



A202 SECOND SEMESTER SESSION 2020/2021

STIA1123 PROGRAMMING 2 (I)

FINAL REPORT PROJECT

TOURISM BUSINESS

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1.0 Background

Have you ever stared at a picture with a magnificent scene, imagining yourself relaxing and enjoying it without any stress in the picture scene? In this day and age, everyone is having stress, more or less, and it causes us to have a deep eagerness to run away from our hectic daily life to recharge ourselves and live our dream life. In this case, we need to know the tourism business. Tourism business, a business that offers a precious opportunity for us to live our life amazing and at the same time, making money from it. Tourism business is mainly focused on providing a full package of services needed in a vacation trip, which includes hotel, restaurant, transport, tourism related services and visitor attraction system.

A hotel booking system is necessary for the package of the tourism business. Though it may sound like a tool for the front desk, a hotel booking system is an online piece of software that allows customers to schedule and pay for their stays through a secure portal. Moreover, they can do it from the comfort of their own office or living room, completing the transaction swiftly and efficiently. In addition, a hotel booking system enables tourists to make a comparison between the hotels in a particular place. From this, they can choose the hotel that meets their requirements for staying purposes before travelling to a destination. Just Go Travel hotel booking system was established from 2010 and got the Hotels Tech Awards in 2018. We are located at 123, Jalan Emas, 11888 Pulau Pinang. The tourists can dial 1300-88-8888 or fax us 04-1357982 or email at jgt2010@gmal.com if they have any enquiries.

Restaurant system is needed in the package not only to appease hunger, but it is also a unique way for tourists to discover more about the destination of the vacation trip. There would be differences in food and beverage serving for different countries with various cultures and habits. It could be one of the best ways to engage ourselves in the new atmosphere and ambience from the other country. The visitor should be impressed not only by the magnificent view, scenic spot and astonishing landmark buildings, but also the local traditional dishes which originated from the combination of local practice and culture. So, for tourism business, restaurants must include service in the package.

Restaurant system is a system that enables the customers or user to know more about the best buffet restaurant in Malaysia, Xymaxx Restaurant which offers all kinds of Malaysian Traditional dishes. Customers can check the highlighted dishes in the menu of Xymaxx Restaurant and make reservations in advance. This system will be developed in 2021. We are located at 1235, Jalan Setia, 07000 Langkawi, Kedah. The customer can contact us by our contact number 6012-3456789, our official email xymaxx123@gmail.com and also our official website www.xymaxxrestaurant.com.

Tourism-related service is one of the packages for tourism business. It includes services provided by hotels, restaurants, travel agencies or tour operator services, tourism guide services, and other related services. Customers' requirements are taken into consideration while planning trips or activities. Besides, we provide business consultation, reservation, complaint management, and other auxiliary services to assist us in identifying customer requirements and resolving issues. Customers may pick any type of service through tourism-related services, and they can compare services to choose one they prefer or find interesting. We ensure and promise to bring the best service and quality to customers.

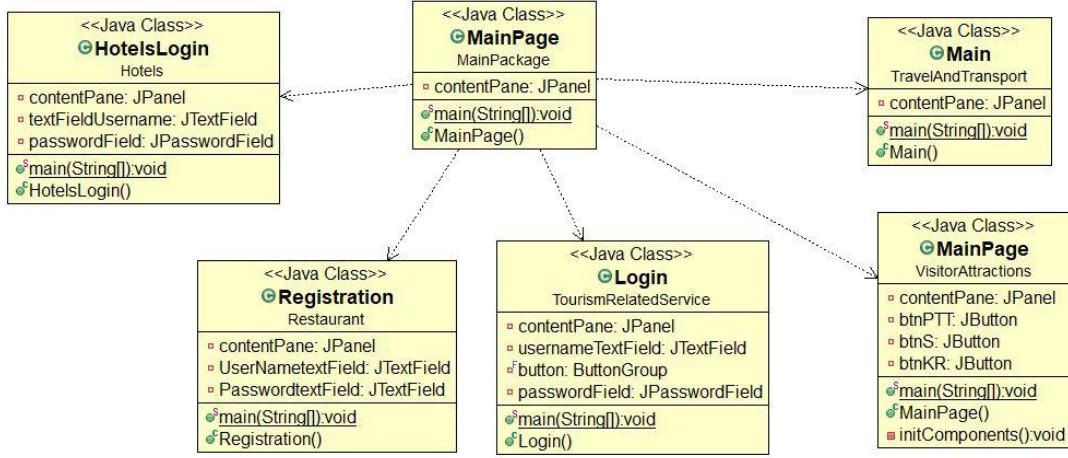
We couldn't deny that the Visitor Attraction System is essential for tourist business. This is because visitors or travellers usually seek for leisure-related experiences. Therefore, this platform has been developed in year 2021 to allow consumers to purchase tickets for selected tourist attractions at the comfort of their homes. Visitors or travellers can now pre-purchase their tickets online prior to their visit. We are located at USJ 11/3N, Subang Jaya, Selangor. Consumers can dial 6016-3359938 or email at ginvereel@gmail.com to contact us.

Last but not least, travel & transport is also the main core of tourism business. How can you ever travel by going "nowhere" by "nothing"? TY Travel Agency Sdn Bhd, established in 2021 to allow fellow travellers to book drivers that take them to selected popular tourist attractions. Travellers can make their reservations either online or at our office. Travellers can check the latest price rate and discount of booking packages anytime. We are located at 403, Lorong Selamat 2, Raja Uda, 13400 Butterworth, Pulau

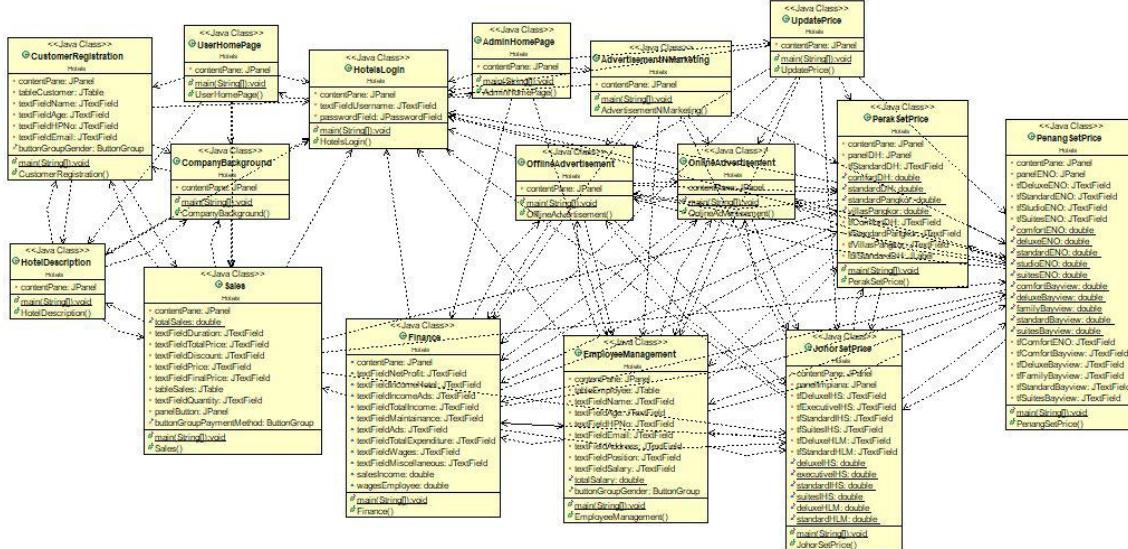
Pinang. Contact us at +6012-3456789 or email tytravel@gmail.com to inquire more information about us. We promise and ensure to bring the best and safest travel experience for travellers on the trip.

2.0 UML Class Diagram

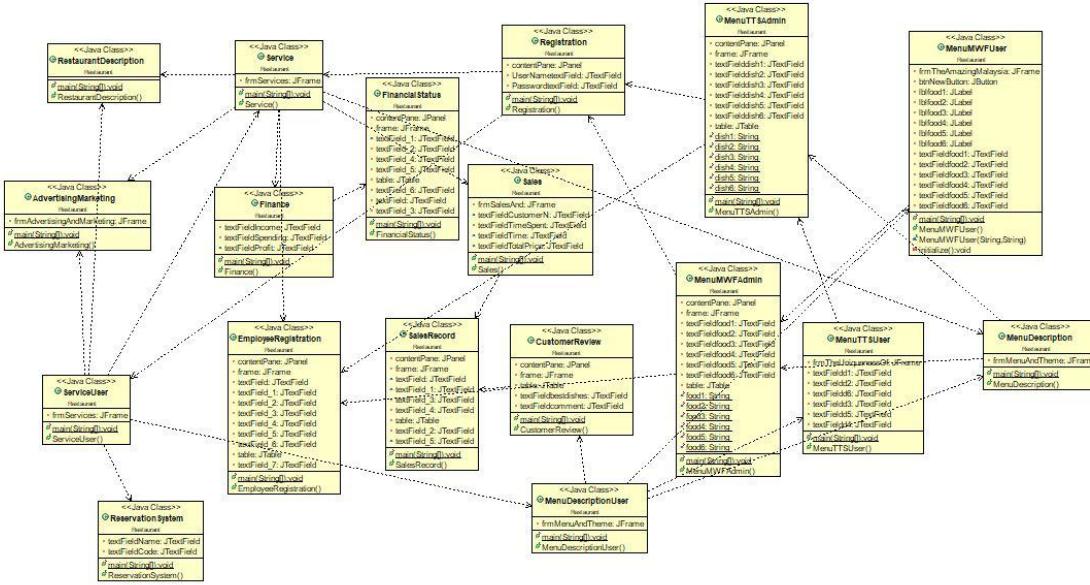
2.1 Main Page



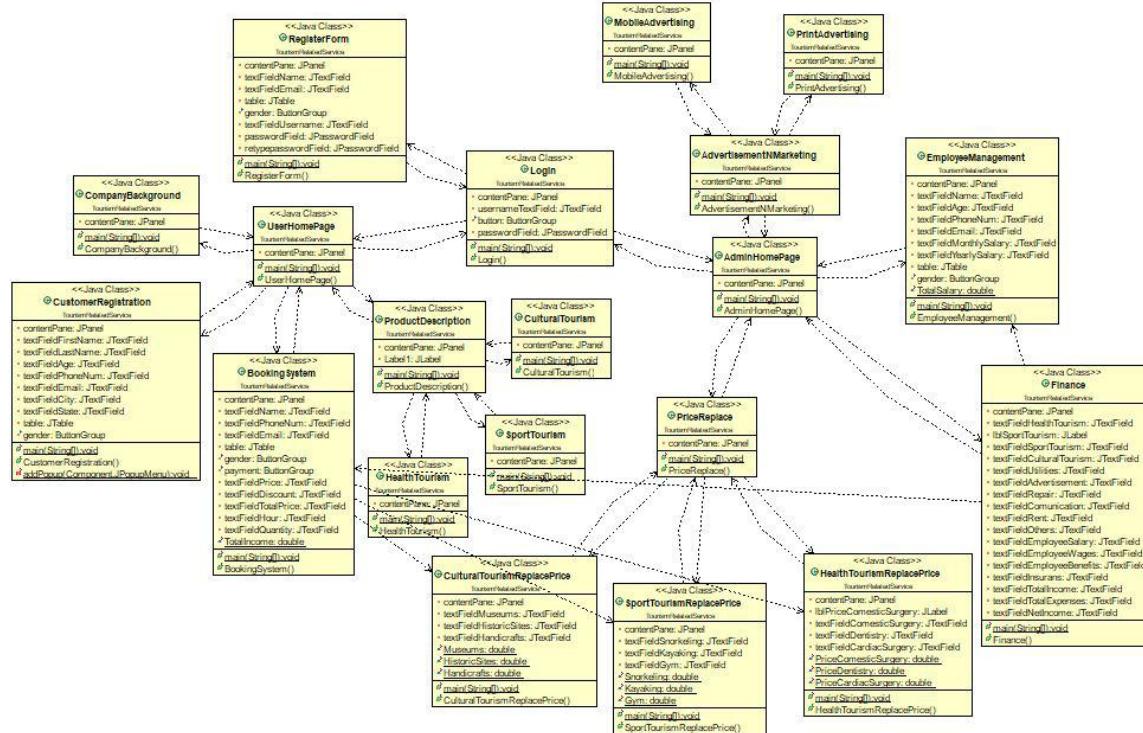
2.2 Hotels



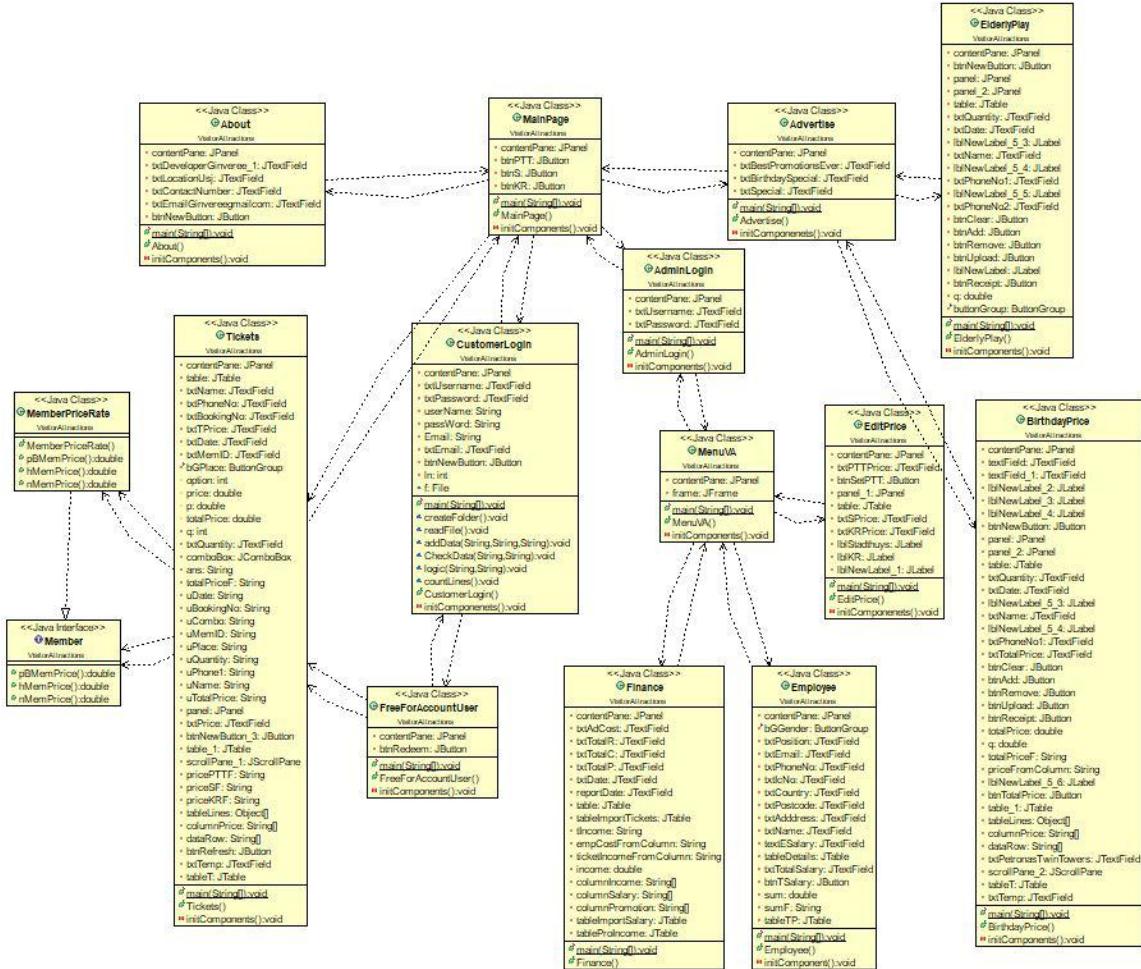
2.3 Restaurant



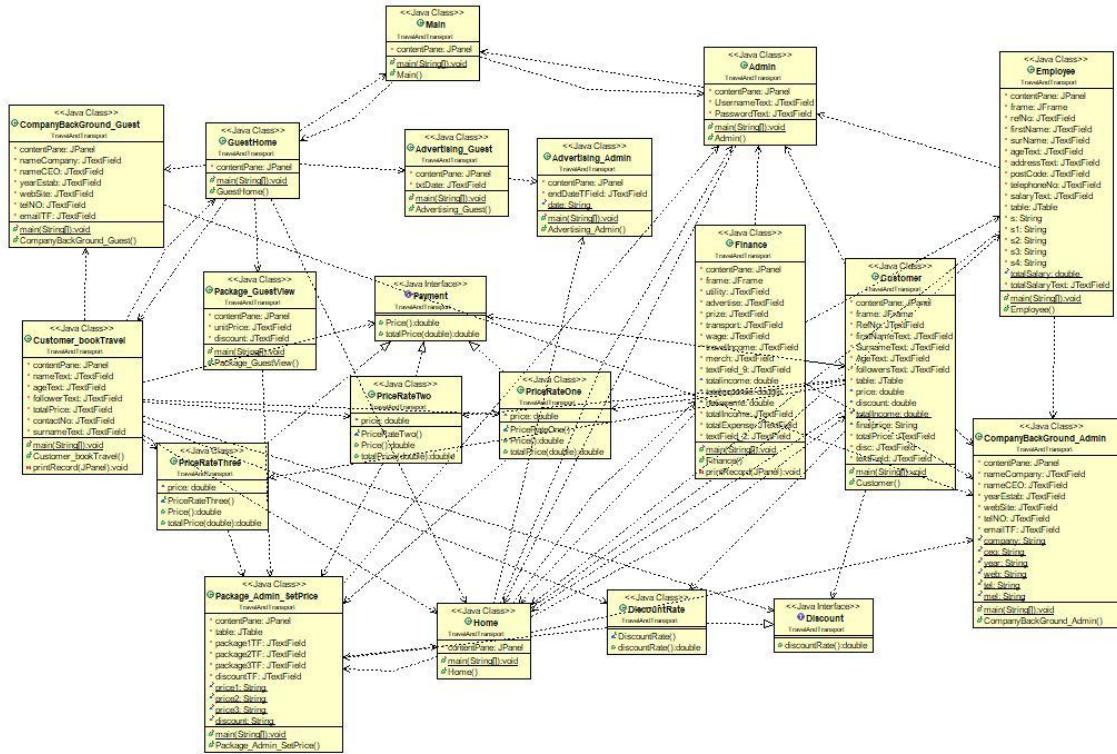
2.4 Tourism Related Service



2.5 Visitor Attractions



2.6 Travel and Transport



3.0 Program Description

3.1 User Manual

3.1.1 Main Menu



This main menu page will appear when entering the program. The UUM Tourism Business provides these functions which are hotel booking systems, restaurants, tourism-related services, visitor attractions, and travel and transport are only a few of the features. If the user wants to leave, they may press the “Exit” button.

3.1.2 Hotel Booking System

Login



This is where users and administrators login. There are choices to select whether you are a user or an administrator. A dialogue message will display after a user or an administrator inputs the correct user name and password, indicating that the user or administrator has successfully entered the home page by pressing the login button. If a user or administrator inputs an incorrect user name and password, they will be unable to enter the home page and must enter the correct user name and password.

Login as Administrator:

Admin Home Page



When the admin has successfully logged into the system, the admin's home page will display. Employee management, advertisement and marketing, updating hotel's rooms price, and finance are only a few of the functions. The administrator has full control over all the functions. In addition, the admin can log out and return to the previous page, which is the login page by clicking the "Exit" button on the left top of this interface.

Employee Management

A screenshot of the "EMPLOYEE MANAGEMENT" screen. On the left, there is a form with fields for Name (Jane Ooi), Age (27), Gender (Male selected), HP No. (0198758234), Email (janee@gmail.com), Address (1 Enam, 11060 Penang), Position (Front Desk), Contract (1 year dropdown), and Salary (1750 per month). To the right of the form is a table displaying employee data. The table has columns: Name, Age, Gender, HP No., Email, Address, Position, Contract, and Salary. Two rows of data are visible: one for Kelly (Age 21, Female, HP No. 0175..., Email kellyv...@...), and another for Jane (Age 27, Female, HP No. 0108..., Email janee...@...). At the bottom of the screen are five buttons: "Add Record", "Reset", "Update", "Delete", and "Print".

When the admin selects the “Employee Management” button on the admin’s home page, this form interface will display. The admin can enter the information of employees such as name, age, gender, phone number, email, address, position, monthly salary and choose their job contract.

