

Hong Kong Institute of Vocational Education (Tsing Yi)
Department of Information and Communications Technology

Higher Diploma in Software Engineering

System Development Project Implementation Specification

Date: 30th June 2016

Group No.

Group 6

Student	Contribution to the project (%) (Total 100%)	Signature
Au Chi Chung	25% / Total 100% in this team	
Kwok Yuk Lam	25% / Total 100% in this team	
Li Kai Kwong	25% / Total 100% in this team	
Yu Kwok Ho	25% / Total 100% in this team	

- We declare that this is a group project and that no part of this submission has been copied from any other student's work or from any other source except where due acknowledgement made explicitly in the text, nor has any part been written for us by another person.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering

Contents Page

Contents

Contents Page	1
1. Abstract	3
2. Assumption	4
3. Introduction	5
3.1 Company analysis	5
3.2 Operating mechanism of present system	5
4. Final Refined Problems.....	6
4.1 Problem from customer	6
4.2 Problem from staff	7
4.3 Problem from company.....	8
5. Final Refined Functional Requirement.....	10
5.1 Function for system management.....	10
5.2 Function for system information enquiry and reservation	11
5.3 Function for System report and additional function	12
6. System Architecture	13
6.1 Product Requirement	13
6.2 Organizational Requirement	14
6.3 External Requirement.....	15
7. System Design with UML.....	17
7.1 Data Dictionary Description.....	17
7.2 Class Diagram of the Integrated Tourism Management System.....	19
7.2.1 Iteratively the refined model of the Class Diagram.....	20
7.3 Actor Description.....	21
7.3.1 Examine the roles of each actor and identify the use cases	21
7.4 Use Case Diagram of the Integrated Tourism Management System	22
7.4.1 Initial use cases descriptions	23
7.4.2 Iteratively the refined model of the Use Case Diagram	27
7.5 Sequence Diagram (System Level)	28
7.5.1 Refined use case description.....	30

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering

8.	Database Design	41
8.1	Entity Relationship Diagram	41
8.2	Data Dictionary	42
9.	Benefits	52
10.	Constraints and Limitations	52
11.	User Interface and Report Design.....	53
12.	Test Plan.....	66
13.	User Guide	73
13.1	System Overview	73
13.2	Login Module	74
13.3	Searching and Booking Module.....	75
14.	Project Schedule	76
14.1	Gantt chart of the Integrated Tourism Management System.....	76
14.2	Project Log	77
15.	Conclusion.....	79

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

1. Abstract

After the phase of “Planning Specification” and “Design & Analysis Specification”, we found that most of the ideas have space for improvement. For handling the program development, we bypass some of the unnecessary functions. At the same time, we redefine some process of user searching and user booking.

In order to face in the program development, we made some of mends in the module form. Also, we decide make the customers searching and booking process more easily that we stint the searching area and tools for them. And all the booking will be handling via the information kiosk in the retails store. In the booking process, the customers will receive the number tag after they take a temporary appointment for air ticket booking or hotel booking. Then, they can confirm the booking by staff and add more reservation like cruise booking, attraction booking, and vehicle booking in the customer service center. The ultimate changes and the arrangement of system building are also shown as following specification.

The spotlight of improved change:

Refined function

- Home Page when turn on the system software or access the system
- Basic information and basic searching tools for kiosk's customer
- Number Tag for customers reservation (Air ticket booking & Hotel room booking)
- Provide the Google map information and the PDF source in searching form
- Generate PDF for showing customer booking confirmation
- Restrict the customer searching area (Only provide the Air ticket booking and Hotel room booking in the information kiosk. Cruise booking & Attraction booking must handle by staff in customers service center)

Database Implementation

- Login function and the data hash by using SHA-1 for improving system security, and provide spare password function for user login.
- Scratch space of customer reservation in information kiosk before staff confirm the real booking.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

2. Assumption

1. Ticket Tailor Ltd. is a travel agency company located in Hong Kong with more than 30 customer service centers and all delivery services are only available for Hong Kong. Their services penetrate in Hong Kong, Macau and Southern area of China, and they have customers across different scales of tour groups and individual travelers.
2. The present system is working by paper work for placing customers' order requests in the retail outlets. And the way of travel order needs many human resources that queue of the customers may lose any interest or time for the company. And which will make the work inefficient. Also, the delivery of documents by written on paper to other departments are not easily.
3. Customers have to approach various agencies to find details of places and to order tickets and it often requires a lot of time and effort in the present system. And then, the customers may not get the desired information from these offices and often they may be misguided.
4. Ticket Tailor Ltd. is an agency which will only charge payment intermediary costs but would not charge pre-booking fees because all travel orders will charge to the targeting company.
5. Staffs have no discount and no commission for purchasing any products of themselves from company because the overview didn't mention.
6. Ticket Tailor Ltd. may be lack of the after sales service after building the new computerization system. If the customer requires after sales support, the branches of the company can only handle by salesman and the sales manager.
7. The company would provide user training after building the new computerization system because the staffs or customers may not know how to control the new system for querying the newest travel information and how to place the orders.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

3. Introduction

3.1 Company analysis

There is some information of Ticket Tailor Ltd. Ticket Tailor Ltd. is a travel agency company locates in Hong Kong with more than 30 customer service centers and all deliver services are only available for Hong Kong.

The retail outlets provide travel package order request and the travel information enquiry. In all of the brunches are two major positions, called sales manager and the salesman. And there are the main obligations of different positions:

Sales Manager

- Account Management
- Amend the system information and the order request
- After sales support
- Send out the customer order request to the targeting company

Salesman

- Place order request for the customers
- Generate ordering report
- Check the product quantity with the targeting company synchronize

3.2 Operating mechanism of present system

Although the operating mechanism of present system is holding a long time but it wasted many resources and inefficiencies. And there are the main actions of the system:

- Contact with supplier for accept the product offer
- Collect the information and details of the product
- Make the introduction for the product
- Sell for the different customers by salesman and sales manager
- Calculate the order records in paper work
- Generate the order report by manpower
- Change the product details , price, and re-order amount periodically
- Send the order request to the targeting supplier by phone contact or manpower

After building the new computerization system, we hope the above action can all-in-one for control in the information kiosk or computer.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

4. Final Refined Problems

4.1 Problem from customer

Refined problem	Brief suggested solution
1. Customers may not get the desired information and may be misguided.	<p><u>Searching function</u></p> <p>We can add a search function in new system. Customers have to search something through entering some keyword, system will look for all data of the database which it matches the customers' desired information.</p> <p><u>Information filter</u></p> <p>Refer to some Informational system or website. We suggest building an information filter function for expending the keywords searching function. The system will provide some filter choice for customer by searching per their request.</p>
2. Customer need to read a lot of travel planning information that is really tedious for the customer.	<p><u>Travel planning package</u></p> <p>It is difficult to plan a travel for our customers, so we would provide some packages such as some planned attractions and hotel for them to choose, which are recommended by customers. In view of this, our customers can easily collect and analyze the travel information.</p> <p><u>Customize Travel Planning(for customer)</u></p> <p>In the new system, perhaps we could add a new button called "Combination packages" in the Module Selection Form. Customers have to choose some items such as 'city', 'price' and 'travel time'. Our system that filters out some packages which do not match their requirement shows some available packages to them. Therefore, it is convenient for customers to order without reading a lot of information.</p>

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

4.2 Problem from staff

Refined problem	Brief suggested solution
<p>1. The system is defective that staff and customers need much paperwork for handle the orders. This often requires a lot of time and effort.</p>	<p>Computerization system with database</p> <p>We suggest using new software system to replace paperwork. New system not only integrates the air tickets and hotels information, but also provides cruise items and attractions. Customers only have to submit their personal profile one time because the system database would automatically store their data. If they want to book again, they only need to input some simple data, that it can reduce a lot of paperwork and processing time for customers and staff.</p>
<p>2. In the present system, staff is difficult to explain the details and the information of travel plan by speech.</p>	<p>Multimedia for represent plan details</p> <p>Our new system working on GUI operating system which allows using multimedia functions including text, audio, images and video. Those functions ease to express some abstract information. For example, using video or images to introduce attractions are more appealing.</p> <p>Through inserting more multimedia functions in the system, we can reduce the time of introduction and explanation.</p>
<p>3. The staff may forget to cross out the air tickets have been sold so that make system error and customer cannot board a plane.</p>	<p>Show the remaining amount of air tickets</p> <p>Our new system is real-time synchronization with database. After transaction is completed, and the system will records the amount of air tickets has been sold in the order. The system calculates the total amount of air tickets for each flight in the database and then subtract the amount of sold, thus we obtain the remaining amount of air tickets. When the remaining amount less than one, the flight will be hidden. However, the remaining amount will be shown on each flight schedules, let our customer refer as well as avoid making mistakes.</p>

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

4.3 Problem from company

Refined problem	Brief suggested solution
1. The process of handling customer is inefficient.	<p>Multitasking</p> <p>In the present system, handling many customers at the same time is very difficult due to paperwork only. So staffs are easy to forget some important things about the customers, which is very inefficient.</p> <p>Support stable & large data transfers</p> <p>We suggest arranging some computers at the kiosk and those computers will be installed our “Integrated Tourism Management System” for customers. The system allows one to easily enquire the relevant information, book tickets and make travel arrangement. Also, the customers themselves can use the new system to handle their travel plan without the service counter. Consequently, it can reduce the workload of the staff and improve the long queues problem.</p>
2. Present system cannot confirm the identity of different staff. The confidential information may be leaked.	<p>Login function</p> <p>It can identify different users to login the system that it can restrict the function of different account in order to avoid all users can access some important information. For example, staff cannot access other staff information and get their password.</p> <p>System administrator will provide different user views in the database for every staff, that it is based on different position of the staff. Also, senior staffs have more functions and permissions to manage the information.</p>
3. Present system is not environmentally friendly as it prints a lot of travel leaflets to promote trip.	<p>Provide diversity detail to the customers</p> <p>Our new system, which includes all travel information, provides the latest travel promotion under the menu page. So, the travel information will be updated regularly in the system for customers, which is an eco-friendly promotion. It can reduce printing a lot of travel leaflets.</p>

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

	<p>Moreover, if users want to get more details, they just need to click the promotion image or relevant link into the page for details.</p>
4. Poor data management.	<p>Stable server of storing</p> <p>Present method of maintaining data may appear data redundancy which also leads to data inconsistency.</p> <p>The company has a lot of data and information, but it does not have a system to manage to decide which data should be stored in the same platform, which data should be kept long time and which data should be backed up. For building the computerization system, we would improve the management of data to improve management of data which is about staffs, customers, products and travel order records.</p> <p>We can solve those problems by building a database. The database contains some relations such as staffs, hotels, and flights, etc. Also, the design goal with the database is that we can integrate the data into a single, logical structure. For the reason that, each data is recorded in only one place in the database, which also minimizes data redundancy while reducing the probability of inconsistencies.</p>
5. Difficult to calculate financial operation for the department needs.	<p>System status and the system record</p> <p>Our new system not only provides travel information for customers but also it would record each deal and calculate the total fee. Then, the record would be automatically added to the database as tuples, which clearly lists out staff who handled the orders, the order date, fee, and others.</p> <p>The department manager can calculate the highest turnover of staff and reward them. In addition, it is easy to calculate the agency's revenues by the database, which is convenient to make decisions.</p>

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

5. Final Refined Functional Requirement

5.1 Function for system management

Refined function	Brief description
1. Account management control	<p><u>Enter the system</u></p> <p>Login is required before the staff using this system, and different users have different permissions. Each staff will use their staff ID or email account as a login name and password to use the system. The password encrypted by one of the hash function like md5, sha-1 or others.</p> <p>For security, the system will automatic sign out and ask the user login again while stand idle for few minutes.</p> <p>For the customer user interface, customer must using an account calling "guest" to operate the system and those account would set up for staff before turn on the system in the information kiosk. The system will automatically return to the home page without any action.</p> <p><u>Privacy protection</u></p> <p>All privacy user input such as user password and credit card details will be replaced by "*" due to customers' privacy.</p> <p><u>Register account</u></p> <p>Staff should provide information to register a user account before using the system. And the permission of the account control should handle by management posts.</p> <p><u>Account control add-on</u></p> <p>This add-on may include the account frozen & delete account permission for management posts to prohibit the accounts during some situation. And the add-on of forgot password function for staff that they can increase work efficiency.</p>

