, the user has to input all the related admin personal information of the new admin. (Related validation fields will be provided in the section below) Once the record has been successfully saved, the system will prompt a “Record Saved” message to inform the end-user.

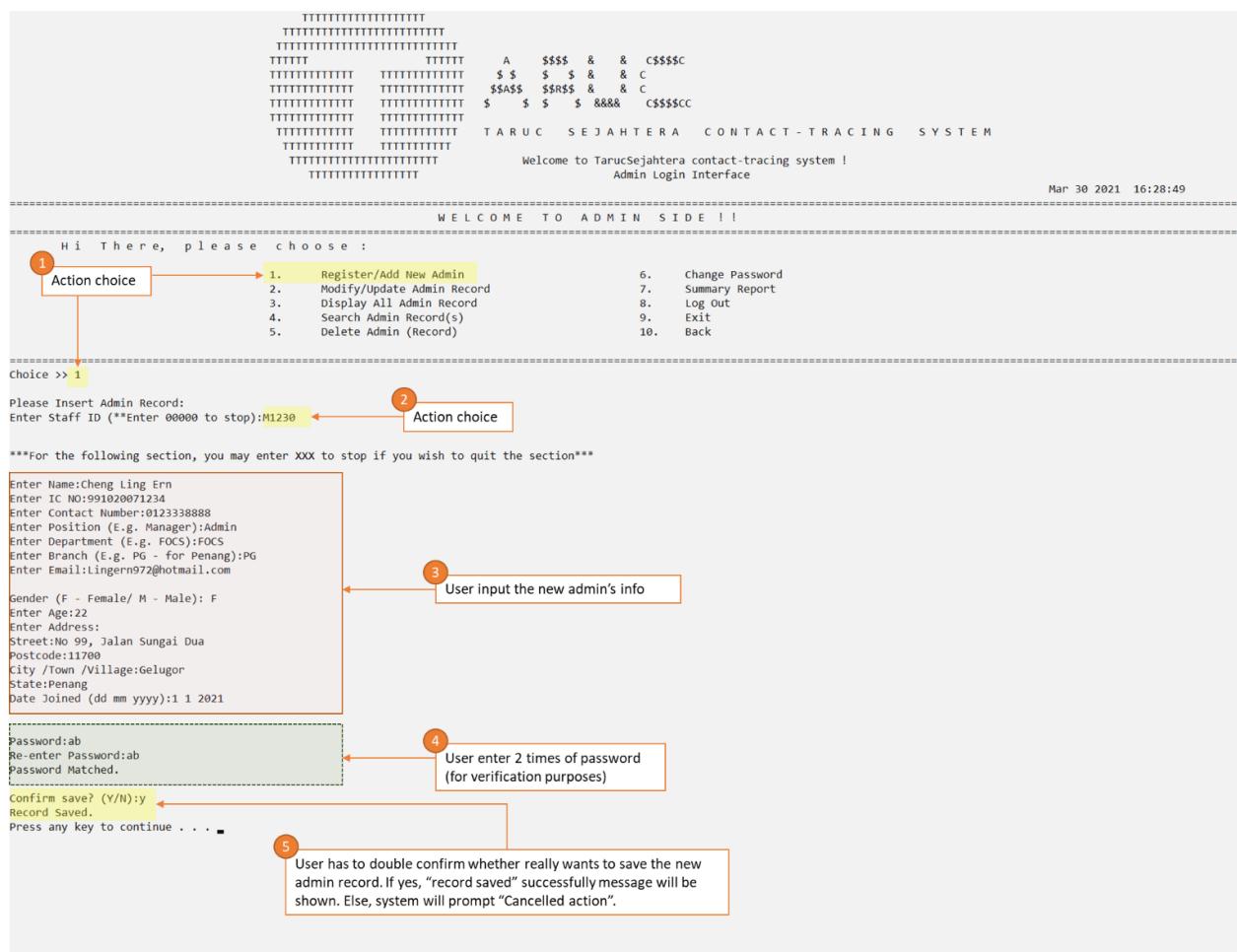


Figure 4.3.4 Screenshot of Add New Admin Record

- **Input data validation check**

Validation 3: If the user input the invalid admin/staff ID (e.g. not existed), then the system will display error message (loop) until the user input the valid id.

```

Please Insert Admin Record:
Enter Staff ID (**Enter 0000 to stop) 11111 Invalid ID. Admin Id must contains only 1 alphabet and 4 numbers

Invalid Staff ID !
ID must be in only 5 characters and first Letter must be alphabet (E.g. M0001). Please re-enter again:
Enter Staff ID (**Enter 0000 to stop) 1m000 Invalid ID. The alphabet 'm' must be in the first place.

Invalid Staff ID !
ID must be in only 5 characters and first Letter must be alphabet (E.g. M0001). Please re-enter again:
Enter Staff ID (**Enter 0000 to stop) m1230 Invalid ID. The ID must be unique and cannot be repeated.

User Existed.
Please with another ID.
Enter Staff ID (**Enter 0000 to stop) m1000 Valid ID. User is allowed to proceed to the following sessions

***For the following section, you may enter XXX to stop if you wish to quit the section***

Enter Name:

```

Validation figure 6: Screenshot of invalid id entered

Validation 4: If the user input the invalid IC numbers, then the system will display error message (loop) until the user input the valid IC no.

```

Enter IC NO:12345 Invalid IC no. IC number must contain only 12 digits.
Invalid IC Number ! IC number must be 12 numerical digits.
Please re-enter again:1a1111111111 Invalid IC no. Invalid character 'a'.
Invalid IC Number ! IC number must be 12 numerical digits.
Please re-enter again:a Invalid IC no. No alphabet is allowed.
Invalid IC Number ! IC number must be 12 numerical digits.
Please re-enter again:991223071234 Valid IC no.
Enter Contact Number:

```

Validation figure 7: Screenshot of invalid IC no entered

Validation 5: If the user input the invalid branch, then the system will display error message (loop) until the user input the valid branch abbreviation.

```
Enter Branch (E.g. PG - for Penang) [-] Invalid Branch. Invalid character '-'  
Error ! Please enter maximum 2 alphabet only. (E.g. PG)  
Please re-enter again:penang Invalid Branch. Branch must contain only 2 alphabets.  
Error ! Please enter maximum 2 alphabet only. (E.g. PG)  
Please re-enter again:KL Valid Branch.
```

Validation figure 8: Screenshot of invalid branch abbreviation entered

Validation 6: If the user input the invalid email address, then the system will display an error message (loop) until the user input the valid email address.

Enter Email: Invalid email address. Missing @.

Invalid Email ! Missing @.

Please re-enter again: Valid Email Address.

Validation figure 9: Screenshot of invalid email entered

Validation 7: In order to prevent or minimize data entry error, auto assign gender feature is adopted.

Gender (F - Female/ M - Male): Auto assign gender.
Enter Age:

Validation figure 10: Screenshot of auto assign value (gender)

Validation 8: If the user input the invalid postcode, then the system will display an error message (loop) until the user input the valid postcode number.

Postcode: Invalid postcode. Postcode must contain only 5 digits.
Postcode exceeded 5 characters.
Please re-enter again: Invalid postcode. Postcode must contain only 5 digits.
Postcode exceeded 5 characters.
Please re-enter again: Invalid postcode. Postcode must contain only digits.
Postcode exceeded 5 characters.
Please re-enter again: Valid postcode.
City /Town /Village:

Validation figure 11: Screenshot of invalid postcode entered

Validation 9: If the user input the invalid date, then the system will display an error message (loop) until the user input the valid date (include valid day, month and year).

Date Joined (dd mm yyyy): Invalid date. Max 28 for FEB.
Invalid Date

Date Joined (dd mm yyyy): Invalid month.
Invalid Month

Date Joined (dd mm yyyy): Invalid year.
Invalid Year

Date Joined (dd mm yyyy): Valid year.
Password:

Validation figure 12: Screenshot of invalid date entered

3. Update Admin Info (Modify Function)

If the admin wants to update his/her own information, or even others admin information, the admin has to first login into their personal account (refer to figure 4.1.2) , after the authentication process has been succeeded proved, he/she can go into the Administrative module by choosing the number of 3 in the main menu (refer to figure 4.1.3) , then he/she will be directed to the admin login interface (admin module) and now he/she can just choose 2 (action choice) to make modification on the existing admin records.

Now, the user has to first enter the admin id to be updated, the record will be displayed if the admin existed. Else, the system will display no record found message. If the admin exists, the user is now required to input all the updated admin info in the following spaces provided. (Related validation fields will be provided in the section below) Once the record has been updated successfully, the system will prompt a “Record Updated” message to inform the end-user.

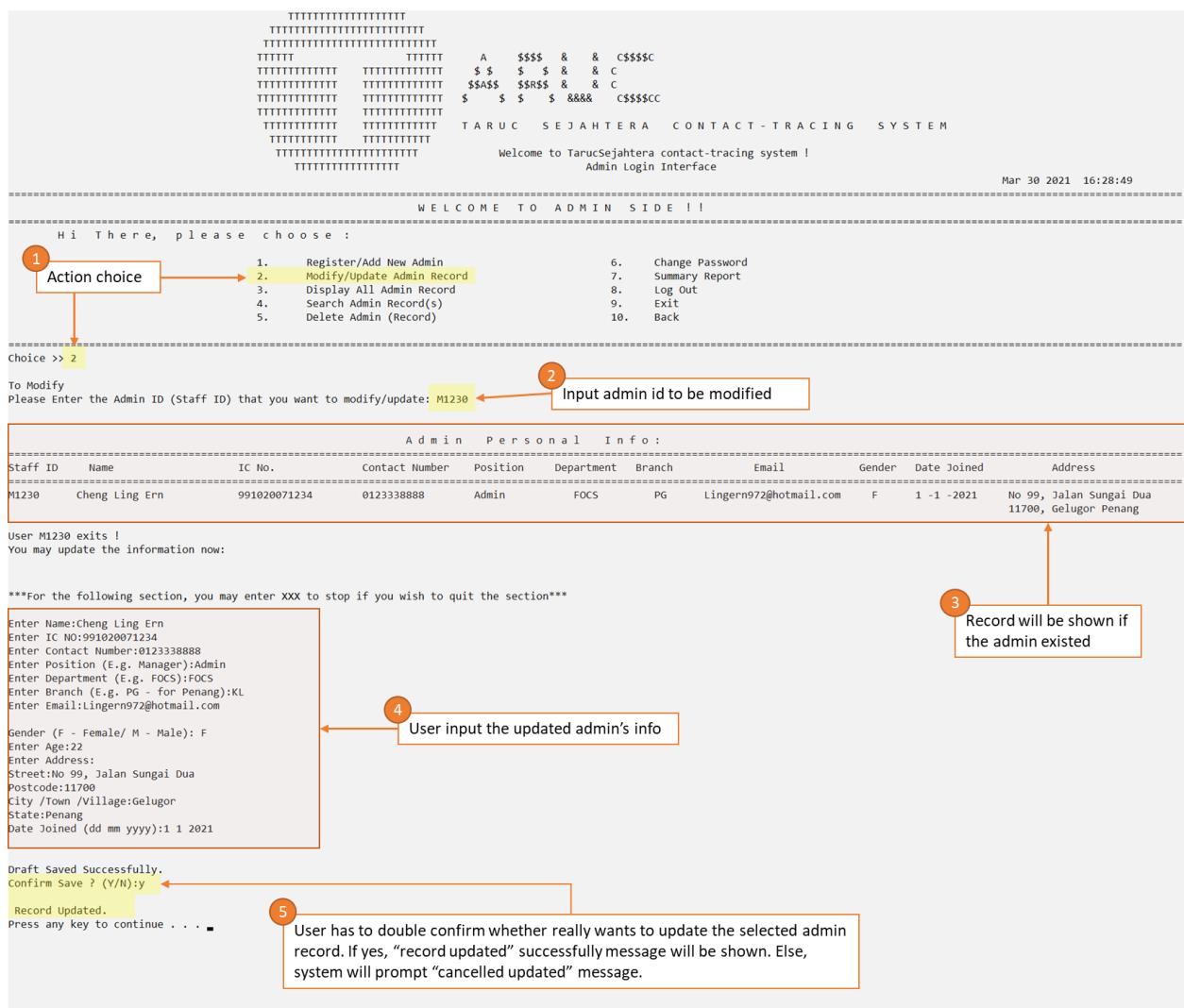


Figure 4.3.4 Screenshot of Update Existing Admin Record

4. Display all Admin Records (Display Function)

If the admin wants to display all the existing admin records, the admin has to first login into their personal account (*refer to figure 4.3.2*), after the authentication process has been succeeded proved, he/she can go into the Administrative module by choosing the number of 3 in the main menu (*refer to figure 4.3.3*), then he/she will be directed to the admin login interface, and now he/she can just **choose 3** (action choice) to view all the existing admin records.

All records will be displayed in a tidy table format (excluded password).

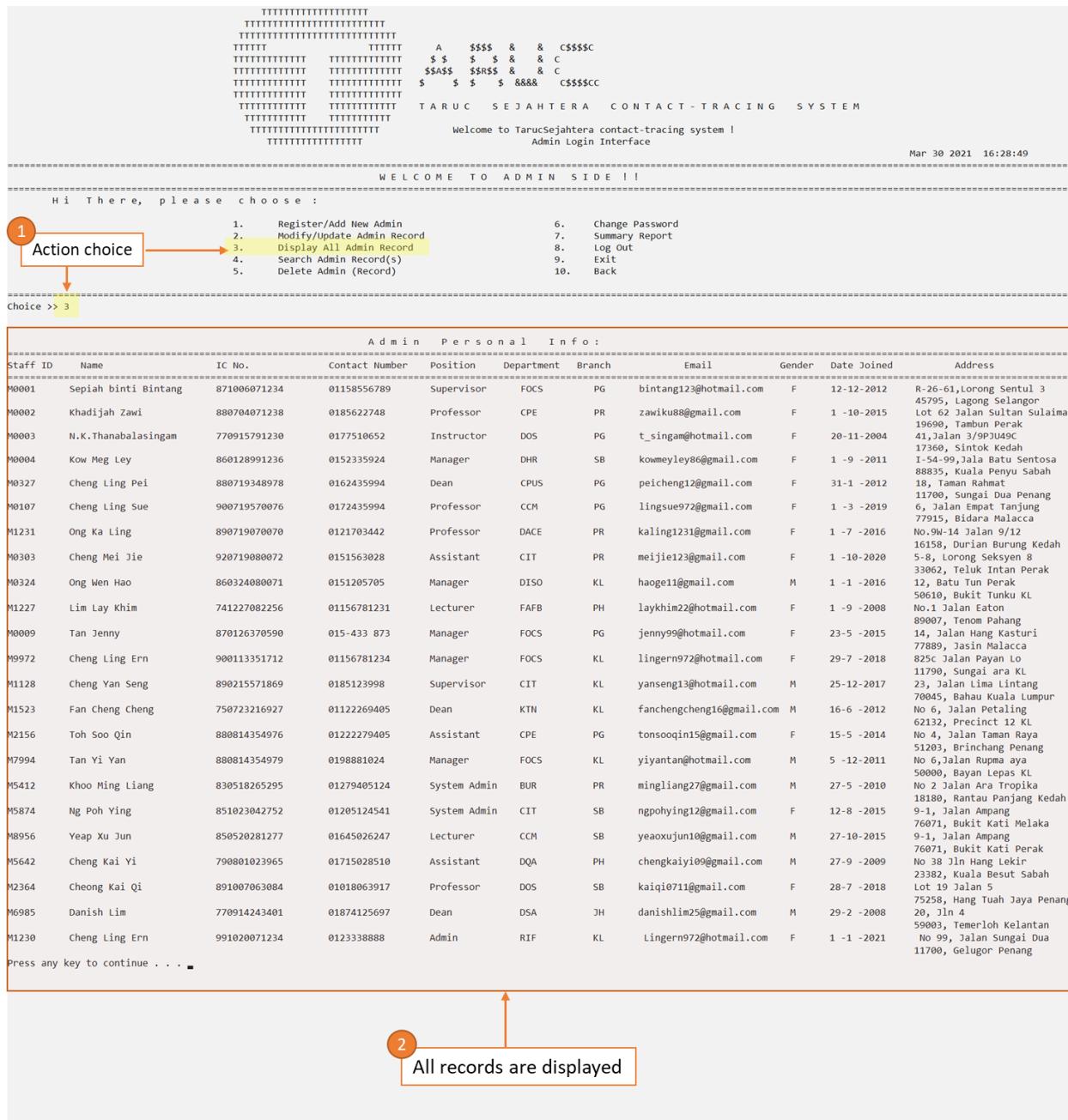


Figure 4.3.5 Screenshot of Display all Admin Records

5. Search for Existing Admin Record(s) (Search Function)

If the admin wants to search for the existing admin records based on the special conditions, the admin has to first login into their personal account, after the authentication process has been succeeded proved, he/she can go into the Administrative module by choosing the number of 3 in the main menu, then he/she will be directed to the admin login interface and now he/she can just **choose 4** (action choice) to perform the search action.

1. User choose on the “search admin record(s)” by inputting the number “4”.



Figure 4.3.6 Screenshot of Search Existing Admin Record (step 1)

2. Note that the menu will be changed to prompt the user enter



which field to search.

Figure 4.3.7 Screenshot of Search Existing Admin Record (step 2)

3. If the user wants to search for the staff/admin Id, then just input “1”, the system will then ask for the admin Id to be searched.