After entering all of the data, the user can record it by pressing the “Add Record” button, which will show the data in the table at the right side. In addition, the admin can also click the “Reset” button to clear all of the text fields to enter information of another employee. Furthermore, the admin can update their information by choosing that row and clicking the “Update” button. Moreover, the admin can remove the certain records from the table by choosing the row and clicking the “Delete” button.

Next, the admin may upload their data by clicking the “Upload” button. Lastly, the interface will send the admin back to the admin’s home page or log out to the login page if the admin clicks the “Exit” button on the left top of this interface. Besides, they can also click the “Home” button on the left top of this interface to return to go to other pages.

Advertisement And Marketing



The advertisement and marketing page will display if the user clicks the “Advertisement & Marketing” button on the admin’s home page. This page

enables the admin to make an advertisement. There have provide two functions which are an online advertisement and offline advertising. When the user clicks the “Exit” button on the left top of this interface, the interface will return to the admin’s home page or directly log out to the login page. They can also click the “Home” button on the left top of this interface to go to other pages.

Online Advertisement



The online advertisement page will display if the admin clicks the “Online Advertisement” button on the advertisement and marketing page. This article includes information on online advertisements, such as Facebook, Instagram, and Twitter. When the admin clicks the “Exit” button on the left top of this interface, the interface will return to the admin home page or log out to the login page. They can also click the “Home” button on the left top of this interface to go to other pages.

Offline Advertisement



The offline advertisement page will display if the admin clicks the “Offline Advertisement” button on the advertisement and marketing page. This article includes information on offline advertisements, such as brochures and newspapers. When the admin clicks the “Exit” button on the left top of this interface, the interface will return to the admin home page or log out to the login page. They can also click the “Home” button on the left top of this interface to go to other pages.

Update Hotel's Room Price



This page will display if the admin clicks the “Update Hotel’s Room Price” button on the admin’s home page. This website serves the function of Johor, Penang, and Perak. The admin has full control over which functions they choose to use. When the admin clicks the “Exit” button on the left top of this interface, the interface will return to the admin home page or log out to the login page. They can also click the “Home” button on the left top of this interface to go to other pages.

Johor

HOTELS IN JOHOR	
Impiana Hotel Senai	Hotel Legoland Malaysia
Deluxe Room	199
Executive Room	395
Standard Room	147
Suites	650
Set Price	

The admin will be sent to this page if he or she clicks the “Johor” button on the update price page. The administrator keeps a record of the prices for various types of hotels in Johor such as Impiana Hotel Senai and Hotel Legoland Malaysia. When the admin finishes entering the price for each type of hotel’s room, they may press the “Set Price” button to save all of the data and it will appear on the order details page for the customers. Lastly, the admin clicks the “Exit” button on the left top of this interface to leave this interface and also can click the “Home” button on the left top of this interface to go to other pages.

Penang

The screenshot shows a software window titled "HOTELS IN PENANG". At the top left are "Home" and "Exit" buttons. The main area is divided into two sections: "Hotel Eastern & Oriental" on the left and "Bayview Hotel" on the right. Each section contains five rows of room types and their corresponding prices:

Hotel Eastern & Oriental		Bayview Hotel	
Comfort Room	508	Comfort Room	133
Deluxe Room	611	Deluxe Room	142
Standard Room	420	Family Room	356
Studio Room	748	Standard Room	119
Suites	899	Suites	297

A blue "Set Price" button is located at the bottom center of the interface.

The admin will be sent to this website if he or she clicks the “Penang” button on the update price page. The administrator keeps a record of the prices for various types of hotels in Penang such as Hotel Eastern & Oriental and Bayview Hotel. When the admin finishes entering the price for each type of hotel’s room, they may press the “Set Price” button to save all of the data and it will appear on the order details page. Lastly, the admin clicks the “Exit” button on the left top of this interface to leave this interface and also can click the “Home” button on the left top of this interface to go to other pages.

Perak

The screenshot shows a Windows application window titled "HOTELS IN PERAK". At the top left are "Home" and "Exit" buttons. The main area has two sections: "D Hotel Seri Iskandar" and "Pangkor Laut resort". Each section contains two input fields: "Comfort Room" and "Standard Room". Below these are buttons for "Set Price" and "Villas".

Room Type	D Hotel Seri Iskandar	Pangkor Laut resort
Comfort Room	205	891
Standard Room	160	1080

The admin will be sent to this website if he or she clicks the “Perak” button on the update price page. The administrator keeps a record of the prices for various types of hotels in Perak such as D Hotel Seri Iskandar and Pangkor Laut resort. When the admin finishes entering the price for each type of hotel’s room, they may press the “Set Price” button to save all of the data and it will appear on the order details page. Lastly, the admin clicks the “Exit” button on the left top of this interface to leave this interface and also can click the “Home” button on the left top of this interface to go to other pages.

Finance

The screenshot shows a Windows application window titled "FINANCE". At the top left are "Home" and "Exit" buttons. The main area is divided into two sections: "Total Income" and "Total Expenditure". "Total Income" includes "Income from Hotel Booking" (17020.40) and "Income from Advertorial" (2000), totaling 19020.40. "Total Expenditure" includes "Maintainance Expenses" (1000), "Advertisement Expenses" (800), "Wages Employee" (6750.00), and "Miscellaneous Expenses" (500), totaling 9050.00. A message at the bottom states "The Net Profit is RM 9970.40" with buttons for "Show", "Calculate", and "Reset".

Total Income	Total Expenditure
Income from Hotel Booking 17020.40	Maintainance Expenses 1000
Income from Advertorial 2000	Advertisement Expenses 800
Total Income 19020.40	Wages Employee 6750.00
	Miscellaneous Expenses 500
	Total Expenditure 9050.00

The Net Profit is RM 9970.40

Show Calculate Reset

If the admin clicks the “Finance” button on the admin’s home page, he or she will be sent to this page. The income from the hotel’s booking and the expenses for the employee wages will be shown in the text fields when the administrator presses the “Show” button. If the admin inserts all the prices for each column except total income, wages employee, total expenditure, and net income, they may calculate all of the data by using the “Calculate” button. Next, the administrator can click the “Reset” button to clear all data records. Lastly, the admin clicks the “Exit” button on the left top of this interface to leave this interface and also can click the “Home” button on the left top of this interface to go to other pages.

Login as a user:

User Home Page



The user’s home page will show once the user has successfully entered into the system. This interface includes features such as registration, hotel description, place order, and about us are among the services available in this interface. The user is free to use whatever functions they choose. Furthermore, the user may log out and return to the previous page, which is the login page by clicking the “Exit” button on the left top of this interface.

Customer Registration



The screenshot shows a Windows application window titled "CUSTOMER REGISTRATION". On the left side, there is a form with fields for Name (Karry Wang), Age (22), Gender (Male selected), HP No. (0134567892), and Email (karry222@gmail.com). Below these fields are five buttons: "Add Record", "Reset", "Update", "Delete", and "Print". On the right side, there is a table displaying customer data:

Name	Age	Gender	HP No.	Email
Jackson Yee	21	Male	0123456789	jackson222@gmail.com
Karry Wang	22	Male	0134567892	karry222@gmail.com
Roy Wang	21	Male	0187654329	royyyv@gmail.com

Below the table is a large empty area with a "Upload" button at the top right of it.

The customer registration form interface will show when the user selects the “Register” button on the user’s home page. This interface enables the user to register their information, which includes their name, age, gender, phone number, and email.

After entering all the data, the user may save it by clicking the “Add Record” button, which will display the users’ information in the table at the right side. Next, the user can also click the “Reset” button to clear all of the text fields to enter information of another person. Besides, by choosing the row from the table and selecting the “Update” button, the user can modify their information. Furthermore, the user can delete a record from the table by choosing that row and selecting the “Delete” button.

The user can upload their information by clicking the “Upload” button. Finally, the interface will send the user back to the user home page or log out to the login page if the user selects the “Exit” button on the left top of this interface. Users can also go to other pages by clicking the “Home” button at the left top of this interface.

Hotel Description



If the user clicks the “Hotel Description” button, the user will be sent to the hotel description page. Users can choose the destination and hotel they prefer to learn more about, and then click the “Check” button to get the information. After that, the user can also click the “Reset” button to clear all the data and further check for other hotel details. Furthermore, if the user clicks the “Exit” button on the left top of this interface, they will leave this page. Besides, they can also click the “Home” button on the left top of this interface to go to other pages.

Sales

The screenshot shows a Windows application window titled "ORDER DETAILS". On the left, there is a form with dropdown menus for "Destination" (set to "Perak"), "Hotel" (set to "Pangkor Laut Resort"), and "Type Of Room" (set to "(PLR)Villas"). Below these are input fields for "Price (RM)" (1080.00), "Quantity" (2), "Duration" (5), "Total Price (RM)" (10800.0), "Discount" (10%), "Final Price (RM)" (9720.00), and a "Payment Method" section with radio buttons for "Online Banking" and "Debit/Credit Card". On the right, there is a table showing order details with columns: Destination, Hotel, Type Of, Price, Quantity, Duration, Total Pr., Discount, Final Pr., and Payment. The table contains four rows of data. At the bottom, there are five buttons: "Add Record", "Reset", "Update", "Delete", and "Print".

Destination	Hotel	Type Of	Price	Quantity	Duration	Total Pr.	Discount	Final Pr.	Payment
Penang	Hotel	(PN)	748.00	1	1	4488.0	10%	4039	On...
John	Resort	(JH)	792.00	2	1	3168.0	10%	2851	Debt...
Perak	D H...	(DH)	205.00	2	1	410.0	N/A	410.00	Onk...
Perak	Pang...	(PL)	1080	2	5	1080	10%	9720	Debt...

When the user selects the “Place Order” button on the user’s home page, the order form interface will appear. The user may register their information such as destination, hotel, type of room, quantity, and duration.

The user may choose their preferred type of destination, hotel, type of room, the quantity of person, and duration. After entering all of the data, the price per room, total price, discount, and the final price will all be displayed instantly. Besides, the user has the option of selecting a payment method to make the payment which is online banking and debit/credit card. The user can record it by pressing the “Add Record” button, which will show the users’ data in the table at the right side. In addition, the user can also click the “Reset” button to clear all of the text fields to enter other order details. Furthermore, the user can update their information by choosing the row and clicking the “Update” button. Moreover, the user can remove the certain records from the table by clicking the “Delete” button.

Next, the user may upload their data by clicking the “Upload” button. Lastly, the interface will send the user back to the user home page or log out to the login page if the user clicks the “Exit” button on the left top of this interface. Besides, they can also click the “Home” button on the left top to go to other pages.

About Us



The company background page will display if the user clicks the “About Us” button on the user’s home page. This page contains the company details and contact number about the company. When the user clicks the “Exit” button on the left top of this interface, the interface will return to the user’s home page or log out to the login page. Besides, they can also click the “Home” button on the left top of this interface to go to other pages.

3.1.3 Restaurant

Log in as an Admin:

Log In System

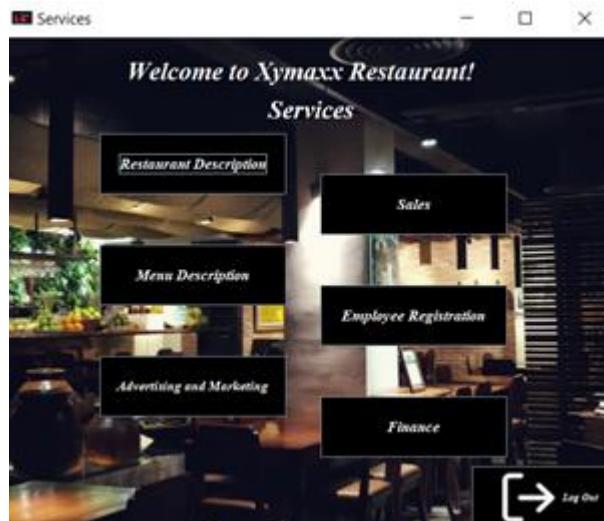
Once the system is started, the user would see the login page with a label of “Xymaxx Restaurant Login System”. The user needs to select to log in as “Admin” and follow by entering the correct username and password.



After that, press the “Login” button to log in the system. If the username or password is wrongly inserted, just press the “Reset” button then both the text field for username and password would be cleared. Do not forget to be careful with the uppercase and lowercase of the letters or any of the numbers involved as wrong insertion of an alphabet or a number would cause the log in to be

unsuccessful. If the admin successfully logs in to the system, the system will proceed to the “Services” page, which is also the main menu page for the system.

Services



There are several services, including “Restaurant Description”, “Menu Description”, Advertising and Marketing”, “Sales”, “Employee Registration” and “Finance”. Admin just needs to press the corresponding button to enter the services they want to use. Pressing the “Log Out” button would log out the system and back to log in system.

Restaurant Description



There is some essential information about Xymaxx Restaurant such as the buffet as the operation type, contact number, location as well as the must try food, beverage and dessert in Malaysia. Pressing the “More Details” button would show more details about Xymaxx Restaurant.

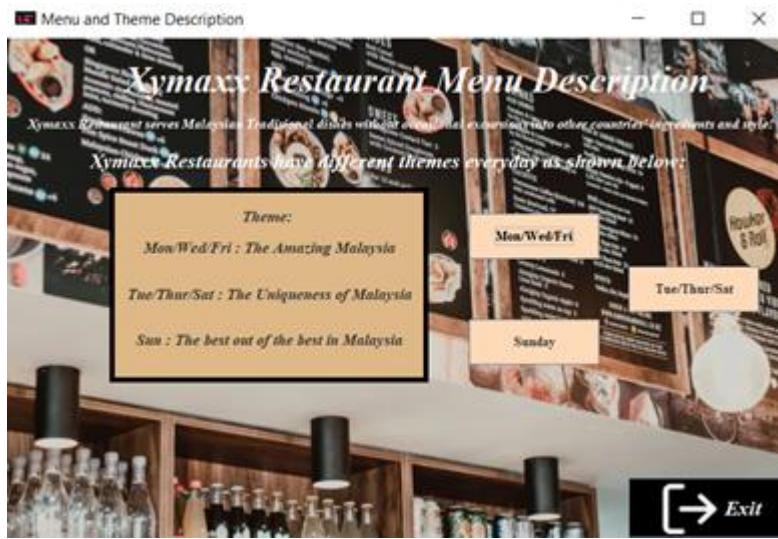


While pressing the “About our restaurant” button would show what is the main theme and dishes of Xymaxx Restaurant collocated by the description of the Malaysian Traditional dishes.



This page is used when a customer does not understand well about our restaurant in advance, but they walk into our restaurant coincidentally. The admin could open this page in front of the customer and show it to them, collocated with an explanation to the customer. After finishing reviewing the “Restaurant Description” page, just press the “Exit” button to go back to the “Service” page.

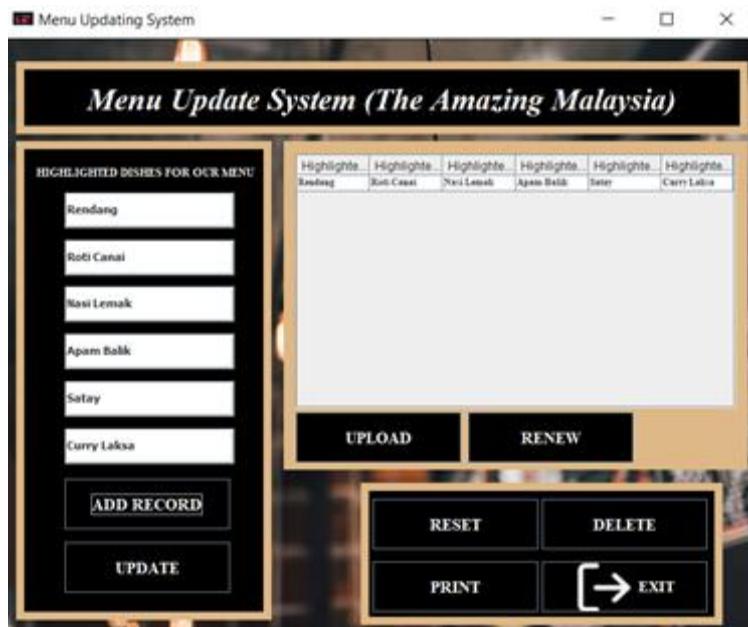
Menu and Theme Description



This is the page where an admin sets the highlighted dishes in the menu of Xymaxx Restaurant for the customers. From this page we know that there is a different theme available for Xymaxx Restaurant. The admin needs to press the “Mon/Wed/Fri” button to update the highlighted dishes for every Monday, Wednesday and Friday while for Tuesday, Thursday and Saturday, the “Tue/Thur/Sat” button is used.

We begin with “Mon/Wed/Fri” button:

Menu Update System (The Amazing Malaysia)



Admin needs to insert the highlighted dishes for the menu for Monday, Wednesday and Friday. Then, press the “ADD RECORD” button to insert it to the system. If an admin accidentally inserts a wrong dish, just click the wrong dish, then retype the correct dish at the text field where the wrong dish is inserted, followed by pressing the “UPDATE” button. Then, the dishes in the table could be updated. The “RESET” button is used to clear all the text fields at once so the system is ready for another insertion of highlight dishes. The “DELETE” button is used when the admin accidentally inserts wrong highlighted dishes into the system and admin wishes to delete it entirely from the system. The admin just needs to select the dish in the table, followed by pressing the “DELETE” button, the entire row of the selected dish would be deleted from the system. We will need to keep the highlighted dishes of every week or month on record. In this case, the “UPLOAD” button is used. By pressing the “UPLOAD” button, the inserted highlight dishes would be exported to a text file to store permanently for further usage. So, do not forget to press the “UPLOAD” button before exit the system if you wish to keep the data permanently. While the “PRINT” button is used to print the inserted highlight dishes. Admin needs to adjust their page setup according to

their requirement and generate it in a different form of folder to print it out in paper form afterward. If the correct highlight dishes are inserted, just press the “RENEW” button so that the highlighted dishes could be seen by the customer when they log in this system as a user. The result would be shown in the user manual when a user is logged in as a user. If the admin has done inserting the highlight dishes, just press the “EXIT” button and the system will go back to the “Menu Description” page.

Admin can proceed to the “Tue/Thur/Sat” button:

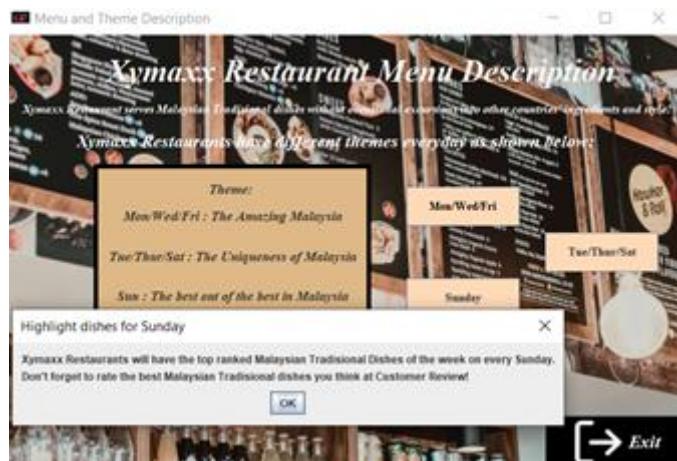
Menu Update System (The Uniqueness of Malaysia)



Admin needs to insert the highlighted dishes for the menu for Tuesday, Thursday and Saturday. Then, press the “ADD RECORD” button to insert it to the system. If an admin accidentally inserts a wrong dish, just click the wrong dish, then retype the correct dish at the text field where the wrong dish is inserted, followed by pressing the “UPDATE” button. Then, the dishes in the table could be updated. The “RESET” button is used to clear all the text fields at once so the system is ready for another insertion of highlight dishes. The “DELETE” button is used when the admin accidentally inserts wrong highlighted dishes into the system and the admin wishes to delete it entirely from the system. The admin just

needs to select the dish in the table, followed by pressing the “DELETE” button, the entire row of the selected dish would be deleted from the system. We will need to keep the highlighted dishes of every week or month on record. In this case, the “UPLOAD” button is used. By pressing the “UPLOAD” button, the inserted highlight dishes would be exported to a text file to store permanently for further usage. While the “PRINT” button is used to print the inserted highlight dishes. Admin needs to adjust their page setup according to their requirement and generate it in a different form of folder to print it out in paper form afterward. If the correct highlight dishes are inserted, just press the “RENEW” button so that the highlighted dishes could be seen by the customer when they log in this system as a user. The result would be shown in the user manual when a user is logged in as a user. If the admin has done inserting the highlight dishes, just press the “EXIT” button and the system will go back to the “Menu Description” page.