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

5.2 Function for system information enquiry and reservation

Refined function	Brief description
1. Module menu	A windows form merges with the system control for 3 types of user: "customer", "staff", and "driver". Different user can access different user-interface by using system function by using their permission. And those system control by the main parent form by using Multiple-Document Interface (MDI).
2. Air tickets enquiry	The development involves the Air Ticket Enquiry Form with Flight Schedule table. It is used for helping the staff of Ticket Tailor to search the air tickets for customers. Customers also can use this enquiry function at the kiosk.
3. Hotel schedule enquiry	It used for helping the staff to search the hotel schedule for customers. Customers also can use enquiry function at the kiosk. Then, it will show the details of the hotel such as destination, check-in date, check-out date etc.
4. Air ticket order and Hotel schedule reservation	It is used for processing order of air ticket and hotel reservation in a form as well as storing the ordered information into the database.
5. Cruise tour enquiry form and Attraction enquiry form	Attraction Enquiry Form with Attraction table that it is used for helping the staff to search the relevant traveling information for individual travelers. Both of enquiry functions can arrange a lot of tourist attraction for catering to the different customers.
6. Cruise tour booking and Attraction booking	Cruise tour booking function is an extension of the cruise enquiry form as well as the staff can select a particular cruise tour for customers in the cruise enquiry form and click the confirm button in the cruise tour line.
7. Transportation fleet management	The staff can select rent date for customer from the "Pick-up Date", "Drop-off Date" and "Book Day". And the transportation charges will be calculated by times the book day.
8. Driver roster for transportation bookings	The transport module is based on the attraction booking form and it allows staff to assign driver working schedule form driver roster and apply the vehicle bookings. Also, it can allot the equipment for different vehicle.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

5.3 Function for System report and additional function

Refined function	Brief description
1. Data report of all bookings (For staff to browse customer booking confirmation)	It is a module form for browsing booking confirmation report from customer. Which can be the data report contains flight booking confirmation, hotel booking confirmation, cruise booking confirmation, or attraction booking confirmation with vehicle orders and equipment orders. And staff can generate PDF source file of independent customer record.
2. Graphics report for data analysis	This function will display data reports with different types of graphics. It includes bar chart of a staff with his salary and retirement fund deductions with the title "Salary and Retirement Fund", staff salary and the center bonus. Also, It includes the graph of five top sales staff in the highlighted chart.
3. Provide map of place for the hotel	The system will provide more details of the hotel for customer searching function. The system can provide the coordinate of the hotels after hotel searching.
4. Product searching tools and searching filter	User can select their desired choice one by one within their budget. At the same time, customer can enter the keywords for refine the searching range.
5. Home page and simple integrated user interface	The home page will display the simple searching function and the multimedia information of the company. Different user can access different user-interface by using system function by using their permission. And those system control by the main parent form by using Multiple-Document Interface (MDI).

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

6. System Architecture

6.1 Product Requirement

Refined requirement	Brief description
1. Computer specification	The needs of minimum computer specification: Microsoft Windows 7 or lasted version, 4 GB RAM minimum, and at least 120 GB hard disk space. For the software, we design the company daily operation and computerize the information system developed by C# computer language by using Microsoft Visual Studio. For the company website, the system will develop by ASP.NET. Also, the system database connection will develop by MySQL.
2. Tablet specification in information kiosk	The important need is that the tablet should operate in the Microsoft OS environment.
3. Server connection with MySQL database and Microsoft server engine	Using the most widely used open-source client-server model database management system can store the system data about travel information or saving the data of the staff. Free-software open-source projects that require a full-featured database management system often use MySQL.
4. Microsoft.Net Framework 4 or latest version	Microsoft.Net Framework is used for the back-end office computer and the system communication.
5. Data Access Right Control	It is aim for the unique account to staff and each account has different data access permission which is based on the staff position.
6. Backup of mechanism	In order to the integrated tourism management system is storing a lot of data of travel information, order record, client's connection, we must have the backup of mechanism for avoiding the data loss.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

6.2 Organizational Requirement

Refined requirement	Brief description
1. More user-friendly and accessibility	For match up with customers of Macau and Southern area of China, the system will provided English, Traditional Chinese and Simplified Chinese version to different user. And it may help for the blind for building with audible-touch software in the information kiosk.
2. System Security and Network Security	The system will only work for the online users for using web version database of the service. Also, the ordering record and the personal information around the web pages will be using MD5 or another method to encrypt. At the same time, it can prevent user data from being leaked.
3. Meet the needs of manager posts	The system can let the managers easier administrate the system action for their needs. In view of the old system in paper work, the computerized system is more high efficiency for handling the order request from the customers. And then, manager can supervise the staff account for controlling the staff commission.
4. Meet the needs of staffs	Staff can use the system before login that they can have the authentication for ordering the items. Also, it can improve the system personal security and it can display the personal volume of business. That staff have more high efficiency for handling the customer order request in the new management system.
5. Meet the needs of customers	The customers can place some orders, information enquiry, or order request enquiry at all time in the new system at the information kiosk. That the company and the customers can have high efficiency for ordering that they needs.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

6.3 External Requirement

Refined requirement	Brief description
1. The data connection for the staff personal information and account management	The system will connect the database of staff personal information for pick up the latest data.
2. The data connection for the customer personal information	The system will connect the database of customer personal information for pick up the latest data.
3. Connect with the hotel database to get most updated hotel details	The system will connect the database of hotel database for pick up the latest hotel booking details and the updated room information.
4. Connect with the airline database to get most updated flight details	The system will connect the database of airline database for pick up the latest flight booking details and the updated flight information.
5. The data connection for the updated details of attractions	The system will connect the database of recommend attractions information for pick up the latest data.
6. The data connection for the transport (vehicle & driver)	The system will connect the database of transports for pick up the latest data of vehicle renting and the driver reservation.

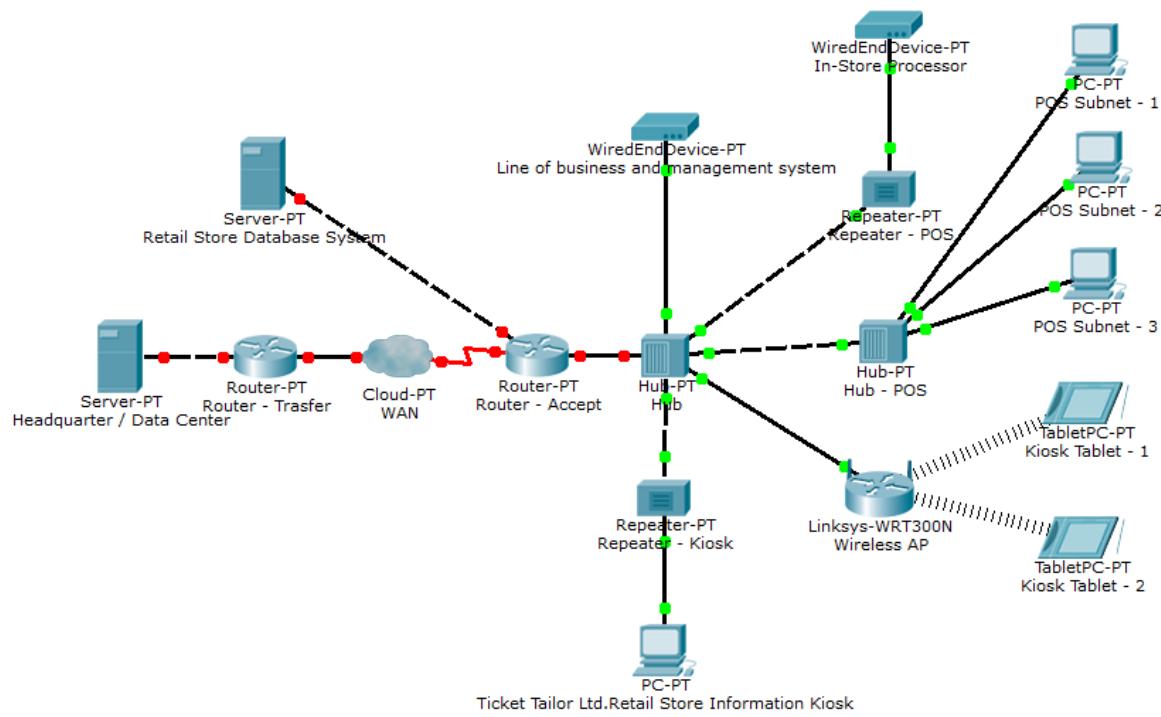
System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering



- For imagine and building with the Integrated Tourism Management System, we design an architectural blueprint to developing the system in the retail store with information kiosk appropriately.
- Owing to the problems about the data dependence and inconsistency, we recommend building the database server for storing the consistency customer data.
- We suggest to separate two part of management line for the retail store, and pass through the system manage control of storage.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

7. System Design with UML

7.1 Data Dictionary Description

Class	Definition
Customer (roles played)	A customer can search the travel information by entering keywords or choosing the suitable option. At the same time, the customer can place a booking request by entering name, date of birth, contact number, email address, home address, passport, and nationality, etc.
Staff (roles played)	A staff handles the booking request for confirming and sends a confirmed request to the dealer. And staffs have the attribute of position to identify the position of salesman officer or manager officer.
Driver (roles played)	It stores the work of shuttle guests and the detail of driver information such as their salary and time slot.
Driver Roster (conceptual things)	Driver roster is contained by driver that it arranges the work and schedule for the driver. And it holds details of the timetable such as time slot and the available time.
Booking (events)	A customer can add a booking order to retain the ticket booking. It specifies the request must be confirmed by officer (intermediaries – Ticket Tailor Ltd.) for pass through the request to the dealer.
Package (conceptual things)	An individual travel package may include the ticket booking details of attraction, hotel, flight, cruises, and vehicle. It holds detail of the product such as the id and name.
Hotel (tangible things)	Hotel booking is a part of the discount package bundle. Customer can place a booking request of the hotel by order discount package with flight ticket or order by bulk buy. It holds detail of the hotel such as hotel name, star, rating, region, and the hotel address.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Hotel Room (tangible things)	The hotel room is contained by hotel for assigned the details of room. It holds details of the hotel room such as room name, room size, fare and the room description.
Flight (tangible things)	Flight booking is a part of the discount package bundle. Customer can place a booking request of the flight by ordering discount package with hotel booking or order by bulk buy. It holds detail of the flight such as flight type, and tax.
Flight Schedule (conceptual things)	The flight schedule is contained by flight and it hold details of the timetable such as origin, aircraft, estimated date of departure (EDD), estimated date of arrival (EDA), estimated time of departure (ETD), and estimated time of arrival (ETA).
Carrier (tangible things)	Carrier is contained by flight and It holds details of carrier such as carrier name, carrier logo, and the carrier id.
Indirect (conceptual things)	Indirect is a part of the flight schedule and it hold details of flight stop position such as the stop number.
Attraction (tangible things)	A customer can place a booking request of the attraction. It holds detail of the attraction such as attraction name, cancellation fee, and the location of city.
Cruises (tangible things)	A customer can place a booking request of the cruises. It holds detail of cruises such as cruises name, organizer, tour day, and start date.
Cruise Organizer (tangible things) (COrganizer)	COrganizer is the organizer of cruises. And it holds the details of the organizer such as the organizer id and the organizer name.
Vehicle (tangible things)	A customer can place a booking request of the vehicle. It holds detail of vehicle such as book day and price.
Equipment (tangible things)	Equipment is contained by equipment list and vehicle. And it hold contains the details of equipment if, suitable, price, and equipment photo.
Equipment List (conceptual things)	Equipment list contains equipment and is assigned by vehicle. It holds the details of the booking price.