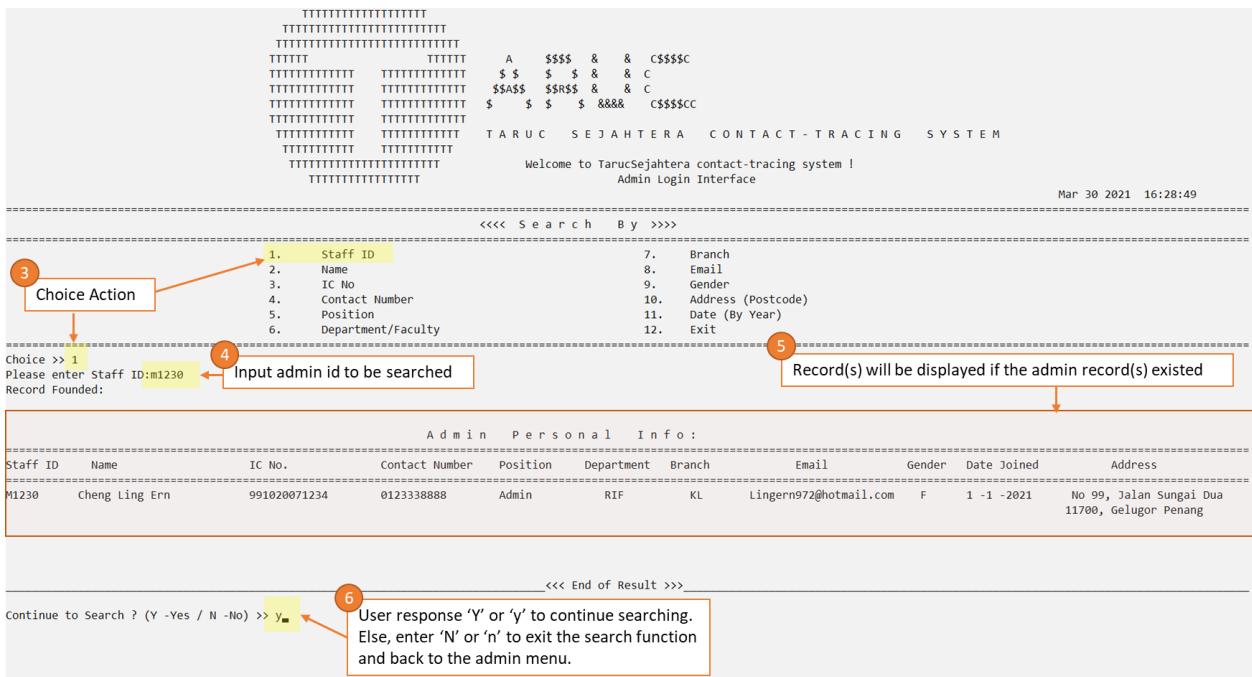


Figure 4.3.8 Screenshot of Search Existing Admin Record (step 3)

*If a user keeps on entering ‘Y’ or ‘y’ (indicated response – yes), the system will keep on looping the search function for user’s searching purposes until user input ‘N’ or ‘n’ (indicated response – No) to exit the search function. When user enter ‘N’ or ‘n’, the program will back to the admin menu:

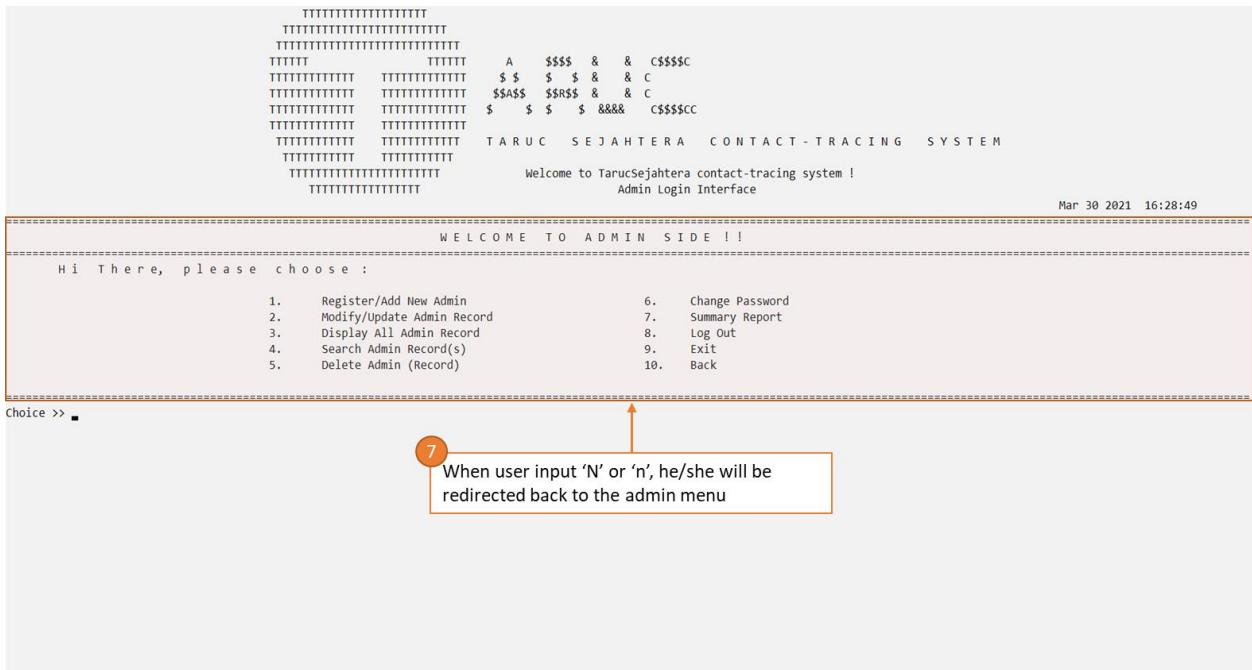


Figure 4.3.9 Screenshot of Search Existing Admin Record (step to quit the search function)

6. Delete Existing Admin Record(s) (Delete Function)

If the admin wants to display all the existing admin records, the admin has to first login into their personal account, after the authentication process has been succeeded proved, he/she can go into the Administrative module by choosing the number of 3 in the main menu, then he/she will be directed to the admin login interface and now he/she can just **choose 5** (action choice) to perform delete action.

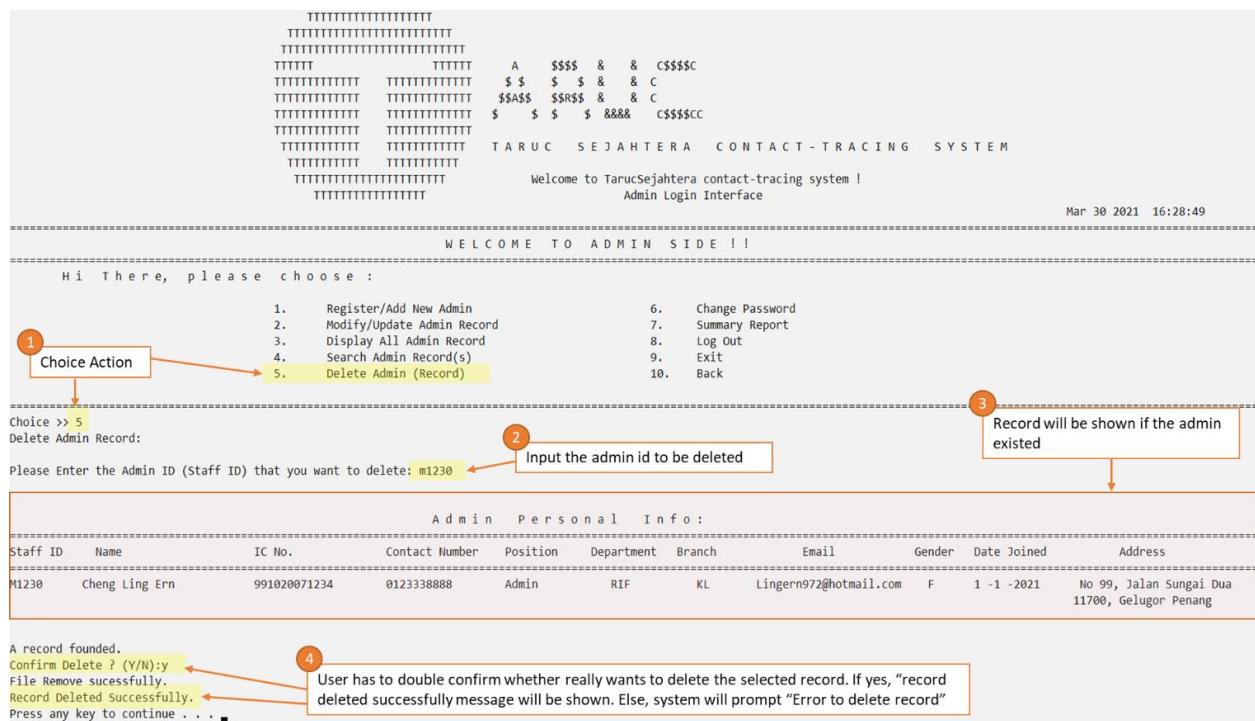


Figure 4.3.10 Screenshot of Deleting Existing Admin Record

Now, user is no longer able to found the staff/admin id after deleted.

However, in order to double confirm the record has been deleted successfully, let's search again the deleted id (i.e. M1230) in the search function, to make sure the record is no longer save inside the system(file).



Figure 4.3.11 Screenshot of Search record after deleting the record (i.e. M1230)

7. Change Admin's Password (Modify/Update Function)

If the admin wants to change his/her own password, the admin has to first login into their personal account, after the authentication process has been succeeded proved, he/she can go into the Administrative module by choosing the number of 3 in the main menu, then he/she will be directed to the admin login interface and now he/she can just **choose 6** (action choice) to change his/her password.

*For changing password, although function is similar to modify function but the difference is the user must be the admin his/herself, this is to maintain the data integrity (of admin's password). As the admin has to first enter his/her current password before they are allowed to enter the new password.

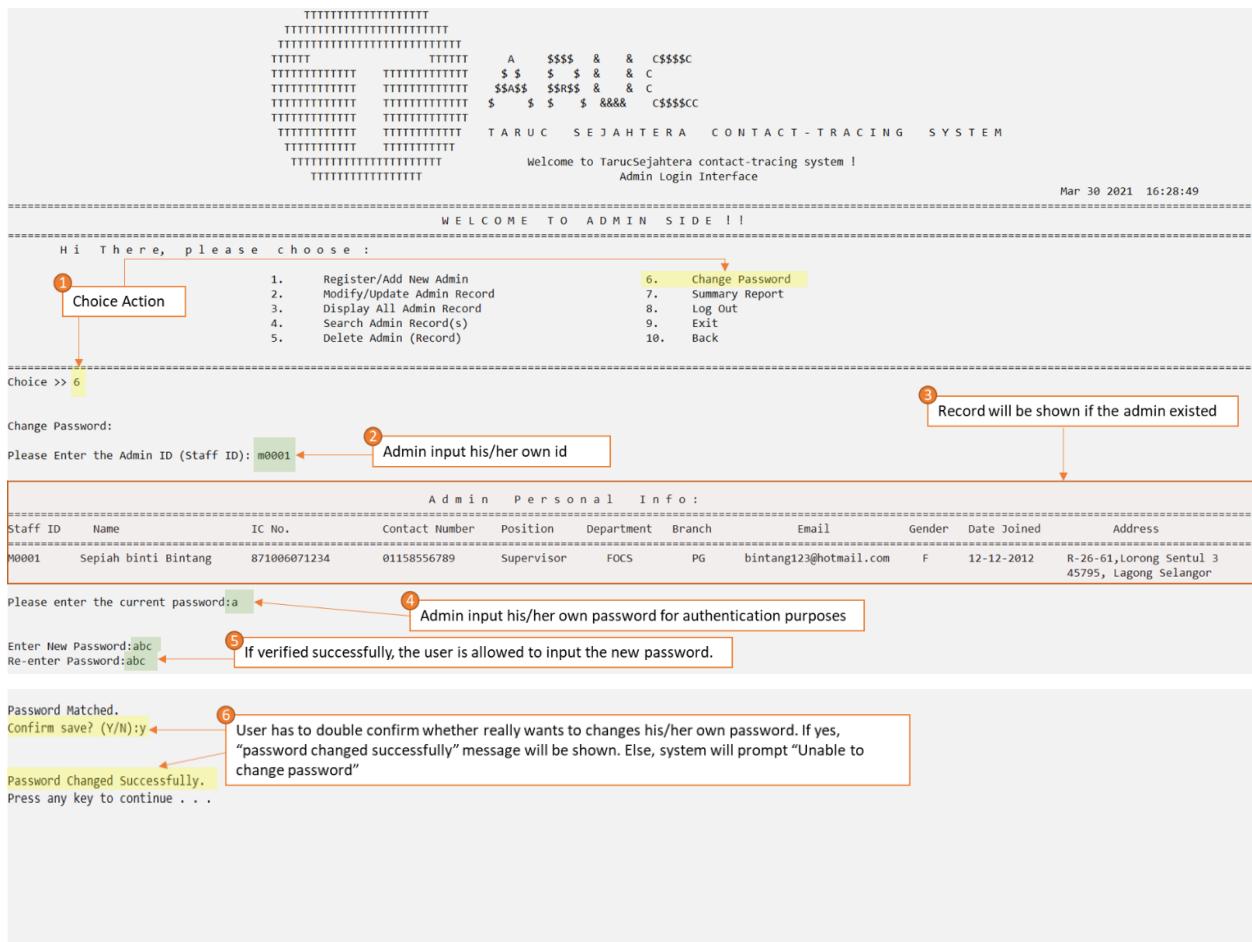


Figure 4.3.12 Screenshot of changing password (admin)

8. Report Function

If the admin wants to display and/or download the report, the admin has to first login into their personal account, after the authentication process has been succeeded proved, he/she can go into the Administrative module by choosing the number of 3 in the main menu, then he/she will be directed to the admin login interface and now he/she can just choose 7 (action choice) to view the report.



Figure 4.3.13 Screenshot of generate report function (1)

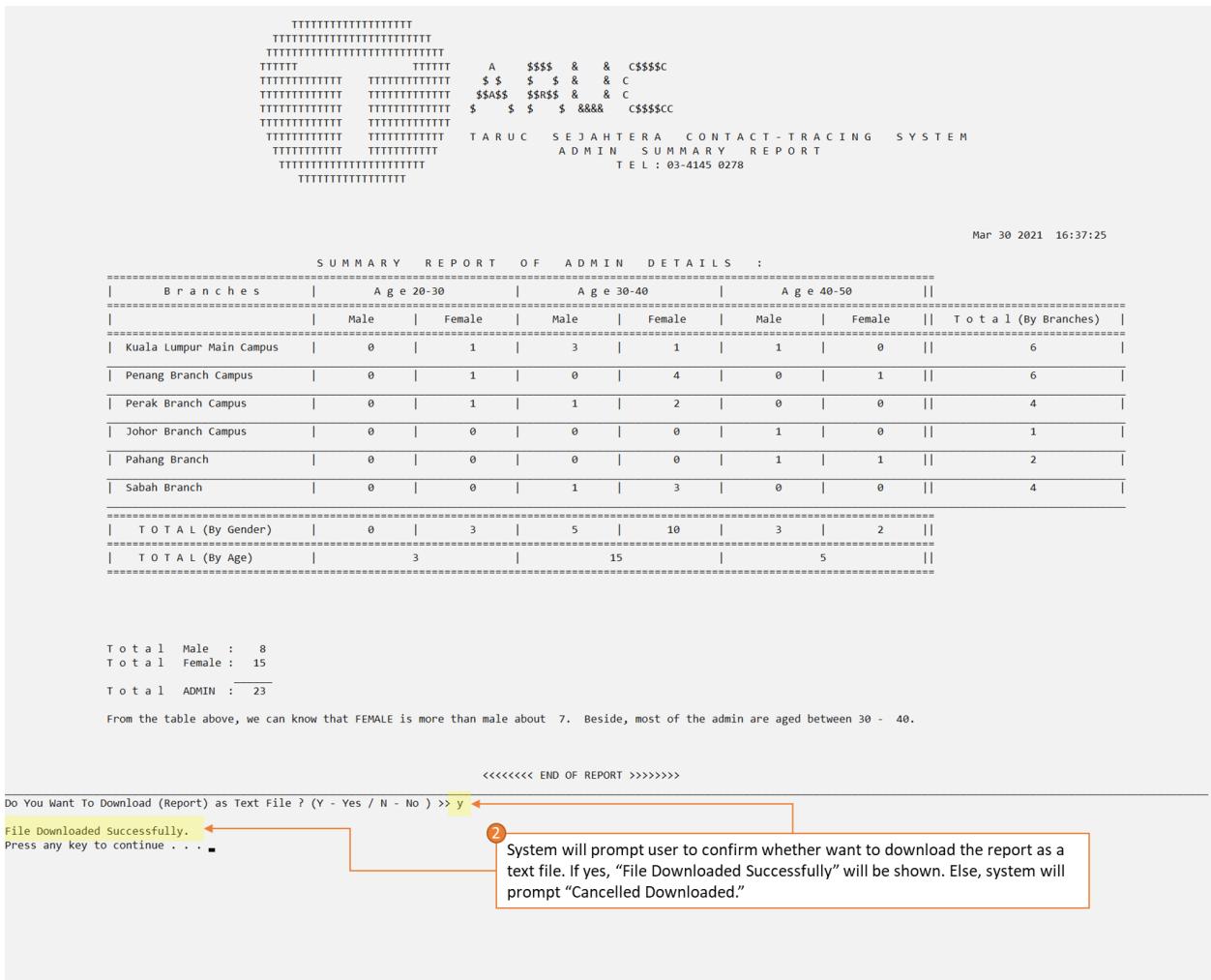


Figure 4.3.14 Screenshot of generate report function (2)

	payment	30/3/2021 4:25 PM	DAT File	3 KB
<input checked="" type="checkbox"/>	report	30/3/2021 5:11 PM	Text Document	4 KB
	reserve	30/3/2021 4:25 PM	BIN File	1 KB

Figure 4.3.15 Screenshot of generate report function (3) – User may get it at the file explorer

TARUC SEJAHTERA CONTACT-TRACING SYSTEM									
ADMIN SUMMARY REPORT									
TEL : 03-4145 0278									
SUMMARY REPORT OF ADMIN DETAILS :									
Branches		Age 20-30		Age 30-40		Age 40-50		Total (By Branches)	
Kuala Lumpur Main Campus	Male	0	Female	1	3	1	1	0	6
Penang Branch Campus	Male	0	Female	1	0	4	0	1	6
Perak Branch Campus	Male	0	Female	1	1	2	0	0	4
Johor Branch Campus	Male	0	Female	0	0	0	1	0	1
Pahang Branch	Male	0	Female	0	0	0	1	1	2
Sabah Branch	Male	0	Female	0	1	3	0	0	4
TOTAL (By Gender)	Male	0	Female	3	5	10	3	2	
TOTAL (By Age)	Male	0	Female	3	15	15	5	2	
Total Male :	8								
Total Female :	15								
Total ADMIN :	23								

Figure 4.3.16 Screenshot of generate report function (4) – report is downloaded in a txt. format

9. Log out (not exit)

If the admin wishes to logout (but not exit the program), then he/she may just choose 8 to logout his/her admin account and back to the login screen.



Figure 4.3.17 Screenshot of logout (step 1)



Figure 4.3.18 Screenshot of logout (step 2)

In addition, if user wish to exit the whole program directly then he/she can just choose 9 (action choice) or even choose 10 (action choice) to back to the previous menu (*refer to figure 4.3.*)

4.4 Visit And Exit by < Tan Jenny >

4.4.1 Brief Description

Visit and exit module is to assist in monitoring COVID-19 pandemic in country that used by students or staff in Taruc college by empowering students or staff to assess current risk against covid-19. This module is a **digital check-in and out system** which recording students or staff visit and exit time .It reduces the manual effort to track visitor movements as well as eases crowds at entry points to keep the college safe .For the check-in system, it will **provide an entry ID** when they visit a venue . Students or staff must provide their temperature , current status and purpose. For those who temperature up to 37 and have the symptoms of covid-19 are not allowed to check-in. Besides, each venue only can store a specific amount of students or staff , **if achieving the maximum number of people they will not be allowed to enter** .After they check-in for a place , the system will automatically save their information so that they can track their movements if needed. Thus, the system will **automatically help them check-out** if they forgot to check-out when they exit a place and the check-out time shown is 23:59. For the check-out system , students or staff must provide feedback of the SOP and also the rating of the system in order for the top management to be able to know about the problems and make some improvements. Hence, admins are able to manage the modify , delete and report function .



Figure 4.4.1 Screenshot of Visit and exit menu (Homepage)

4.4.2 Outputs & File Contents

1. Entrance interface

-Let students or staff to choose the entry type which is check-in or out



Figure 4.4.2 Screenshot of visitors entry part

1.1 Check-in interface

-Show the current visitors details and provide an entry ID ,allowing the user to choose the venue.The venue ID only displays the available time , no reservation place and the available current visitors less than the maximum visitors that allow to enter for the user. For example, T001 is fully visited so it will not show in the venue ID list to let more visitors check-in.