For the “Sunday ” button, it is designed for the admin to remind the customers to rate their best dishes they think in our customer review system when they log in the system as a user. Xymaxx Restaurant would have the top ranked Malaysian Traditional dishes of the week on every Sunday.



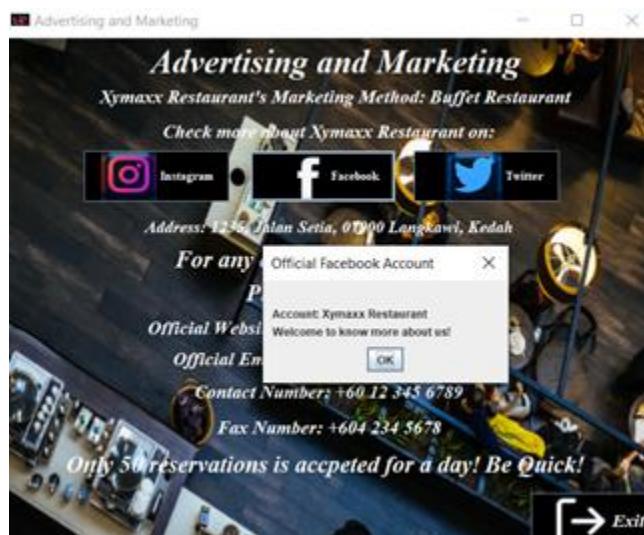
After finishing using the sales record system, just press the “EXIT” button and the system would go back to the Xymaxx Restaurant Menu Description. Admin just needs to press the “Exit” button to go back to the “Services” main menu page.

Advertising and Marketing



This page is about the advertising and marketing method of Xymaxx Restaurant, including the official website, email, contact number and fax number of Xymaxx Restaurant. By pressing the “Instagram”, “Facebook” or “Twitter” button, it would show the social media account name for Xymaxx Restaurant.

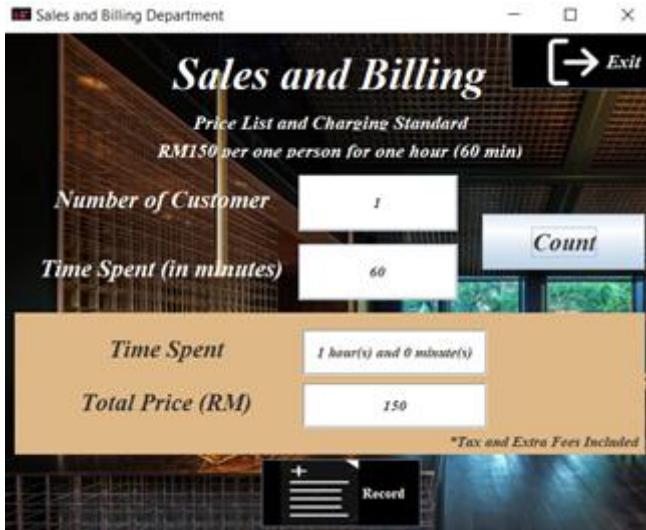




This page is used when a customer does not understand well about our restaurant in advance, but they walk into our restaurant coincidentally. The admin could open this page in front of the customer and show it to them, collocated with an explanation to the customer. After finishing reviewing the advertising and marketing method of Xymaxx Restaurant, just press the “Exit” button to go back to the “Service” menu page.

Sales and Billing Department

Sales and Billing Department is where the admin counts the total price the customers spend in Xymaxx Restaurant. Since Xymaxx Restaurant is a buffet restaurant, the price and the charging standard is different from normal restaurants. The price list and charging standard are listed on this page: RM150 for one person to eat dishes provided in the buffet for 1 hour (60 minutes). During the billing section, the admin just needs to insert the number of customers and the time they spent in the restaurant (in minutes), follow by pressing the “Count” button, the system will automatically display the time spent in restaurant (in hours and minutes) and count the total price (in RM) spent by the customers.



Then, the admin could record the sales into the sales record by pressing the “Record” button. The sales record is known as “Xymaxx Restaurant Sales Record”. After the “Record” button is pressed, the value of customer number, time spent, and total price would be automatically passed to the corresponding text field.

Sales Record

The screenshot shows a Windows application window titled "Sales Record". The main title bar is "Xymaxx Restaurant Sales Record". The interface is divided into two main sections: a left panel for inputting new sales records and a right panel for displaying existing records.

Left Panel (Input):

- Customer Number: 1
- Time Spent: 1 hour(s) and 0 minute
- Total Price (RM): 150
- Additional Fees: Yes No
- Amount (RM): 50
- Reason: Broken plate
- Payment Type: Cash
- Tips: 50
- Feedback:
Insert "-" if no extra tips
Do you think the price is reasonable?
 Yes No

Right Panel (Output):

Customer N...	Time Spent	Total Price	Additional fee	Reason	Payment Type	Tips
1	1 hour(s) and 0 minute	150	50	Broken plate	Cash	50

Buttons:

- ADD RECORD
- UPDATE
- UPLOAD
- RESET
- DELETE
- PRINT
- EXIT

The admin would need to fill up the additional sales record such as is there any additional fees, what is the amount of the additional fees, reason for the additional payment, the way how the customers paid their bill, tips given by the customers and a small feedback from customers about their opinion on the price of Xymaxx Restaurant's charging price and standard. After we insert all the needed information, press the “ADD RECORD” button to insert it in the system.

If an admin thinks there is only some wrong info inserted but does not wish to delete it entirely, just press the wrong info in the system and insert the correct info at the corresponding text field, followed by pressing the “UPDATE” button, the info in the system could be updated. If admin finishes inserting the correct sales record, admin can press the “UPLOAD” button to export the data out to a text file to store permanently for further usage. By pressing the “RESET” button, all the inserted and selected data would be cleared so that it is ready for another sales record. If there are some mistakes in the inserted data and you wish to delete it, just press the wrong data in the system, followed by the “DELETE” button, the entire row of the selected data would be deleted. While the “PRINT” button is used to print the inserted sales record. Admin needs to adjust their page setup according to their requirement and generate it in a different form of folder to print it out in paper form afterward.

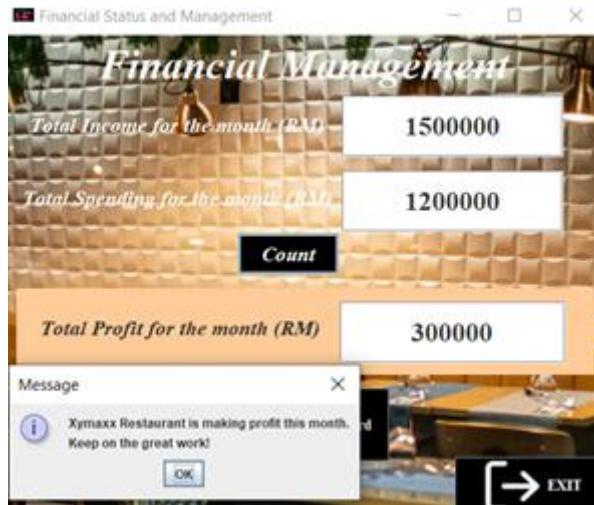
Employee Registration



Admin needs to insert the employee's name, IC number, age, gender, position, phone number, employee ID and email, and also select the employee's category, citizenship and salary. After that, follow by pressing the "ADD RECORD" button. If an admin wrongly inserted any data of the employee but the admin would not like to delete the whole data, just press the wrong data in the system and retype the correct data at the corresponding text field, followed by pressing the "UPDATE" button. The wrong data in the system would be updated. The "RESET" button could be used to clear all the text fields and selection so it is ready for the further employee's registration. If the admin wants to delete the employee's data entirely from the system, just click one of the data of the employee that wants to be deleted in the system and follow by the "DELETE" button. If the employees' data is completely inserted to the system, the admin needs to press the "UPLOAD" button to export the data to a text file to store permanently for further usage. While the "PRINT" button is used to print the inserted employees' data. Admin needs to adjust their page setup according to their requirement and generate it in a different form of folder to print it out in paper form afterward.

After the admin has completed the employee's registration and is ready to leave the employee registration system, just press the "EXIT" button to leave the system and it will go back to the "Services" main menu page.

Financial Status and Management



Since Xymaxx Restaurant is a buffet restaurant and the target customers are the tourists, we know that the tourism business depends on the season, such as the holiday season and festival season. There is a distinct difference in customer flow in every season. So, the management department would assign a different budget for restaurant spending of the month for every different month and if there is any extra expenditure, it needs to be recorded in the Xymaxx Restaurant Financial Management System.

Admin needs to insert the total income and also the total spending (RM) for the month (RM), followed by pressing the "Count" button, the system will automatically count the total profit for the month (RM). Then, admins need to press the "Record" button to record the financial status. The amount of total profit for the month would be passed to the financial management system automatically.

Financial Status (Record)

The screenshot shows a Windows application titled "Financial Status". The main interface has a dark blue header bar with the title. Below it is a large central area divided into two sections. The left section contains a form with fields for "Year" (2023), "Month" (July), "Day" (1), "Type" (Profit), "Amount" (300000), "Submitted by" (Lucien), "IC Number" (99991234567899), "Telephone" (011144887753), and "Email" (l6644d@gmail.com). It includes four buttons at the bottom: "ADD RECORD", "UPDATE", "UPLOAD", and "DELETE". The right section is a table with columns: Year, Month, Day, Type, Amount, Submitted, IC Num., Telephone, and Email. A single row of data is shown: 2023, July, 1, Profit, 300000, Lucien, 99991234567899, 011144887753, l6644d@gmail.com. At the bottom right of the main area is a "RESET" button. To the right of the table is a large "EXIT" button with a right-pointing arrow.

Admin just needs to insert the other details such as the date (year, month and day) when the record is made, the type of the recorded amount (Income, expenditure, profit or debt), name of the person who made the submission, IC number, phone number and also email of the corresponding individual, follow by pressing the “ADD RECORD” button to insert it into the system. If any of the inserted data is wrong, but the admin would not wish to delete the entire data, just press the wrong data in the system, follow by inserting the correct data in the corresponding text field, then press the “UPDATE” button. The data would be updated. The “DELETE” button could be used if the admin wishes to delete the wrong data entirely from the system. Admin needs to click the data that wants to be deleted in the system, followed by pressing the “DELETE” button. The entire row of the selected data would be removed from the system. By pressing the “RESET” button, all of the text field and selection would be clear and ready for another financial record. If the financial record is completely inserted into the system, do not forget to press the “UPLOAD” button to export the data into the text file to store permanently for further usage. While the “PRINT” button is used to print the financial record in the financial management system. Admin needs to adjust their page setup according to their requirement and generate it in a different form of folder to print it out in paper form afterward.

After finishing using the financial status record system, admin just needs to press the “Exit” button to leave the system and back to the Xymaxx Restaurant Financial Management System. Admin would need to press the “EXIT” button to go back to the “Services” main menu page.

That's all the services that an admin can do with the system.

Admin can press the “Log Out” button to log out the system.

Log in as an User:

Same as the step to log in the system as a user, once the system is started, the user would see the login page with a label of “Xymaxx Restaurant Login System”. The user needs to select to log in as “User” and follow by entering the correct username and password.

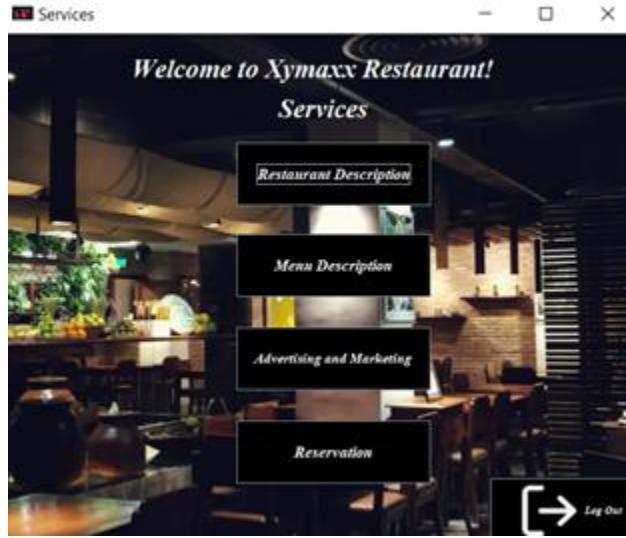


Log In System

After that, press the “Login” button to log in the system. If the username or password is wrongly inserted, just press the “Reset” button then both the text field for username and password would be cleared. Do not forget to be careful with the uppercase and lowercase of the letters or any of the numbers included as

wrong insertion of an alphabet or a number would cause the log in to be unsuccessful. If the user successfully logs in to the system, the system will proceed to the “Services” page, which is also the main menu page for the system.

Services



There are several services, including “Restaurant Description”, “Menu Description”, Advertising and Marketing” and “Reservation”. Users just need to press the corresponding button to enter the services they want to use. Pressing the “Log Out” button would log out the system and back to the login system.

Restaurant Description



There is some essential information about Xymaxx Restaurant such as the buffet as the operation type, contact number, location as well as the must try food, beverage and dessert in Malaysia. Pressing the “More Details” button would show more details about Xymaxx Restaurant.

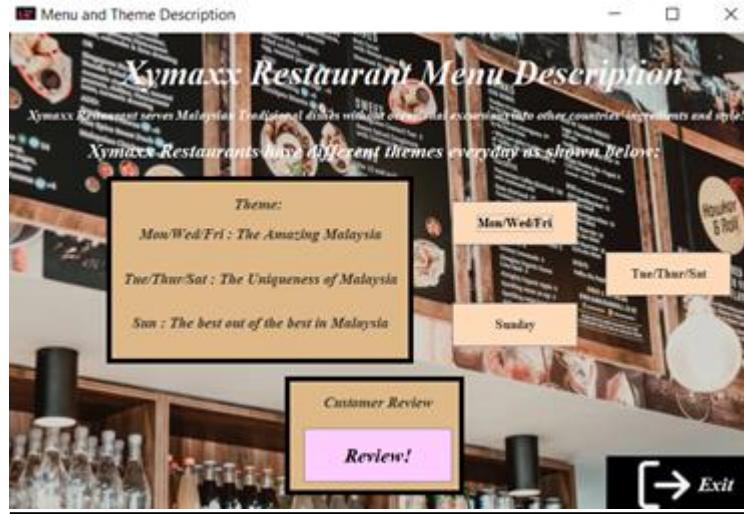


While pressing the “About our restaurant” button would show what is the main theme and dishes of Xymaxx Restaurant collocated by the description of the Malaysian Traditional dishes.



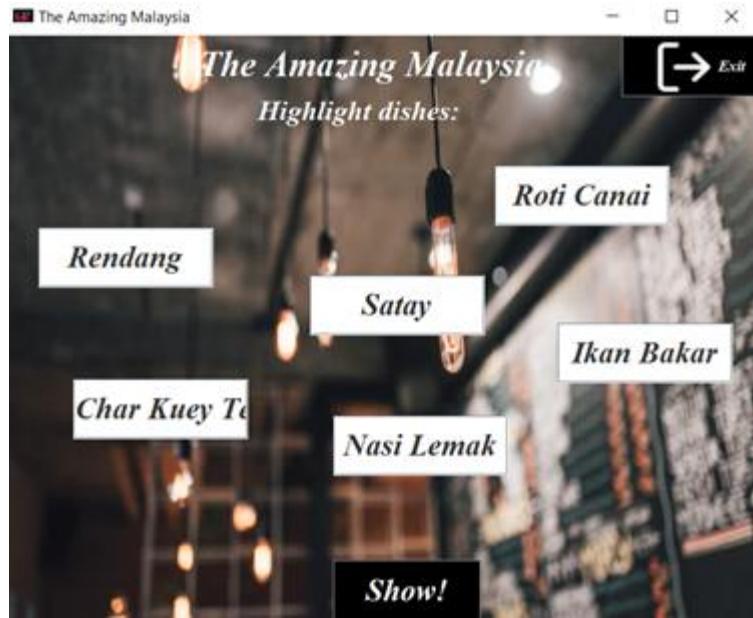
Users could understand our restaurant in advance before they come to Xymaxx Restaurant. After finishing reviewing the “Restaurant Description” page, just press the “Exit” button to go back to the “Service” page.

Menu and Theme Description



This is the page where a user gets to know the theme and highlight dishes of Xymaxx Restaurant for the customers. From this page we know that there is a different theme available for Xymaxx Restaurant. For example, the theme for Monday, Wednesday and Friday is “The Amazing Malaysia”, the theme for Tuesday, Thursday and Saturday is “The Uniqueness of Malaysia”. While the theme for Sunday is “The best out of the best in Malaysia”. The user needs to press the “Mon/Wed/Fri” button to know the highlighted dishes for every Monday, Wednesday and Friday while for Tuesday, Thursday and Saturday, the “Tue/Thur/Sat” button is used. Let's have a look at how it works.

We begin with “Mon/Wed/Fri” button:



This is the page where users know the highlight dishes of the menu “The Amazing Malaysia”, which is the theme for the menu every Monday, Wednesday and Friday. It is blank at first, so the user needs to press the “Show!” button to see the highlighted dishes.

Admin would randomly update the highlight dishes, so users can use this system to keep updated with Xymaxxx Restaurant.

Then, the user can press the “Exit” button to go back to the “Menu Description” page.

Afterward, let us proceed with the “Tue/Thur/Sat” button.



This is the page where users know the highlight dishes of the menu “The Uniqueness of Malaysia”, which is the theme for the menu every Tuesday, Thursday and Friday. It is blank at first, so the user needs to press the “Show!” button to see the highlighted dishes.

Admin would randomly update the highlight dishes, so users can use this system to keep updated with Xymaxx Restaurant.

Then, the user can press the “Exit” button to go back to the “Menu Description” page.

Customer Review

The screenshot shows a Windows application titled "Customer Review". The main title bar is black with white text. Below it, the main window has a pink header bar with the title "Customer Review" in a larger, bold font. The left side of the window contains a form for "Feedback From Customer". It includes dropdown menus for "How do you know us?" (selected: "Convenience"), "Best Dishes" (selected: "Chicken Rice"), and "Comment" (selected: "Good"). There is also a dropdown for "Satisfactory Level" with options from 0 to 10, currently set to 5. At the bottom of this section are two buttons: "ADD RECORD" and "UPDATE". The right side of the window displays a table titled "Get to Know Malaysia". The table has columns for "How do you know us?", "Best Dishes", "Comment", "Way to Know us", and "Satisfactory Level". It contains three rows of data:

How do you know us?	Best Dishes	Comment	Way to Know us	Satisfactory Level
Not Sure	Roti Jala	Good	Online (Facebook)	5
Yes	Nasi Lemak	Aromatic Dishes	Friend	5
No	Chicken Rice	Good	Colleague	7

At the bottom of the window are several buttons: "UPLOAD", "RESET", "DELETE", "PRINT", and "EXIT".

By pressing the “Review” button in the menu description, the user will enter the customer review page. This is the page where customers make their customer review about Xymaxx Restaurant. Customers need to answer some questions such as how they know better about Malaysia, the best Malaysia Traditional dishes, their comment on Xymaxx Restaurant, how they know about Xymaxx Restaurant and also their satisfactory level on Xymaxx Restaurant.

After the users finish answering the question, they need to press the “ADD RECORD” button to insert it into the system. If the users wrongly give an answer for the question, they need to click the wrong data in the table and retype the correct answer on the corresponding text field, followed by pressing the “UPDATE” button. The user can use the “RESET” button to clear all the text fields and the selection. So, the system is ready for another customer review. If the customer wishes to delete their feedback from the system, just press the data that wants to be deleted, followed by pressing the “DELETE” button. The entire row of the selected data would be deleted from the system. The “UPLOAD” button is used to export the customer review into a text file to store permanently. While the “PRINT” button is used to print the customer review. They only need to adjust their page setup according to their requirement and generate it in a different form of folder to print it out in paper form afterward.

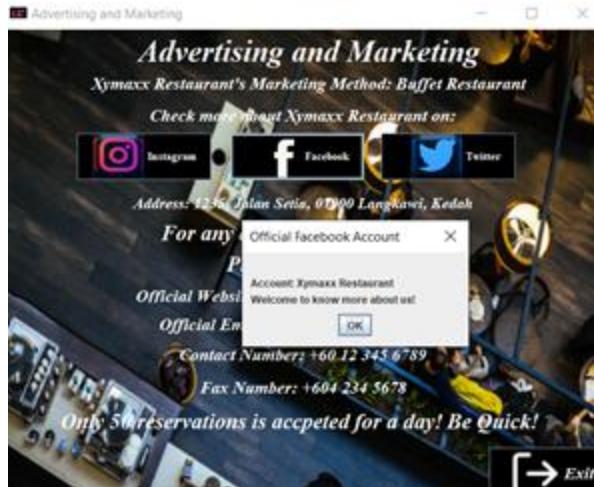
After the user finishes using this system, just press the “EXIT” button to leave the system and it will go back to the “Menu Description” page. Users can press the “Exit” button to go back to the “Services” main menu page.