System Development Project

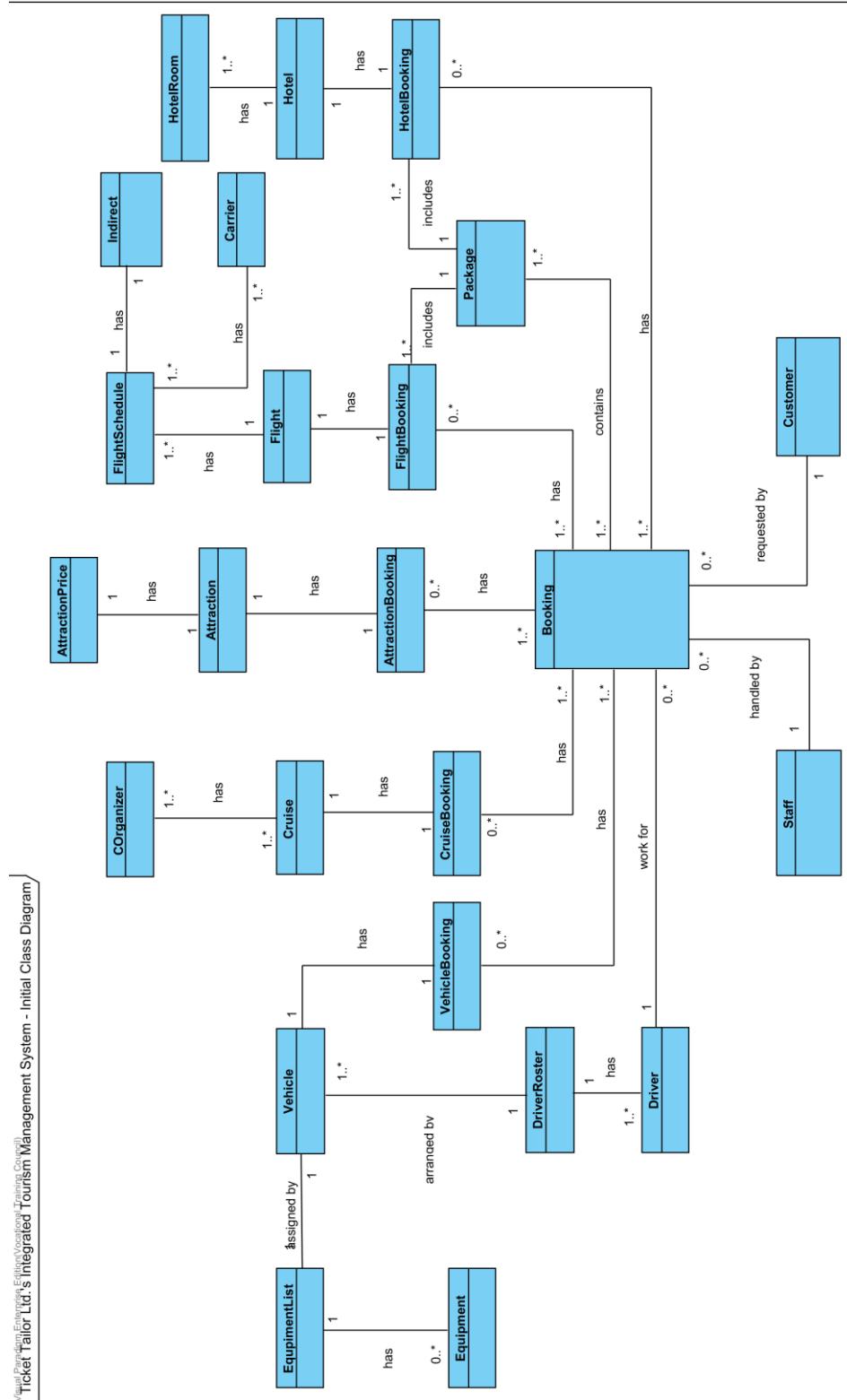
Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

7.2 Class Diagram of the Integrated Tourism Management System



- Initial Class Diagram

System Development Project

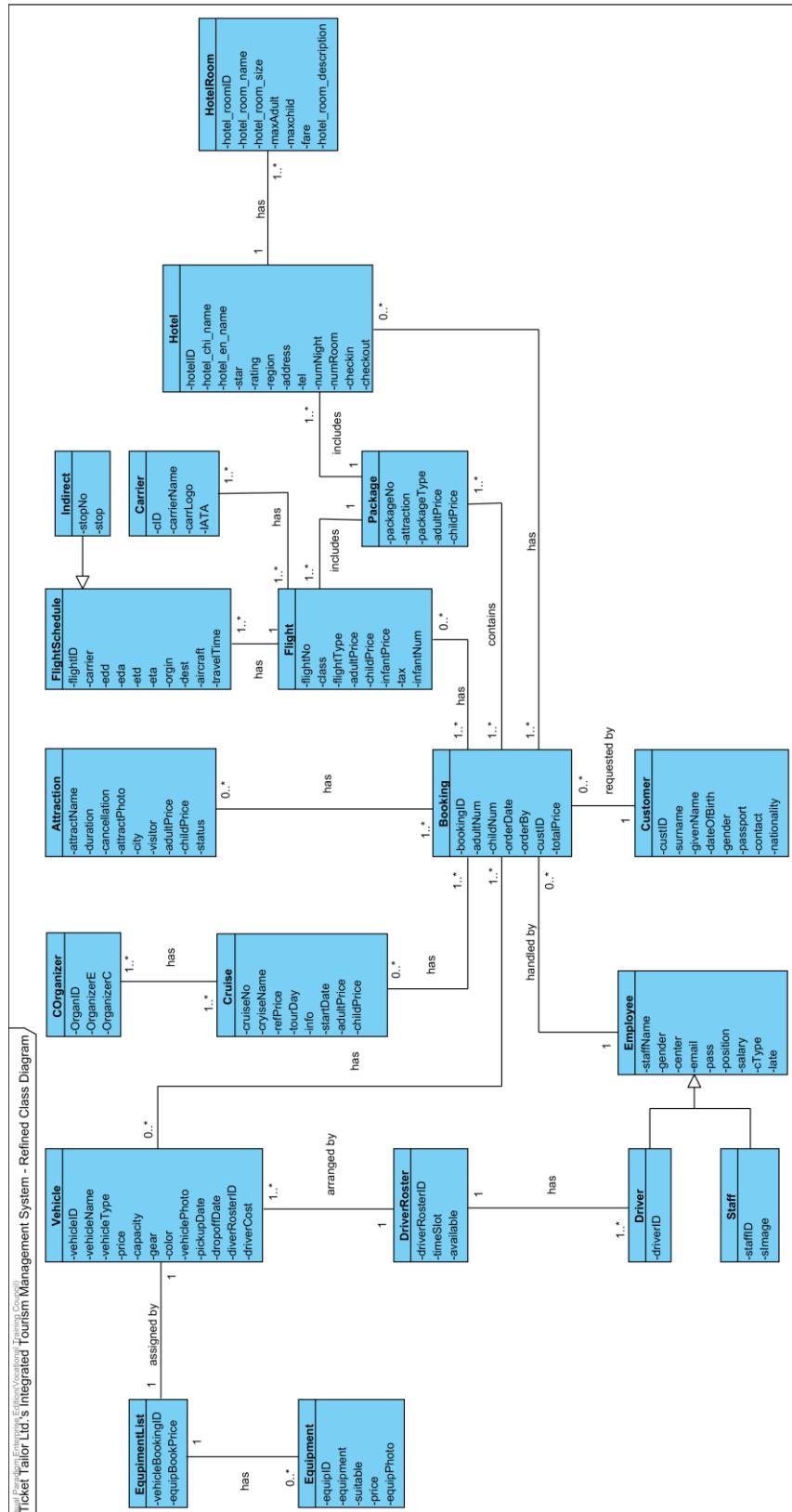
Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

7.2.1 Iteratively the refined model of the Class Diagram



System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

7.3 Actor Description

Actor	Definition
Customer	A customer is an individual traveler or tour group who can use the Integrated tourism Management System for searching travel information or place the booking order in the information kiosk.
Staff	An external entity who handles confirmation of the booking request.
Manger	An external entity who handles the catalog updating and the confirmation of the booking request.
Driver	An external entity that who can browses the personal information and the timetable of work.

7.3.1 Examine the roles of each actor and identify the use cases

Actor	Use Cases
Customer	1. Enquire attraction 2. Enquire cruise tour 3. Enquire hotel schedule 4. Enquire air tickets
Staff	1. Book transportation 2. Book attraction 3. Book cruise tour 4. Book hotel schedule 5. Book air ticket 6. Order bundle package 7. Enquire vehicle 8. Enquire attraction 9. Enquire cruise tour 10. Enquire hotel schedule 11. Enquire air tickets 12. Generate booking confirmation 13. Retrieve password
Manger	1. Freeze account 2. Delete account 3. Register account 4. Generate staff graphic report 5. Retrieve password
Driver	1. Check work schedule

System Development Project

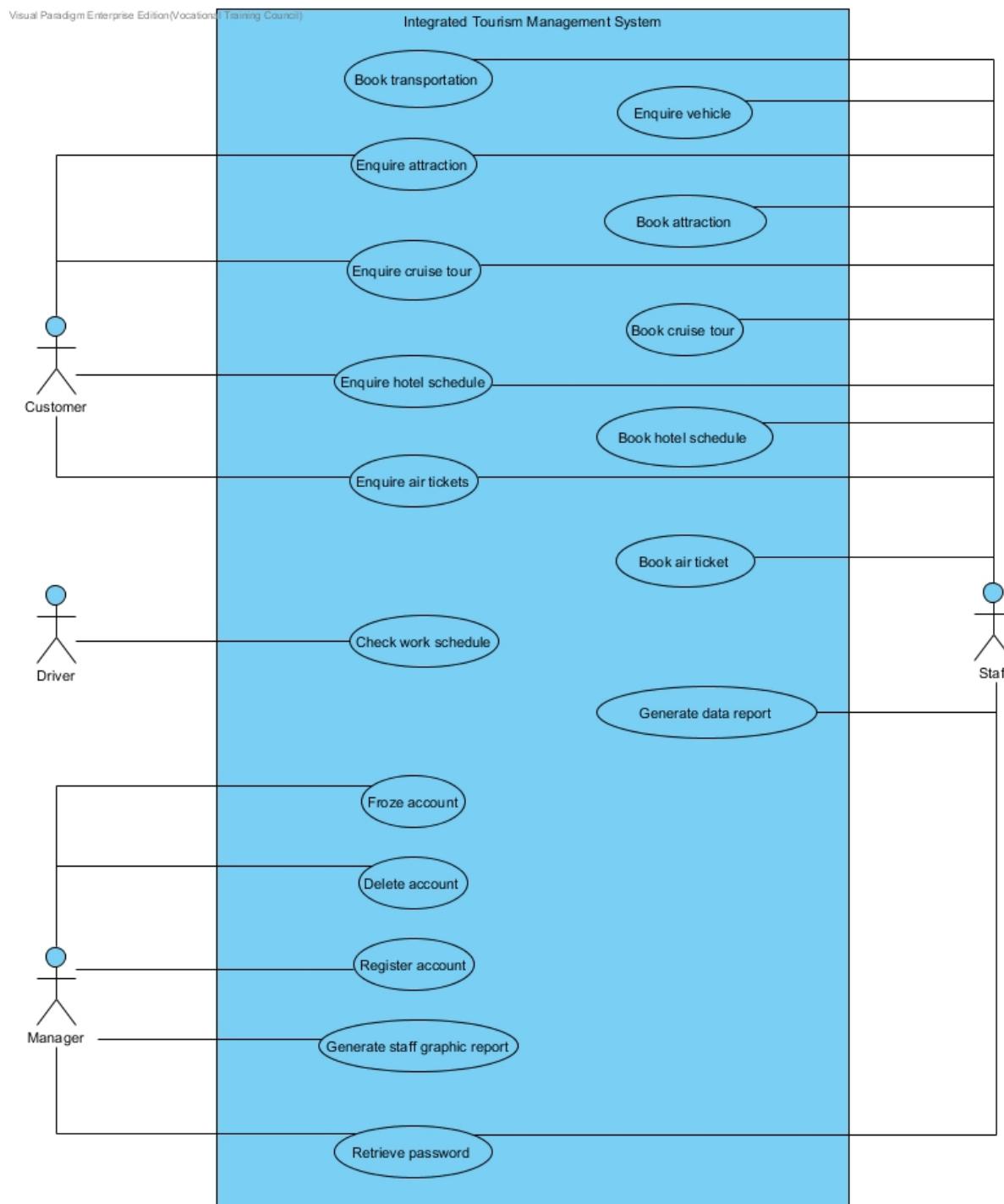
Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

7.4 Use Case Diagram of the Integrated Tourism Management System



- The initial use case diagram

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

7.4.1 Initial use cases descriptions

Use case name:	Enquire air tickets
Use case ID:	UC-010
Actor:	Customer, Staff
Description:	A staff can search the flights by entering keywords for customers. Customers also can use this enquiry UI at the kiosk.