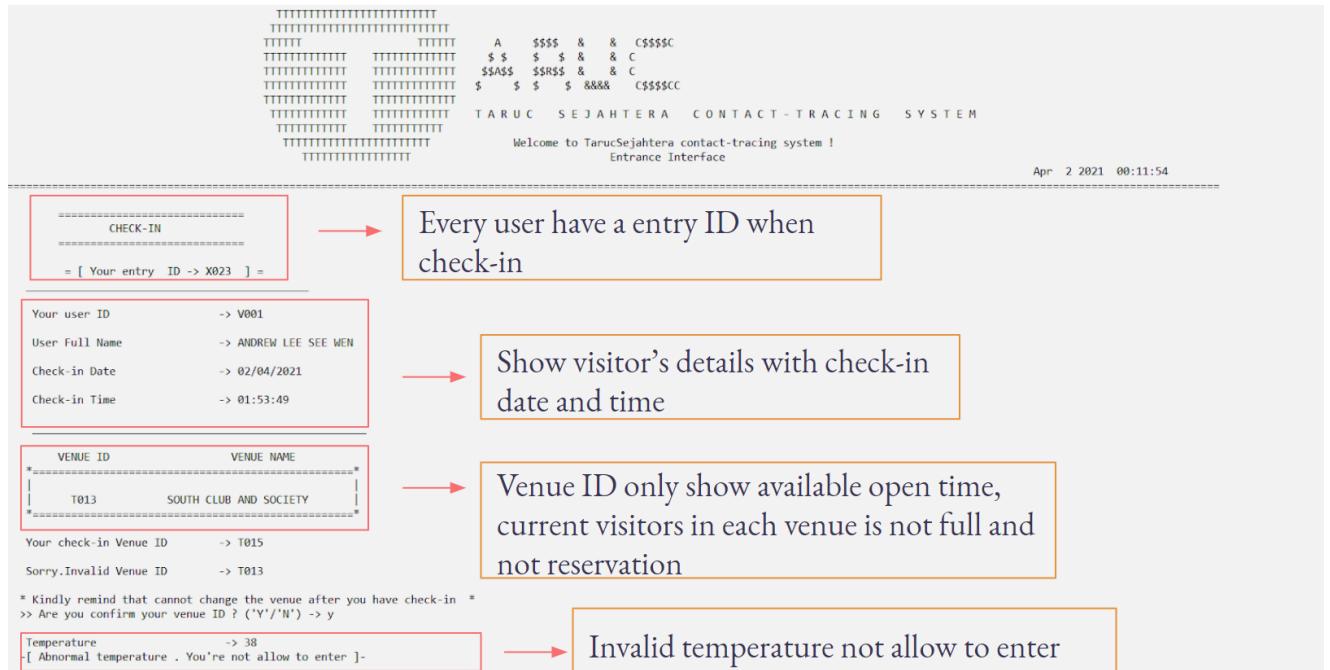


Figure of 4.4.3 Screenshot of check-in interface (When temperature is over 37 and invalid Venue ID)

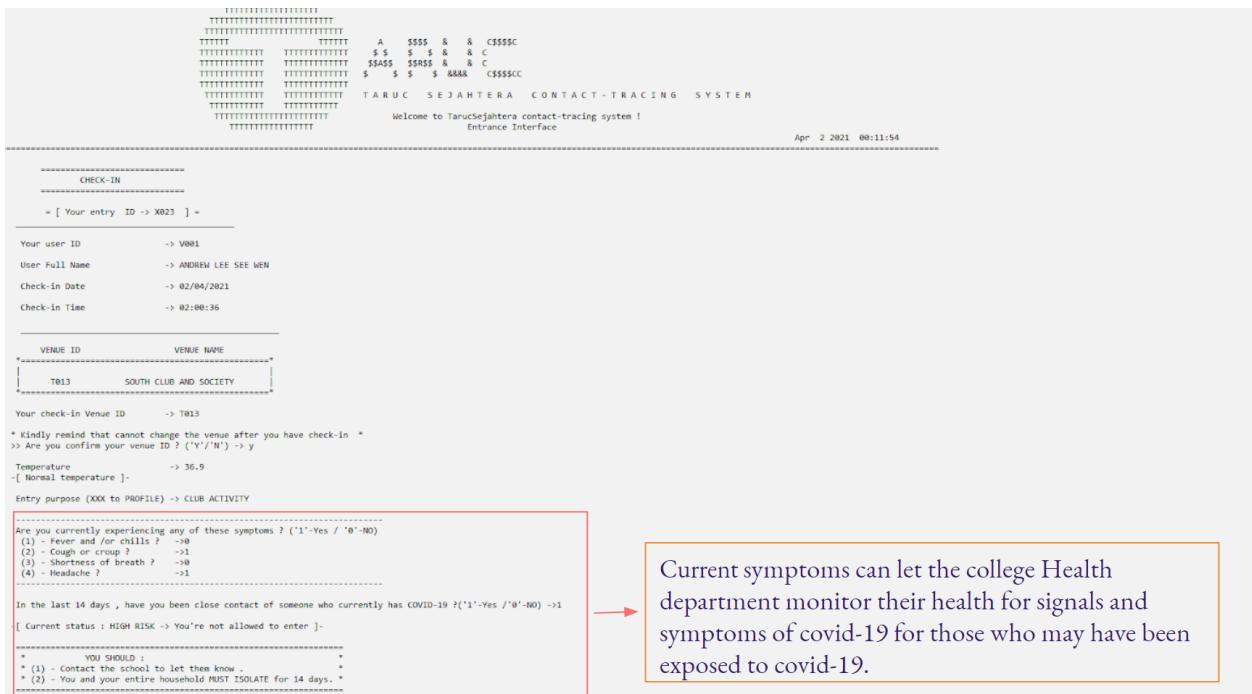


Figure of 4.4.4 Screenshot of check-in interface (When experiencing covid-19 current symptoms- Part 1)



Figure of 4.4.5 Screenshot of check-in interface (When experiencing covid-19 current symptoms- Part 2)

-If the user enters the unavailable venue ID , it will not allow them to check-in . Besides, the system will ask whether the user confirms to check-in for that particular venue ID or not .It is user-friendly as the user misentering the venue ID. Thus , the system will ask the current symptoms of covid-19 in order to safeguard the college risk.After confirming check-in , it will prompt a message asking whether the user wants to check-out or not .

***** CHECK-IN *****

= [Your entry ID -> X023] =

Your user ID	-> V001
User Full Name	-> ANDREW LEE SEE WEN
Check-in Date	-> 02/04/2021
Check-in Time	-> 02:09:19

***** VENUE ID VENUE NAME *****

T013 SOUTH CLUB AND SOCIETY

Your check-in Venue ID	-> T013
------------------------	---------

* Kindly remind that cannot change the venue after you have check-in *
 >> Are you confirm your venue ID ? ('Y'/'N') -> y
 Temperature -> 36
 -[Normal temperature]-
 Entry purpose (XXX to PROFILE) -> CLUB ACTIVITY

An you currently experiencing any of these symptoms ? ('1'-Yes / '0'-No)
 (1) - Fever and/or chills ? ->0
 (2) - Sore throat or cough ? ->0
 (3) - Shortness of breath ? ->0
 (4) - Headache ? ->0

-[Your current status : LOW RISK -> You're allowed to enter].

***** YOUR CHECK-IN DETAILS *****

Entry ID	-> X023
Person ID	-> V001
Venue ID	-> T013
Date entry	-> 2 /04/2021
Time entry	-> 2 : 9
Temperature	-> 36
Purpose	-> CLUB ACTIVITY
Current Risk	-> LOW

***** Are you sure to check-in ?

{ 1 } - Yes
{ 2 } - No

Figure of 4.4.6 Screenshot of check-in interface (With correct details)

***** TARUC SEJAHTERA CONTACT-TRACING SYSTEM *****

***** Welcome to TarucSejahtera contact-tracing system !
***** Entrance Interface *****
***** Apr 2 2021 00:11:54 *****

***** CHECK-IN *****

= [Your entry ID -> X023] =

Your user ID	-> V001
User Full Name	-> ANDREW LEE SEE WEN
Check-in Date	-> 02/04/2021
Check-in Time	-> 01:44:34

***** VENUE ID VENUE NAME *****

--- ---

- [Sorry , all venue is not allow to visit] -

***** Dear User, what would you wish to perform ? *****

(1) - ABOUT ME
(2) - CHANGE THE CURRENT RECORDS
(3) - CHECK IN & CHECK OUT
(4) - DISPLAY ENTRY HISTORY
(5) - EXIT

***** Please enter your option ->

Figure of 4.4.7 Screenshot of check-in interface (When no venues are available)

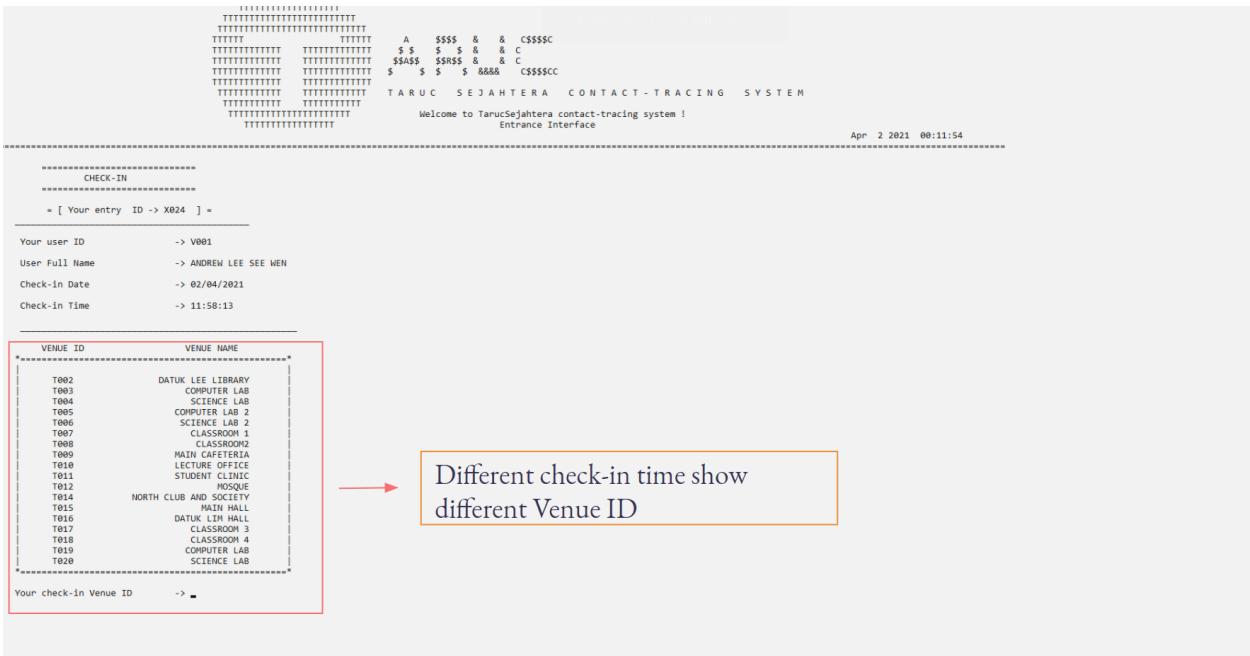


Figure of 4.4.8 Screenshot of check-in interface (With different check-in time)

1.2 Check-out interface

- When the user wants to check-out , it is needed to provide the feedback and rating for the system .From the feedback given by the users, the manager can make improvements and know where they did not well.The system will retrieve the date and time from the system so that user do not need to fill up manually.



Figure of 4.4.9 Screenshot of check-out interface



Figure of 4.4.10 Screenshot of check-in interface (When no venues are available)

2.1 Display user entry history

It will display the check-in and out history along with their personal details.

YOUR CHECK-IN AND CHECK-OUT HISTORY												*
*	Entry ID	Venue ID	Date	Time entry	Temperature('c)	Purpose	Current risk	Time exit	Duration visit	Feedback of SOP	Rating	*
#01 -	X001	T002	2021/03/28	11:35	36.00	BORROW BOOKS	LOW	23:59	744 minutes	Good	**	*
#02 -	X023	T013	2021/04/02	2: 9	36.00	CLUB ACTIVITY	LOW	2:14	005 minutes	Good	**	*
-[Total 2 places check-in]-												
What actions do you wish to ?												
>> 1. Back to MENU												
>> 2. EXIT												
Your option (1/2) ->												

Figure of 4.4.11 Screenshot of check-in and check-out summary

Admin Menu

- Admin have the priority to fully access the function such as display, update, search, delete and also report.



Figure of 4.4.12 Screenshot of admin menu

2.2 Admin display entry menu

- For the display module type it will filter the current info or the delete info for the admin. It is useful when the admin wants to find back the deleted data.



Figure of 4.4.13 Screenshot of admin display function menu

2.2.1 Deleted entry history

Figure of 4.4.14 Screenshot of delete history of visit and exit

2.2.2 Current info menu

- For the admin to choose what type of info they want to display

Figure of 4.4.15 Screenshot of current info menu(Nested display)

2.2.2.1 Display venue ID

- It can let the top management to view visitors' visit and exit records

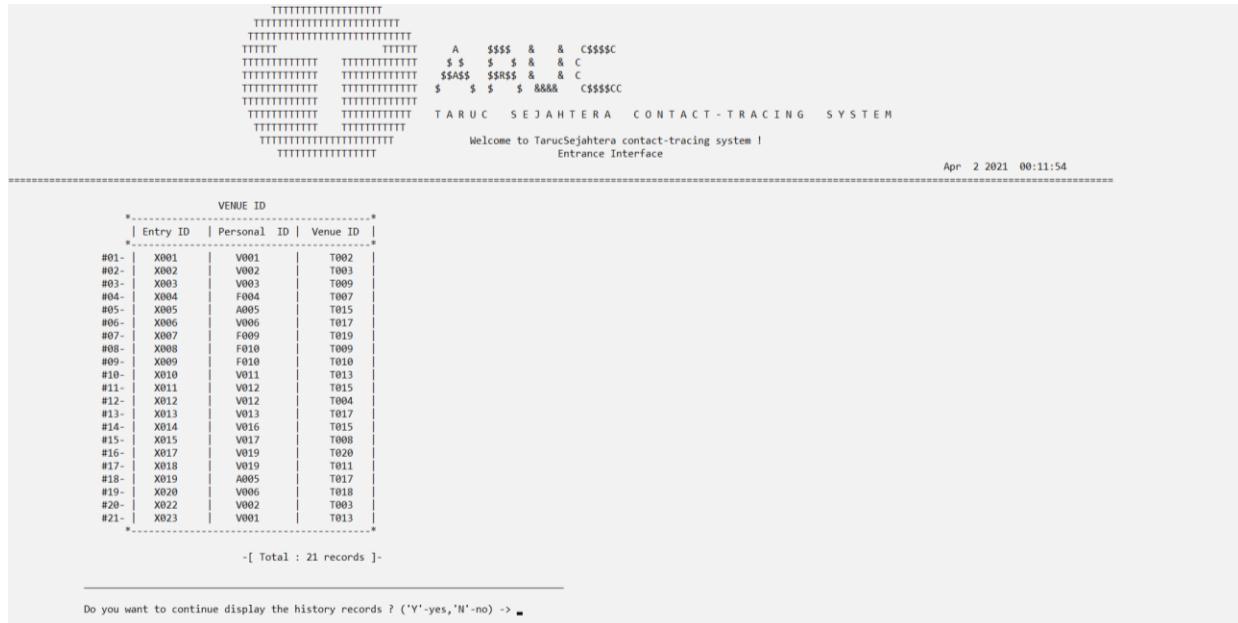


Figure of 4.4.16 Screenshot of display venue ID

2.2.2.2 Display visit date

- It can let the top management view visitors' entry dates for report purposes.

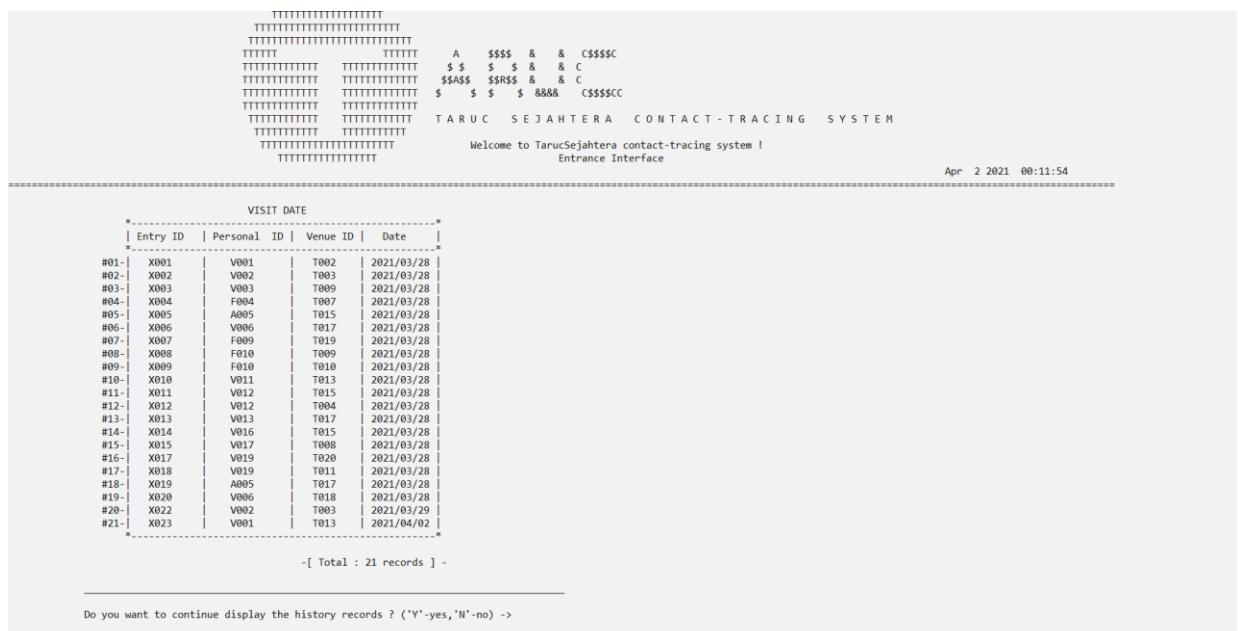


Figure of 4.4.17 Screenshot of display visit date

2.2.2.3 Display visit time

- It can let the top management view visitors' entry time for report purposes.

VISIT AND EXIT TIME					
#	Entry ID	Personal ID	Venue ID	Time entry	Time exit
#22-	X001	V001	T002	11:35	23:59
#23-	X002	V002	T003	11:53	11:57
#24-	X003	V003	T009	11:58	12: 6
#25-	X004	V004	T007	12: 1	23:59
#26-	X005	A005	T015	12: 2	23:59
#27-	X006	V006	T017	12: 4	12:17
#28-	X007	F009	T019	12:18	23:59
#29-	X008	F010	T009	12:20	23:59
#30-	X009	F010	T010	12:21	23:59
#31-	X010	V011	T013	12:22	23:59
#32-	X011	V012	T015	12:28	23:59
#33-	X012	V012	T004	12:31	23:59
#34-	X013	V013	T017	12:32	23:59
#35-	X014	V016	T015	12:34	14:17
#36-	X015	V017	T088	12:37	23:59
#37-	X017	V019	T020	12:39	14: 6
#38-	X018	V019	T011	14: 8	23:59
#39-	X019	A005	T017	14:10	23:59
#40-	X020	V006	T018	14:12	23:59
#41-	X022	V002	T003	15:20	15:31
#42-	X023	V001	T013	2: 9	2:14

-[Total : 42 records]-

Do you want to continue display the history records ? ('Y'-yes,'N'-no) ->

Figure of 4.4.18 Screenshot of display visit time

2.2.2.4 Display current risk

- It can let the top management know the current status of college to ensure the safety of college and let the Sanitization Department to sanitize the venue if needed.