Advertising and Marketing



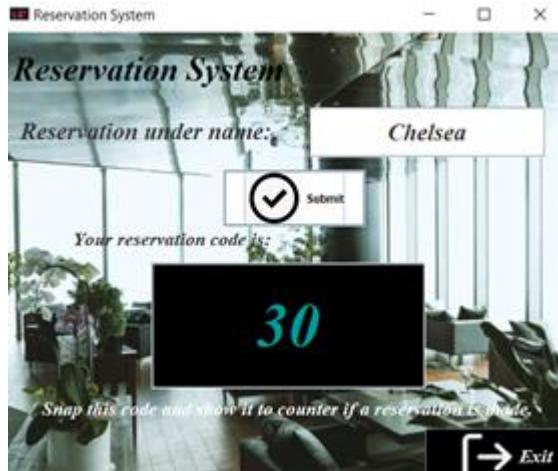
This page is about the advertising and marketing method of Xymaxx Restaurant, including the official website, email, contact number and fax number of Xymaxx Restaurant. By pressing the “Instagram”, “Facebook” or “Twitter” button, it would show the social media account name for Xymaxx Restaurant.





This page is designed for the user to know more about Xymaxx restaurant in advance before coming to our restaurant. After finishing reviewing the advertising and marketing method of Xymaxx Restaurant, just press the “Exit” button to go back to the “Service” menu page.

Reservation System



This is the page where the user can take a reservation code to prove that the customer has made a reservation. The user needs to insert a name to make a reservation and press the “Submit” button. System will show a random code of reservation. The user needs to snap the code and show it to counter if a reservation is made when they reach Xymaxx Restaurant. The counter would only acknowledge the reservation only if the customer can show the screenshot of this page with the reservation name and also the reservation code.

After finishing using the reservation system, just press the “Exit” button to leave the system and go back to the “Services” main menu page.

That's all the services that an user can do with the system. User can press the “Log Out” button to log out the system.

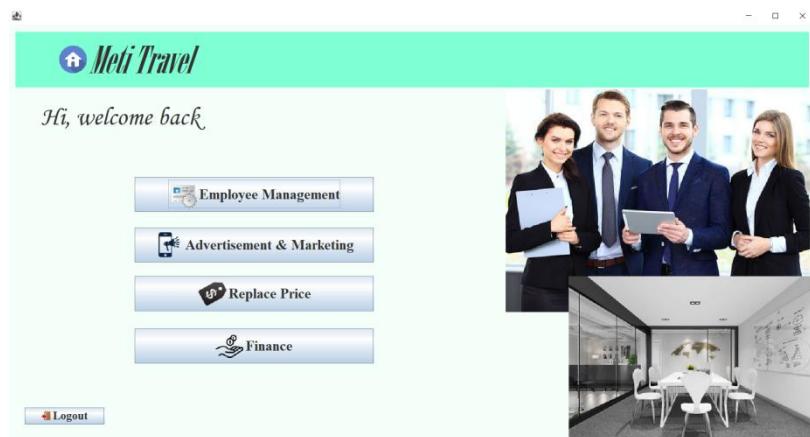
3.1.4 Tourism Related Service (Admin)

Admin Login



This is the administrator's page. An admin must input the correct user name and password in the same method as a user. A dialogue message will display, indicating that the admin has successfully entered into the admin's home page by pressing the login button. However, if the administrator enters an incorrect user name and password, he or she will be forced to provide the correct user name and the password.

Admin Home Page



The admin home page will appear once the admin has successfully entered into the system. There are several functions such as employee management,

advertisement and marketing, price replacement, and finance. Any functions can be used by the administrator. Besides, by selecting the “Logout” button, the admin may log out and return to the previous page, which is the login page.

Employee Management

The screenshot shows a Windows application window titled "Employee Management". On the left, there is a placeholder icon for a user profile picture. To the right of the icon are several input fields: "Name" (Jackson Lau), "Age" (34), "Gender" (Male selected), "Job Position" (Tourism Trainer), "Phone Num" (0125908330), "Email" (jacksonlau@gmail.com), "Monthly Salary" (RM 5500), and "Yearly Salary" (RM 66000.00). Below these fields is a small table showing three records:

Name	Age	Gender	Job Position	Phone Num	Email	Monthly sal	Yearly Salary
Emily Choo	32	Female	Visitor Info	0149502297	emilychoo00	3000	36000.00
Michael Lam	45	Male	Manager	011529007	michaellam	7000	84000.00
Jackson Lau	34	Male	Tourism Tr...	0125908330	jacksonlau	5500	66000.00

On the far right, there is a vertical column of buttons: "Add Record", "Reset", "Update", "Upload", "Print", "Delete", and "Exit".

The employee management form interface will appear when the admin clicks the “Employee Management” button on the admin home page. The administrator fills out a form that contains their name, age, gender, job position, phone number, and email.

After entering the information, the administrator may choose the kind of employment position, and the monthly and yearly salaries will appear instantly. The admin can record it by clicking the “Add Record” button, which will show the admins’ information in the text field. In addition, the admin can click the “Reset” button to clear all of the information records. Furthermore, the admin can also modify their information by clicking the “Update” button. Next, the admin may upload their information by clicking the “Upload” button.

Moreover, the admin can delete a record from the text field by clicking the “Delete” button. Finally, the interface will send the admin back to the admin login page if the admin selects the “Exit” button.

Advertisement And Marketing



If the admin chooses the “Advertisement & Marketing” button, the advertisement and marketing page will display. This website includes elements like mobile advertising and print advertising. The administrator has full control over the features he or she uses. Next, if the admin clicks the “Exit” button, the interface will also return to the admin home page.

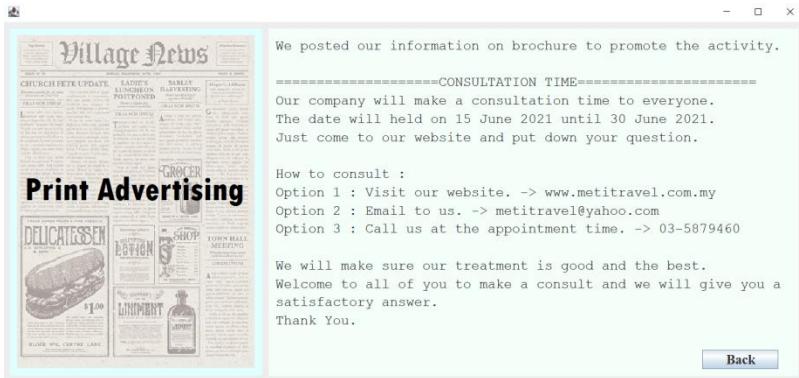
Mobile Advertising



This page will display if the admin clicks the “Mobile Advertising” button on the advertisement and marketing page. This article includes information and context on mobile advertisements, such as those seen on Facebook, Instagram,

and other social media platforms. The interface will also return to the advertisement and marketing page if the admin selects the “Back” button.

Print Advertising



If the admin clicks the “Print Advertising” button on the advertisement and marketing page, this page will appear. This article includes information and context on print advertisements, such as those seen in newspapers, brochures, and other social media platforms. The interface will also return to the advertisement and marketing page if the admin selects the “Back” button.

Price Replacement



This page will display if the admin clicks the “Replace Price” button on the admin home page. This website serves the function of health tourism, sports tourism, and cultural tourism. The admin has full control over which functions

they choose to use. The interface will also return to the admin home page if the admin selects the “Back” button.

Health Tourism Replace Price

<i>Comestic Surgery</i>	<i>Dentistry</i>	<i>Cardiac Surgery</i>
Price Per Person <input type="text" value="3000"/>	Price Per Person <input type="text" value="1000"/>	Price Per Person <input type="text" value="4500"/>

Record **Back**

The admin will be sent to this website if he or she clicks the “Health Tourism” button on the replace price page. The administrator must keep a record of the prices for various types of health tourism services such as cosmetic surgery, dentistry, and cardiac surgery. If the admin enters the price for each type of service, they may press the “Record” button to save all of the data, which will appear on the booking form page. Furthermore, if the admin selects the “Back” button, the interface will return to the price replacement page.

Sport Tourism Replace Price

The screenshot shows a Windows application window titled "Replace Price In Sport Tourism". The interface is divided into three columns. The first column is labeled "Snorkeling" and contains a price input field with the value "4000". The second column is labeled "Kayaking" and contains a price input field with the value "3900". The third column is labeled "Gym" and contains a price input field with the value "1500". Below these columns is a green horizontal bar containing a "Record" button on the left and a "Back" button on the right.

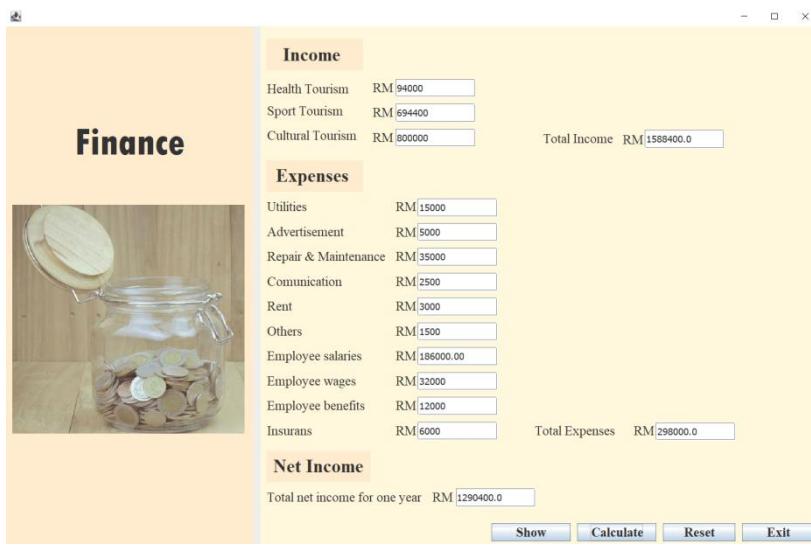
The admin will be sent to this website if he or she clicks the “Sport Tourism” button on the replace price page. The administrator must keep a record of the prices for various types of sport tourism services such as snorkeling, kayaking, and gym. If the admin enters the price for each type of service, they may press the “Record” button to save all of the data, which will appear on the booking form page. Furthermore, if the admin selects the “Back” button, the interface will return to the price replacement page.

Cultural Tourism Replace Price

The screenshot shows a Windows application window titled "Replace Price In Cultural Tourism". The interface is divided into three columns. The first column is labeled "Museums" and contains a price input field with the value "5000". The second column is labeled "Historic Sites" and contains a price input field with the value "5000". The third column is labeled "Handicrafts" and contains a price input field with the value "1200". Below these columns is an orange horizontal bar containing a "Record" button on the left and a "Back" button on the right.

The admin will be sent to this website if he or she clicks the “Cultural Tourism” button on the replace price page. The administrator must keep a record of the prices for various types of cultural tourism services such as museums, historic sites, and handicrafts. If the admin enters the price for each type of service, they may press the “Record” button to save all of the data, which will appear on the booking form page. Furthermore, if the admin selects the “Back” button, the interface will return to the price replacement page.

Finance



The screenshot shows a software application window titled "Finance". On the left, there is a decorative image of a glass jar filled with coins. The main content area is divided into three sections: "Income", "Expenses", and "Net Income".

Income	
Health Tourism	RM 94000
Sport Tourism	RM 694400
Cultural Tourism	RM 800000
Total Income RM 1588400.0	

Expenses	
Utilities	RM 15000
Advertisement	RM 5000
Repair & Maintenance	RM 35000
Communication	RM 2500
Rent	RM 3000
Others	RM 1500
Employee salaries	RM 186000.00
Employee wages	RM 32000
Employee benefits	RM 12000
Insurans	RM 6000
Total Expenses RM 298000.0	

Net Income	
Total net income for one year RM 1290400.0	

At the bottom, there are four buttons: "Show", "Calculate", "Reset", and "Exit".

If the admin clicks the “Finance” button on the admin home page, he or she will be sent to this page. The income for various forms of tourism will show the price on the previous page when the administrator presses the “Show” button. If the admin inserts all the prices for each column except total income, total expenses, and net income, they may calculate all of the data by using the “Calculate” button. Next, to clear all data records, the administrator can click the “Reset” button. Finally, if the administrator clicks the “Exit” button, the interface will return to the admin home page.

Tourism Related Service (User)

User Login



This is the login page for users. When a user enters the right username and password, a dialogue message will appear, indicating that the user has successfully accessed the user's home page by pressing the login button. However, if the user enters the invalid user name and password, they will be unable to access the home page and will be required to input the correct user name and the password.

Register Form

A screenshot of a Windows application window titled "Register Form". The window has a yellow header bar. On the left, there is a form with fields for Name (Tan Li Ling), Gender (Male selected, Female checked), Birth Date (Sep 1, 2000), Email (lilingtan@gmail.com), Username (liling), Password (123456), and Retype Password (123456). There are also "Show Password" checkboxes next to the password fields. In the center, there is a placeholder image of a person. On the right, there is a vertical toolbar with buttons for "Add Record", "Reset", "Update", "Upload", "Print", "Delete", and "Exit". At the bottom left, there is a small preview table showing the entered data: Name (Tan Li Ling), Gender (Female), Username (liling), and Password (123456).

Users may create a new account by clicking the button at the bottom of the login page, which will take them to this page. The user can input their information which is name, gender, birth date, email, user name, password, and retype the password on this screen.

After entering their information, the user may record it by clicking the “Add Record” button, the output which will show the user’s information in the text box. The user can click the “Reset” button if they want to enter their information again. When the user selects the “Reset” button, all prior information is reset and cleared. Furthermore, by selecting the “Update” button, the user may update their information. After that, the user may upload their information by clicking the “Upload” button.

In addition, the user can delete a record shown in the text box by clicking the “Delete” button. Finally, if the user wishes to exit, the interface will return to the user login page by clicking the “Exit” button.

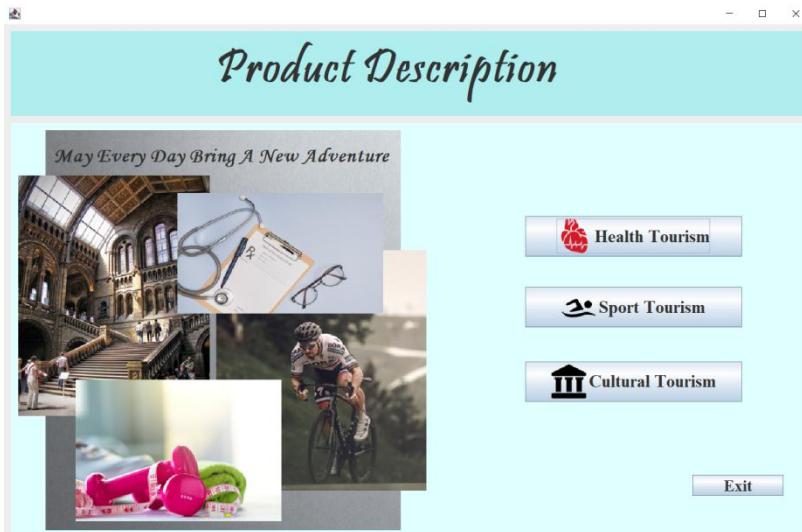
User Home Page



If the user has successfully logged into the system, the user’s home page will appear. Customer registration, product description, booking system, and company background are among the services available in this interface. The user is free to apply any function they want. Furthermore, by selecting the “Logout”

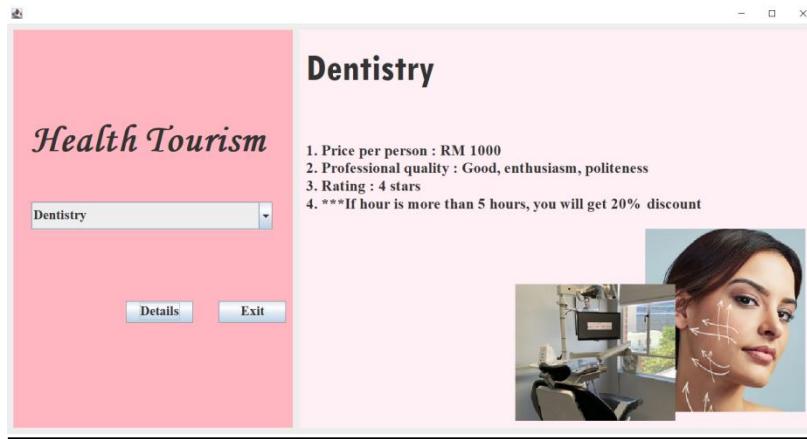
button, the user may log out and return to the previous page, which is the login page.

Product Description



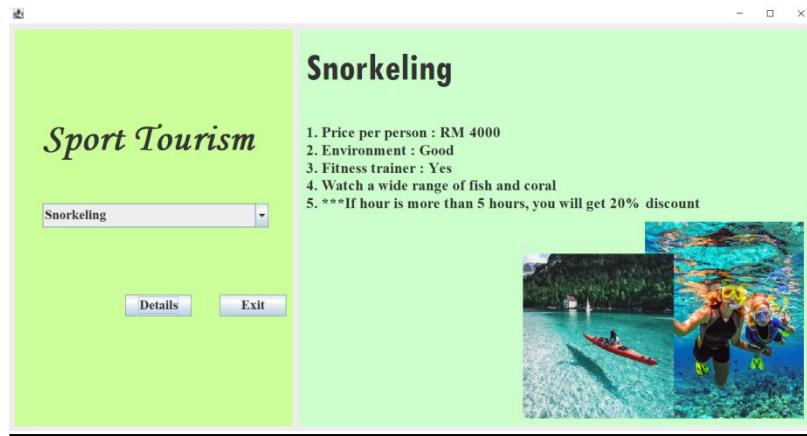
The product description page will appear if the user clicks the “Product Description” button. The functions of this page include health tourism, sports tourism, and cultural tourism. The user has full control over which functions they choose to use. Moreover, if the user clicks the “Exit” button, the interface will return to the user home page.

Health Tourism



If the user clicks the “Health Tourism” button on the product description page, the user will be sent to the health tourism website. The functions of this page include details and an exit button. To see all of the information about health tourism, the user can choose the “Details” button. Moreover, if the user selects the “Exit” button, the interface will return to the product description page.

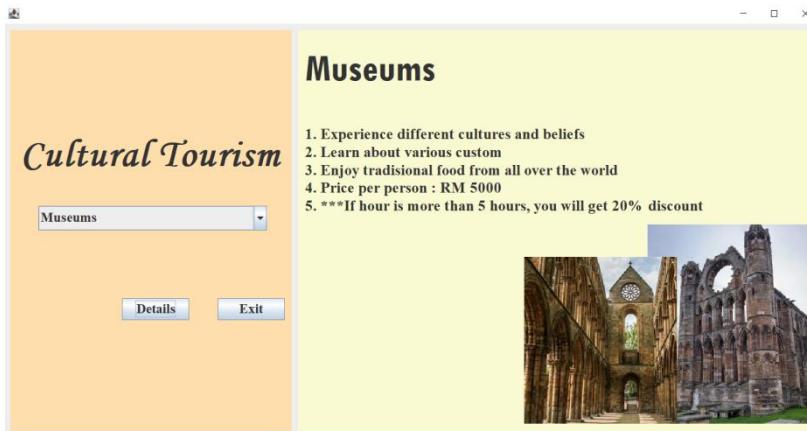
Sport Tourism



The user will be sent to the sport tourism website if they click the “Sport Tourism” button on the product description page. The functions of this page also include details and an exit button. The user may click the “Details” button to get

all of the information about sports tourism. Furthermore, if the user selects the “Exit” button, the interface will return to the product description page.

Cultural Tourism



If the user clicks the “Cultural Tourism” button on the product description page, they will be sent to cultural tourism. “Details” and an “Exit” button are also included on this page. To receive all of the information on cultural tourism, the user can click the “Details” button. In addition, if the user selects the “Exit” button, the interface will take the user back to the product description page.