Use case name:	Enquire hotel schedule
Use case ID:	UC-020
Actor:	Customer, Staff
Description:	A staff can search the hotel schedule by entering keywords for customers. Customers also can use this enquiry UI at the kiosk.

Use case name:	Enquire cruise tour
Use case ID:	UC-030
Actor:	Customer, Staff
Description:	A staff can search the cruise tour information by entering keywords for individual travelers. Customers also can use this enquiry UI at the kiosk.

Use case name:	Enquire attraction
Use case ID:	UC-040
Actor:	Customer, Staff
Description:	A staff can search the attraction information by entering keywords for individual travelers. Customers also can use this enquiry UI at the kiosk.

Use case name:	Book air ticket
Use case ID:	UC-050
Actor:	Staff
Description:	After searching the air ticket, the system displays all flights information. The staff select a flight for booking, they can click "Order" button to book the air ticket for customer. The staff checks out the booking and the order form is displayed. All the related orders and total amount will be displayed in this form. The staff can modify the number of air ticket. The staff presses the "Confirm Order" button, the orders will be saved into the database and the form will be gone. In addition, the customer who orders both air ticket and hotel schedule can get a discount.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Book hotel schedule
Use case ID:	UC-060
Actor:	Staff
Description:	After searching the hotel schedule, the system displays all hotels. The staff select a record for booking, they can click “Reserve” button to reserve the hotel for customer. The staff checks out the booking and the hotel schedule Booking form is displayed, the related hotel booking details and total amount will be displayed in this form. The staff can modify the number of night. The staff presses the “Confirm Order” button, the orders will be saved into the database and the form will be gone. In addition, the customer who orders both air ticket and hotel schedule can get a discount.

Use case name:	Book cruise tour
Use case ID:	UC-070
Actor:	Staff
Description:	After searching the cruise tour, the system displays all cruise tour information. The staff select a cruise tour line for booking, they can click “Book” button to reserve the tour for customer. The staff checks out the booking and the Cruise Tour Booking form is displayed, the related Cruise details and total amount will be displayed in this form. The staff can modify the number of ticket. The staff presses the “Confirm Order” button, the orders will be saved into the database and the form will be gone.

Use case name:	Book attraction
Use case ID:	UC-080
Actor:	Staff
Description:	After searching the attraction, the system displays all attraction information. The staff select an attraction line for booking, they can click “Order” button to reserve the attraction for customer. The staff checks out the booking and the Attraction Booking form is displayed, all booking information and total amount will be displayed in this form. The staff can modify the number of ticket. The staff presses the “Confirm Order” button, the orders will be saved into the database and the form will be gone.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Enquire vehicle
Use case ID:	UC-090
Actor:	Staff
Description:	After booking the attraction, the staff clicks the Transportation Fleet Management form. Staff selects an attraction booking. The system shows all available vehicle details from the Vehicle table.

Use case name:	Book transportation
Use case ID:	UC-100
Actor:	Staff
Description:	After searching the vehicle, Staff selects a vehicle details line and click “Book” button to pass the booking record to “Booking” tab. The staff finishes search vehicle and click the “Booking” tab. The staff selects date, then the staff click “Confirm” button to confirm the booking. Finally, the staff click “OK” button for saving all transportation booking.

Use case name:	Generate data report
Use case ID:	UC-110
Actor:	Staff
Description:	The staff selects a customer from a combo box to generate a report. A report contains all relevant details with booked fees. The subtotal shows the total fees of each type of bookings. Then, the staff selects a customer in the All Bookings Form to generate a confirmation document for the particular bookings. The system shows the confirmation document.

Use case name:	Generate staff graphic report
Use case ID:	UC-120
Actor:	Manager
Description:	The manager clicks the “Performance” button. All reports should be show in the Tab page in a Tap control include “Total Payment for a Staff”, “Top Five Sales Staff” and so on. They can select one of the reports to examination.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering

Use case name:	Check work schedule
Use case ID:	UC-130
Actor:	Driver
Description:	After login, the driver presses the work schedule button to check their work. The system shows their work schedule in sequence.

Use case name:	Frozen account
Use case ID:	UC-140
Actor:	Manager
Description:	Managers prohibit some accounts during some situations (e.g. system test, malicious attacks, staff in blacklist) that they can use this function for improving the security.

Use case name:	Delete account
Use case ID:	UC-150
Actor:	Manager
Description:	Managers delete some accounts in the staff account database during some situations (e.g. labor turnover) that they can use this function for improving the management efficiency.

Use case name:	Register account
Use case ID:	UC-160
Actor:	Manager
Description:	Staff provides their information to register a user account before using the system. Moreover, the permission of the account control should be handled by management posts.

Use case name:	Retrieve password
Use case ID:	UC-170
Actor:	Manager, Staff, Driver
Description:	The system user uses this function when they forgot their password. The system will send the spare password after entering their user ID and some personal information.

System Development Project

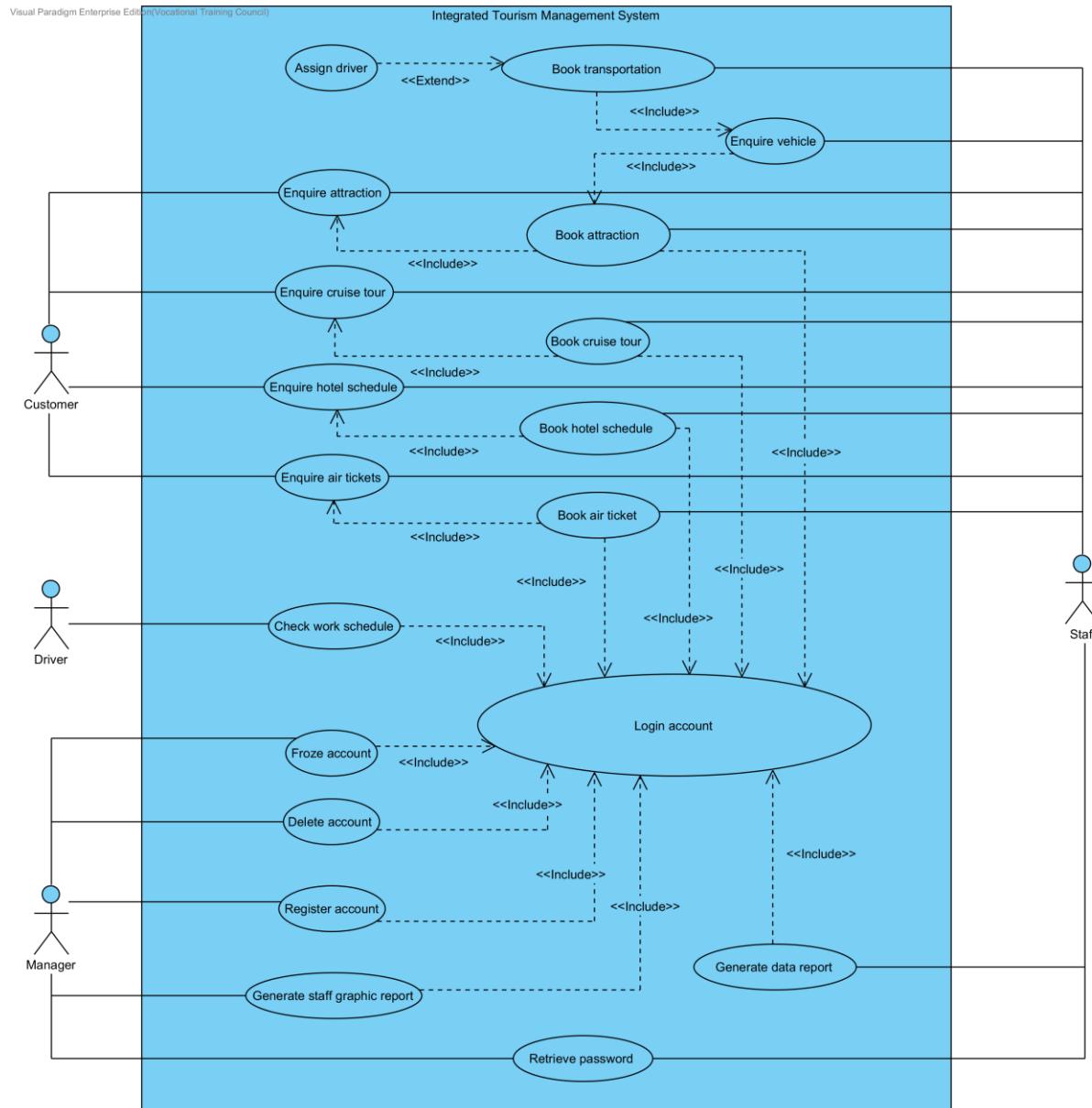
Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

7.4.2 Iteratively the refined model of the Use Case Diagram



- The Refined use case diagram

System Development Project

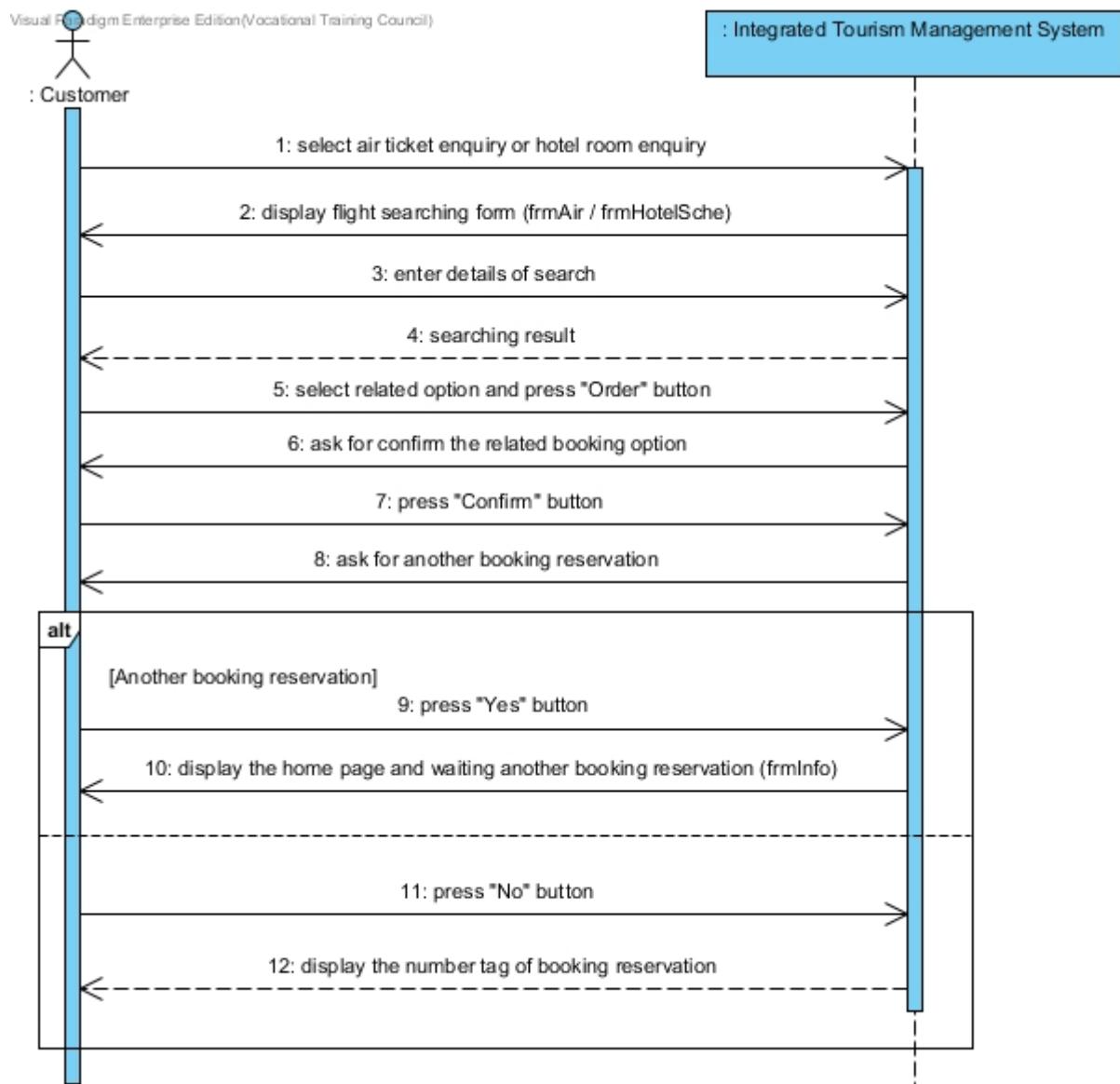
Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering

7.5 Sequence Diagram (System Level)



- **Sequence diagram of customer reservation**

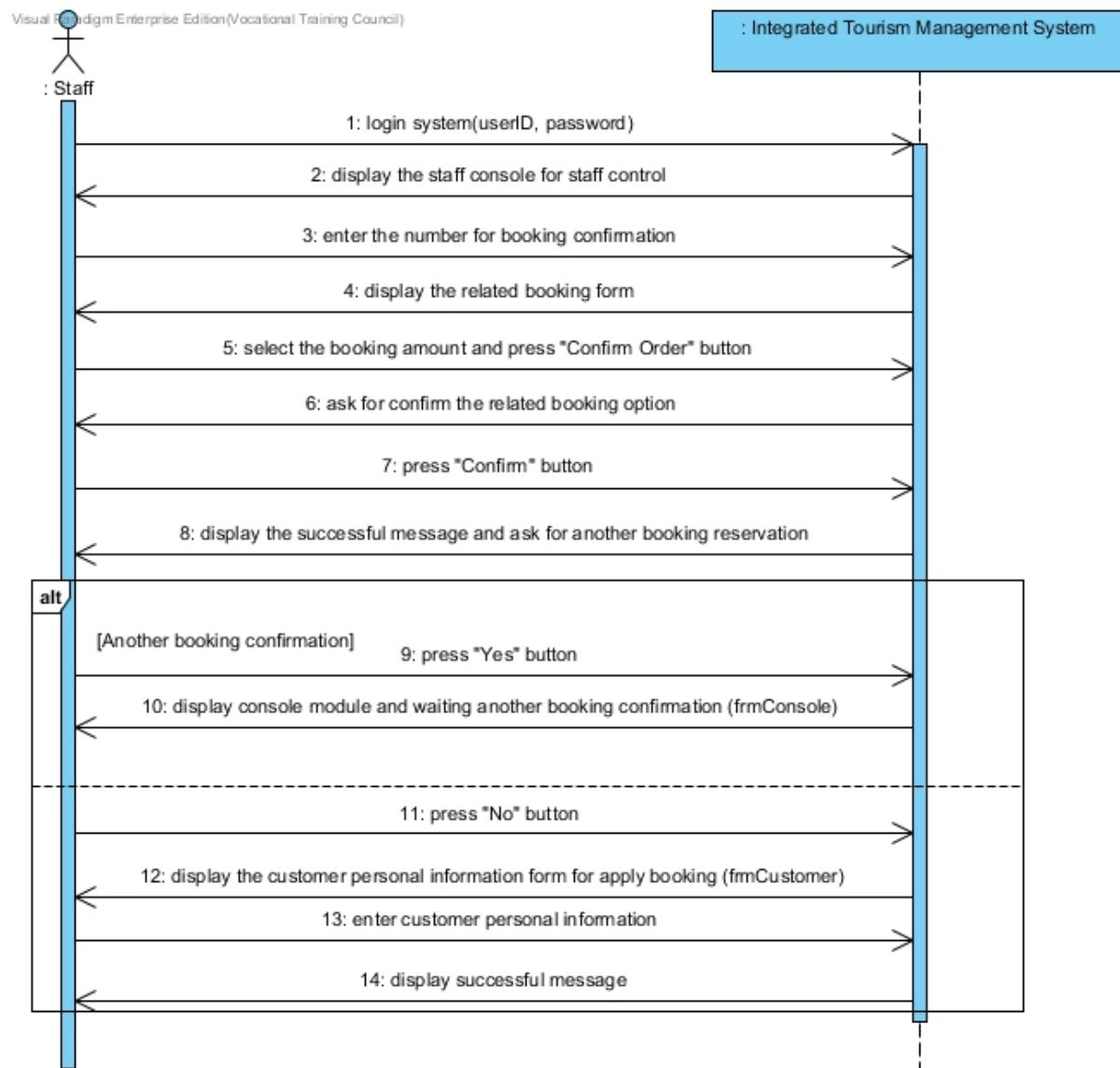
System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering



- Sequence diagram of order confirmation

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

7.5.1 Refined use case description

Use case name:	Enquire air tickets
Use case ID:	UC-010
Actor	Customer, Staff
Brief description:	A staff and customer can search the flights by entering keywords.
Post-conditions:	The flights matching the keywords are listed.
Flow of events:	<ol style="list-style-type: none">1. User can use the textbox and other controls as the keywords to search. The search result would be shown.2. User selects a flight. The system displays the detail information of flight.
Alternative flows and exceptions:	<ul style="list-style-type: none">• In step 1, if there are no matching flights, the system asks the user to re-enter keywords.

Use case name:	Enquire hotel schedule
Use case ID:	UC-020
Actor	Customer, Staff
Brief description:	A staff and customer can search the hotel schedule by entering keywords.
Post-conditions:	The hotel schedules matching the keywords are listed.
Flow of events:	<ol style="list-style-type: none">1. User can use the textbox and other controls as the keywords to search. The search result of hotel would be shown.2. User selects a hotel room. The system displays the detail information of hotel room.
Alternative flows and exceptions:	<ul style="list-style-type: none">• In step 1, if there are no matching hotel schedules, the system asks the user to re-enter keywords.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Enquire cruise tour
Use case ID:	UC-030
Actor	Customer, Staff
Brief description:	A staff and customer can search the cruise tour by entering keywords.
Post-conditions:	The cruise tours matching the keywords are listed.
Flow of events:	<ol style="list-style-type: none">1. User can use the start date and cruise organizer as the keywords to search. The search result of cruise tours would be shown.2. User selects a cruise tour. The system displays the detail information of cruise tour.

Use case name:	Enquire attraction
Use case ID:	UC-040
Actor	Customer, Staff
Brief description:	A staff and customer can search the attractions by entering keywords.
Post-conditions:	The attractions matching the keywords are listed.
Flow of events:	<ol style="list-style-type: none">1. User can use the city name as the keywords to search. The search result of cruise tours would be shown.
Alternative flows and exceptions:	<ul style="list-style-type: none">● In step 1, if there are no matching attractions, the system asks the user to re-enter keywords.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Book air ticket
Use case ID:	UC-050
Actor	Staff
Brief description:	After searching the air ticket, the staff selects a flight for booking, they can click “Order” button to book the air ticket for customer. The staff checks out the booking go to the order form. The staff presses the “Confirm Order” button.
Pre-conditions:	The staff need to login account.
Post-conditions:	The orders will be saved into the database.
Flow of events:	<ol style="list-style-type: none">1. include(Enquire air ticket).2. Staff selects a flight and click “Order” button to book the air ticket for customer.3. The staff finishes search air ticket and checks out the booking.4. include(Login account).5. System will go to the order form, all the related orders and total amount will be displayed in this form.6. The staff presses the “Confirm Order” button, the orders will be saved into the database and the form will be gone.
Alternative flows and exceptions:	<ul style="list-style-type: none">● In step 1-2 can be repeated until the staff checks out the booking.● In step 5, if customer orders both air ticket and hotel schedule can get a discount.● In step 6, staff can modify the number of air tickets before confirm order. In addition, if the number of air tickets is less than one, staff cannot confirm order.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Book hotel schedule
Use case ID:	UC-060
Actor	Staff
Brief description:	After searching the hotel schedule, the staff selects a record for booking, they can click “Reserve” button to book the hotel for customer. The staff checks out the booking go to the order form. The staff presses the “Confirm Order” button.
Pre-conditions:	The staff need to login account.
Post-conditions:	The orders will be saved into the database.
Flow of events:	<ol style="list-style-type: none">1. include(Enquire hotel schedule).2. Staff selects a hotel room and click “Order” button to book the hotel for customer.3. The staff finishes search hotel schedule and checks out the booking.4. include(Login account).5. System will go to the order form, all the related orders and total amount will be displayed in this form.6. The staff presses the “Confirm Order” button, the orders will be saved into the database and the form will be gone.
Alternative flows and exceptions:	<ul style="list-style-type: none">● In step 1-2 can be repeated until the staff checks out the booking.● In step 5, if customer orders both air ticket and hotel schedule can get a discount.● In step 6, staff can modify the number of nights before confirm order. In addition, if the number of nights is less than one, staff cannot confirm order.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Book cruise tour
Use case ID:	UC-070
Actor	Staff
Brief description:	After searching the cruise tour, the staff selects a cruise tour for booking, they can click “Book” button to reserve the tour for customer. The staff checks out the booking go to the Cruise Tour Booking form. The staff presses the “Confirm Order” button.
Pre-conditions:	The staff need to login account.
Post-conditions:	The orders will be saved into the database.
Flow of events:	<ol style="list-style-type: none">1. include(Enquire cruise tour).2. Staff selects a cruise tour line and click “Order” button to reserve the tour for customer.3. The staff finishes search cruise tour and checks out the booking.4. include(Login account).5. System will go to the Cruise Tour Booking form, all the related orders and total amount will be displayed in this form.6. The staff presses the “Confirm Order” button, the orders will be saved into the database and the form will be gone.
Alternative flows and exceptions:	<ul style="list-style-type: none">● In step 1-2 can be repeated until the staff checks out the booking.● In step 6, staff can modify the number of tickets before confirm order. In addition, if the number of tickets is less than one, staff cannot confirm order.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Book attraction
Use case ID:	UC-080
Actor	Staff
Brief description:	After searching the attraction, the staff selects an attraction line for booking, they can click “Order” button to reserve the attraction for customer. The staff checks out the booking go to the Attraction Booking form. The staff presses the “Confirm Order” button.
Pre-conditions:	The staff need to login account.
Post-conditions:	The orders will be saved into the database.
Flow of events:	<ol style="list-style-type: none">1. include(Enquire attraction).2. Staff selects an attraction line and click the attraction photo or click “Order” button to reserve the tour for customer.3. The staff finishes search attraction and checks out the booking.4. include(Login account).5. System will go to the Attraction Booking form, all the related orders and total amount will be displayed in this form.6. The staff presses the “Confirm Order” button, the orders will be saved into the database and the form will be gone.
Alternative flows and exceptions:	<ul style="list-style-type: none">● In step 1-2 can be repeated until the staff checks out the booking.● In step 6, staff can modify the number of tickets before confirm order. In addition, if the number of tickets is less than one, staff cannot confirm order.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering

Use case name:	Enquire vehicle
Use case ID:	UC-090
Actor	Staff
Brief description:	A staff can search the vehicle by select an attraction booking.
Pre-conditions:	The staff need to login account. The customer need to book attraction.
Post-conditions:	The available vehicle will be shown.
Flow of events:	<ol style="list-style-type: none"> 1. include(Book attraction). 2. The staff clicks the Transportation Fleet Management form. All attractions booking are displayed for the staff selection. 3. Staff uses the combo box to select the attraction booking and filter other attraction booking. The system shows the filter result. 4. Staff selects an attraction booking. The system will show all available vehicle details from the Vehicle table.
Alternative flows and exceptions:	<ul style="list-style-type: none"> ● In step 4, if staff does not select an attraction booking in the first grid, there will be no data show.

Use case name:	Book transportation
Use case ID:	UC-100
Actor	Staff
Brief description:	After searching the vehicle, the staff selects a vehicle for booking. Staff can click “Book” button to book vehicle for customer. The staff selects date and presses the “Confirm” button.
Pre-conditions:	The staff need to login account. The customer need to book attraction.
Post-conditions:	The orders will be saved into the database.
Flow of events:	<ol style="list-style-type: none"> 1. include(Enquire vehicle). 2. Staff selects a vehicle details line and click “Book” button to pass the booking record to “Booking” tab. 3. The staff finishes search vehicle and click the “Booking” tab. The system shows all booked vehicle. 4. The staff selects date from “Pick-up Date” and “Drop-off Date”. The Book day and transportation charges will be shown. 5. The staff click “Confirm” button to confirm the booking. The “OK” button is able to click. 6. The staff click “OK” button for saving all transportation booking.
Alternative flows and exceptions:	<ul style="list-style-type: none"> ● In step 4, staff can select equipment for the vehicle booking

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Generate data report
Use case ID:	UC-110
Actor	Staff
Brief description:	The staff selects a customer to generate a report.
Pre-conditions:	The staff need to login account.
Post-conditions:	System generates a report for customer booking.
Flow of events:	<ol style="list-style-type: none">1. include(Login account).2. The staff selects a customer from a combo box to generate a report. The system will show all booking and fees for the particular customer.3. The staff selects a particular booking. System generates a confirmation document for the particular booking.
Alternative flows and exceptions:	<ul style="list-style-type: none">● In step 2, if the staff do not select a customer and click one of the buttons to generate the document. An error message should be prompted.● When there is no record for the particular bookings. It will show “No bookings”.