TEMPERATURE WITH CURRENT RISK					
#	Entry ID	Personal ID	Venue ID	Temperature('c)	Current risk
#43-	X001	V001	T002	36.00	LOW
#44-	X002	V002	T003	36.20	LOW
#45-	X003	V003	T009	36.00	MODERATE
#46-	X006	F004	T007	36.00	LOW
#47-	X005	A005	T015	36.00	LOW
#48-	X008	V006	T017	36.50	LOW
#49-	X007	F009	T019	36.00	LOW
#50-	X009	F010	T009	36.00	LOW
#51-	X010	F010	T009	36.00	LOW
#52-	X010	V011	T013	36.00	LOW
#53-	X011	V012	T015	36.00	LOW
#54-	X012	V012	T004	36.20	MODERATE
#55-	X013	V013	T017	36.30	MODERATE
#56-	X014	V016	T015	36.18	LOW
#57-	X015	V017	T008	36.10	MODERATE
#58-	X017	V019	T020	36.00	LOW
#59-	X018	V019	T011	36.50	LOW
#60-	X019	A005	T017	36.00	LOW
#61-	X020	V006	T018	36.00	LOW
#62-	X022	V002	T003	36.00	LOW
#63-	X023	V001	T013	36.00	LOW

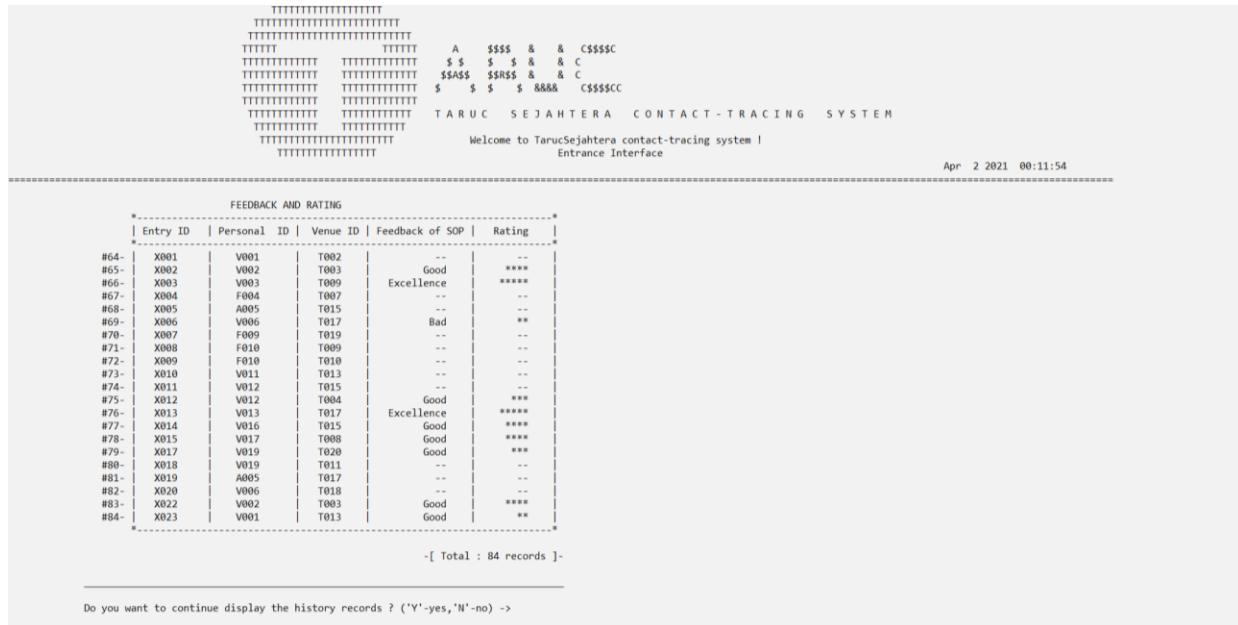
-[Total : 63 records]-

Do you want to continue display the history records ? ('Y'-yes,'N'-no) ->

Figure of 4.4.19 Screenshot of display current risk

2.2.2.5 Display feedback and rating

- It can let the top management get the feedback and rating from visitors, students and also staff to see whether the system and each venue's SOP is good . If the rating and feedback are bad, the top management can quickly take actions to make improvements.



The screenshot shows a terminal window with a decorative border at the top. The title bar reads "TARUC SEJAHTERA CONTACT - TRACING SYSTEM". Below it, a message says "Welcome to TarucSejahtera contact-tracing system ! Entrance Interface". The date and time "Apr 2 2021 00:11:54" are displayed. The main content is a table titled "FEEDBACK AND RATING". The table has columns for Entry ID, Personal ID, Venue ID, Feedback of SOP, and Rating. The data shows various entries with feedback like "Excellence" and "Good", and ratings like "****" and "**". A note at the bottom says "-[Total : 84 records]-". At the very bottom, a question asks "Do you want to continue display the history records ? ('Y'-yes,'N'-no) ->".

FEEDBACK AND RATING					
Entry ID	Personal ID	Venue ID	Feedback of SOP	Rating	
#64-	X001	V001	T002	--	--
#65-	X002	V002	T003	Good	****
#66-	X003	V003	T009	Excellence	*****
#67-	X004	F004	T007	--	--
#68-	X005	A005	T015	--	--
#69-	X006	V006	T017	Bad	**
#70-	X007	F009	T019	--	--
#71-	X008	F010	T009	--	--
#72-	X009	F010	T010	--	--
#73-	X010	V011	T013	--	--
#74-	X011	V012	T015	--	--
#75-	X012	V012	T004	Good	***
#76-	X013	V013	T017	Excellence	*****
#77-	X014	V016	T015	Good	****
#78-	X015	V017	T008	Good	***
#79-	X017	V019	T020	Good	***
#80-	X018	V019	T011	--	--
#81-	X019	A005	T017	--	--
#82-	X020	V006	T018	--	--
#83-	X022	V002	T003	Good	****
#84-	X023	V001	T013	Good	**

-[Total : 84 records]-

Do you want to continue display the history records ? ('Y'-yes,'N'-no) ->

Figure of 4.4.20 Screenshot of display feedback and rating

2.2.2.6 Display mixed function

- It allows the admin to choose up to 2 info they want to display.
 - Not allowed to skip all .

Figure of 4.4.21 Screenshot of mixed display function

Figure of 4.4.22 Screenshot of mixed display function(Skip all fields)

2.2.2.7 Display all records output

- Display all visitors' information.
- For the user who does not check-up the system will automatically assign the time to 23:59 which is the end time of the day.

TARUC SEJAHTERA CONTACT - TRACING SYSTEM													
Welcome to TarucSejahtera contact-tracing system !													
Entrance Interface													
Apr 2 2021 00:11:54													
<hr/>													
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----													
CHECK-IN AND CHECK-OUT SUMMARY													
<hr/>													
#01-	X001	V001	T002	2021/03/28	11:35	36.00	BORROW BOOKS	LOW	23:59	744 minutes	--	--	--
#02-	X002	V002	T003	2021/03/28	11:53	36.20	EXPERIMENT	LOW	11:57	004 minutes	Good	****	****
#03-	X003	V003	T009	2021/03/28	11:58	36.00	LUNCH	MODERATE	12: 6	008 minutes	Excellence	----	---
#04-	X004	F004	T007	2021/03/28	12: 1	36.00	BIO CLASS	LOW	23:59	718 minutes	--	--	--
#05-	X005	A005	T015	2021/03/28	12: 2	36.00	FIND FRIENDS	LOW	23:59	717 minutes	--	--	--
#06-	X006	V006	T017	2021/03/28	12: 4	36.50	IT CLASS	LOW	14:17	011 minutes	Bad	**	**
#07-	X007	F009	T019	2021/03/28	12:18	36.00	IT CLASS	LOW	23:59	701 minutes	--	--	--
#08-	X008	F010	T009	2021/03/28	12:20	36.00	BRUNCH	LOW	23:59	699 minutes	--	--	--
#09-	X009	F010	T010	2021/03/28	12:21	36.00	FIND TEACHER	LOW	23:59	698 minutes	--	--	--
#10-	X010	V011	T013	2021/03/28	12:22	36.00	ATTEND ACTIVITY	LOW	23:59	697 minutes	--	--	--
#11-	X011	V012	T015	2021/03/28	12:28	36.00	MEETING	LOW	23:59	691 minutes	--	--	--
#12-	X012	V012	T004	2021/03/28	12:31	36.20	MEETING	MODERATE	23:59	688 minutes	Good	***	***
#13-	X013	V013	T017	2021/03/28	12:38	36.30	EXPERIMENT	MODERATE	12:59	600 minutes	Excellence	****	****
#14-	X014	V014	T016	2021/03/28	12:34	36.10	MEETING	LOW	14:17	103 minutes	Good	****	****
#15-	X015	V017	T008	2021/03/28	12:37	36.10	DISCUSSION	MODERATE	23:59	682 minutes	Good	****	****
#16-	X017	V019	T020	2021/03/28	12:39	36.00	EXPERIMENT	LOW	14: 6	887 minutes	Good	***	***
#17-	X018	V019	T011	2021/03/28	14: 8	36.50	SICK	LOW	23:59	591 minutes	--	--	--
#18-	X019	A005	T017	2021/03/28	14:10	36.00	CLASS	LOW	23:59	589 minutes	--	--	--
#19-	X020	V006	T018	2021/03/28	14:12	36.00	MEETING	LOW	23:59	587 minutes	--	--	--
#20-	X022	V002	T003	2021/03/29	15:20	36.00	IT CLASS	LOW	15:31	011 minutes	Good	****	****
#21-	X023	V001	T013	2021/04/02	2: 9	36.00	CLUB ACTIVITY	LOW	2:14	005 minutes	Good	**	**

[Total : 21 records]

Do you want to continue display the history records ? ('Y'-yes,'N'-no) ->

Figure of 4.4.23 Screenshot of display all records

3. Search visitor information

i) Search visitor information (1 criteria)

- It allows the admin to search up to 4 criteria. The system design is also able for admin to skip those criteria they unwanted.

Figure of 4.4.24 Screenshot of search visitor information (Search with 1 criteria)

ii) Search visitor information (2 criteria)

<pre> TTTTTTTTTT TTTTTTTTTT TTTTTTTTTT A \$\$\$\$ & & C\$\$\$\$C TTTTTTTTTT S S S & C TTTTTTTTTT \$\$\$\$S \$\$\$\$S & C TTTTTTTTTT S S S &RRR C\$\$\$\$SC TTTTTTTTTT TTTTTTTTTT TARUC SEJAHTERA CONTACT-TRACING SYSTEM TTTTTTTTTT TTTTTTTTTT Welcome to TarucSejahtera contact-tracing system ! TTTTTTTTTT Entrance Interface </pre> <hr/> <p> ----- SEARCH VISITOR INFORMATION ----- </p> <p>Enter VISITOR ID to search [XXXX] -> v003</p> <p># ENTER THE CRITERIA WHICH YOU WANT TO SEARCH #</p> <hr/> <p>(1) Entry ID ('S' to skip / 'XXX' to MENU) -> X003</p> <p>(2) VENUE ID ('S' to skip) -> T009</p> <p>(3) Date of entry [dd/mm/yyyy] (1/1/1-SKIP) -> 1/1/1</p> <p>(4) Time of entry (XX:XX) (1:1) - SKIP -> 1:1</p> <hr/> <p>*--YOUR CHECK-IN DETAILS--*</p> <table border="0"> <tr><td>Entry ID</td><td>-></td><td>X003</td></tr> <tr><td>Personal ID</td><td>-></td><td>V003</td></tr> <tr><td>Venue ID</td><td>-></td><td>T009</td></tr> <tr><td>Date entry</td><td>-></td><td>28/03/2021</td></tr> <tr><td>Time entry</td><td>-></td><td>11:58</td></tr> <tr><td>Temperature</td><td>-></td><td>36.00</td></tr> <tr><td>Purpose</td><td>-></td><td>LUNCH</td></tr> <tr><td>Current Risk</td><td>-></td><td>MODERATE</td></tr> </table> <hr/> <p>CHECK-OUT DETAILS</p> <table border="0"> <tr><td>Time Exit</td><td>-></td><td>12:06</td></tr> <tr><td>Feedback of th SOP</td><td>-></td><td>Excellence</td></tr> <tr><td>Rating</td><td>-></td><td>*****</td></tr> <tr><td>Duration visit</td><td>-></td><td>8 minutes</td></tr> </table>	Entry ID	->	X003	Personal ID	->	V003	Venue ID	->	T009	Date entry	->	28/03/2021	Time entry	->	11:58	Temperature	->	36.00	Purpose	->	LUNCH	Current Risk	->	MODERATE	Time Exit	->	12:06	Feedback of th SOP	->	Excellence	Rating	->	*****	Duration visit	->	8 minutes	<p>Apr 2 2021 00:11:54</p>
Entry ID	->	X003																																			
Personal ID	->	V003																																			
Venue ID	->	T009																																			
Date entry	->	28/03/2021																																			
Time entry	->	11:58																																			
Temperature	->	36.00																																			
Purpose	->	LUNCH																																			
Current Risk	->	MODERATE																																			
Time Exit	->	12:06																																			
Feedback of th SOP	->	Excellence																																			
Rating	->	*****																																			
Duration visit	->	8 minutes																																			

Figure of 4.4.25 Screenshot of search visitor information (Search with 2 criteria)

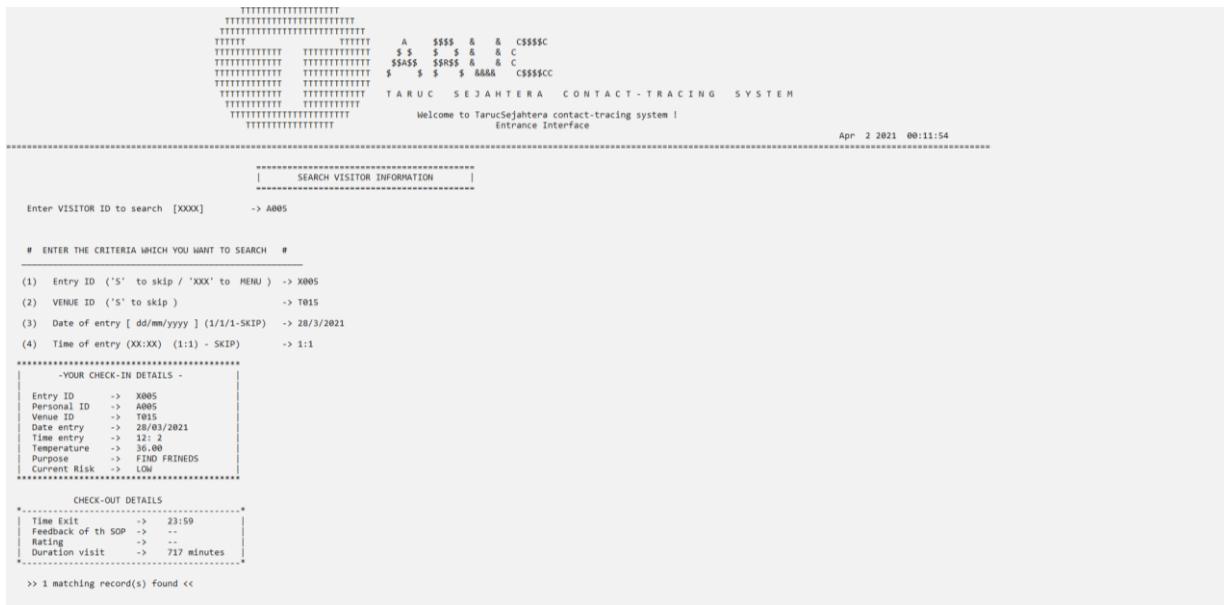
iii) Search visitor information (3 criteria)

Figure of 4.4.26 Screenshot of search visitor information (Search with 3 criteria)

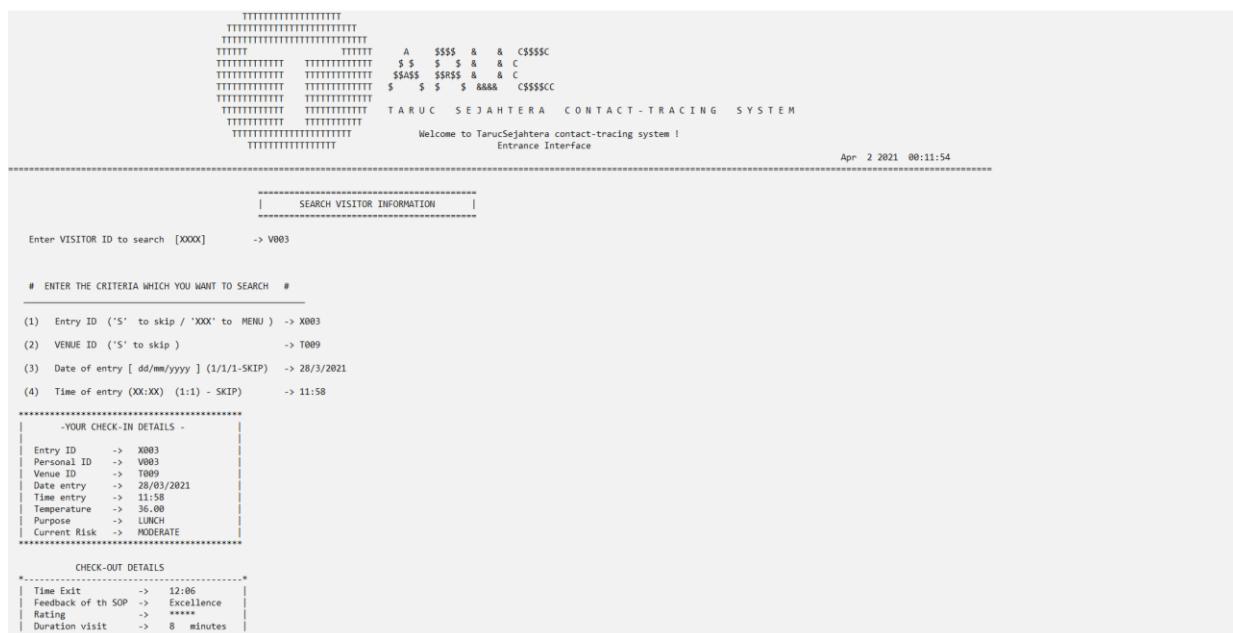
iv) Search visitor information (4 criteria)

Figure of 4.4.27 Screenshot of search visitor information (Search with 4 criteria)

v) Search visitor information (Skip all criteria)

-It will not allow user to skip all

Figure of 4.4.28 Screenshot of search visitor information (Skip all criteria)

vi) Search visitor information (No visitor ID founded)

```
|||||||||||||||||||||||  
|||||||||||||||||||||||  
||||||||| TTTTTT A $$$$ & & C$$$$C  
||||||||| TTTTTT $ $ $ $ & & C  
||||||||| TTTTTT $SA$S $SRSS & & C  
||||||||| TTTTTT $ $ $ $ &&& C$$$$CC  
||||||||| TTTTTT TARUC SEJAHTERA CONTACT-TRACING SYSTEM  
||||||||| TTTTTT Welcome to TarucSejahtera contact-tracing system !  
||||||||| TTTTTT Entrance Interface  
=====  
| SEARCH VISITOR INFORMATION |  
=====  
Enter VISITOR ID to search [XXXX] -> V005  
- [ Sorry no visitor ID founded ].-  
Do you wish to search another record?('Y'-continue search /'N'-Back to MENU) ->  
=====  
Apr 2 2021 00:11:54
```

Figure of 4.4.29 Screenshot of search visitor information (No visitor ID founded)

4. Modify visitor information

- This system does not allow admin to change the current date and time ,entry ID, personal ID and venue ID because it will cause the inconsistency of data .Only certain data fields can make changes.