Customer Registration

The screenshot shows a Windows application window titled "Customer Registration Form". The interface includes input fields for First Name (Leong), Last Name (Mei Yun), Age (22), No. H/P (0167845690), Email (meiyun@gmail.com), City (Cameron Highlands), and State (Pahang). There are also gender selection buttons for Male and Female, and a placeholder profile picture. A table displays existing records with columns: First Name, Last Name, Age, Gender, No. H/P, Email, City, and State. The table data is as follows:

First Name	Last Name	Age	Gender	No. H/P	Email	City	State
Anne	Chin	42	Female	0145907930	annechin@...	Ipoh	Preak
Daniel	Kong Shi Ha	26	Male	0125078520	danielkongs...	George Town	Penang
Steven	Lew Guan ...	30	Male	0167805261	stevenlew...	Alor Setar	Kedah
Tan	Kok Leeng	24	Male	0197004560	kokeongtan...	Cameron Hi...	Pahang
Leong	Mei Yun	22	Female	0167845690	meiyun@g...	Cameron Hi...	Pahang

On the right side, there are several buttons: Add Record, Reset, Update, Upload, Print, Delete, and Exit.

When the user selects the “Customer Registration” button on the user’s home page, the customer registration form interface will appear. The user may register their information, which includes their first and last name, age, gender, phone number, email, city, and state.

First, after inputting the information, the user may record it by clicking the “Add Record” button, which will show the users’ information in the text field. In addition, the user can click the “Reset” button to clear all of the user’s information records. Furthermore, the user may change their information by selecting the “Update” button. Next, the user may upload their information by clicking the “Upload” button.

Moreover, by clicking the “Delete” button, the user can remove a record from the text field. Finally, if the user clicks the “Exit” button, the interface will take the user back to the user home page.

Booking Form

The screenshot shows a Windows application window titled "Booking Form". On the left, there is a form with various input fields: Name (Leong Mei Yun), Gender (Male selected), No. H/P (0167845690), Email (meiyun@gmail.com), Tourism (Health Tourism selected), Service (Cardiac Surgery selected), Price (RM) (4500.00 per person), Hour (25 hour(s)), Quantity Person (1 person(s)), Discount (20%), Total Price (RM) (90000.00), and Payment (Debit/Credit Card selected). On the right, there is a table displaying booking records:

Name	Gender	No H/P	Email	Tourism	Service	Price (RM)	Hour	Quantity	Discount	Total Price
Anne Che	Female	0145807...	janechen...	Health T...	Dentistry	1000.00	5	1	20%	4000.00
Daniel K.	Male	01236978...	danielkon...	Sport To...	Snorkeling	4000.00	20	5	20%	32000.00
Steven L.	Male	0167805...	stevenle...	Sport To...	Kayaking	3900.00	15	8	20%	37440.00
Tan Kok	Male	0197804...	kokeling...	Cultural	Museums	5000.00	20	10	20%	80000.00
Leong M.	Female	0167845...	meiyun...	Health T...	Cardiac...	4500.00	25	1	20%	90000.00

Below the table are buttons for "Upload", "Add Record", "Reset", "Update", "Print", "Delete", and "Exit".

The booking form interface will appear when the user clicks the “Booking System” button on the user’s home page. The user may register for the type of tourism that interests them and provide their information such as name, gender, phone number, and email.

After entering the information, the user may select the type of tourism and service they prefer, as well as the hour and quantity of person. After inputting the tourism, service, hour, and quantity person, the price and total price will appear immediately. Besides, the user has the option of selecting a payment method to make the payment. After entering the data, the user can save it by clicking the “Add Record” button, which will display the users’ information in the text field. In addition, the user can also click the “Reset” button to clear all of the user’s information records. Furthermore, the user may change their information by selecting the “Update” button. Next, the user may upload their information by clicking the “Upload” button.

Then, the user can delete a record from the text field by clicking the “Delete” button. Finally, the interface will return the user back to the user home page if the user selects the “Exit” button.

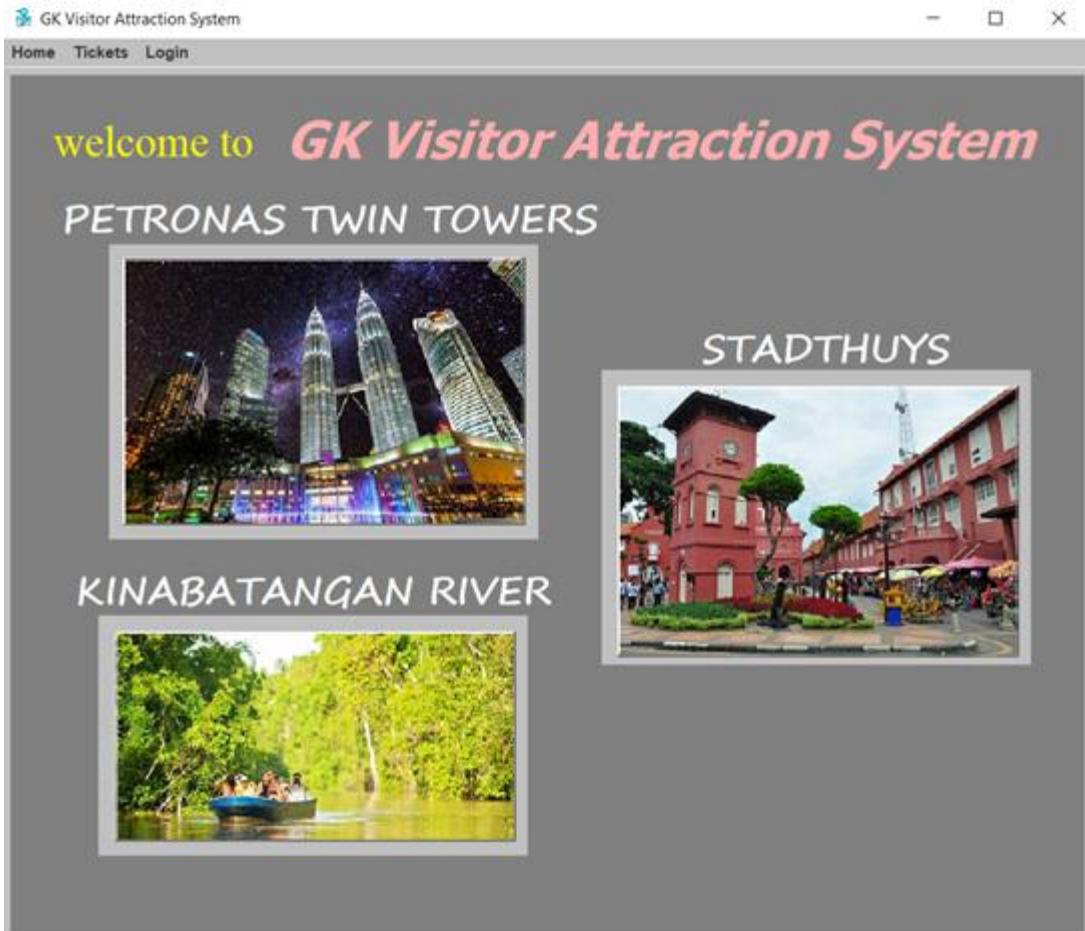
Company Background



If the user clicks the “Company Background” button on the user’s home page, the company background page will appear. This page contains facts and context about the company's history. Besides, if the user clicks the “Exit” button, the interface will return to the user home page.

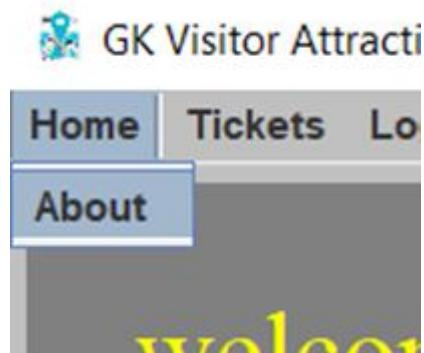
3.1.5 VISITOR ATTRACTION SYSTEM

There are 2 types of users, i.e, **Admin** and **Customer**. The main page of the system shows 3 different tourist attractions. There are menu bars on the top left where both users have the options to select what they would like to do.



HOME

Under **Home**, the following information can be seen:-



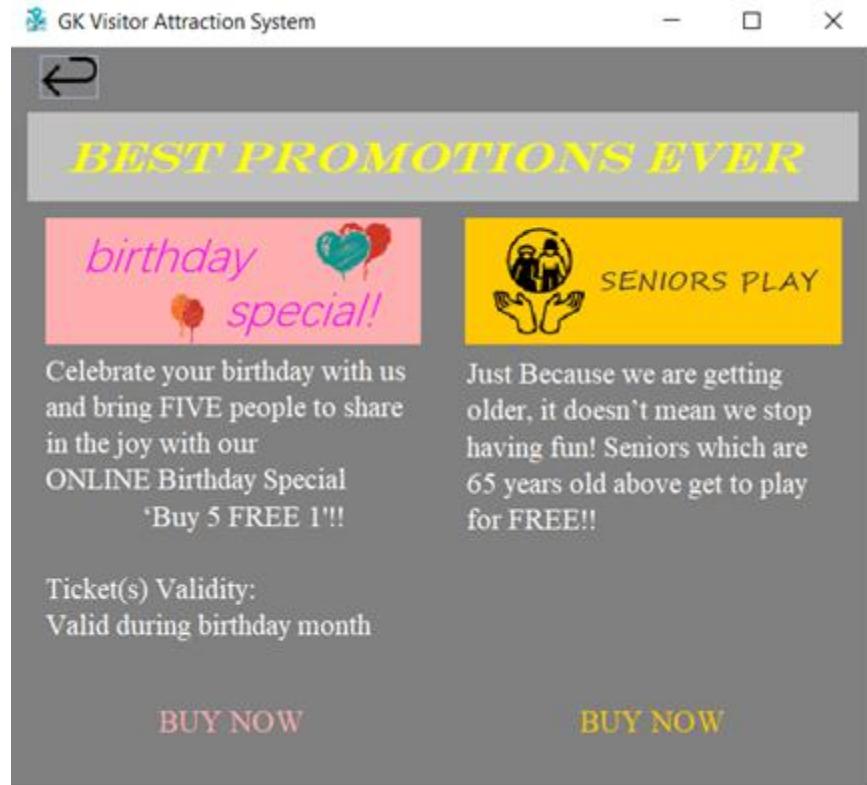


CUSTOMER

Tickets

Customer can check out the promotions offered by GK Visitor Attraction by selecting Tickets > Promotions, followed by **BUY NOW** to purchase the promotional ticket.



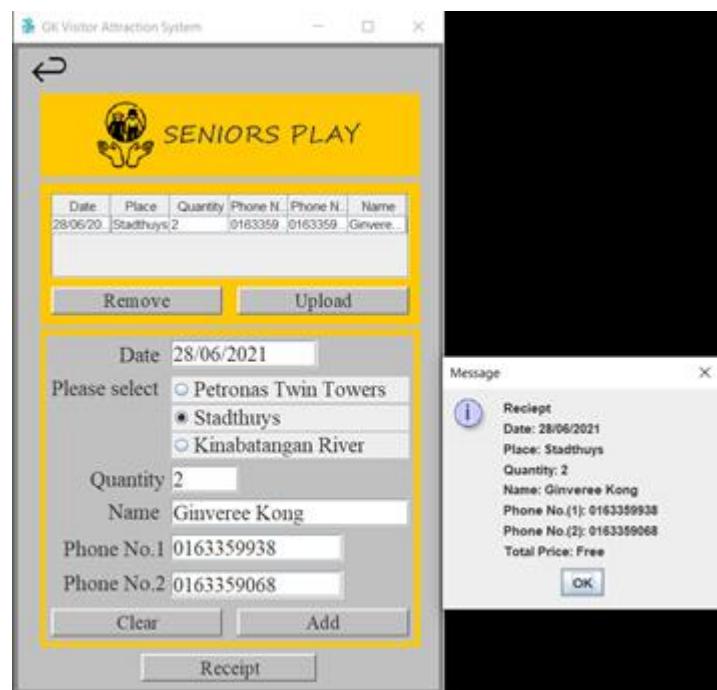


After clicking ***BUY NOW***, click ***Refresh*** to see the latest price. Enter the required information and get the total price by clicking ***Total Price***. There is also an option for ***Receipt***. Next, click **Add** to add information to the table. Click ***Upload*** after finalising all the customers' information in the table. Note that leaving the page and revisiting later will affect the existing information because the system will capture the latest inserted information and overwrite the existing information.





For SENIOR PLAY, since it is free, only the customer's information is required to be provided.





If **Customer** is not interested in the promotions, they can opt for normal tickets,
Tickets > Booking.



Click **Refresh** to get the latest ticket price. The steps will be the same as booking promotion tickets as mentioned above.

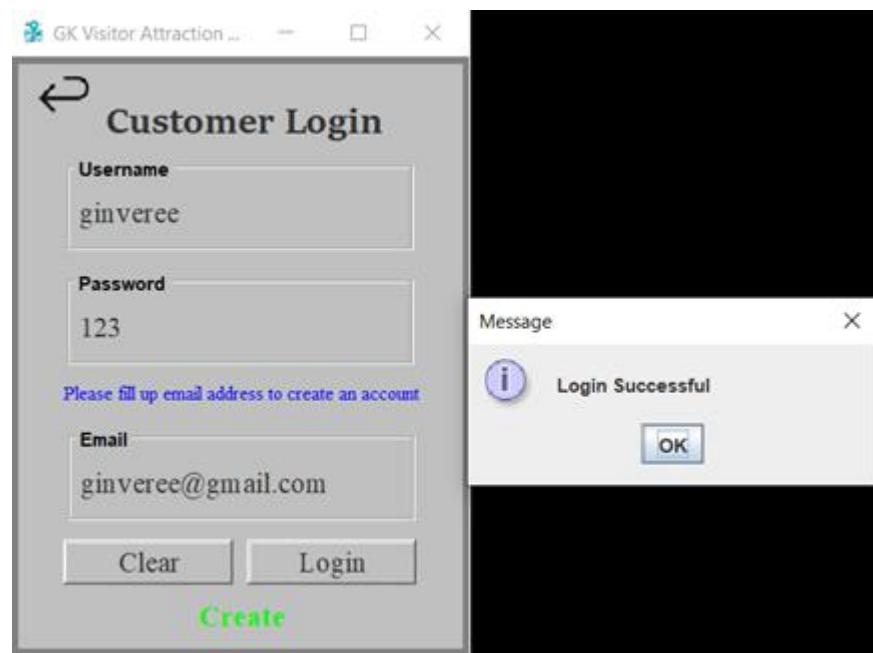
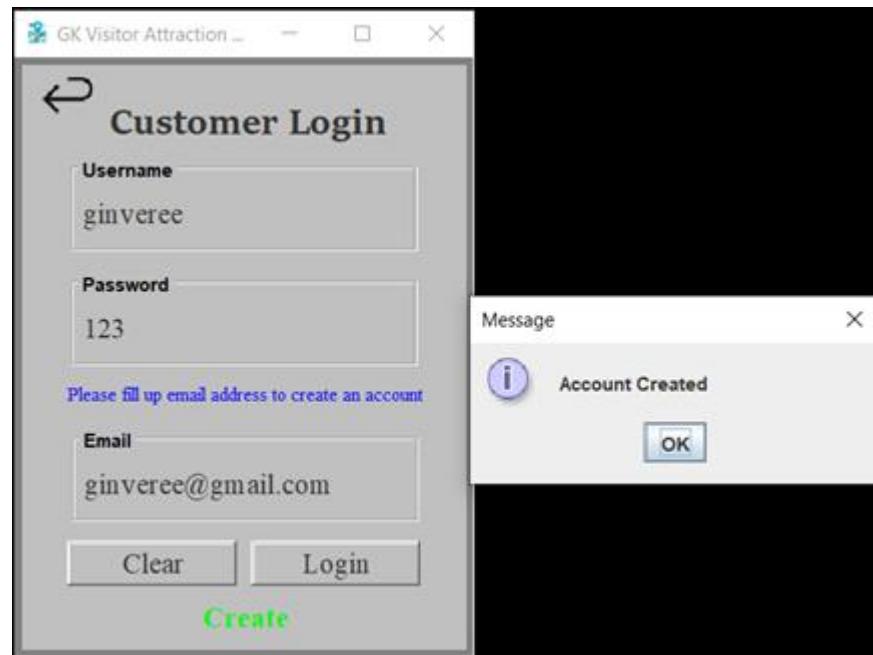


LOGIN (CUSTOMER USER)

Customer user can also login into their account by selecting **Login > Customer**



Customer user that doesn't have an account can create by entering username, password and email.



Customer user that has an account can redeem gift by clicking *redeem*. Note that one account can only be redeemed once.



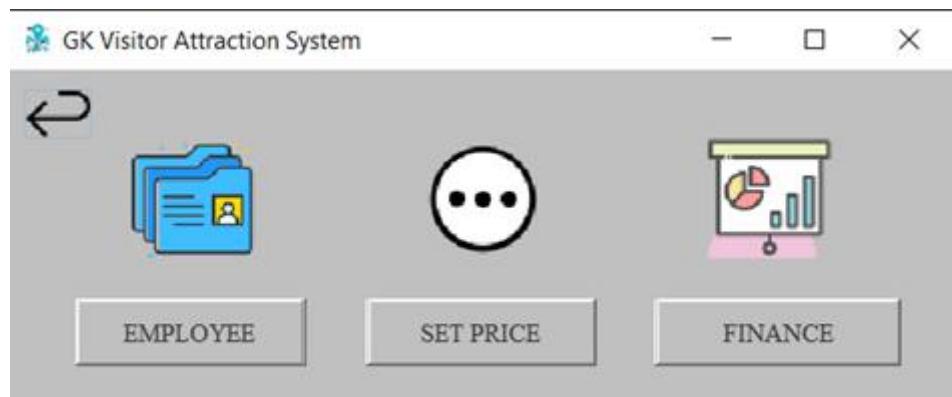
ADMIN USER (LOGIN)

Admin users can login to the admin page by selecting **Login > Admin**.



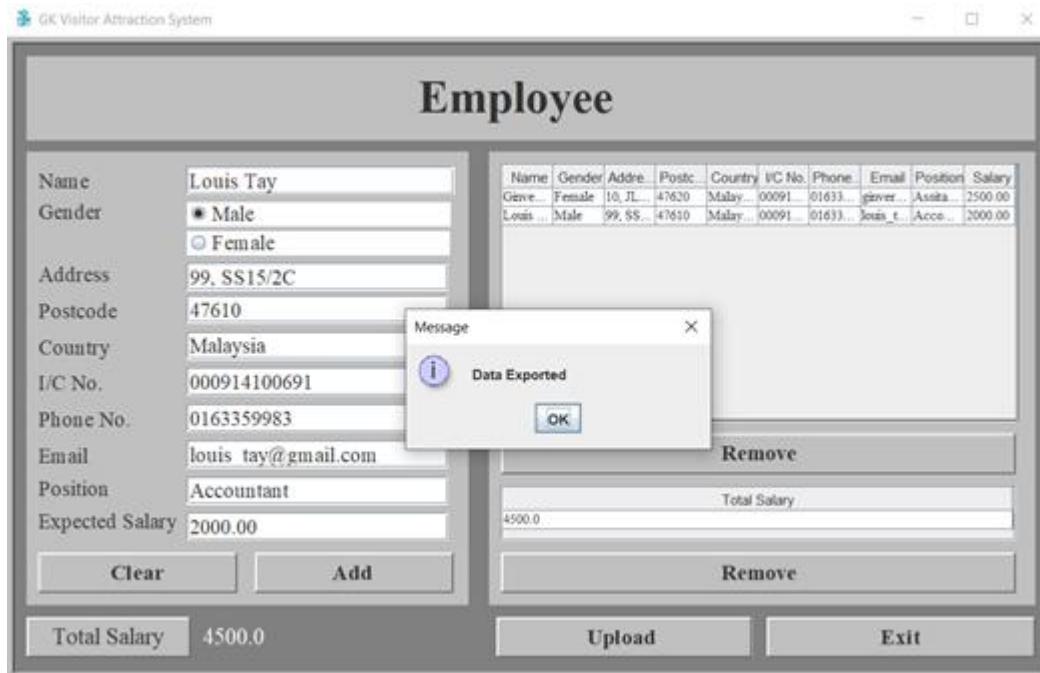


The admin's menu page is shown below:-



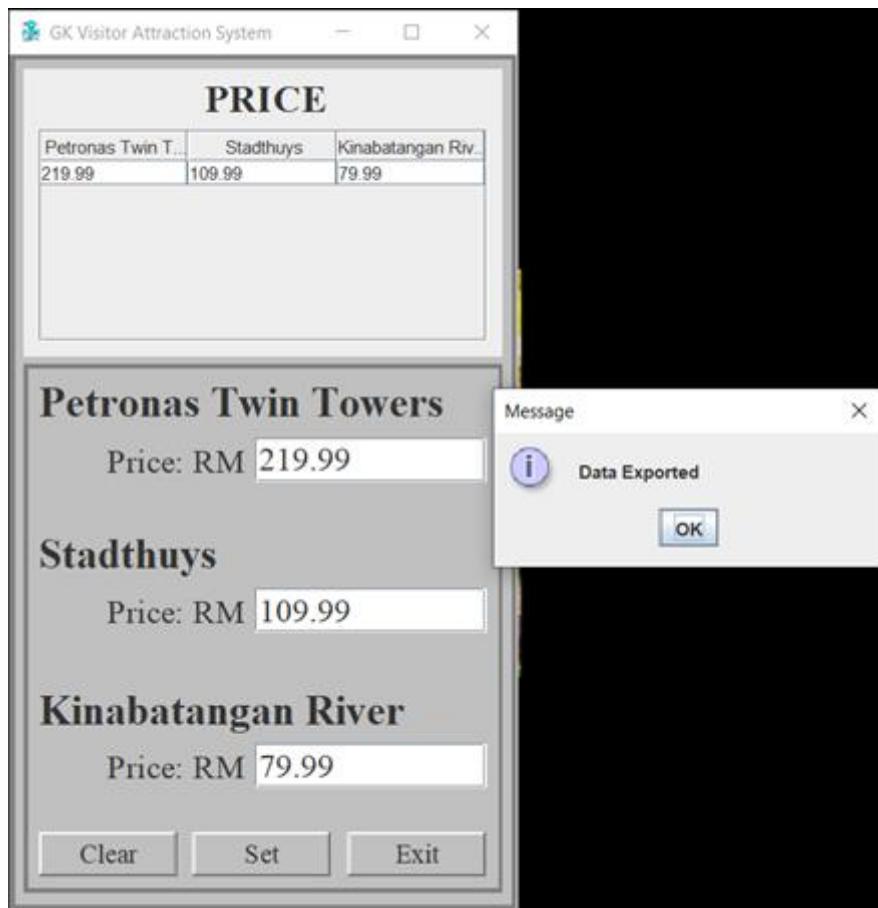
ADMIN USER (EMPLOYEE DETAILS)

Fill in each employees' details and click **Add**. After all information have been added, click **Total Salary** to generate the amount and at the same time it will be added to the total salary table. Click **Upload** to upload everything into the system.