Use case name:	Generate staff graphic report
Use case ID:	UC-120
Actor	Manager
Brief description:	The manager selects a report to generate.
Pre-conditions:	The manager need to login account.
Post-conditions:	System generates a report.
Flow of events:	<ol style="list-style-type: none">1. include(Login account).2. The manager clicks the “Performance” button. All reports should be show in the Tab page.3. The manager selects a report. The system generates a graphic report.
Alternative flows and exceptions:	<ul style="list-style-type: none">● In step 2, there are many report such as “Salary and Retirement Fund”, “Top Five Sales Staff” and so on. Manager can select different report to generate.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Check work schedule
Use case ID:	UC-130
Actor	Driver
Brief description:	The driver can check their work schedule.
Pre-conditions:	The driver need to login account.
Post-conditions:	The driver's work schedule will be listed.
Flow of events:	<ol style="list-style-type: none">include(Login account).The driver presses the work schedule button to check their work. The system will show their work schedule in sequence.
Alternative flows and exceptions:	<ul style="list-style-type: none">The driver can enter the duration to filter the work schedule.

Use case name:	Froze account
Use case ID:	UC-140
Actor	Manager
Brief description:	The manager can prohibit some accounts.
Pre-conditions:	The manager need to login account.
Post-conditions:	The account that has been frozen cannot login.
Flow of events:	<ol style="list-style-type: none">include(Login account).The manager presses the account froze button to froze a staff account. The system will show list of staff account.The manager selects a staff account and then click confirm froze the account. The system will show success message. The account cannot login now.
Alternative flows and exceptions:	<ul style="list-style-type: none">The manager can enter the staff name to filter the list of staff account.The manager can select the account again and then click unfreeze the account.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering

Use case name:	Delete account
Use case ID:	UC-150
Actor	Manager
Brief description:	Managers delete some account in the staff account database during some situation
Pre-conditions:	The manager need to login account.
Post-conditions:	The account record has been removed from account database.
Flow of events:	<ol style="list-style-type: none">1. include(Login account).2. The manager presses the delete account button to delete a staff account. The system will show list of staff account.3. The manager selects a staff account and then click confirm delete the account. The system will show success message.
Alternative flows and exceptions:	<ul style="list-style-type: none">● The manager can enter the staff name to filter the list of staff account.

Use case name:	Register account
Use case ID:	UC-160
Actor	Manager
Brief description:	Managers register a new account for new staff.
Pre-conditions:	The manager need to login account.
Post-conditions:	A new staff account is created.
Flow of events:	<ol style="list-style-type: none">1. include(Login account).2. The user presses the register account button to register a staff account. The system will ask the manager to enter the information.3. The manager click "submit" button. The system confirms there is no same account exists in database.4. The system creates the account and sends an acknowledgement to the user via email.
Alternative flows and exceptions:	<ul style="list-style-type: none">● If an account already exists, the system will show a error message.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Use case name:	Retrieve password
Use case ID:	UC-170
Actor	Manager, Staff, Driver
Brief description:	The function can let the employee retriever their password
Post-conditions:	The new employee's password will update to database.
Flow of events:	<ol style="list-style-type: none"> 1. The user presses the “forgot password” button. The system asks the user to enter their personal information. 2. The user fills all information and submits. The system will send the spare password to their email. 3. User input the spare password. The system will ask the user to change the password again.
Alternative flows and exceptions:	<ul style="list-style-type: none"> ● If the personal information is invalid, the user needs to re-enter them.

Use case name:	Assign driver
Use case ID:	UC-180
Actor	Staff
Brief description:	The staff assigns a driver to drive the coach.
Pre-conditions:	The staff need to login account. The customer need to book coach
Post-conditions:	The new driver work schedule will update to database.
Flow of events:	<ol style="list-style-type: none"> 1. extend(Book transportation) 2. The staff clicks the coach booking. The system will show all available drivers in the booking day. 3. The staff selects a driver from the list box. System will show a confirmation dialog to prompt staff. 4. Staff clicks the “Confirm” button. The status will be changed to “Driver” and save it into the database.
Alternative flows and exceptions:	<ul style="list-style-type: none"> ● “Non-available” will be displayed when the customer booked an attraction with a car booking.

Use case name:	Login account
Use case ID:	UC-190
Brief description:	The user of Ticket Tailor Ltd must login the system before get the permissions for handling the customer's booking orders.
Pre-conditions:	The member must have registered with the system.
Post-conditions:	The user can use system other function.
Flow of events:	<ol style="list-style-type: none"> 1. The staff enters the staff id and password. The system verifies the email and password.
Alternative flows and exceptions:	<ul style="list-style-type: none"> ● If the staff id and the password are not valid, the user needs to re-enter them.

System Development Project

Project Scenario: Integrated Tourism Management System

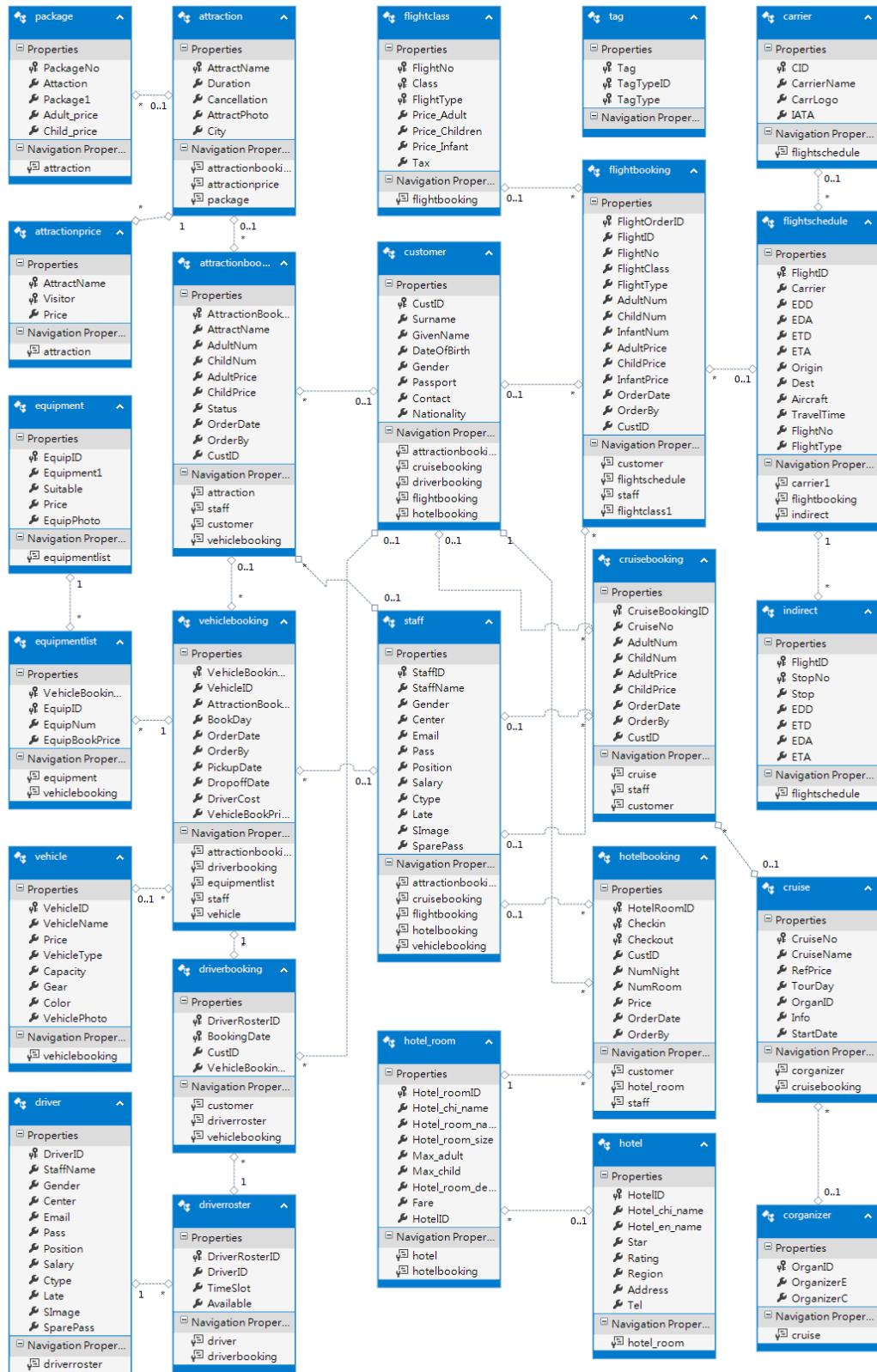
Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

8. Database Design

8.1 Entity Relationship Diagram



System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

8.2 Data Dictionary

Attraction

Name	Type	Length	Min	Max	Description
*AttractName	Alphanumeric	40	//	//	Attraction name
Duration	Alphanumeric	10	//	//	Attraction duration
Cancellation	Alphanumeric	7	//	//	Attraction charge type
AttractPhoto	Alphanumeric	40	//	//	Attraction photo
City	Alphanumeric	20	//	//	City

AttractionBooking

Name	Type	Length	Min	Max	Description
*AttractionBookingID	Integer	11	1	9(11)	Attraction booking ID
AttractName	Alphanumeric	40	//	//	Attraction name
AdultNum	Integer	11	1	9(11)	Number of adult
ChildNum	Integer	11	0	9(11)	Number of child
AdultPrice	Integer	11	0	9(11)	Adult total price
ChildPrice	Integer	11	0	9(11)	Child total price
Status	Alphanumeric	20	//	//	Transportation status
OrderDate	Date	10	01-01-2015	31-12-9999	The order date
OrderBy	Alphanumeric	10	//	//	Staff ID
CustID	Alphanumeric	4	C001	C999	Customer ID

AttractionPrice

Name	Type	Length	Min	Max	Description
*AttractName	Alphanumeric	40	//	//	Attraction name
*Visitor	Alphanumeric	5	AAAAA	ZZZZZ	Visitor type
Price	Integer	11	0	9(11)	Attraction price

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Carrier

Name	Type	Length	Min	Max	Description
*CID	Integer	11	1	9(11)	Carrier ID
CarrierName	Alphanumeric	20	//	//	Carrier name
CarrLogo	Alphanumeric	15	//	//	Carrier logo
IATA	Alphanumeric	2	AA	ZZ	International Air Transport Association code

Organizer

Name	Type	Length	Min	Max	Description
*OrganID	Integer	11	1	9(11)	Organizer ID
OrganizerE	Alphanumeric	20	//	//	Organizer English name
OrganizerC	Alphanumeric	20	//	//	Organizer Chinese name

Cruise

Name	Type	Length	Min	Max	Description
*CruiseNo	Alphanumeric	6	AAA00A	ZZZ99Z	Cruise number
CruiseName	Alphanumeric	100	//	//	Cruise name
RefPrice	Decimal	11, 2	0.00	999999.99	Cruise reference price
TourDay	Integer	11	1	9(11)	Tour day
OrganID	Integer	11	1	9(11)	Organizer ID
Info	Alphanumeric	10	AAA00A.PDF	ZZZ00Z.pdf	Cruise information
StartDate	Date	10	01-01-2015	31-12-9999	Start date

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

CruiseBooking

Name	Type	Length	Min	Max	Description
*CruiseBookingID	Integer	11	1	9(11)	Cruise booking ID
CruiseNo	Alphanumeric	6	AAA00A	ZZZ99Z	Cruise number
AdultNum	Integer	11	1	9(11)	Number of adult
ChildNum	Integer	11	0	9(11)	Number of child
AdultPrice	Integer	11	0	9(11)	Adult total price
ChildPrice	Integer	11	0	9(11)	Child total price
OrderDate	Date	10	01-01-2015	31-12-9999	Order placing date
OrderBy	Alphanumeric	10	//	//	Staff ID
CustID	Alphanumeric	4	C001	C999	Customer ID