Figure of 4.4.30 Screenshot of modify visitor information (Part 1)

- Allow admin to choose which type of details want to modify



Figure of 4.4.31 Screenshot of modify visitor information (Part 2)

```

Feedback of the Standard Operating Procedure (SOP)
( 1 ) - Excellence
( 2 ) - Good
( 3 ) - Bad
-----
Your option -> 1

Rating of MySejahtera *-> STAR
-[ 1 - * ]-
-[ 2 - ** ]-
-[ 3 - *** ]-
-[ 4 - **** ]-
-[ 5 - ***** ]-
-----
Your rating >> 5

Are you confirm to update entry module ?
( 1 ) - Yes
( 2 ) - No
-----
Your option (1/2) -> 1

*****-UPDATED CHECK-IN DETAILS -*****
| Entry ID      -> X020
| Personal ID   -> V008
| Venue ID       -> T018
| Date entry    -> 28/01/2021
| Time entry     -> 14:12
| Temperature    -> 36.30
| Purpose        -> COURSE
| Current Risk   -> LOW
*****-UPDATED CHECK-OUT DETAILS -*****
*- Time Exit      -> 23:59
| Feedback of th SOP -> Excellence
| Rating          -> *****
| Duration visit   -> 587 minutes
*-
Are you want to continue update ?('Y'/'N') ->

```

Figure of 4.4.32 Screenshot of modify visitor information (Part 3)

5. Delete visitor entry history



Figure of 4.4.33 Screenshot of delete visitor entry history

CHECK-IN AND CHECK-OUT SUMMARY													
#	Entry ID	Personal ID	Venue ID	Date	Time entry	Temperature(°c)	Purpose	Current risk	Time exit	Duration visit	Feedback of SOP	Rating	
#01-	X001	V001	T002	2021/03/28	11:35	36.00	BORROW BOOKS	LOW	23:59	744 minutes	--	--	
#02-	X002	V002	T003	2021/03/28	11:53	36.20	EXPERIMENT	LOW	11:57	004 minutes	Good	****	
#03-	X003	V003	T009	2021/03/28	12: 08	36.50	LUNCH	MEDIUM	12: 6	006 minutes	Excellence	*****	
#04-	X004	V004	T007	2021/03/28	12: 1	36.00	BIO CLASS	LOW	23:59	718 minutes	--	--	
#05-	X005	A005	T015	2021/03/28	12: 2	36.00	FIND FRIENDS	LOW	23:59	717 minutes	--	--	
#06-	X006	V006	T017	2021/03/28	12: 4	36.50	CLASS	LOW	12:17	013 minutes	Bad	**	
#07-	X007	F009	T019	2021/03/28	12:18	36.00	IT CLASS	LOW	23:59	701 minutes	--	--	
#08-	X008	F010	T009	2021/03/28	12:20	36.00	BRUNCH	LOW	23:59	699 minutes	--	--	
#09-	X009	F010	T010	2021/03/28	12:21	36.00	FIND TEACHER	LOW	23:59	698 minutes	--	--	
#10-	X010	V011	T013	2021/03/28	12:22	36.00	ATTEND ACTIVITY	LOW	23:59	697 minutes	--	--	
#11-	X011	V012	T015	2021/03/28	12:28	36.00	MEETING	LOW	23:59	691 minutes	--	--	
#12-	X012	V012	T004	2021/03/28	12:31	36.20	MEETING	MEDIUM	23:59	688 minutes	Good	****	
#13-	X013	V013	T017	2021/03/28	12:32	36.30	EXPERIMENT	MEDIUM	23:59	687 minutes	Excellence	*****	
#14-	X014	V016	T015	2021/03/28	12:34	36.10	MEETING	LOW	14:17	103 minutes	Good	****	
#15-	X015	V017	T008	2021/03/28	12:37	36.10	DISCUSSION	MEDIUM	23:59	682 minutes	Good	****	
#16-	X017	V019	T000	2021/03/28	12:39	36.00	EXPERIMENT	LOW	14: 6	087 minutes	Good	****	
#17-	X018	V010	T011	2021/03/28	12: 8	36.50	SICK	LOW	23:59	593 minutes	--	--	
#18-	X019	A005	T017	2021/03/28	14:18	36.00	CLASS	LOW	23:59	589 minutes	--	--	
#19-	X020	V006	T018	2021/03/28	14:13	36.30	COURSE	LOW	23:59	587 minutes	Excellence	*****	
#20-	X022	V002	T003	2021/03/29	15:20	36.00	IT CLASS	LOW	15:21	011 minutes	Good	****	
#21-	X023	V001	T013	2021/04/02	2: 9	36.00	CLUB ACTIVITY	LOW	2:14	005 minutes	Good	**	

-[Total : 21 records]-

Figure of 4.4.34 Screenshot of proving X021 has been deleted

- X021 has been moved into the ‘backup’ text file . The purpose of backup is to let the top management to find back the old records of entry history in case of need.

X016	V018	T012	2021/03/28	12:38	36.00	SEMBAHYANG	BUY DRINK	LOW	23:59	681	--	--
X021	V008	T009	2021/03/28	14:14	36.00			LOW	14:15	1	Good	*

Figure of 4.4.35 Screenshot of deleted data in the backup text file

#	Entry ID	Personal ID	Venue ID	Date	Time entry	Temperature(°c)	Purpose	Current risk	Time exit	Duration visit	Feedback of SOP	Rating
#22-	X016	V018	T012	2021/03/28	12:38	36.00	SEMBAHYANG	BUY DRINK	LOW	23:59	0681 minutes	--
#23-	X021	V008	T009	2021/03/28	14:14	36.00			LOW	14:15	0001 minutes	Good

Do you want to continue display the history records ? ('Y'-yes,'N'-no) -> -

Figure of 4.4.36 Screenshot of deleted data in the display module

6. Report of visit and exit

- It allows admin to choose 3 type of report



Figure of 4.4.37 Screenshot of report menu

6.1 Feedback report

- It will provide the conclusion based on the feedback given.



Figure of 4.4.38 Screenshot of feedback report

6.2 Rating report

- It will provide the conclusion based on the rating given.



Figure of 4.4.39 Screenshot of rating report

6.3 Monthly report of visitors in each venue

- It will provide the number of visitors in each venue in each of the month.



Figure of 4.4.40 Screenshot of monthly report in each venue

7. Validation check

➤ Validation check (1)

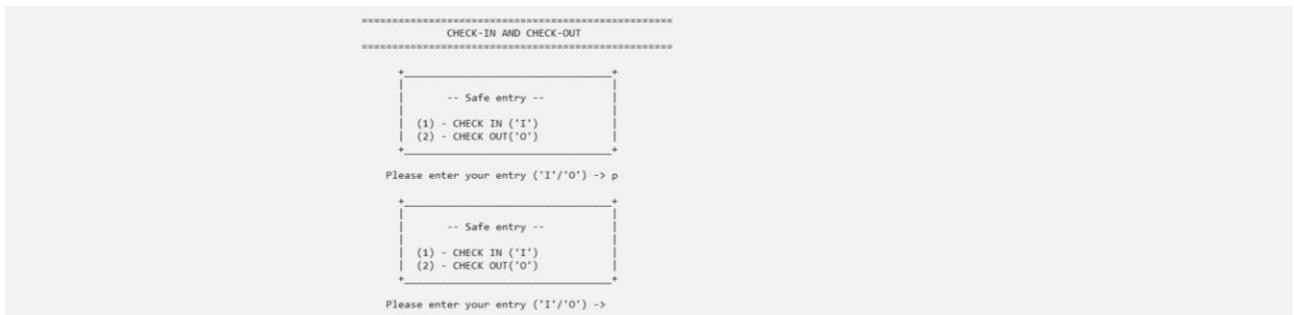


Figure of 4.4.41 Screenshot of validation check in entry part

➤ Validation check (2)

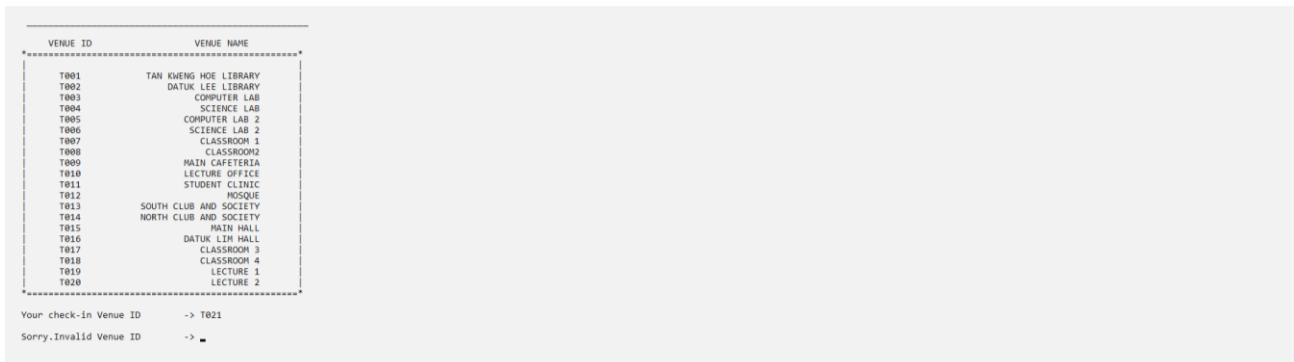


Figure of 4.4.42 Screenshot of validation check in part(Invalid Venue ID)

➤ Validation check (3)



Figure of 4.4.43 Screenshot of validation check in part(High temperature)

➤ Validation check (4)

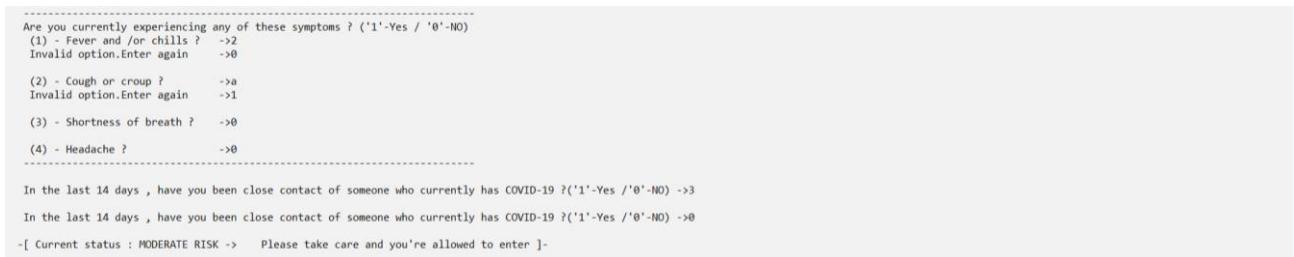


Figure of 4.4.44 Screenshot of validation check in part(Experienced current symptoms)

➤ Validation check (5)

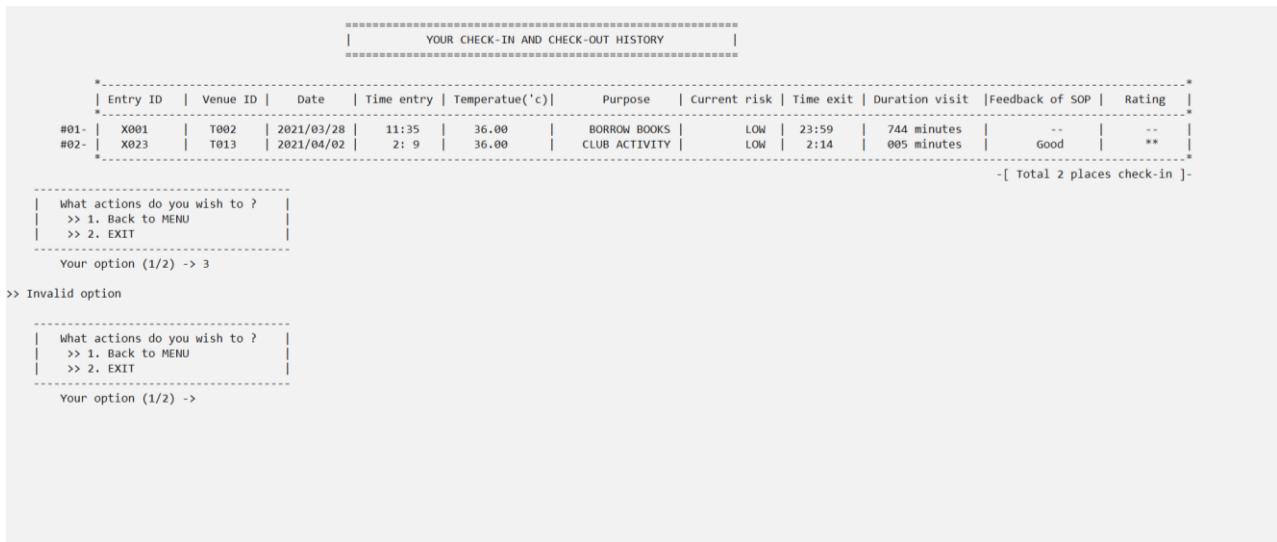


Figure of 4.4.45 Screenshot of validation part(When back to menu)

➤ Validation check (6)

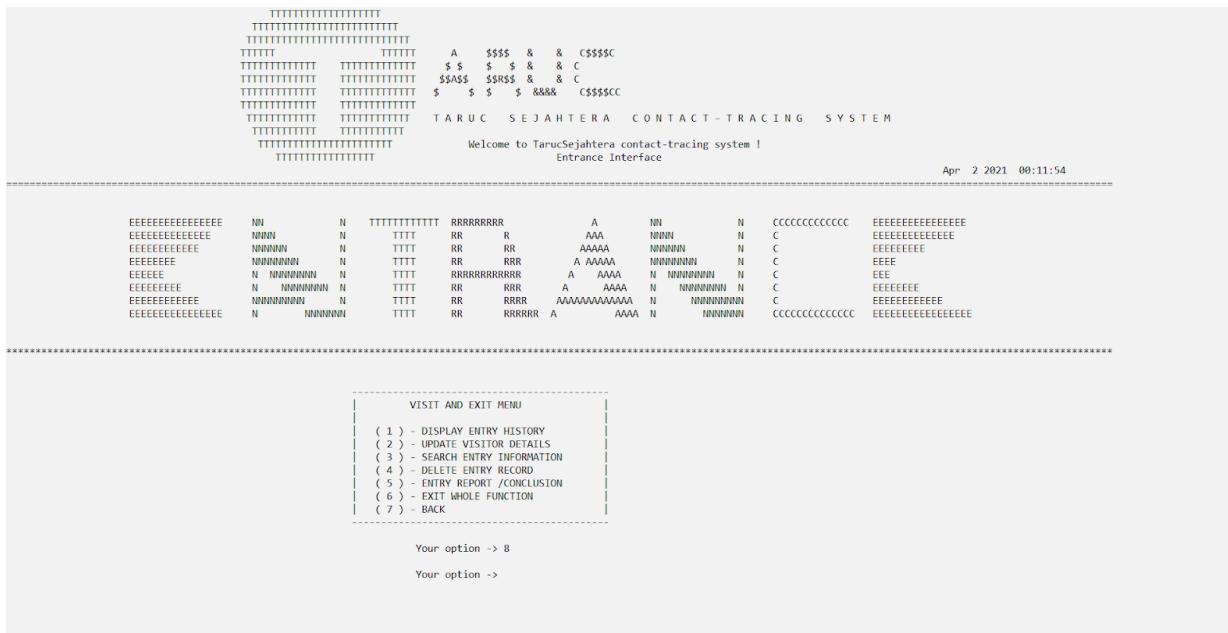


Figure of 4.4.46 Screenshot of validation in admin menu of visit and exit

➤ **Validation check (7)**

```
=====
|           UPDATE VISITOR INFORMATION      |
=====

Enter entry ID to be validated [XXXXX] ->X055
>> Sorry.No such record(s) existing.
Are you want to continue update ?('Y'/'N') ->■
```

Figure of 4.4.47 Screenshot of validation in modify of visit and exit(No such ID existing)

➤ **Validation check (8)**

```
=====
|           SEARCH VISITOR INFORMATION      |
=====

Enter VISITOR ID to search [XXXX]      -> T033
- [ Sorry no visitor ID founded ]-
Do you wish to search another record?('Y'-continue search /'N'-Back to MENU) -> ■
```

Figure of 4.4.48 Screenshot of validation in search of visit and exit(No such ID existing)

➤ **Validation check (9)**

```
=====
|           DELETE VISITOR INFORMATION      |
=====

Enter the entry ID you want to delete    -> X036
>> No entry ID found. <<
Do you want to continue delete record ('Y'/'N')    ->
```

Figure of 4.4.49 Screenshot of validation in delete of visit and exit(No such ID existing)

4.5 Sanitization Module by < Cheng Cai Yuan >

4.5.1 Brief Description

The main purpose of the sanitization module is to help record the reservation of sanitization that was made by the staff of TARUC with the sanitization company. When the staff have made a sanitization reservation to a venue, it will auto updated to the venue module to show to the visitor about that time of sanitization. This module will ensure that staff will not make double reservations for a venue at a same time because staffs can check the sanitization details they have made before through this module clearly. Besides, this module also helps to record the details of previous sanitizations such as payment details and service rating for the sanitization company. By having this record, the staff can look back to know that which company has a better service rate so that they can make reservations of sanitization with them.

4.5.2 Outputs and File Contents

- Sanitization menu interface

After the user login as admin and select to go into the sanitization records module, a sanitization main menu will be shown and the user can select what action they would like to perform.

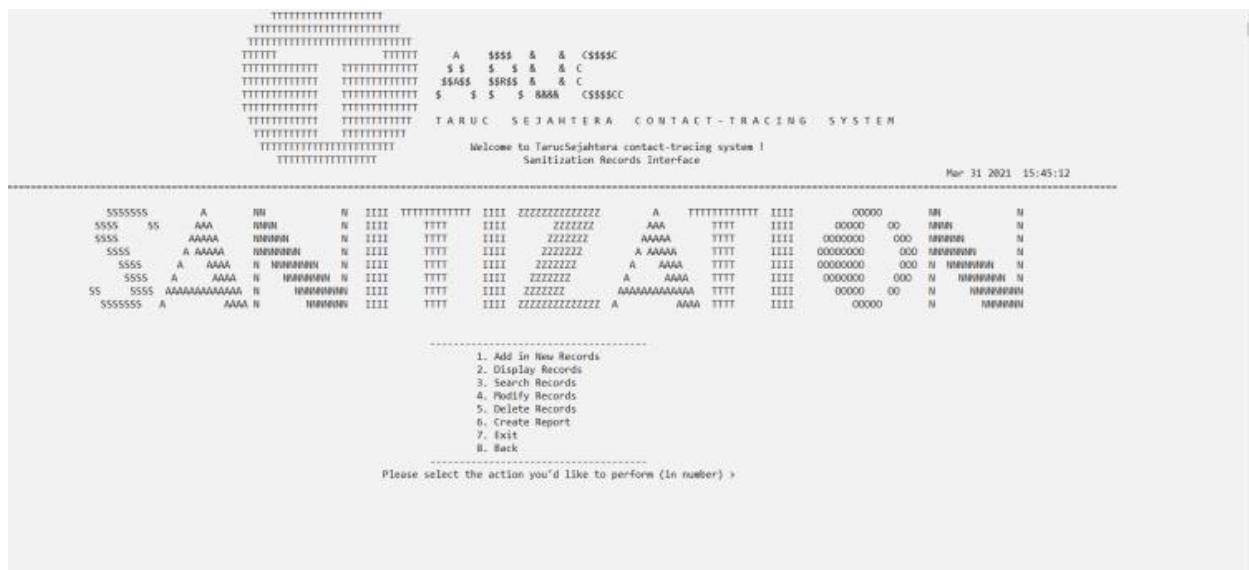


Figure 4.5.1 shows the screenshot of main menu of sanitization

1.Add function

When the user enters “1” in the menu, there will be two choice to let the user select whether they want to add a new reservation sanitization record or previous sanitization record.



Figure 4.5.2 shows the screenshot of add sanitization record

When the user selects “1” to add a new reservation sanitization record into sanitization.txt, the system will automatically generate the latest sanitization ID so that the user no longer needs to key in the sanitization ID anymore. After that, the system will assign the user to key in the reservation date, reservation time, reservation venue and so on. After the user key in successfully, it will show that “Record successfully added” and ask the user whether he or she want to add in new record or not. If the user don’t want to add in anymore, then the user can select whether he or she want to back to sanitization main menu to perform another action or not.