ADMIN USER (SET PRICE)

This is the page where **Admin** user could change or update the latest ticket prices.



ADMIN USER (FINANCE)

First thing to do in the Finance page is to enter the date. Next, click **Refresh** to import Ticket Income, Promotion Income and Employee Cost from the previous exported datas into the Finance page. If the Admin user has not made any changes in one of those pages, the system will use the previous datas. After the datas have been imported, enter the Advertising Cost and click **Calculate**. The System will then calculate and generate a financial report. Click **Upload** to upload a financial report into the system.

GK Visitor Attraction System

Finance

Date 28/06/2021

Refresh

INCOME	RM
Ticket Income	3033.8300000000004
Promotion Income	1759.92

EXPENSES	RM
Employee Cost	4500.0
Advertising Cost	100

Calculate

FINANCIAL REPORT

28/06/2021	RM
Total Revenue	4793.75
Total Cost	4600.00
Total Profit	193.75

Message

Data Exported

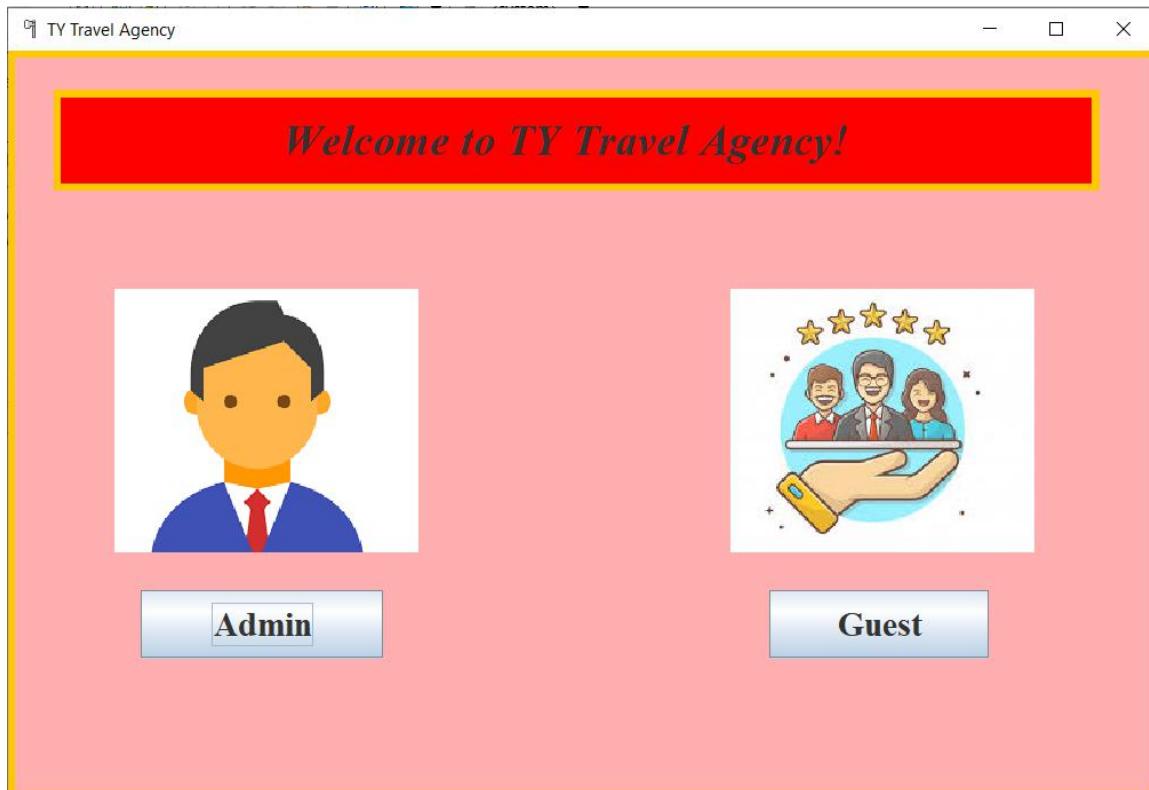
OK

Add Upload Exit

Date	Total Revenue	Total Cost	Total Profit
28/06/2021	4793.75	4600.00	193.75

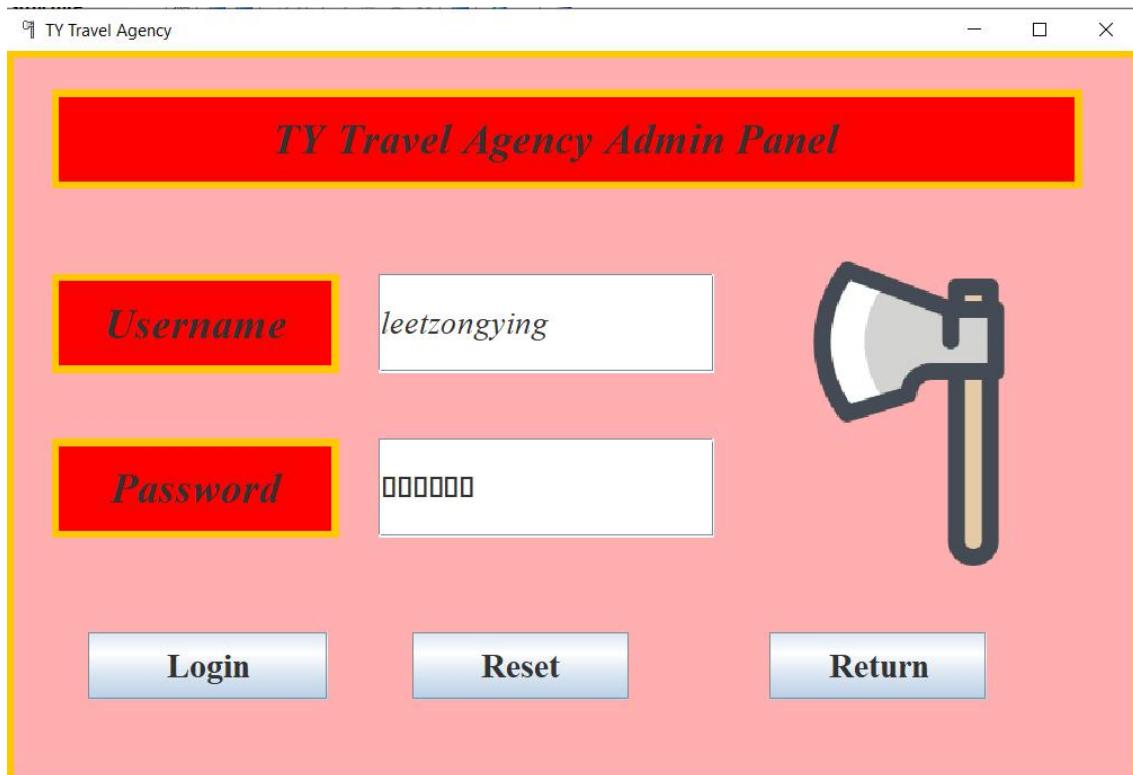
3.1.6 Travel And Transport

There are 2 types of users, i.e, **Admin** and **Guest**. In the main page there are two respective different buttons that gives different access of service to both admin and customers.



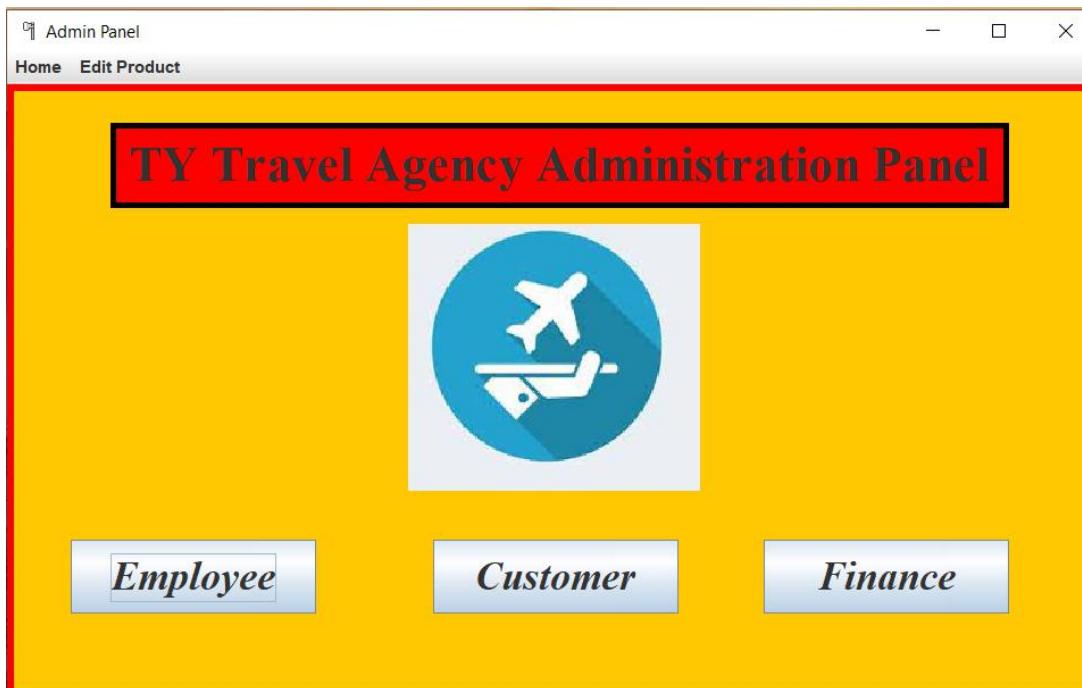
Travel & Transport (Admin)

Admin Login



This is the administrator's page. An admin must input the correct user name and password in the same method as a user. A dialogue message will display, indicating that the admin has successfully entered into the admin's home page by pressing the login button. However, if the administrator enters an incorrect user name and password, he or she will be forced to provide the correct user name and the password.

Admin Main Page



The admin's main page will appear once the admin has successfully entered into the system. There are several functions such as employee management, customer booking and finance management. Admin can also edit advertisement & marketing and update price from the custom menu above. Admin can log out by pressing the “home” button, then press logout to return to admin login page, or press “Exit” to close the system.

Admin Employee Tab

The screenshot shows a Windows application window titled "Employee Tab". The main title bar is yellow with the text "Employee Management Tab". Below the title bar is a form divided into two sections. The left section contains input fields for a new employee record:

Ref Num	5
First Name	E
Surname	Lee
Age	22
Address	AB
Postcode	12345
Telephone	0123456789
Salary(RM)	1200
Position	Cleaner

The right section displays a table of existing employee records:

RefNo	First Name	Surname	Age	Address	Postcode	Tel No	Income(RM)	Position
1	A	Lee	22	AB	12345	0123456789	2000	Manager
2	B	Lee	22	AB	12345	0123456789	1800	Tour Guide
3	C	Lee	22	AB	12345	0123456789	1550	Counter Atte...
4	D	Lee	22	AB	12345	0123456789	1350	Driver
5	E	Lee	22	AB	12345	0123456789	1200	Cleaner

At the bottom of the interface are several buttons: "UPLOAD", "Cal Total Salary" (which shows the value "7900.0"), "Total Salary", "ADD RECORD", "CLEAR", "UPDATE", "PRINT", "DELETE", and "EXIT".

When the admin selects the “Employee” button on the admin’s home page, this form interface will display. The admin can enter the information of employees such as name, age, address, telephone number, monthly salary and position.

After entering all of the data, the user can record it by pressing the “Add Record” button, which will show the data in the table at the right side. In addition, the admin can also click the “CLEAR” button to clear all of the text fields to enter information of another employee. Furthermore, the admin can update their information by choosing that row and clicking the “Update” button. Moreover, the admin can remove the certain records from the table by choosing the row and clicking the “Delete” button. Admin can also press “Print” button to allow the printer to print out this employee tab. Admin should press “Cal Total Salary” to find out the total salary of employees employed, that will also pass the value into the finance tab.

Next, the admin may upload their data by clicking the “Upload” button. Lastly, the interface will send the admin back to the admin’s home page or log out

to the login page if the admin clicks the “Exit” button on the left top of this interface. Besides, they can also click the “Home” button on the left top of this interface to return to go to other pages.

Admin Customer Tab

The screenshot shows a Windows application window titled "Customer Tab". The main title bar is "Customer Management Tab". The interface is divided into several sections:

- Left Panel (Form Fields):**
 - Ref Num: 6
 - First Name: F
 - Surname: Lee
 - Age: 22
 - Package No: 3
 - Followers: 5
 - Total Price: 7500.0
 - Discount: 0.1
- Table Section:** A table showing travel package data with columns: Ref Num, First Name, Surname, Age, TravelPackageNo, No of followers, Total Price (RM), and Final Price (RM). The data is as follows:

Ref Num	First Name	Surname	Age	TravelPackageNo	No of followers	Total Price (RM)	Final Price (RM)
1	A	Lee	22	1	2	2400.0	2400.0
2	B	Lee	22	1	5	6000.0	5400.0
3	C	Lee	22	2	2	2700.0	2430.0
4	D	Lee	22	2	5	6750.0	6075.0
5	E	Lee	22	3	2	3000.0	2700.0
6	F	Lee	22	3	5	7500.0	6750.0
- Bottom Buttons:** UPLOAD, Total Travel Inco..., 25755.0, ADD RECORD, CLEAR, UPDATE, PRINT, DELETE, EXIT.

When the admin selects the “Customer” button on the admin’s home page, this form interface will display. The admin can enter the information of customers that ordered the travel package such as name, age, package number ordered and followers.

After entering all of the data, the user can record it by pressing the “Add Record” button, which will show the data in the table at the right side, and the final total price paid and discount given will also be shown. In addition, the admin can also click the “CLEAR” button to clear all of the text fields to enter information of another customer. Furthermore, the admin can update their information by choosing that row and clicking the “Update” button. Moreover, the admin can remove the certain records from the table by choosing the row and clicking the “Delete” button. Admin can also press “Print” button to allow the

printer to print out this customer tab. Admin should press “Total Travel Income” to find out the total travel income from customers, that will also pass the value into the finance tab.

Next, the admin may export their data by clicking the “Upload” button. Lastly, the interface will send the admin back to the admin’s home page or log out to the login page if the admin clicks the “Exit” button on the left top of this interface. Besides, they can also click the “Home” button on the left top of this interface to return to go to other pages.

Admin Monthly Finance Record

The screenshot shows a Windows application window titled "Finance Tab". The main title bar is yellow with the text "Monthly Finance Tab". Below the title bar, there are two main sections. On the left, a vertical list of financial categories with input fields: Month (Jun), Utility Fee (1000), Ads Fee (2000), PrizeBudget (3000), Transportati... (4000), Wages (7900.00), TravelIncome (25755.00), and MerchSale (7000). On the right, summary values are displayed: Month (Jun), totalIncome (32755.0), totalExpense (17900.0), and NetIncome (14855.0). At the bottom, there are four buttons: ADD RECORD, CLEAR, PRINT, and EXIT.

When the admin selects the “Finance” button on the admin’s home page, this form interface will display. The admin can enter the information of financing situation such as month, utility fee, ads fee, prizebudget, transportation fee, wages, travel income and merchsale.

After entering all of the data, the user can record it by pressing the “Add Record” button, which will show the data which are month, total income and total expense. In addition, the admin can also click the “CLEAR” button to clear all of the text fields to enter finance information for another month. Admin can also

press “Print” button to allow the printer to print out this finance tab. Admin should press “Cal Net” to find out the net income of company made in this month to evaluate the performance.

Lastly, the interface will send the admin back to the admin’s home page or log out to the login page if the admin clicks the “Exit” button on the left top of this interface. Besides, they can also click the “Home” button on the left top of this interface to return to go to other pages.

Admin Company Background

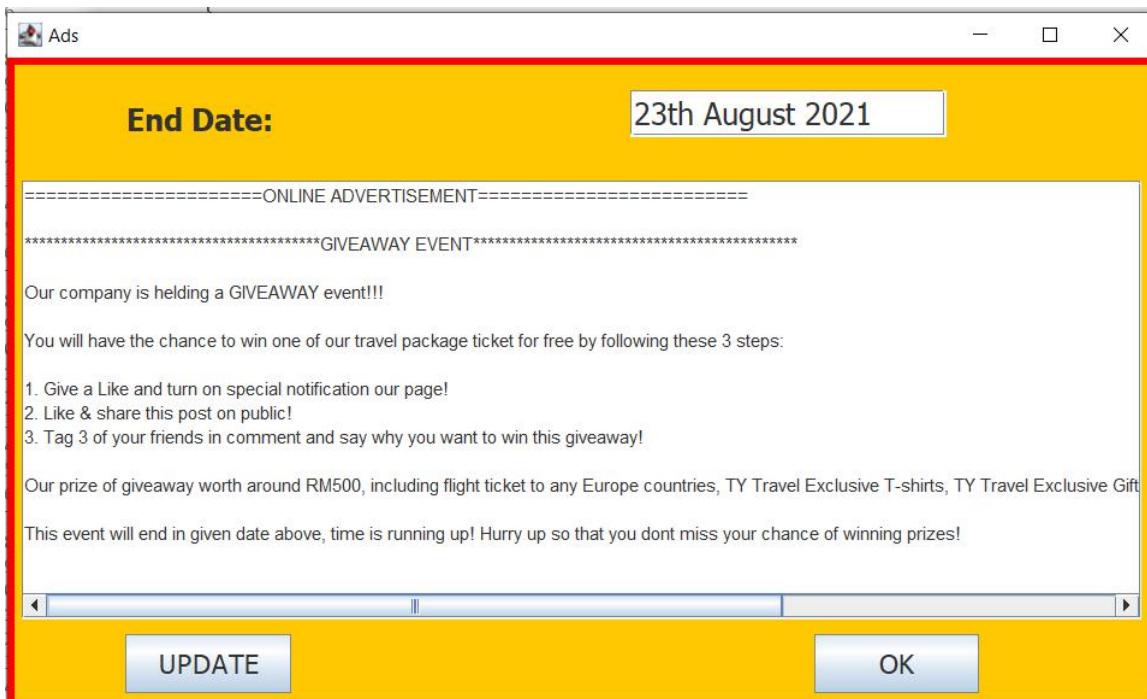
The screenshot shows a window titled "Background". Inside, there are six input fields for company details:

Name of company:	TY TRAVEL AGENCY SDN BHD
Name of CEO:	LEE TZONG YING
Year Established	2021
Website:	www.tytravel.com
Tel No:	+604-3381622
Email:	www.tytravel@gmail.com

At the bottom are two buttons: "UPDATE" and "OK".