Customer

Name	Type	Length	Min	Max	Description
*CustID	Alphanumeric	4	C001	C999	Customer ID
Surname	Alphanumeric	10	//	//	Customer surname
GivenName	Alphanumeric	30	//	//	Customer given name
DateOfBirth	Date	10	01-01-1800	99-99-9999	Date of birth
Gender	Alphanumeric	1	A	Z	Gender
Passport	Alphanumeric	9	//	//	Customer passport ID
Contact	Integer	8	00000000	99999999	Customer telephone number
Nationality	Alphanumeric	20	//	//	Customer nationality

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Driver

Name	Type	Length	Min	Max	Description
*DriverID	Alphanumeric	10	//	//	Driver ID
StaffName	Alphanumeric	30	//	//	Driver name
Gender	Alphanumeric	1	A	Z	Gender
Center	Alphanumeric	2	AA	ZZ	Center
Email	Alphanumeric	50	//	//	Email address
Pass	Integer	40	000000	9(40)	Password (SHA-1)
Position	Alphanumeric	30	//	//	Position
Salary	Decimal	11	0.00	99999.99	Salary
Ctype	Alphanumeric	10	//	//	Position type
Late	Integer	3	1	999	Late times
SImage	Alphanumeric	10	//	//	Staff Image
SparePass	Alphanumeric	40	000000	9(40)	Spare Password (SHA-1)

DriverBooking

Name	Type	Length	Min	Max	Description
*DriverRosterID	Integer	11	1	9(11)	Driver Roster ID
BookingDate	Date	10	01-01-2015	31-12-9999	Booking Date
CustID	Alphanumeric	4	C001	C999	Customer ID
VehicleBookingID	Integer	11	A(11)	Z(11)	Vehicle Booking ID

DriverRoster

Name	Type	Length	Min	Max	Description
*DriverRosterID	Integer	11	1	9(11)	Driver Roster ID
DriverID	Alphanumeric	10	//	//	Driver ID
TimeSlot	Integer	11	1	9(11)	Timeslot
Available	Alphanumeric	7	AAAAAAA	ZZZZZZZ	Available time

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Equipment

Name	Type	Length	Min	Max	Description
*EquipID	Alphanumeric	3	e01	e99	Equipment ID
Equipment	Alphanumeric	50	//	//	Equipment name
Suitable	Alphanumeric	10	//	//	Suitable vehicle
Price	Decimal	11, 2	0.00	999.99	Equipment price
EquipPhoto	Alphanumeric	7	e01.png	e99.png	Equipment photo

EquipmentList

Name	Type	Length	Min	Max	Description
*VehicleBookingID	Integer	11	1	9(11)	Vehicle booking ID
EquipID	Alphanumeric	3	e01	e99	Equipment ID
EquipNum	Integer	11	1	9(11)	Equipment number
EquipBookPrice	Decimal	6	0.00	999.99	Equipment price

FlightBooking

Name	Type	Length	Min	Max	Description
*FlightOrderID	Integer	11	1	9(11)	Flight order ID
FlightID	Integer	11	1	9(11)	Flight ID
FlightNo	Alphanumeric	6	//	//	Flight number
FlightClass	Alphanumeric	8	//	//	Flight class
FlightType	Alphanumeric	8	//	//	Flight type
AdultNum	Integer	11	1	9(11)	Number of adult
ChildNum	Integer	11	0	9(11)	Number of child
InfantNum	Integer	11	0	9(11)	Number of infant
AdultPrice	Decimal	11, 2	0.00	999999.99	Adult total price
ChildPrice	Decimal	11, 2	0.00	999999.99	Child total price
InfantPrice	Decimal	11, 2	0.00	999999.99	Infant total price
OrderDate	Date	10	01-01-2015	31-12-9999	Flight order date
OrderBy	Alphanumeric	10	//	//	Staff ID
CustID	Alphanumeric	4	C001	C999	Customer ID

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

FlightClass

Name	Type	Length	Min	Max	Description
*FlightNo	Alphanumeric	6	//	//	Flight number
*Class	Alphanumeric	8	//	//	Flight class
*FlightType	Alphanumeric	8	//	//	Flight type
Price_Adult	Decimal	11, 2	0.00	99999.99	Adult price of the flight class
Price_Children	Decimal	11, 2	0.00	99999.99	Child price of the flight class
Price_Infant	Decimal	11, 2	0.00	99999.99	Infant price of the flight class
Tax	Decimal	11, 2	0.00	999.00	Flight tax

FlightSchedule

Name	Type	Length	Min	Max	Description
*FlightID	Integer	11	1	9(11)	Flight ID
Carrier	Integer	11	1	9(11)	Carrier ID
EDD	Date	10	01-01-2015	31-12-9999	Estimated date of departure
EDA	Date	10	01-01-2015	31-12-9999	Estimated date of arrival
ETD	Time	5	00:00	23:59	Estimated time of departure
ETA	Time	5	00:00	23:59	Estimated time of arrival
Origin	Alphanumeric	3	AAA	ZZZ	Origin
Dest	Alphanumeric	3	AAA	ZZZ	Destination
Aircraft	Alphanumeric	8	//	//	Aircraft number
TravelTime	Alphanumeric	11	//	//	Travel time
FlightNo	Alphanumeric	6	//	//	Flight number
FlightType	Alphanumeric	8	//	//	Flight type

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Hotel

Name	Type	Length	Min	Max	Description
*HotelID	Integer	11	1	9(11)	Hotel ID
Hotel_chi_name	Alphanumeric	20	//	//	Hotel Chinese name
Hotel_en_name	Alphanumeric	60	//	//	Hotel English name
Star	Decimal	2, 1	0.0	5.0	Star level
Rating	Decimal	2, 1	3.0	5.0	Rating
Region	Alphanumeric	50	//	//	Hotel area
Address	Alphanumeric	100	//	//	Hotel address
Tel	Integer	8	00000000	99999999	Hotel telephone number

HotelBooking

Name	Type	Length	Min	Max	Description
*HotelRoomID	Integer	11	1	9(11)	Hotel room ID
Checkin	DateTime	16	01-01-2015 00:00	31-12-9999 23:59	Check in date and time
Checkout	DateTime	16	01-01-2015 00:00	31-12-9999 23:59	Check out date and time
*CustID	Alphanumeric	4	C001	C999	Customer ID
NumNight	Integer	3	1	999	Number of night
NumRoom	Integer	2	1	99	Number of room
Price	Decimal	11, 2	0.00	99999.99	Hotel room price
OrderDate	Date	10	01-01-2015	31-12-9999	Order room date
OrderBy	Alphanumeric	10	//	//	Staff ID

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Hotel_room

Name	Type	Length	Min	Max	Description
*Hotel_roomID	Integer	11	1	9(11)	Hotel room ID
Hotel_chi_name	Alphanumeric	20	//	//	Hotel Chinese name
Hotel_room_name	Alphanumeric	60	//	//	Hotel room name
Hotel_room_size	Alphanumeric	7	//	//	Hotel room size
Max_adult	Integer	11	1	9(11)	Maximum number of adult
Max_child	Integer	11	0	9(11)	Maximum number of child
Hotel_room_description	Alphanumeric	20	//	//	Hotel room description
Fare	Decimal	11, 2	0.00	99999.99	Hotel room fare
HotelID	Integer	11	1	9(11)	Hotel ID

Indirect

Name	Type	Length	Min	Max	Description
*FlightID	Integer	11	1	9(11)	Flight ID
*StopNo	Integer	2	1	9(11)	Flight stop number
Stop	Alphanumeric	3	AAA	ZZZ	Flight stop name
EDD	Date	10	01-01-2015	31-12-9999	Estimated date of departure
ETD	Time	5	00:00	23:59	Estimated time of departure
EDA	Date	10	01-01-2015	31-12-9999	Estimated date of arrival
ETA	Time	5	00:00	23:59	Estimated time of arrival

Package

Name	Type	Length	Min	Max	Description
*PackageNo	Integer	11	1	9(11)	Package number
Attraction	Alphanumeric	40	//	//	Attraction name
Package	Alphanumeric	15	//	//	Package type
Adult_price	Integer	11	0	9(11)	Adult price
Child_price	Integer	11	0	9(11)	Child price

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Staff

Name	Type	Length	Min	Max	Description
*StaffID	Alphanumeric	10	//	//	Staff ID
StaffName	Alphanumeric	30	//	//	Staff name
Gender	Alphanumeric	1	A	Z	Gender
Center	Alphanumeric	4	AA01	ZZ99	Center
Email	Alphanumeric	50	//	//	Email address
Pass	Integer	40	000000	999999	Password (SHA-1)
Position	Alphanumeric	30	//	//	Position
Salary	Decimal	8	0.00	99999.99	Salary
Ctype	Alphanumeric	10	//	//	Position type
Late	Integer	3	1	999	Late times
SImage	Alphanumeric	10	//	//	Staff image
SparePass	Alphanumeric	40	000000	999999	Spare Password (SHA-1)

Tag

Name	Type	Length	Min	Max	Description
*Tag	Integer	11	0	9(11)	Number of number tag
TagTypeID	Integer	11	//	//	Tag type ID
TagType	Alphanumeric	50	//	//	Tag type

Vehicle

Name	Type	Length	Min	Max	Description
*VehicleID	Alphanumeric	5	car01	car99	Vehicle ID
VehicleName	Alphanumeric	60	//	//	Vehicle name
Price	Decimal	11, 2	0.00	999.99	Booking price
VehicleType	Alphanumeric	10	//	//	Vehicle type
Capacity	Integer	11	1	9(11)	Vehicle sitting size
Gear	Alphanumeric	5	//	//	Gear type
Color	Alphanumeric	30	//	//	Vehicle color
VehiclePhoto	Alphanumeric	9	car01.AAA	car99.ZZZ	Vehicle photo

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering

VehicleBooking

Name	Type	Length	Min	Max	Description
*VehicleBookingID	Integer	11	1	9(11)	Vehicle booking ID
VehicleID	Alphanumeric	5	car01	car99	Vehicle ID
AttractionBookingID	Integer	11	1	9(11)	Attraction booking ID
BookDay	Date	11	01-01-2015	31-12-9999	Book vehicle date
OrderDate	Date	10	01-01-2015	31-12-9999	Order vehicle date
OrderBy	Alphanumeric	10	//	//	Staff ID
PickupDate	Date	10	01-01-2015	31-12-9999	Pick-up date
DropoffDate	Date	10	01-01-2015	31-12-9999	Drop-off date
DriverCost	Integer	11, 2	1	999999999 99.99	Driver cost
VehicleBookPrice	Decimal	11, 2	0.00	999999999 99.99	Vehicle book total price

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

9. Benefits

To work the new system, it will be easier to do sales transactions because the staff does not have to worry about saving the transaction. Along with the user-friendly layout which will keep company morale high and help new employees get use to the system. At the same time, the introduction of the new system process will also make company look more professional against competitors.

The new system will enable the users to process tasks quicker and with greater ease. Meaning the new system will have a whole new stock control database. This will definitely improve the time taken to search for a specific product which will mean more customers are attended too. With the permission of different user, this will be an effective feature of the data management of huge data. For example, when a staff transaction is made it will be recorded so if errors arise in human error with sales transactions the system can check to see who carried out the sales transaction.

10. Constraints and Limitations

The current system of Ticket Tailor is slow in terms of processing tasks. When a lot of customers are present it is very time consuming to look for individual products because of the large stock room. This means fewer sales transactions are completed so overall there is less profit being made. To solve this issue, the primary task is control the execution time on module form.

For the constraints and limitations in the integrated tourism management system can divided into two categories, confusion data and the system compatibility. For the problem of confusion, the original data source of the information imperfect for implementation. For example, some data is taking up a lot of space which can be used for other things which is un-efficient. Also, when a customer comes searching information in the customer service center at retail store that it is time consuming and some of the details will be overlooked. And for the problem of system compatibility, because of using Microsoft Visual Studio for building C# windows form that it is problem of sustainable development by using another operating system because it only suitable for the operating system of Microsoft Windows.