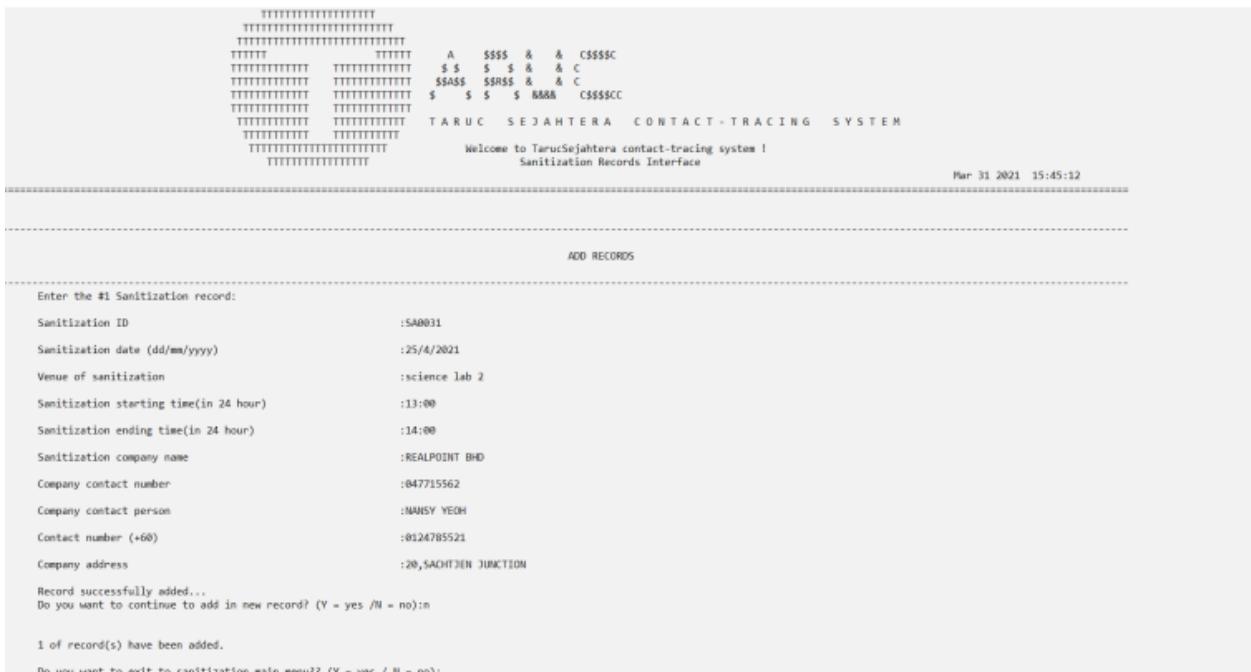
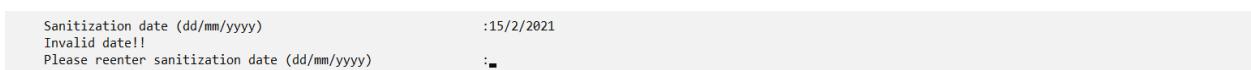


Figure 4.5.3 shows the screenshot of add new reservation sanitization record

Validation check for add new reservation sanitization record

- Validation check for date(User are not allow to key in the reservation date that are before the system date)



Validation Figure 1

- Validation check for venue(User are not allow to key in the venue name that are not match with the venue name that assign in the venue module)



Validation Figure 2

- Validation check for time(User are not allow to key in character or invalid time in this field)



Validation Figure 3

- Validation check for company contact number(User are not allow to key in the contact number which are less than or more than the length size of 9)

Company contact number	:	01234
Invalid contact number!!		
Please reenter the company contact number	:	0475122693
Invalid contact number!!		
Please reenter the company contact number	:	-

Validation Figure 4

- Validation check for company contact person(User are not allow to key in the number or symbol and only allow to key in character)

Company contact person	:	123
Invalid company contact person!!		
Please reenter the company contact person	:	

Validation Figure 5

- Validation check for the contact number(User are not allow to key in the contact number which are less than or more than the length size of 10 or 11)

Contact number (+60)	:	012345
Invalid contact number!!		
Please reenter the contact number (+60)	:	012455996842
Invalid contact number!!		
Please reenter the contact number (+60)	:	

Validation Figure 6

When the user selects “2” to add a new previous sanitization record into payment.dat, the system will automatically generate the latest payment ID so that the user no longer needs to key in the payment ID anymore. After that, the system will assign the user to key in the sanitization ID, payment method, payment merchant and so on. After the user key in successfully, it will show that “Record successfully added” and ask the user whether he or she want to add in new record or not. If the user don’t want to add in anymore, then the user can select whether he or she want to back to sanitization main menu to perform another action or not.



Figure 4.5.4 shows the screenshot of add previous sanitization record

Validation check for add new previous sanitization record

- Validation check for sanitization ID(User are not allow to key in the sanitization ID that cannot found in sanitization.txt)

```
Sanitization ID :SA0035
Invalid sanitization ID!!
This sanitization ID cannot found in sanitization.txt.
Please reenter sanitization ID :
```

Validation Figure 7

- Validation check for payment method(User are only allow to enter “E-Wallet” / “Online Banking” / “Credit Card” / “Cash”)

```
Payment method (E-WALLET / ONLINE BANKING / CREDIT CARD / CASH) :abc
Invalid payment method!!
Please reenter payment method (E-WALLET / ONLINE BANKING / CREDIT CARD / CASH):
```

Validation Figure 8

- Validation check for payment amount and service tax(User are only allow to enter in numeric form)

```
Payment amount(RM 00.00) :abc.as
Invalid payment amount!!
Please reenter payment amount(RM 00.00) :
```

Validation Figure 9

```
Service tax (RM 00.00) :12.dd
Invalid service tax!!
Please reenter service tax (RM 00.00) :
```

Validation Figure 10

- Validation check for service rating(User are only allow to enter the number between 1 to 5)

```
Service rating (please give a rate for the company service (1 star - 5 star) :9
Invalid rating!
Please reenter the rating for the company (1 star - 5 star) :■
```

Validation Figure 11

2. Display function

When the user enters “2” in the menu, there will be two choice to let the user select whether they want to display the reservation sanitization record or previous sanitization record.



Figure 4.5.5 shows the screenshot of display sanitization record

When the user selects “1” to display the reservation sanitization record, the system will ask the user to select whether he or she want to display all records or certain records only. If the user selects “1”, then all the sanitization records in sanitization.txt will be display out.

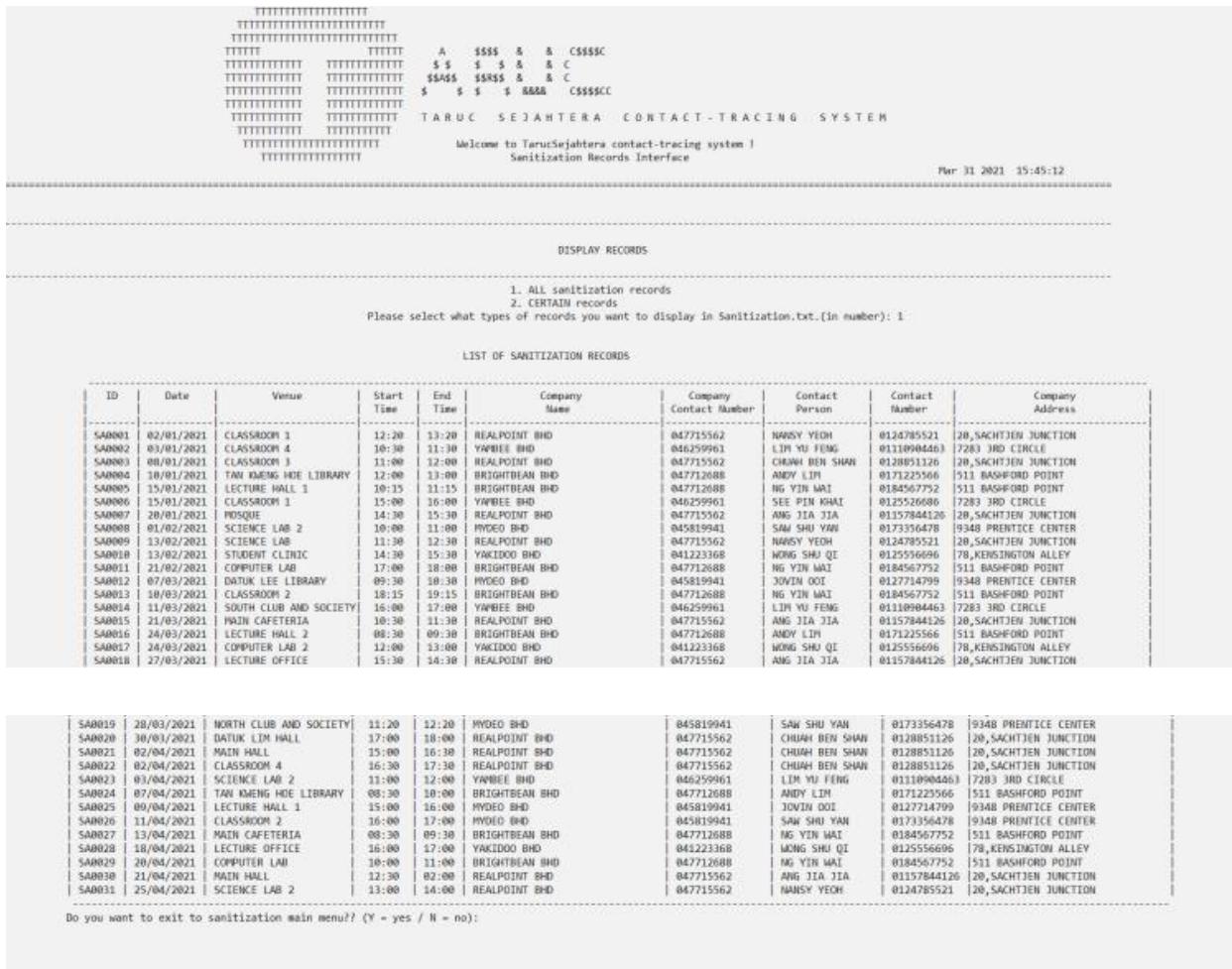


Figure 4.5.6 shows the screenshot of display ALL the sanitization reservation record

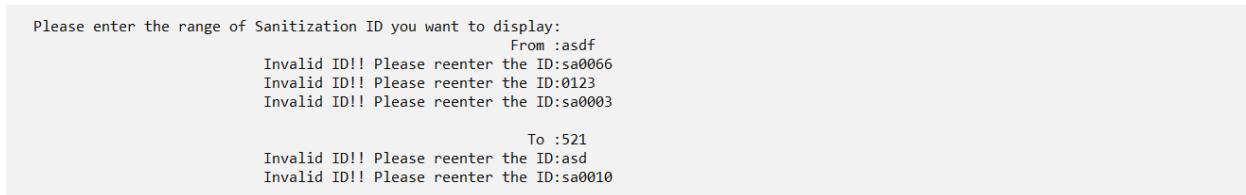
If the user selects “2”, then the system will ask the user to key in the range of sanitization ID that they would like to display.



Figure 4.5.7 shows the screenshot of display CERTAIN sanitization reservation record

Validation check for display certain reservation sanitization record

- Validation check for sanitization ID(User are only allow to enter the sanitization ID which can found in sanitization.txt)



Validation Figure 12

When the user selects “2” to display the previous sanitization record, the system will ask the user to select whether he or she want to display all records or certain records only. If the user selects “1”, then all the previous sanitization records in payment.dat will be display out.

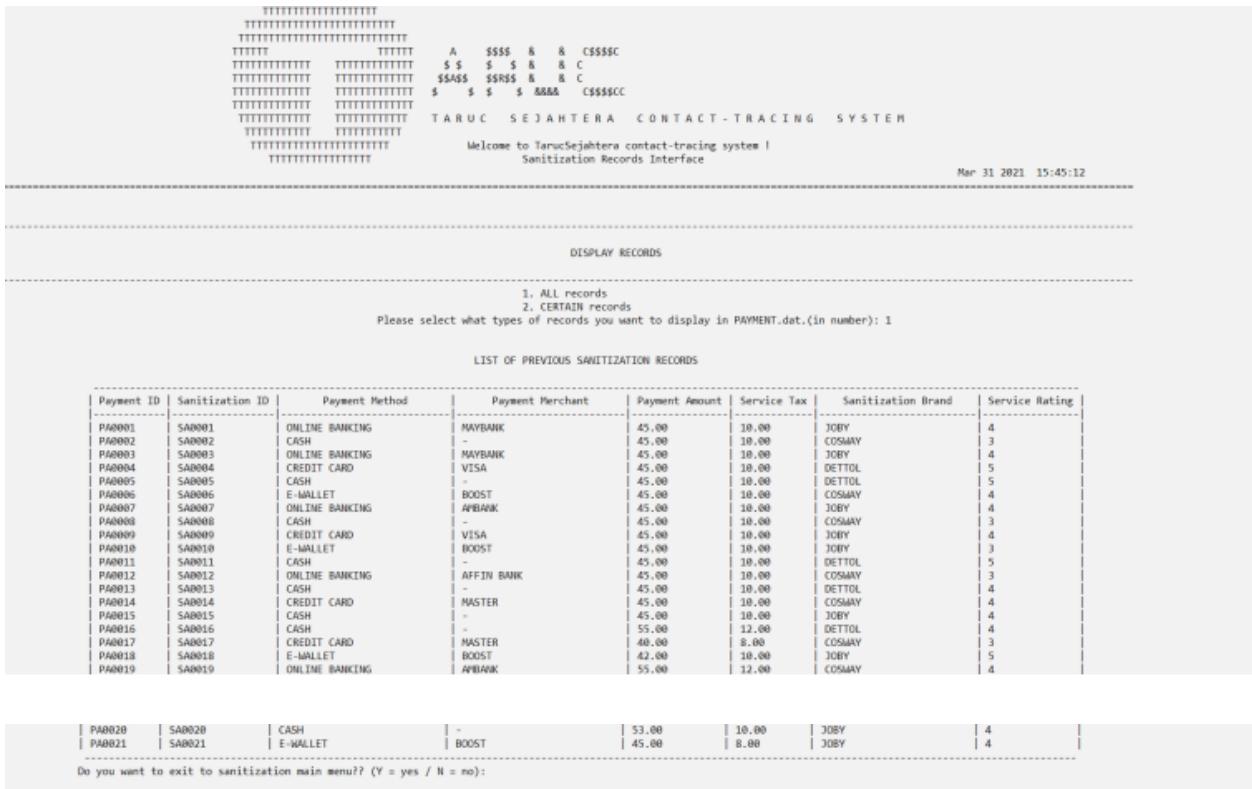


Figure 4.5.8 shows the screenshot of display ALL the previous sanitization record

If the user selects “2”, then the system will ask the user to key in the range of payment ID that they would like to display.

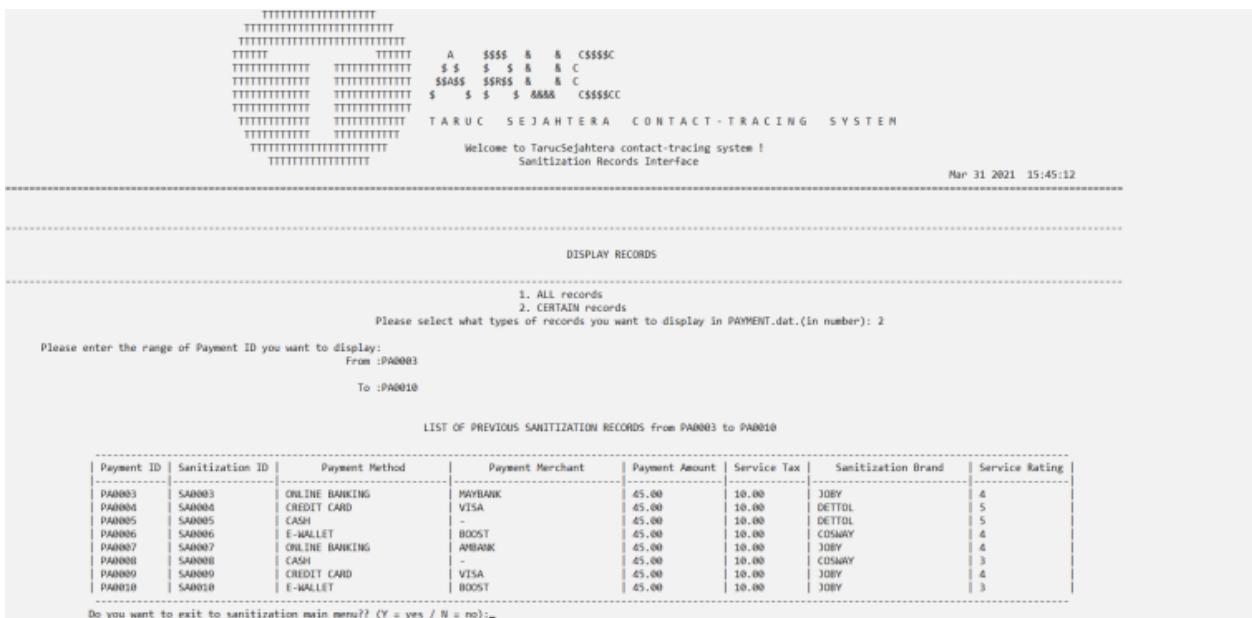


Figure 4.5.9 shows the screenshot of display CERTAIN previous sanitization record

Validation check for display certain previous sanitization record

- Validation check for payment ID(User are only allow to enter the payment ID which can found in payment.dat)

```
Please enter the range of Payment ID you want to display:  
From :sa0001  
Invalid ID!! Please reenter the ID:asd  
Invalid ID!! Please reenter the ID:123  
Invalid ID!! Please reenter the ID:pa0006  
  
To :asd  
Invalid ID!! Please reenter the ID:2156  
Invalid ID!! Please reenter the ID:pa0010
```

Validation Figure 13

3. Search function

When the user enters “3” in the menu, there will be two choice to let the user select whether they want to search for the reservation sanitization record or previous sanitization record.



Figure 4.5.10 shows the screenshot of search sanitization record

When the user selects “1” to search for the reservation sanitization record, the system will display a search menu of the reservation sanitization record. There are 4 choices to let the user choose whether he or she wants to search the record based on how many criteria.



Figure 4.5.11 shows the screenshot of search menu of the reservation sanitization record

When the user selects “1”, it will go into the first one which is searching based on 1 criteria and only allow the

user enter the year to search.