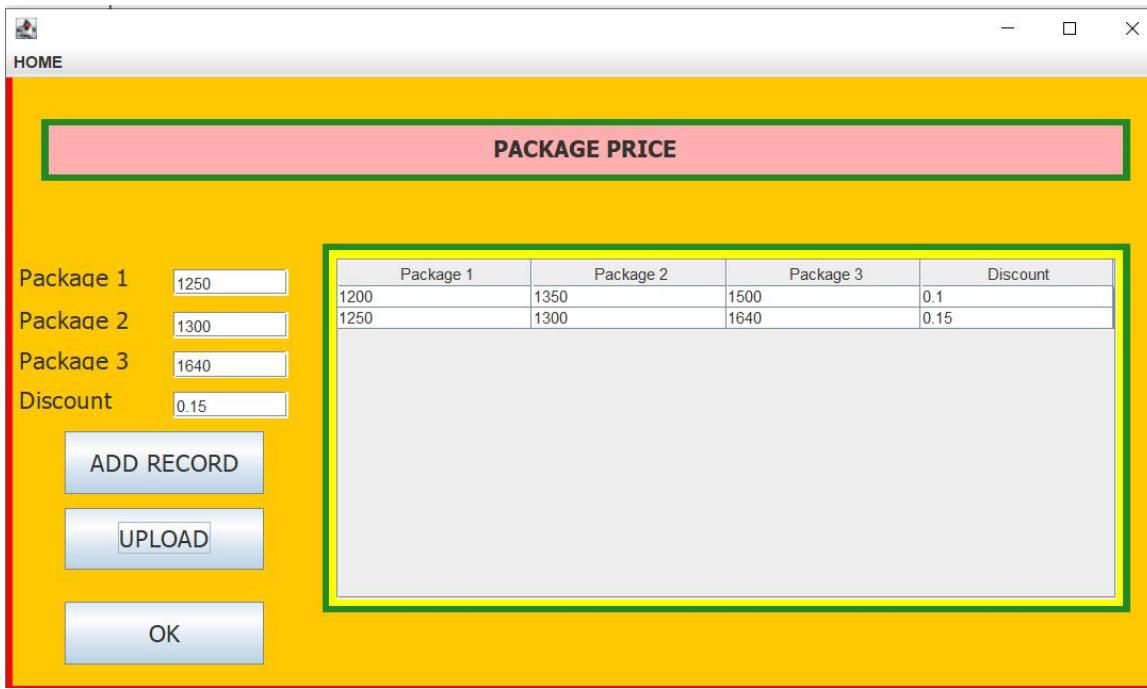
If admin wish to update the information of company, admin should press “Home” button from Admin Main Page, then click “Company Background”. Here, admin can enter the information such as name of company, name of CEO, year established, website, telephone no and email. When done, admin can press UPDATE to update the information, and the customer will be able to see the new changes of background. Click OK to exit this tab.

Admin Advertising & Marketing



If the company wish to start, extend or end the giveaway event, admin can go press “Edit Product” button from Admin Main Page, then click “Advertising & Marketing”. Here, admin can enter the new end date of the promotion, then click update so that the customer will be able to see the new changes of date of promotion.

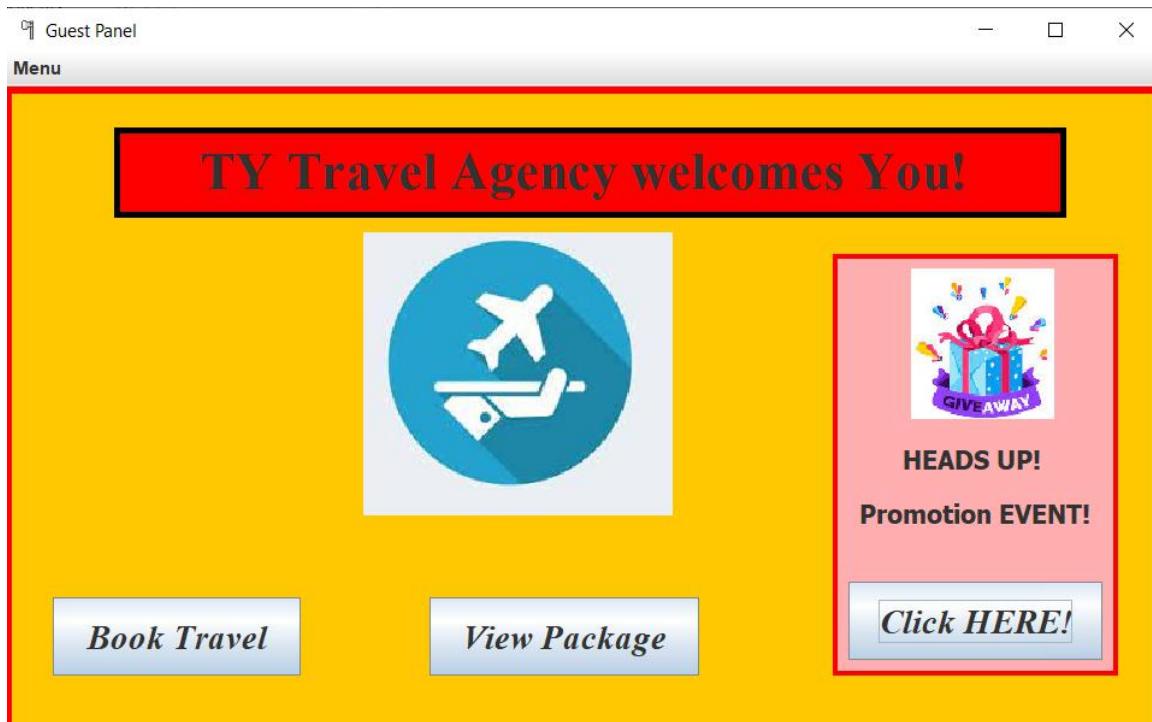
Admin Price & Discount Update



If the admin wishes to check or update the new prices and discount of travel packages, admin can go press “Edit Product” button from Admin Main Page, then click “Update Price”. Here, admin can enter the new prices and discount offered, then click “Add Record” to allow the system to pass the new price rate and discount rate. The latest price rate and discount given will be based on the most bottom value of the table. Admin can also press UPLOAD to export the price rate and discount changes. Click Ok after the admin is satisfied of the changes.

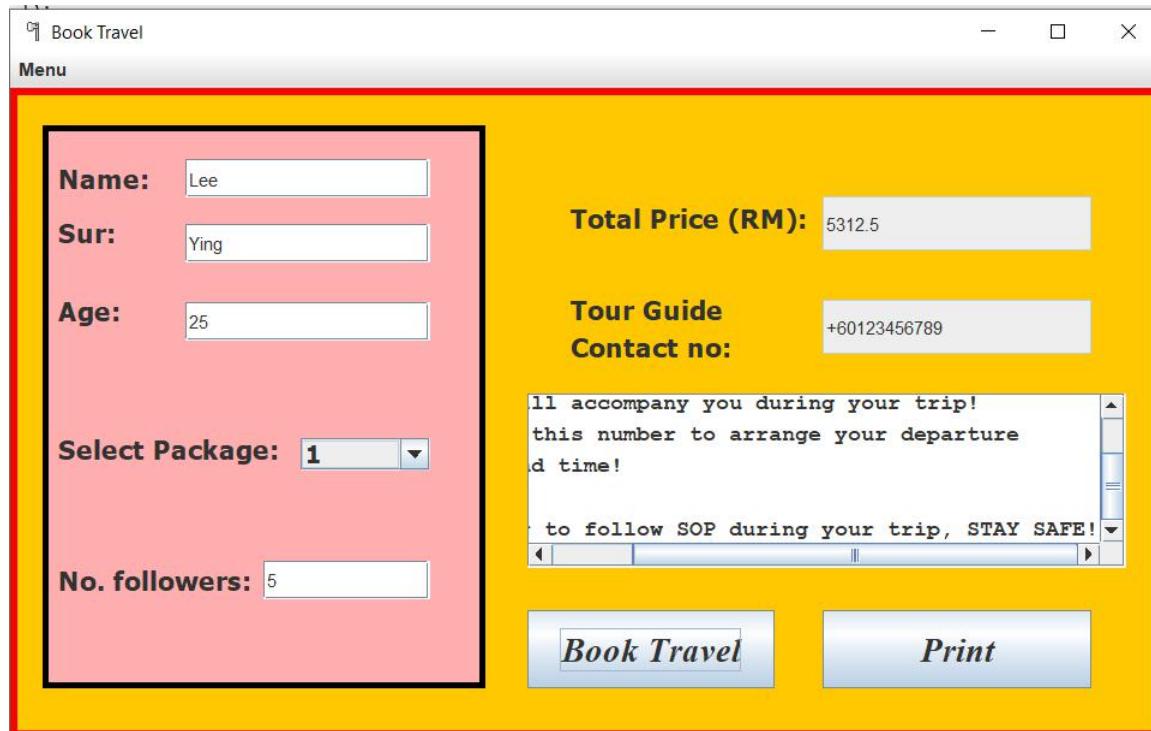
Travel & Transport (Customer)

Guest Home Page



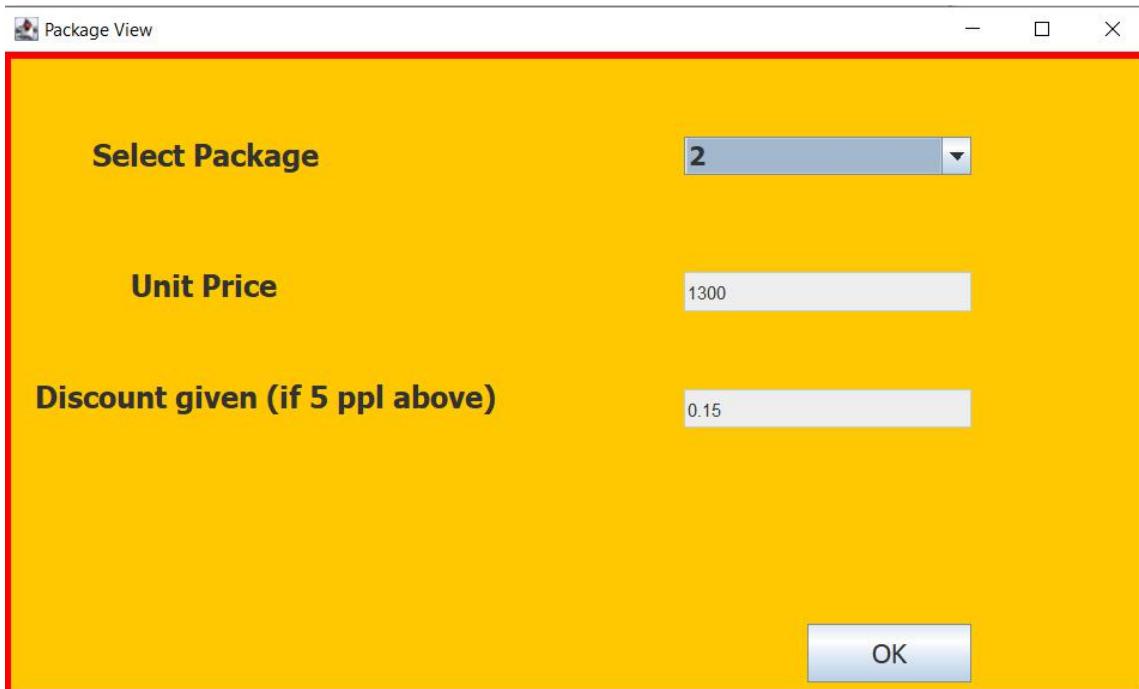
The guest's home page will show once the guest has successfully entered into the system. This interface includes features such as book travel service, travel package view, and advertising & marketing event. The guest can also view the company background from the custom menu. Guest can return to main menu by pressing the “home” button, then press logout to return, or press “Exit” to close the system.

Customer Book Travel



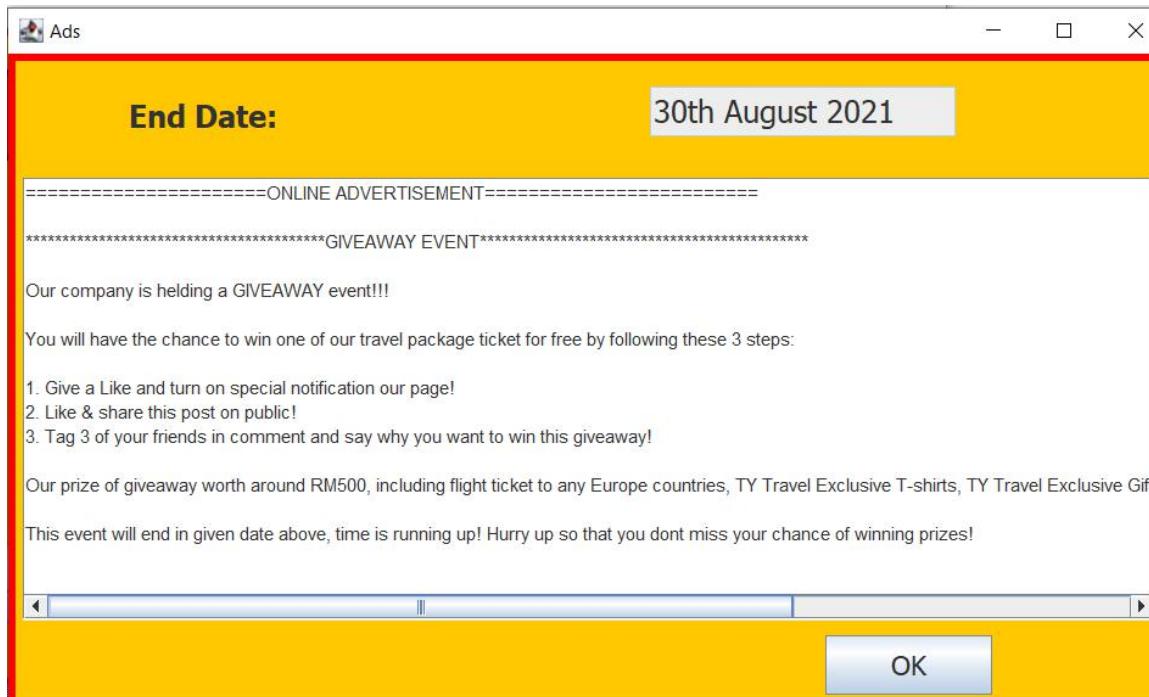
Here, the guest can use the booking travel service here. The user can enter their information such as name, age, package selected and followers. When done, the final total price will be given, and their tour guide contact number too. At the bottom right side has the customer travel remainder to advice the customer about safety regulations. Customer can also press “PRINT” to keep their booking record for themselves.

Customer View Package



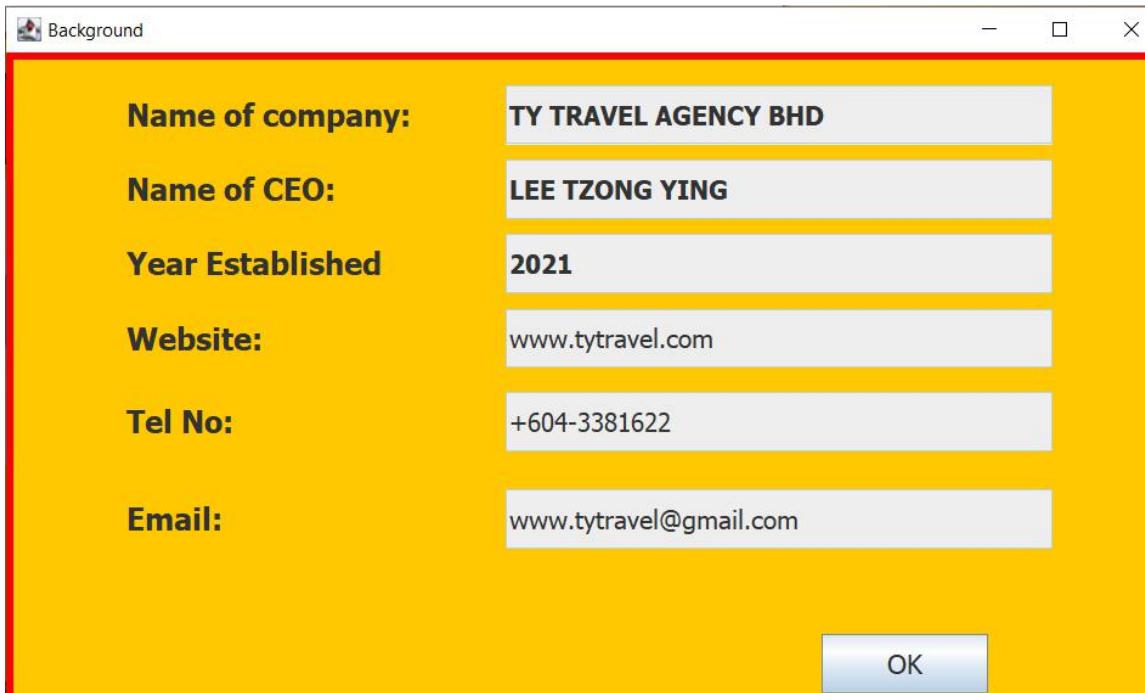
Here, the customer can view the unit price of travel packages and discount given if there are 5 followers. To do so, the customer only need to select the package number from the select package tab, and the price and discount will be automatically printed out. Press OK when the customer has done viewing.

Customer Advertising & Marketing



Here, the customer can see the details of advertising & marketing event and the end date of promotion event. Press OK to exit this section.

Customer Company Background



Here, the customer can view the details of the company background and contact details. Press Ok to exit this section.