TARUC SEJAHTERA CONTACT-TRACING SYSTEM										
Welcome to TarucSejahtera contact-tracing system !										
Sanitization Records Interface										
Mar 31 2021 15:45:12										
SEARCH RECORDS										
Enter date of sanitization (in year only) to search :2021										
ID	Date	Venue	Start Time	End Time	Company Name	Company Contact Number	Contact Person	Contact Number	Company Address	
SAN0001	02/01/2021	CLASSROOM 1	12:20	13:28	REALPOINT BHD	047715562	NANSY YEON	0124785521	28,SACHTIEN JUNCTION	
SAN0002	03/01/2021	CLASSROOM 4	10:30	11:38	YANBEE BHD	046259961	LIM YU FENG	01118904463	7283 3RD CIRCLE	
SAN0003	08/01/2021	CLASSROOM 3	11:00	12:08	REALPOINT BHD	047715562	CHUAH BEN SHAN	0128851126	28,SACHTIEN JUNCTION	
SAN0004	10/01/2021	TAN KWENG HOE LIBRARY	12:00	13:08	BRIGHTBEAN BHD	047712688	ANDY LIM	0171225566	511 BASHFORD POINT	
SAN0005	15/01/2021	LECTURE HALL 1	10:15	11:15	BRIGHTBEAN BHD	047712688	NG YIN WAI	0184567752	511 BASHFORD POINT	
SAN0006	15/01/2021	CLASSROOM 1	15:00	16:08	YANBEE BHD	046259961	SEI PIN IOHAI	0125926686	7283 3RD CIRCLE	
SAN0007	20/01/2021	MOSQUE	14:30	15:38	REALPOINT BHD	047715562	ANG JIA JIA	0115784126	28,SACHTIEN JUNCTION	
SAN0008	01/02/2021	SCIENCE LAB 2	10:00	11:08	MYDEO BHD	045819941	SAM SHU YAN	0173356478	9348 PRENTICE CENTER	
SAN0009	13/02/2021	SCIENCE LAB	11:30	12:38	REALPOINT BHD	047715562	NANSY YEON	0124785521	28,SACHTIEN JUNCTION	
SAN0010	13/02/2021	STUDENT CLINIC	14:30	15:38	YAKIDOO BHD	041223368	WONG SHU QI	0125556696	78,KENSINGTON ALLEY	
SAN0011	21/02/2021	COMPUTER LAB	17:00	18:08	BRIGHTBEAN BHD	047712688	NG YIN WAI	0184567752	511 BASHFORD POINT	
SAN0012	07/03/2021	DATUH LEE LIBRARY	09:30	10:38	MYDEO BHD	045819941	JOVIN OOI	0177174199	9348 PRENTICE CENTER	
SAN0013	16/03/2021	CLASSROOM 2	18:15	19:15	BRIGHTBEAN BHD	047712688	NG YIN WAI	0184567752	511 BASHFORD POINT	
SAN0014	11/03/2021	SOUTH CLUB AND SOCIETY	16:00	17:08	YANBEE BHD	046259961	LIM YU FENG	01118904463	7283 3RD CIRCLE	
SAN0015	21/03/2021	MAIN CAFETERIA	10:30	11:38	REALPOINT BHD	047715562	ANG JIA JIA	0115784126	28,SACHTIEN JUNCTION	
SAN0016	24/03/2021	LECTURE HALL 2	08:30	09:38	BRIGHTBEAN BHD	047712688	ANDY LIM	0171225566	511 BASHFORD POINT	
SAN0017	24/03/2021	COMPUTER LAB 2	12:00	13:08	YAKIDOO BHD	041223368	WONG SHU QI	0125556696	78,KENSINGTON ALLEY	
SAN0018	27/03/2021	LECTURE OFFICE	15:30	16:38	REALPOINT BHD	047715562	ANG JIA JIA	0115784126	28,SACHTIEN JUNCTION	
SAN0019	28/03/2021	NORTH CLUB AND SOCIETY	11:20	12:28	MYDEO BHD	045819941	SAM SHU YAN	0173356478	9348 PRENTICE CENTER	
SAN0020	30/03/2021	DATUH LIM HALL	17:00	18:08	REALPOINT BHD	047715562	CHUAH BEN SHAN	0128851126	28,SACHTIEN JUNCTION	
SAN0021	02/04/2021	MAIN HALL	15:00	16:08	REALPOINT BHD	047715562	CHUAH BEN SHAN	0128851126	28,SACHTIEN JUNCTION	
SAN0022	02/04/2021	CLASSROOM 4	16:30	17:38	REALPOINT BHD	047715562	CHUAH BEN SHAN	0128851126	28,SACHTIEN JUNCTION	
SAN0023	03/04/2021	SCIENCE LAB 2	11:00	12:08	YANBEE BHD	046259961	LIM YU FENG	01118904463	7283 3RD CIRCLE	
SAN0024	07/04/2021	TAN KWENG HOE LIBRARY	08:30	10:00	BRIGHTBEAN BHD	047712688	ANDY LIM	0171225566	511 BASHFORD POINT	
SAN0025	09/04/2021	LECTURE HALL 1	15:00	16:08	MYDEO BHD	045819941	JOVIN OOI	012714799	9348 PRENTICE CENTER	
SAN0026	11/04/2021	CLASSROOM 2	16:00	17:08	MYDEO BHD	045819941	SAM SHU YAN	0173356478	9348 PRENTICE CENTER	
SAN0027	13/04/2021	MAIN CAFETERIA	08:30	09:38	BRIGHTBEAN BHD	047712688	NG YIN WAI	0184567752	511 BASHFORD POINT	
SAN0028	18/04/2021	LECTURE OFFICE	16:00	17:08	YAKIDOO BHD	041223368	WONG SHU QI	0125556696	78,KENSINGTON ALLEY	
SAN0029	26/04/2021	COMPUTER LAB	18:00	19:08	BRIGHTBEAN BHD	047712688	NG YIN WAI	0184567752	511 BASHFORD POINT	
SAN0030	21/04/2021	MAIN HALL	12:30	02:00	REALPOINT BHD	047715562	ANG JIA JIA	0157844126	28,SACHTIEN JUNCTION	
SAN0031	25/04/2021	SCIENCE LAB 2	13:00	14:00	REALPOINT BHD	047715562	NANSY YEON	0124785521	28,SACHTIEN JUNCTION	

Figure 4.5.12 shows the screenshot of searching based on 1 criteria

When the user selects “2”, it will go into the second one which is searching based on 2 criteria and only allow the user enter the year and month to search.

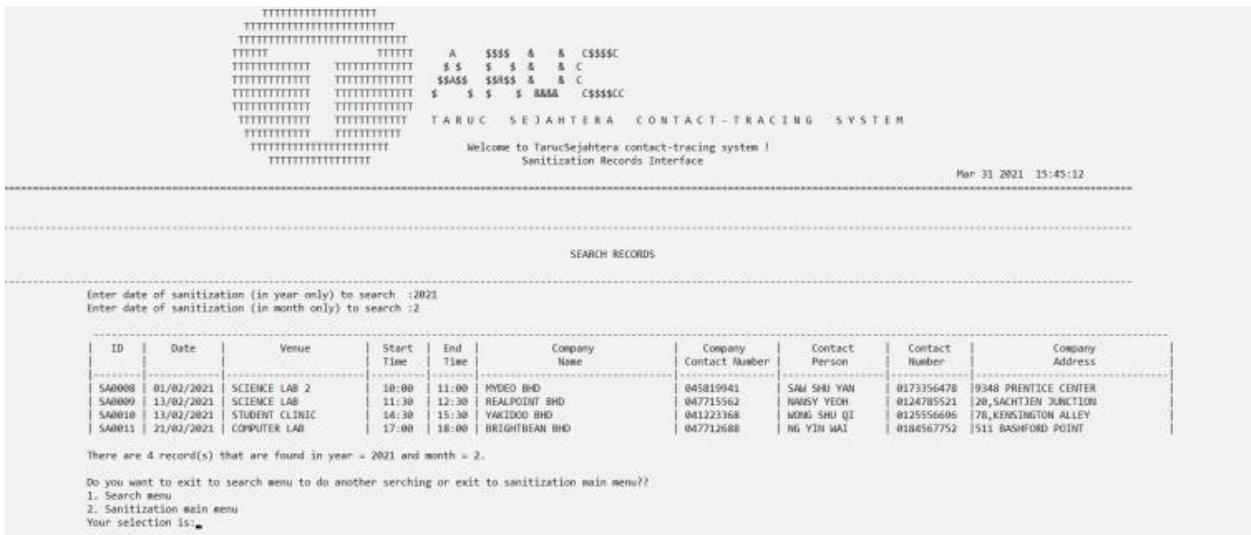


Figure 4.5.13 shows the screenshot of searching based on 2 criteria

When the user selects “3”, it will go into the third one which is searching based on 3 criteria and only allow the user enter the year, month and venue of sanitization to search.

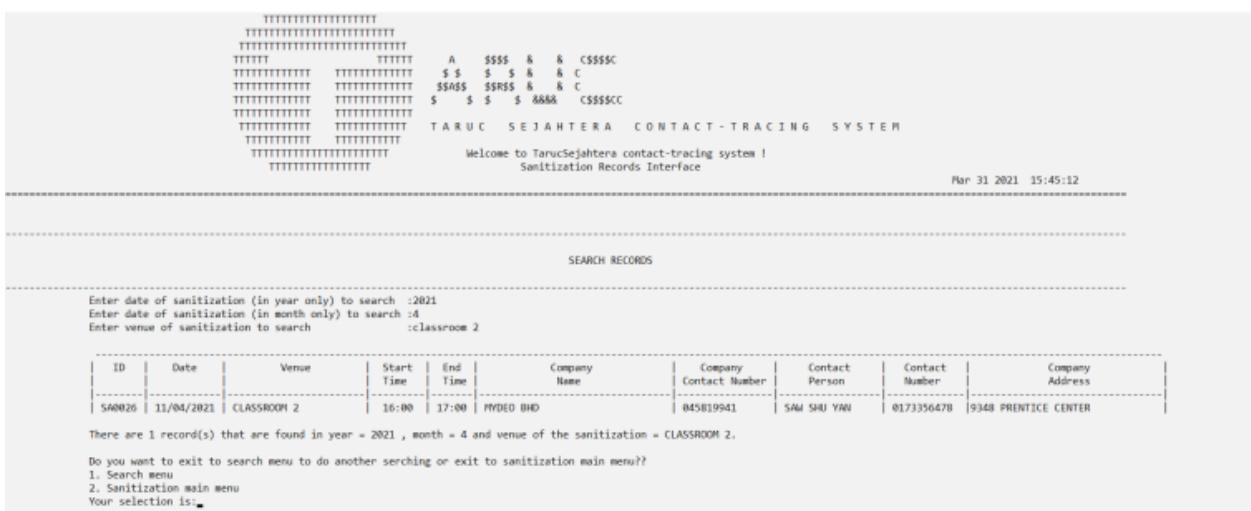


Figure 4.5.14 shows the screenshot of searching based on 3 criteria

When the user selects “4”, it will go into the fourth one which is searching based on 4 criteria and only allow the user enter the year, month, venue of sanitization and time to search.

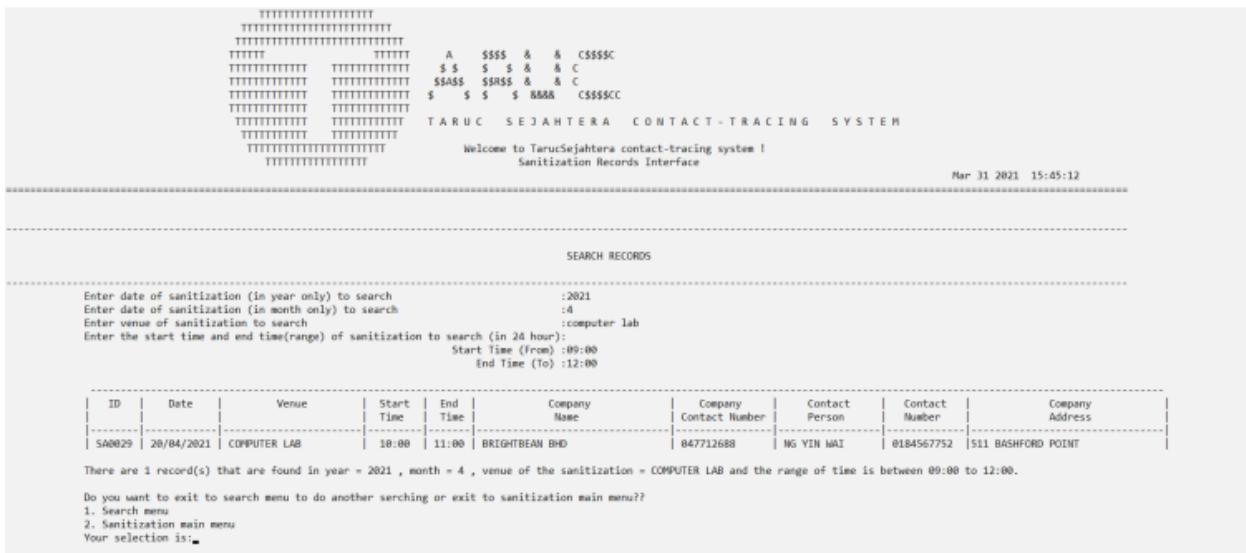


Figure 4.5.15 shows the screenshot of searching based on 4 criteria

When the user selects “2” to search for the previous sanitization record, the system will display a search menu of the previous sanitization record. There are 4 choices to let the user choose whether he or she wants to search the record based on which criteria.



Figure 4.5.16 shows the screenshot of search menu of the previous sanitization record

When the user selects “1”, it will go into the first one which is searching based on 1 criteria and only allow the user enter the service rating to search.

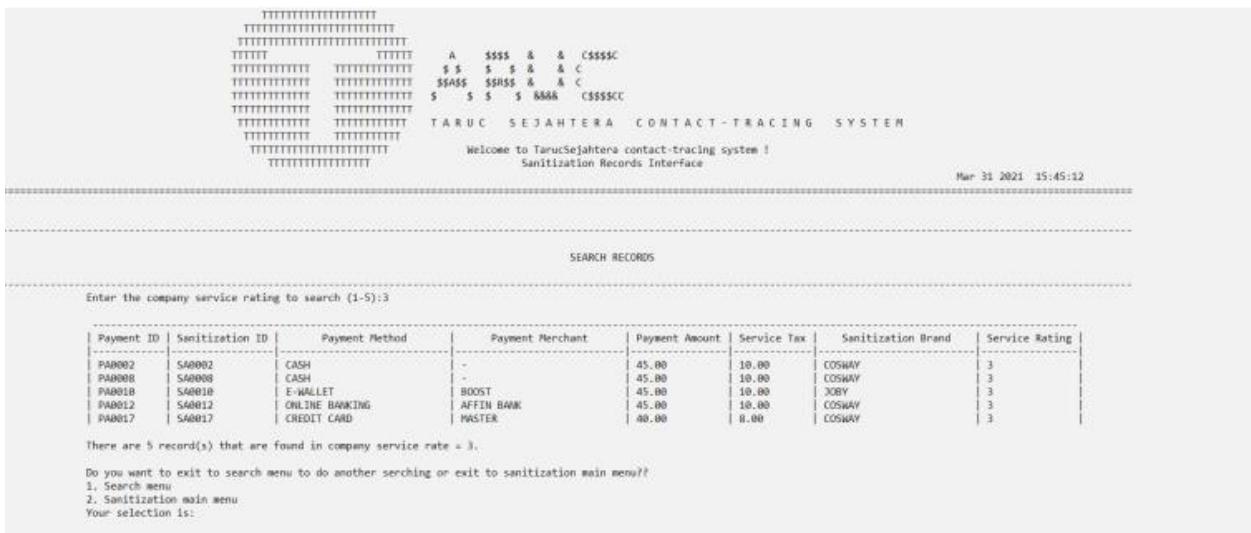


Figure 4.5.17 shows the screenshot of searching based on service rate only

When the user selects “2”, it will go into the second one which is searching based on 1 criteria and only allow the user enter the payment method to search.

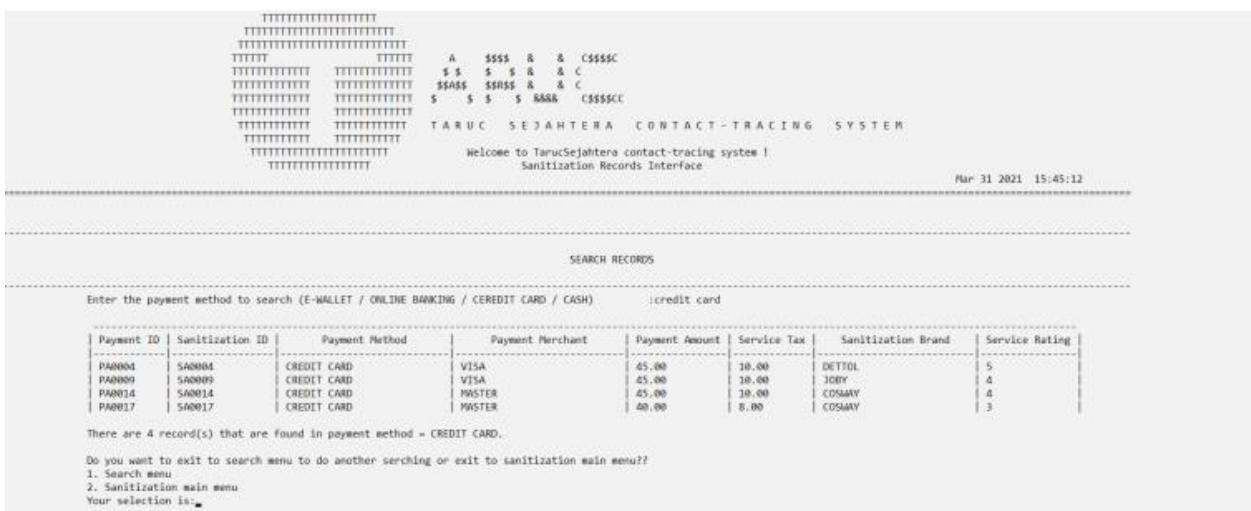


Figure 4.5.18 shows the screenshot of searching based on payment method only

When the user selects “3”, it will go into the third one which is searching based on 2 criteria and only allow the user enter the payment method and payment merchant to search.

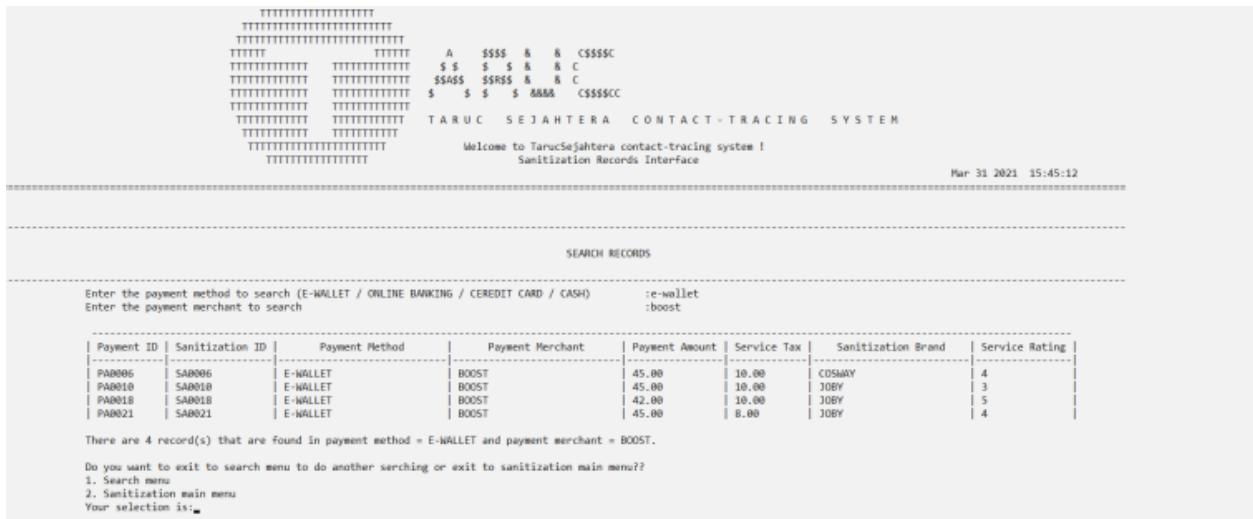


Figure 4.5.19 shows the screenshot of searching based on payment method and payment merchant only

When the user selects “4”, it will go into the fourth one which is searching based on 3 criteria and only allow the user enter the payment method, payment merchant and payment amount to search.

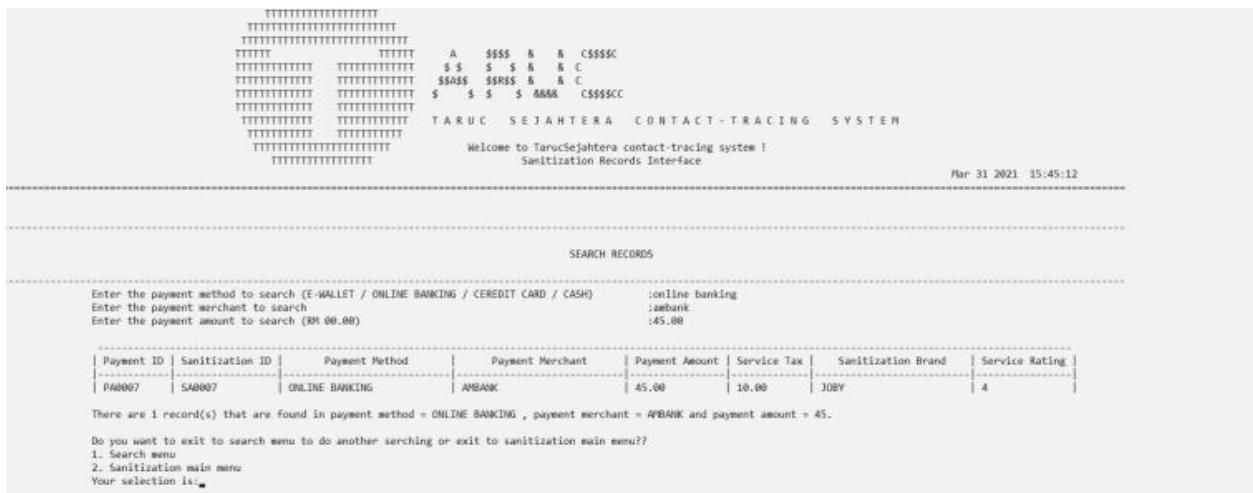


Figure 4.5.20 shows the screenshot of searching based on payment method, payment merchant and payment amount only

4. Modify function

When the user enters “4” in the menu, there will be two choice to let the user select whether they want to modify for the reservation sanitization record or previous sanitization record.



Figure 4.5.21 shows the screenshot of modify sanitization record

When the user selects “1” to modify the reservation sanitization record, the system will ask the user to key in the sanitization ID they want to modify first. After that display the details of the ID that the user key in. User then can key in all the details that they want to update except the sanitization ID. After the user key in all the details they want to updated, the system will ask the user whether he or she confirm to update this sanitization ID. If the answer from user is “Y”, then it will display out all the updated details for the ID.

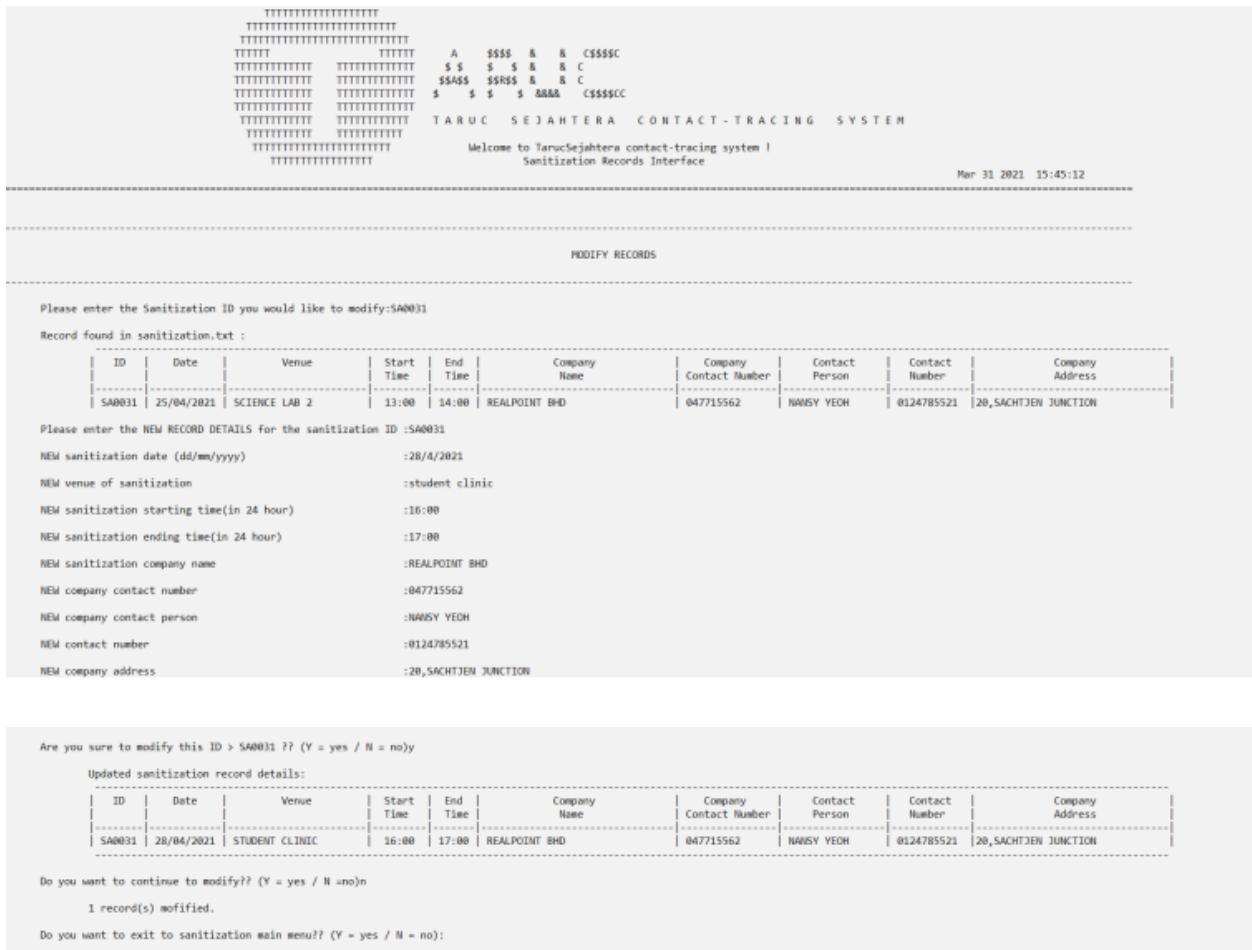


Figure 4.5.22 shows the screenshot of modify reservation sanitization record

When the user selects “2” to modify the previous sanitization record, the system will ask the user to key in the payment ID they want to modify first. After that display the details of the ID that the user key in. User then can key in all the details that they want to update except the payment ID. After the user key in all the details they want to update, the system will ask the user whether he or she confirm to update this payment ID. If the answer from user is “Y”, then it will display out all the updated details for the ID.

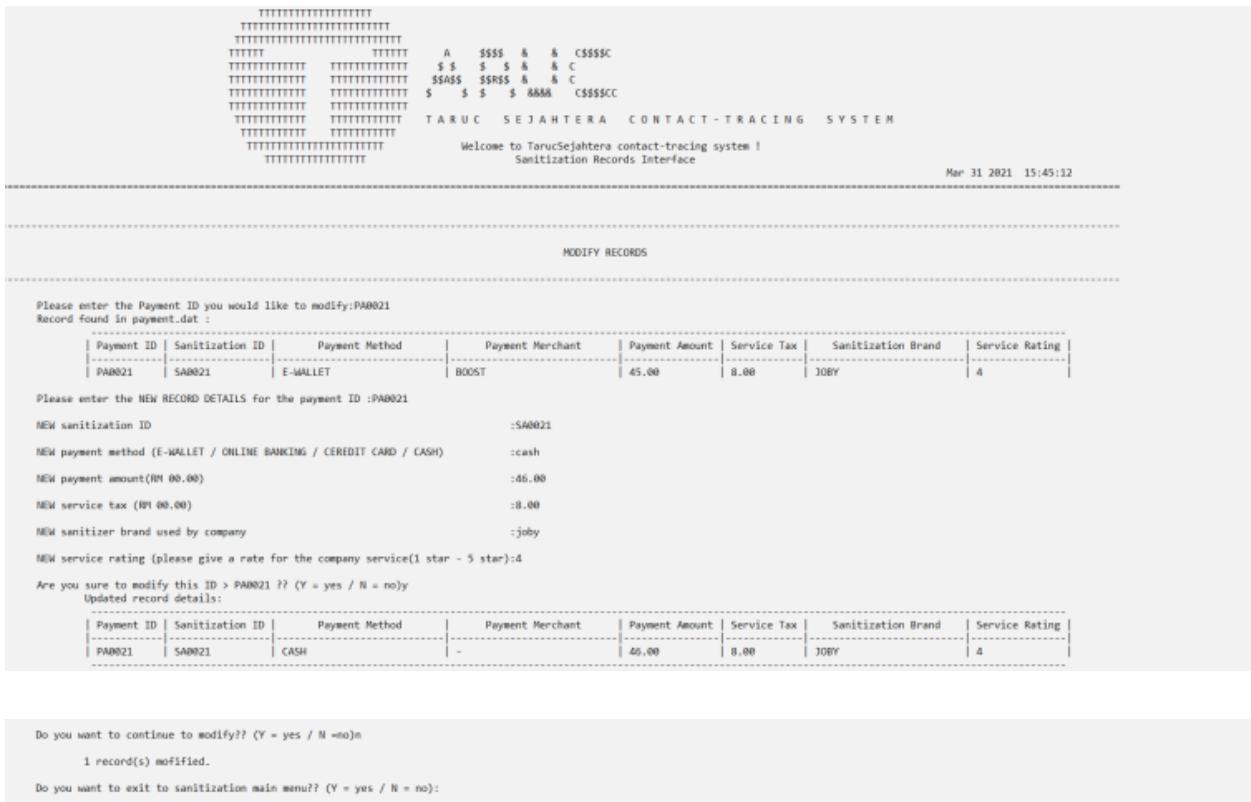


Figure 4.5.23 shows the screenshot of modify previous sanitization record

5. Delete function

When the user enters “5” in the menu, there will be two choice to let the user select whether they want to delete the reservation sanitization record or previous sanitization record.



Figure 4.5.24 shows the screenshot of delete sanitization record

When the user selects “1” to delete the reservation sanitization record, the system will ask the user to key in the sanitization ID they want to delete first. After that display the details of the ID that the user key in. Then the system will ask the user whether he or she confirm to delete this record, if the answer from user is “Y”, then the record will successfully deleted.

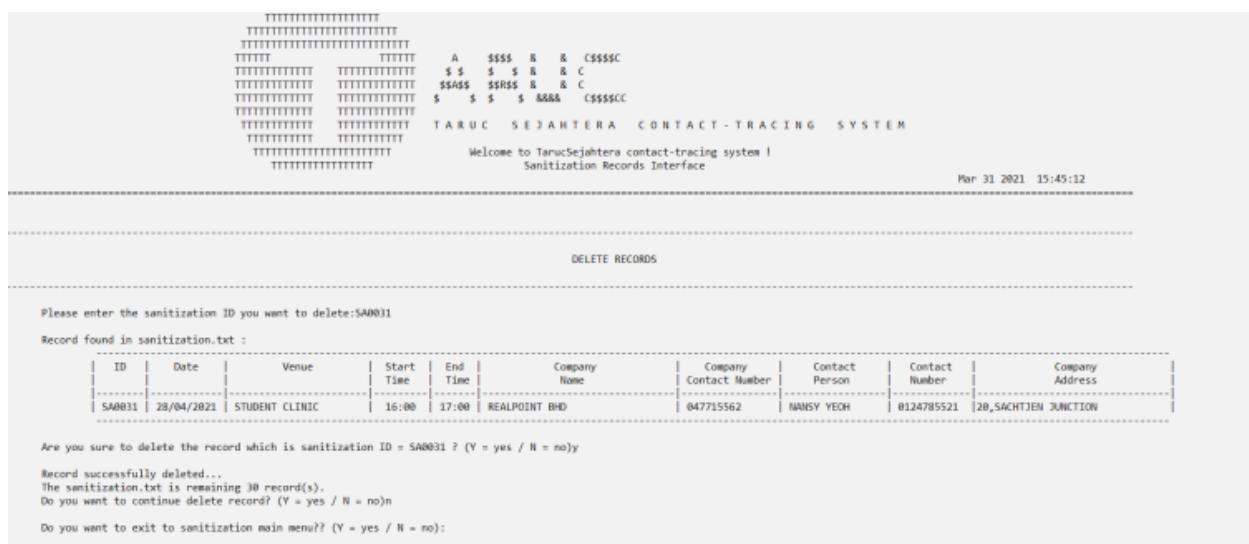


Figure 4.5.25 shows the screenshot of delete the reservation sanitization record

The deleted record will automatically save into the sanitization_backup.txt.

SA0031 28/04/2021 STUDENT CLINIC 16:00 17:00 REALPOINT BHD 047715562 NANSY YEOH 0124785521 20, SACTJEN JUNCTION

When the user selects “2” to delete the previous sanitization record, the system will ask the user to key in the payment ID they want to delete first. After that display the details of the ID that the user key in. Then the system will ask the user whether he or she confirm to delete this record, if the answer form user is “Y”, then the record will successfully deleted.

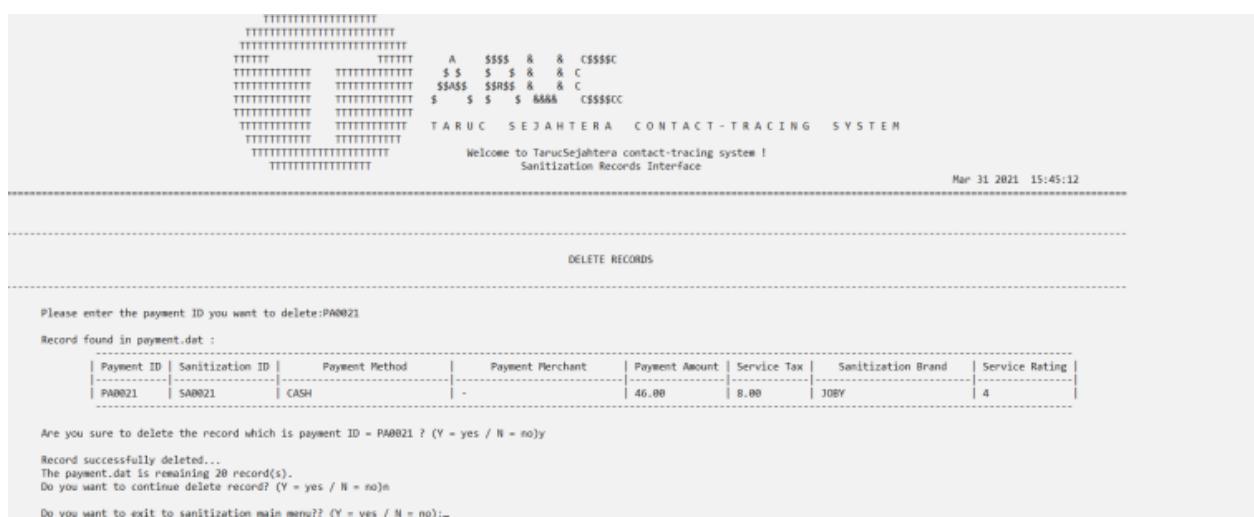


Figure 4.5.27 shows the screenshot of delete the previous sanitization record

The deleted record will automatically save into the payment_backup.dat.

PA0021 SA0021 CASH LET NKING #####- OST ANK ##### JOBY Y ##### G@ @! #####

Figure 4.5.28 shows the screenshot of deleted record in payment backup file

6. Report function

When the user enters “6” in the menu,it will go into the report function to generate a monthly report for the venue.The purpose of this report is to count the number of sanitization for each venue in a month.The system will ask the user to enter a month first then only generate the monthly report for the month.

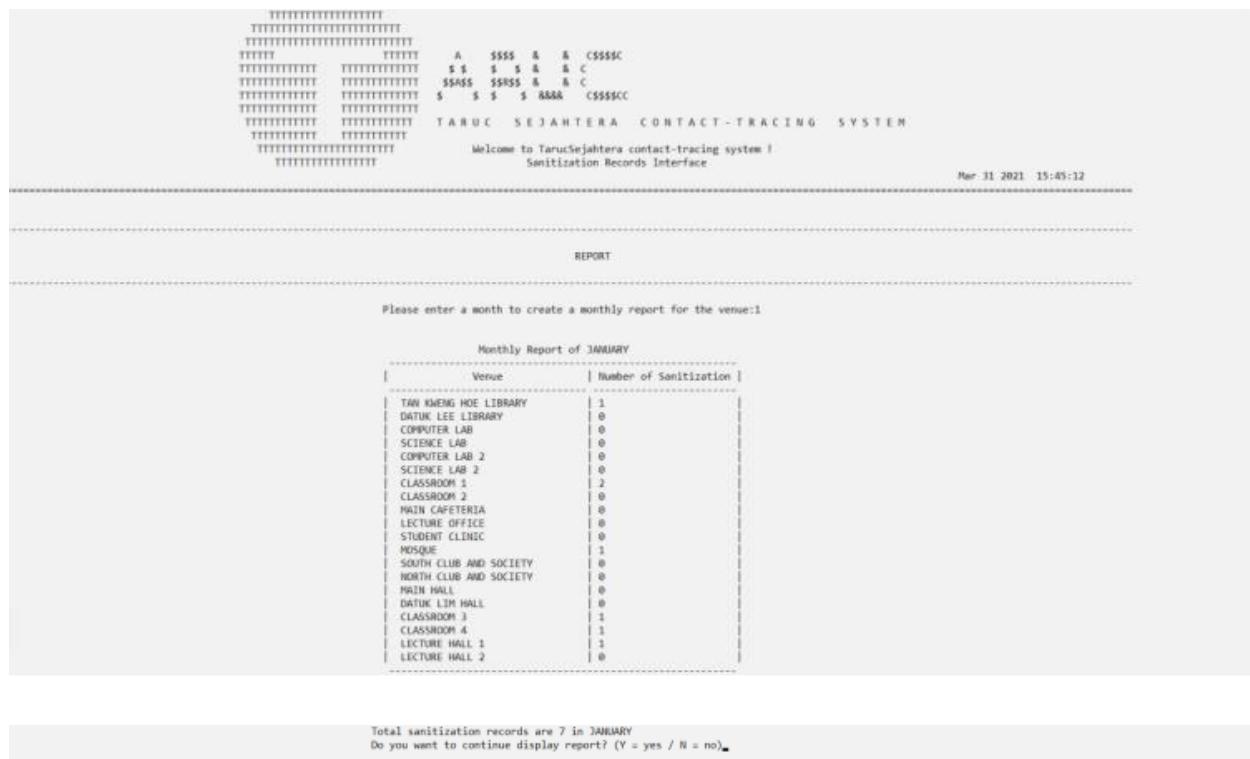
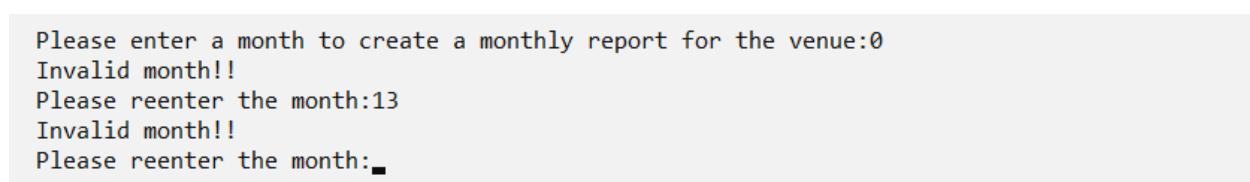


Figure 4.5.29 shows the screenshot of monthly report for the venue

Validation check for create report

- Validation check for month(User are only allow to key in the range of month between 1 to 12)



Validation Figure14

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