3.2 Screenshots of application's running

3.2.1 Hotel Booking System

1) Constructor

```
public HotelsLogin() {
    setIconImage(Toolkit.getDefaultToolkit().getImage(HotelsLogin.class.getResource("icon.png")));
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 707, 502);
    contentPane = new JPanel();
    contentPane.setBackground(new Color(255, 228, 196));
    contentPane.setBorder(new MatteBorder(5, 5, 5, 5, (Color) new Color(255, 182, 193)));
    setContentPane(contentPane);
    contentPane.setLayout(null);

    JPanel panelLoginPage = new JPanel();
    panelLoginPage.setBackground(new Color(250, 235, 215));
    panelLoginPage.setBorder(new MatteBorder(5, 5, 5, 5, (Color) new Color(255, 192, 203)));
    panelLoginPage.setBounds(15, 16, 656, 84);
    contentPane.add(panelLoginPage);
    panelLoginPage.setLayout(null);

    JLabel lblLoginPage = new JLabel("Login Page");
    lblLoginPage.setBounds(15, 0, 626, 84);
    panelLoginPage.add(lblLoginPage);
    lblLoginPage.setFont(new Font("Copperplate Gothic Bold", Font.BOLD, 60));
    lblLoginPage.setHorizontalAlignment(SwingConstants.CENTER);
```

2) Encapsulation

```
btnReset.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        textFieldName.setText("");
        textFieldAge.setText("");
        buttonGroupGender.clearSelection();
        textFieldHPNo.setText("");
        textFieldEmail.setText("");
    }
});

model.addRow(new Object[]{
    textFieldName.getText(),
    textFieldAge.getText(),
    buttonGroupGender.getSelection().getActionCommand(),
    textFieldHPNo.getText(),
    textFieldEmail.getText(),
});
```

3) Inheritance

```
public class HotelsLogin extends JFrame {  
  
    private JPanel contentPane;  
    private JTextField textFieldUsername;  
    private JPasswordField passwordField;  
  
    /**  
     * Launch the application.  
     */  
    public static void main(String[] args) {  
        EventQueue.invokeLater(new Runnable() {  
            public void run() {  
                try {  
                    HotelsLogin frame = new HotelsLogin();  
                    frame.setVisible(true);  
                } catch (Exception e) {  
                    e.printStackTrace();  
                }  
            }  
        });  
    }  
}
```

4) Polymorphism (Overloading and Overriding)

```
323@    tableCustomer.addMouseListener(new MouseAdapter() {  
324@        @Override  
325@        public void mouseClicked(MouseEvent e) {  
326@            DefaultTableModel model = (DefaultTableModel)tableCustomer.getModel();  
327@            int i = tableCustomer.getSelectedRow();  
328@  
329@            textFieldName.setText(model.getValueAt(i, 0).toString());  
330@            textFieldAge.setText(model.getValueAt(i, 1).toString());  
331@  
332@            String tableGender = model.getValueAt(i, 2).toString();  
333@            if (tableGender.equals("Male")) {  
334@                rdbtnMale.setSelected(true);  
335@            }  
336@            else if(tableGender.equals("Female")) {  
337@                rdbtnFemale.setSelected(true);  
338@            }  
339@  
340@            textFieldHPNo.setText(model.getValueAt(i, 3).toString());  
341@            textFieldEmail.setText(model.getValueAt(i, 4).toString());  
342@        }  
343@    });  
344@}
```

5) File I/O

```
btnUpload.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        try {
            File file = new File("C:\\\\Users\\\\User\\\\Documents\\\\学习\\\\STIA1123 PROGRAMMING 2\\\\Assignments\\\\Project\\\\txt files\\\\");
            if(!file.exists()) {
                file.createNewFile();
            }
            FileWriter fw = new FileWriter(file.getAbsoluteFile());
            BufferedWriter bw = new BufferedWriter(fw);

            for (int i=0; i<tableCustomer.getRowCount(); i++) {
                for (int j=0; j<tableCustomer.getColumnCount(); j++) {
                    bw.write(tableCustomer.getModel().getValueAt(i, j) + " | ");
                }
                bw.write("\n");
            }
            bw.close();
            fw.close();
            JOptionPane.showMessageDialog(null, "Data Uploaded");
        } catch (Exception e1) {
            e1.printStackTrace();
        }
    }
});
```

6) Exception Handling

```
ButtonLogin.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        try {
            if (comboBoxSelection.getSelectedItem().equals("I'm a Customer")) {
                if(textFieldUsername.getText().equals("user") && passwordField.getText().equals("abc123")) {
                    JOptionPane.showMessageDialog(null, "Login Sucessful");

                    UserHomePage UserHome = new UserHomePage(); //calling another frame/window
                    UserHome.setModalExclusionType(null);
                    UserHome.setVisible(true);
                    dispose();
                }else
                    JOptionPane.showMessageDialog(null, "Please enter the valid User Name and Password");
            }
            else if (comboBoxSelection.getSelectedItem().equals("I'm an Admin")) {
                if(textFieldUsername.getText().equals("admin") && passwordField.getText().equals("efg456")) {
                    JOptionPane.showMessageDialog(null, "Login Sucessful");

                    AdminHomePage AdminHome = new AdminHomePage(); //calling another frame/window
                    AdminHome.setModalExclusionType(null);
                    AdminHome.setVisible(true);
                    dispose();
                }else
                    JOptionPane.showMessageDialog(null, "Please enter the valid User Name and Password");
            }else
                JOptionPane.showMessageDialog(null, "Please enter the valid User Name and Password");
        } catch (Exception e) {
            JOptionPane.showMessageDialog(null, "Please enter the valid User Name and Password");
        }
    }
});
```

3.2.2 Restaurant

1) Constructor

```
public Registration() {
    setTitle("Log In System");
    setIconImage(Toolkit.getDefaultToolkit().getImage(Registration.class.getResource("icon.png")));
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 642, 564);
    contentPane = new JPanel();
    contentPane.setBackground(Color.BLACK);
    contentPane.setForeground(Color.PINK);
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);
    contentPane.setLayout(null);
    //

    //
    JLabel lblNewLabel = new JLabel("Xymaxx Restaurant Login System");
    lblNewLabel.setForeground(Color.WHITE);
    lblNewLabel.setHorizontalAlignment(SwingConstants.CENTER);
    lblNewLabel.setFont(new Font("Times New Roman", Font.BOLD | Font.ITALIC, 40));
    lblNewLabel.setBounds(27, 13, 585, 72);
    contentPane.add(lblNewLabel);

    JLabel UsernameLabel = new JLabel("User Name");
    UsernameLabel.setForeground(Color.WHITE);
    UsernameLabel.setHorizontalAlignment(SwingConstants.CENTER);
    UsernameLabel.setFont(new Font("Times New Roman", Font.BOLD, 30));
    UsernameLabel.setBounds(66, 169, 184, 72);
    contentPane.add(UsernameLabel);
```

2) Encapsulation

```
public void actionPerformed(ActionEvent e) {
    textFieldcomment.setText("");
    textFieldbestdishes.setText("");
    knowBox.setSelectedItem("Make a selection");
    howCab.setSelectedItem("Make a selection");
    slider.setValue(0);

}

model.addRow(new Object[]{
    knowBox.getSelectedItem(),
    textFieldbestdishes.getText(),
    textFieldcomment.getText(),
    howCab.getSelectedItem(),
    slider.getValue(),
});
```

3) Inheritance

```
public class Registration extends JFrame {  
  
    private JPanel contentPane;  
    private JTextField UserNametextField;  
    private JTextField PasswordtextField;  
  
    /**  
     * Launch the application.  
     */  
    public static void main(String[] args) {  
        EventQueue.invokeLater(new Runnable() {  
            public void run() {  
                try {  
                    Registration frame = new Registration();  
                    frame.setVisible(true);  
                } catch (Exception e) {  
                    e.printStackTrace();  
                }  
            }  
        });  
    }  
}
```

4) Polymorphism (Overloading and Overriding)

```
@Override  
public void actionPerformed(ActionEvent e) {  
    try {  
        File file = new File("C:\\\\Users\\\\User\\\\Documents\\\\学习\\\\STIA11");  
        if(!file.exists()) {  
            file.createNewFile();  
        }  
        FileWriter fw = new FileWriter(file.getAbsoluteFile());  
        BufferedWriter bw = new BufferedWriter(fw);  
  
        for (int i=0; i<table.getRowCount(); i++) {  
            for (int j=0; j<table.getColumnCount(); j++) {  
                bw.write(table.getModel().getValueAt(i, j) + " ");  
            }  
            bw.write("\n_____\\n");  
        }  
        bw.close();  
        fw.close();  
        JOptionPane.showMessageDialog(null, "Data Exported");  
    }  
    catch(Exception ex) {  
        ex.printStackTrace();  
    }  
}
```

5) File I/O

```
btnUpload.addActionListener(new ActionListener() {
    @Override
    public void actionPerformed(ActionEvent e) {
        try {
            File file = new File("C:\\\\Users\\\\User\\\\Documents\\\\学习\\\\STIA1123 PROGRAMMING 2\\\\Assignments\\\\Project\\\\txt files\\\\Resturant.txt");
            if(!file.exists()) {
                file.createNewFile();
            }
            FileWriter fw = new FileWriter(file.getAbsoluteFile());
            BufferedWriter bw = new BufferedWriter(fw);
            for (int i=0; i
```

6) Exception Handling

```
LogInButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        try {
            if(idencomboBox.getSelectedItem().equals("Admin")) {
                if(UserNametextField.getText().equals("Xymaxx") && PasswordtextField.getText().equals("xr0000")) {
                    JOptionPane.showMessageDialog(null, "Log In Successful!");
                    // Service se = new Service(); //calling another frame/window
                    se.setModalExclusionType(null);
                    se.setVisible(true);
                }
                else
                    JOptionPane.showMessageDialog(null, "Enter the correct username and password!");
            }
            else if (idencomboBox.getSelectedItem().equals("User")) {
                if(UserNametextField.getText().equals("User") && PasswordtextField.getText().equals("user9999")){
                    JOptionPane.showMessageDialog(null, "Log In Successful!");
                    // ServiceUser su = new ServiceUser();
                    su.setModalExclusionType(null);
                    su.setVisible(true);
                }
                else
                    JOptionPane.showMessageDialog(null, "Log In Unsuccessful!");
            }
        } catch (Exception e1) {
            JOptionPane.showMessageDialog(null, "Enter the correct username and password!");
        }
    }
});
```

3.2.3 Tourism Related Service

1) Constructor

```
public BookingSystem() {
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 1268, 808);
    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);
    contentPane.setLayout(null);
```

2) Encapsulation

```
textFieldName.getText(),
gender.getSelection().getActionCommand(),
textFieldPhoneNum.getText(),
textFieldEmail.getText(),
comboBoxTourism.getSelectedItem(),
comboBoxService.getSelectedItem(),
textFieldPrice.getText(),
textFieldHour.getText(),
textFieldQuantity.getText(),
textFieldDiscount.getText(),
textFieldTotalPrice.getText(),
payment.getSelection().getActionCommand(),

textFieldName.setText("");
gender.clearSelection();
textFieldPhoneNum.setText("");
textFieldEmail.setText("");
comboBoxTourism.setSelectedItem("Please Select");
comboBoxService.setSelectedItem("Please Select");
textFieldPrice.setText("");
textFieldHour.setText("");
textFieldQuantity.setText("");
textFieldDiscount.setText("");
textFieldTotalPrice.setText("");
payment.clearSelection();
```

3) Inheritance

```
/*
 * Launch the application.
 */
public static void main(String[] args) {
    EventQueue.invokeLater(new Runnable() {
        public void run() {
            try {
                BookingSystem frame = new BookingSystem();
                frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}
```

4) Polymorphism (Overloading and Overriding)

```
381     private static void addPopup(Component component, final JPopupMenu popup) {
382         component.addMouseListener(new MouseAdapter() {
383             public void mousePressed(MouseEvent e) {
384                 if (e.isPopupTrigger()) {
385                     showMenu(e);
386                 }
387             }
388             public void mouseReleased(MouseEvent e) {
389                 if (e.isPopupTrigger()) {
390                     showMenu(e);
391                 }
392             }
393             private void showMenu(MouseEvent e) {
394                 popup.show(e.getComponent(), e.getX(), e.getY());
395             }
396         });
397     }
398 }
```

5) File I/O

```
JButton btnUpload = new JButton("Upload");
btnUpload.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        try {
            File file = new File("C:\\Users\\User\\Documents\\A202\\STIA 1123 PROGRAMMING 2\\Assignment\\Assignment3 - txt files\\Booking Form.txt");
            if(!file.exists()) {
                file.createNewFile();
            }
            FileWriter fw = new FileWriter(file.getAbsoluteFile());
            BufferedWriter bw = new BufferedWriter(fw);

            for (int i=0; i<table.getRowCount(); i++) {
                for (int j=0; j<table.getColumnCount(); j++) {
                    bw.write(table.getModel().getValueAt(i, j) + " | ");
                }
                bw.write("\n");
            }
            bw.close();
            fw.close();
            JOptionPane.showMessageDialog(null, "Data Uploaded");

            DefaultTableModel model = (DefaultTableModel) table.getModel();
            TotalIncome = 0;

            for(int i=0; i<model.getRowCount(); i++) {
                double income = Double.parseDouble(model.getValueAt(i, 10).toString());
                TotalIncome = income + TotalIncome;
            }
        } catch (Exception e1) {
            e1.printStackTrace();
        }
    }
});
```

6) Exception Handling

```
JButton loginButton = new JButton("Login");
loginButton.setBackground(UIManager.getColor("Button.background"));
loginButton.addActionListener(new ActionListener() {
    @SuppressWarnings("deprecation")
    public void actionPerformed(ActionEvent arg0) {
        try {
            if (clientButton.isSelected()) {
                if(usernameTextField.getText().equals("user123") && passwordField.getText().equals("abc123")) {
                    JOptionPane.showMessageDialog(null, "Login Successful");

                    UserHomePage user = new UserHomePage(); //calling another frame/window
                    user.setModalExclusionType(null);
                    user.setVisible(true);
                    dispose(); // login frame will disappear
                } else {
                    JOptionPane.showMessageDialog(null, "Please enter the right username and password");
                }
            } else if (adminButton.isSelected()) {
                if(usernameTextField.getText().equals("admin456") && passwordField.getText().equals("xyz456")) {
                    JOptionPane.showMessageDialog(null, "Login Successful");

                    AdminHomePage admin = new AdminHomePage(); //calling another frame/window
                    admin.setModalExclusionType(null);
                    admin.setVisible(true);
                    dispose(); // login frame will disappear
                } else {
                    JOptionPane.showMessageDialog(null, "Please enter the right username and password");
                }
            }
        } catch (Exception e) {
            JOptionPane.showMessageDialog(null, "Please enter the right username and password.");
        }
    }
});
```

3.2.4 Visitor Attractions

1) Constructor

```
public MainPage() {
    initComponents();
}
```

2) Encapsulation

```
btnReset.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        txtName.setText("");
        rdbMale.setSelected(false);
        rdbFemale.setSelected(false);
        txtAddress.setText("");
        txtPostcode.setText("");
        txtCountry.setText("");
        txtIcNo.setText("");
        txtPhoneNo.setText("");
        txtEmail.setText("");
        txtPosition.setText("");
        textESalary.setText("");
    }
});

model.addRow(new Object[]{
    txtName.getText(),
    "Male",
    txtAddress.getText(),
    txtPostcode.getText(),
    txtCountry.getText(),
    txtIcNo.getText(),
    txtPhoneNo.getText(),
    txtEmail.getText(),
    txtPosition.getText(),
    textESalary.getText(),
});
```

3) Inheritance

```
public class MainPage extends JFrame {  
  
    private JPanel contentPane;  
    private JButton btnPTT;  
    private JButton btnS;  
    private JButton btnKR;  
  
    /**  
     * Launch the application.  
     */  
    public static void main(String[] args) {  
        EventQueue.invokeLater(new Runnable() {  
            public void run() {  
                try {  
                    MainPage frame = new MainPage();  
                    frame.setVisible(true);  
                } catch (Exception e) {  
                    e.printStackTrace();  
                }  
            }  
        });  
    }  
}
```

4) Polymorphism (Overloading and Overriding)

```
rdbtnPetronas.addMouseListener(new MouseAdapter() {  
    @Override  
    public void mouseClicked(MouseEvent e) {  
        pricePTF = columnPrice[0];  
        txtPrice.setText(pricePTF);  
    }  
});  
rdbtnPetronas.setBounds(180, 171, 226, 26);  
bGPlace.add(rdbtnPetronas);  
rdbtnPetronas.setFont(new Font("Times New Roman", Font.PLAIN, 22));  
  
JRadioButton rdbtnStadthuys = new JRadioButton("Stadthuys");  
rdbtnStadthuys.addMouseListener(new MouseAdapter() {  
    @Override  
    public void mouseClicked(MouseEvent e) {  
        priceSF = columnPrice[1];  
        txtPrice.setText(priceSF);  
    }  
});  
rdbtnStadthuys.setBounds(418, 171, 117, 26);  
bGPlace.add(rdbtnStadthuys);  
rdbtnStadthuys.setFont(new Font("Times New Roman", Font.PLAIN, 22));  
  
JRadioButton rdbtnKinabatangan = new JRadioButton("Kinabatangan River");  
rdbtnKinabatangan.addMouseListener(new MouseAdapter() {  
    @Override  
    public void mouseClicked(MouseEvent e) {  
        priceKRF = columnPrice[2];  
        txtPrice.setText(priceKRF);  
    }  
});
```

5) Interface

```
public interface Member {  
    double pBMemPrice();  
  
    double hMemPrice();  
  
    double nMemPrice();  
}
```

6) File I/O

```
btnUploadTS.addActionListener(new ActionListener() {  
    public void actionPerformed(ActionEvent e) {  
        //export details  
        try {  
            File file = new File("C:\\\\Users\\\\User\\\\Documents\\\\学习\\\\STIA1123 PROGRAMMING 2\\\\Assignments\\\\Project\\\\txt files\\\\");  
            if(!file.exists()) {  
                file.createNewFile();  
            }  
            FileWriter fw = new FileWriter(file.getAbsolutePath());  
            BufferedWriter bw = new BufferedWriter(fw);  
  
            for (int i = 0; i < tableDetails.getRowCount(); i++) {  
                for (int j = 0; j < tableDetails.getColumnCount(); j++) {  
                    bw.write(tableDetails.getModel().getValueAt(i, j) + "\t ");  
                }  
                bw.write("\n-----");  
            }  
            bw.close();  
            fw.close();  
            JOptionPane.showMessageDialog(null, "Data Exported");  
        }  
        catch(Exception ex) {  
            ex.printStackTrace();  
        }  
    }  
}
```

7) Exception handling

```
try {  
    RandomAccessFile raf = new RandomAccessFile(f + "\\Create User.txt", "rw");  
    String line = raf.readLine();  
    userName = line.substring(9);  
    passWord = raf.readLine().substring(9);  
    Email = raf.readLine().substring(6);  
    if(usr.equals(userName) && pswd.equals(passWord)){  
        JOptionPane.showMessageDialog(null, "Login Successful");  
    }  
    else {  
        JOptionPane.showMessageDialog(null, "No account recorded! Please create a new account");  
    }  
} catch (FileNotFoundException ex) {  
    Logger.getLogger(CustomerLogin.class.getName()).log(Level.SEVERE, null, ex);  
} catch (IOException ex) {  
    Logger.getLogger(CustomerLogin.class.getName()).log(Level.SEVERE, null, ex);  
}
```

3.2.5 Travel And Transport

1) Constructor

```
public Main() {
    setIconImage(Toolkit.getDefaultToolkit().getImage(Admin.class.getResource("small-axe.png")));
    setTitle("TY Travel Agency");
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setBounds(100, 100, 819, 559);
    contentPane = new JPanel();
    contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
    setContentPane(contentPane);
    contentPane.setLayout(null);

    JPanel panel = new JPanel();
    panel.setBackground(Color.PINK);
    panel.setBorder(new MatteBorder(5, 5, 5, 5, (Color) Color.ORANGE));
    panel.setBounds(0, 0, 805, 522);
    contentPane.add(panel);
    panel.setLayout(null);

    JPanel panel_1 = new JPanel();
    panel_1.setLayout(null);
    panel_1.setBorder(new MatteBorder(5, 5, 5, 5, (Color) Color.ORANGE));
    panel_1.setBackground(Color.RED);
    panel_1.setBounds(32, 28, 732, 70);
    panel.add(panel_1);
```

2) Encapsulation

```
btnReset.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        RefNo.setText("");
        firstNameText.setText("");
        SurnameText.setText("");
        AgeText.setText("");
        cbPackage.setSelectedItem("Select Package");
        followersText.setText("");
        totalPrice.setText("");
    }
});

model.addRow(new Object[]{
    RefNo.getText(),
    firstNameText.getText(),
    SurnameText.getText(),
    AgeText.getText(),
    cbPackage.getSelectedItem(),
    followersText.getText(),
    totalPrice.getText(),
    finalprice,
});
```

3) Inheritance

```
public class Main extends JFrame {  
  
    private JPanel contentPane;  
  
    /**  
     * Launch the application.  
     */  
    public static void main(String[] args) {  
        EventQueue.invokeLater(new Runnable() {  
            public void run() {  
                try {  
                    Main frame = new Main();  
                    frame.setVisible(true);  
                } catch (Exception e) {  
                    e.printStackTrace();  
                }  
            }  
        });  
    }  
}
```

4) Polymorphism (Overloading and Overriding)

```
@Override  
public void actionPerformed(ActionEvent e) {  
    try {  
        File file = new File("C:\\\\Users\\\\User\\\\Documents\\\\学习\\\\STIA11");  
        if(!file.exists()) {  
            file.createNewFile();  
        }  
        FileWriter fw = new FileWriter(file.getAbsoluteFile());  
        BufferedWriter bw = new BufferedWriter(fw);  
  
        for (int i=0; i<table.getRowCount(); i++) {  
            for (int j=0; j<table.getColumnCount(); j++) {  
                bw.write(table.getModel().getValueAt(i, j) + " ");  
            }  
            bw.write("\n_____ \n");  
        }  
        bw.close();  
        fw.close();  
        JOptionPane.showMessageDialog(null, "Data Exported");  
    }  
    catch(Exception ex) {  
        ex.printStackTrace();  
    }  
}
```

5) Interface

```
public interface Discount { //interface

    double discountRate();

}
```

6) File I/O

```
btnUpload.addActionListener(new ActionListener() {
    @Override
    public void actionPerformed(ActionEvent e) {
        try {
            File file = new File("C:\\\\Users\\\\User\\\\Documents\\\\学习\\\\STIA1123 PROGRAMMING 2\\\\Assignments\\\\Project\\\\txt files\\\\Travel.txt");
            if(!file.exists()) {
                file.createNewFile();
            }
            FileWriter fw = new FileWriter(file.getAbsoluteFile());
            BufferedWriter bw = new BufferedWriter(fw);

            for (int i=0; i
```

7) Exception Handling

```
LoginButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {
        try {
            if(UsernameText.getText().equals("leetzongying") && PasswordText.getText().equals("abc123")) {
                JOptionPane.showMessageDialog(null, "Login Successful!");
                Home frame = new Home();
                frame.setModalExclusionType(null);
                frame.setVisible(true);
                dispose();
            } else
                JOptionPane.showMessageDialog(null, "Login not Successful.");
        } catch(Exception e){
            e.printStackTrace();
        }
    }
});
```

3.3 Code

<https://github.com/soonsueying278955/Group-Project>