System Development Project

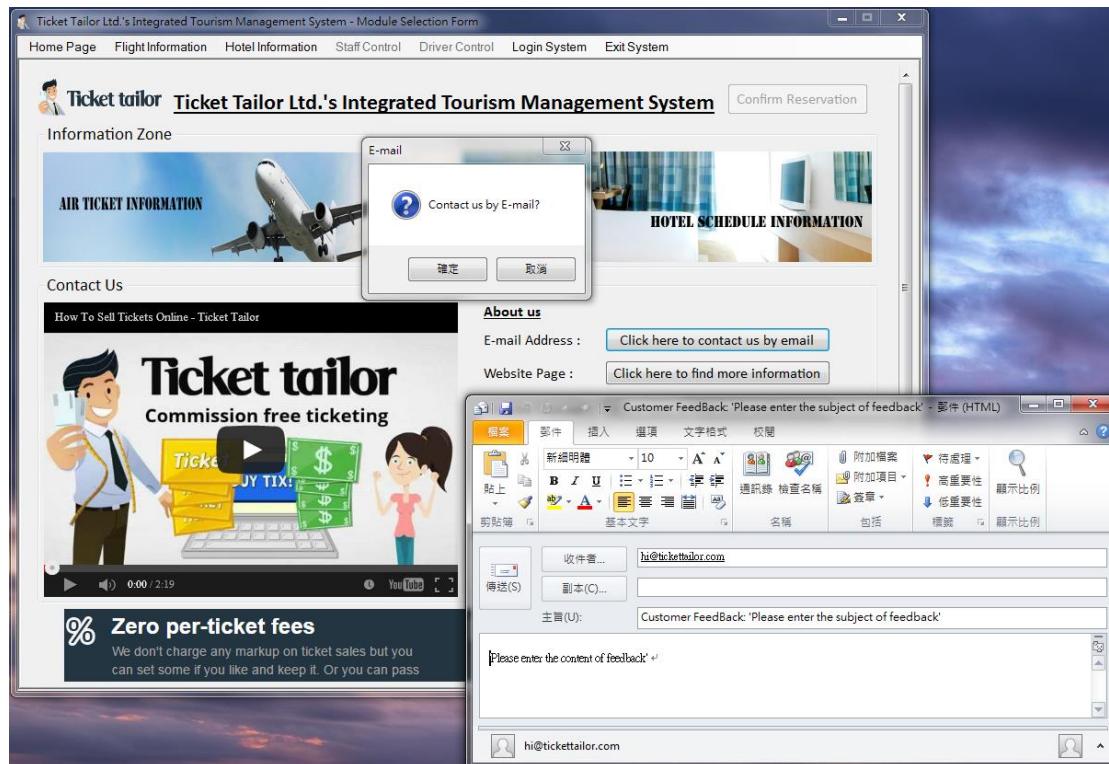
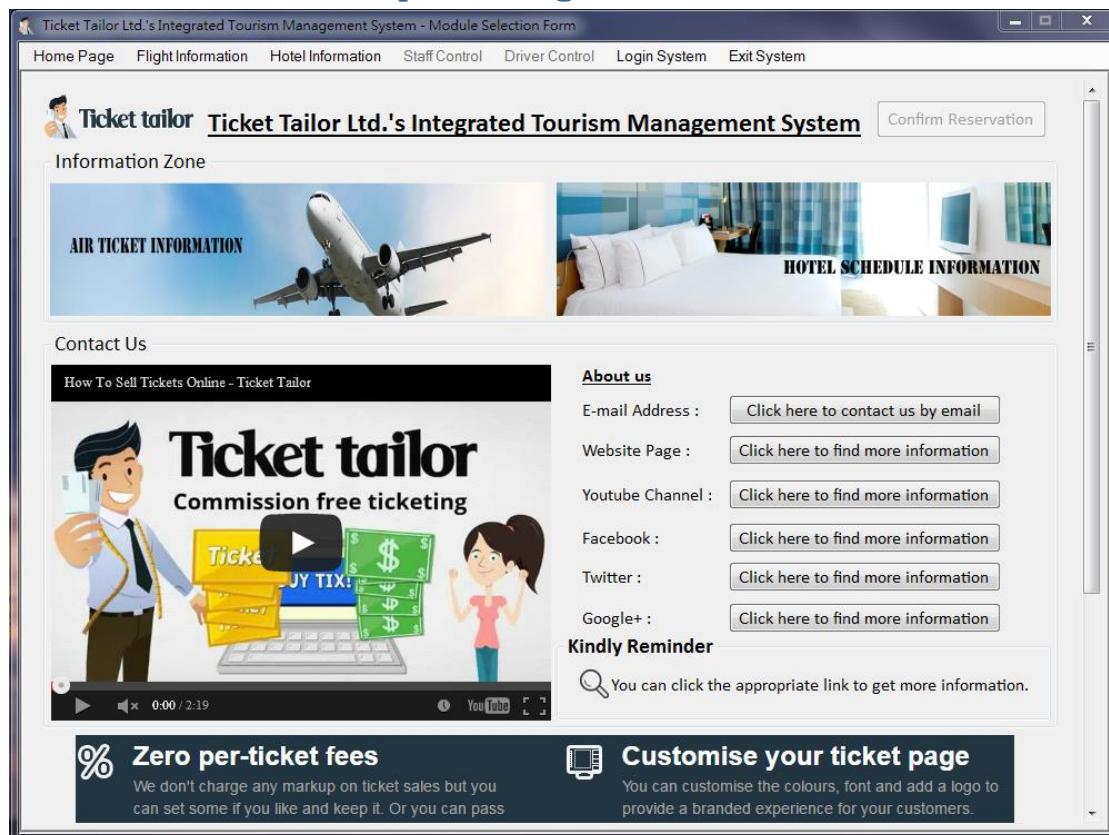
Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

11. User Interface and Report Design



- Home Page with the Multiple-Document Interface (MDI) Applications Control.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor **Ticket Tailor Ltd.'s Integrated Tourism Management System**

Staff Login Console

Please fill in the from with your staff information.

User ID: admin MR. Chan Siu Ming
Password:

[Forgot Password? Enter your username and press here.](#)

Successful Message

Login successful. Welcome, Chan Siu Ming !

Clock: 28/6/2016 下午 11:46:30 Timer: 1 days left

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor

Number Tag Confirmation
Number Tag :

Personal Schedule
 Coming Soon

Driver Roster

Sign Out

Do you want to sign out this user account?

Personal Information

Late :	<input type="text" value="1"/>
Staff ID :	<input type="text" value="admin"/>
Name :	<input type="text" value="Chan Siu Ming"/>
Gender :	<input type="text" value="M"/>
E-mail :	<input type="text" value="ming@tt.com"/>
Center :	<input type="text" value="AM01"/>
Position :	<input type="text" value="Administrator"/>

System Message

The portable system application will joint cooperation with Instagram.

Payment method pause operation for recover the huge data volume.

Please rember the new yacht service will provide in this November.

Kindly Reminder

Good attitude will provide good service.

Clock: 28/6/2016 下午 11:47:47 Timer: -11 days left Status: Login Successful

- Login module and the staff console module.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor

Create Account Console

Please fill in the from with staff information.

User ID (Staff ID) :	Testing1
Full Name (Staff Name) :	This is Test
Gender :	M
Center :	MK01
Email Address :	Testing
Password :	Testing
Position :	Customer Service Officer
Type :	Officer
Salary :	0
Late :	0

Confirm Arrangement

Do you confirm the above arrangement?

是(Y) 否(N)

Kindly Reminder

The data of some column will default by 0 and it will handle in database.

Confirm Arrangement Close

tickettailor_db_group6

依主鍵排序: 無

	StaffID	StaffName	Gender	Center	Email	Pass	Position	Salary	Ctype	Late	SImage	SparePass
admin	Chan Siu Ming	M	AM01	ming@tt.com	d033e22ae348aeb5660fc2140aec35850c4da997	Administrator	10000.00	Admin	1	SMing.jpg	NULL	
cheong1	Lam Sin Cheong	M	ST02	cheong@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	13500.00	Officer	3	Cheong.jpg	NULL	
fai1	Siu Yeo Fai	M	MK01	fai@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	18800.00	Officer	5	Fai.jpg	NULL	
fan1	Tang Cheuk Fan	M	ST01	fan@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	23000.00	Officer	20	Fan.jpg	NULL	
han1	Chan Yuen Han	F	TS01	han@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	22500.00	Officer	3	Han.jpg	NULL	
kam1	Yuk Siu Kam	F	ST01	kam@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Center Manager	29000.00	Officer	5	Kam.jpg	NULL	
kuen1	Leung Siu Kuen	M	TW01	kuen@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Center Manager	30000.00	Officer	5	Kuen.jpg	NULL	
lung1	Kam Hiu Lung	M	TS01	lung@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	16600.00	Officer	8	Lung.jpg	NULL	
ming1	Cheung Ming	M	MK01	ming@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	12500.00	Officer	10	Ming.jpg	NULL	
ning1	Leung Chin Ning	F	TW01	ning@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	18200.00	Officer	25	Ning.jpg	NULL	
on1	Lam Hin On	M	ST02	on@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Center Manager	28500.00	Officer	4	On.jpg	NULL	
shun1	Chan Tai Shun	M	TS01	shun@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	22000.00	Officer	6	Shun.jpg	NULL	
tak1	Au Siu Tak	M	MK01	tak@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	12800.00	Officer	6	Tak.jpg	NULL	
Testing1	This is Test	M	MK01	Testing	0820632b206b73528650e8903a838ed14319acdff	Customer Service Officer	0.00	Officer	0	Staff.jpg	NULL	
yum1	Chan See Yum	F	ST01	yum@tt.com	7c4a8d09ca3762af61e59520943dc26494f8941b	Customer Service Officer	14000.00	Officer	2	yum.jpg	NULL	

Please fill in the from with your staff information.

User ID:	Testing1	MR. This is Test
Password:	*****	
<input type="button" value="Submit"/> <input type="button" value="Cancel"/> Forgot Password? Enter your username and press here.		

Successful Message

Login successful. Welcome, This is Test!

確定

Personal Information

Staff ID :	Testing1
Name :	This is Test
Gender :	M
E-mail :	Testing
Center :	MK01
Position :	Customer Service Officer




- The demonstration of create user account by admin.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor
Air Ticket

Search Console

Flight ID :	All	Carrier :	All	Origin :	HKG	Destination :	TPE	Aircraft :	All
Estimated Date Of Arrival (EDA) :	20 - 05 - 2016	Flight No. :	All	Flight Type :	All				
Estimated Date Of Departure (EDD) :	10 - 07 - 2016	Travel Time :	0	h	0	m			
Estimated Time Of Departure (ETD) :	04:19	Keywords :	Please enter keywords for search ...						
Estimated Time Of Arrival (ETA) :	04:19	<input type="button" value="Search"/> <input type="button" value="Reset"/>							

Flight ID	IATA	Origin	Destination	Aircraft	Estimated Date Of Departure	Estimated Time Of Departure	Estimated Date Of Arrival	Estimated Time Of Arrival
1	CI	HKG	TPE	747-400	20/6/2015 上午 1...	10:15:00	20/6/2015 上午 1...	11:55:00
2	CI	HKG	TPE	A330-300	20/6/2015 上午 1...	13:25:00	20/6/2015 上午 1...	15:05:00
3	CI	HKG	TPE	A330-300	20/6/2015 上午 1...	17:35:00	20/6/2015 上午 1...	19:15:00
4	BR	HKG	TPE	A330-300	22/6/2015 上午 1...	17:00:00	22/6/2015 上午 1...	18:45:00
5	BR	HKG	TPE	A330-300	22/6/2015 上午 1...	20:55:00	22/6/2015 上午 1...	22:40:00
6	BR	HKG	TPE	A330-300	23/6/2015 上午 1...	19:25:00	23/6/2015 上午 1...	21:10:00
7	CX	HKG	TPE	A330-300	20/6/2015 上午 1...	12:15:00	20/6/2015 上午 1...	14:15:00
8	CX	HKG	TPE	A330-300	20/6/2015 上午 1...	13:10:00	20/6/2015 上午 1...	15:05:00
9	CX	HKG	TPE	A330-300	22/6/2015 上午 1...	14:55:00	22/6/2015 上午 1...	16:45:00
10	CX	HKG	TPE	A330-300	22/6/2015 上午 1...	16:25:00	22/6/2015 上午 1...	18:15:00
...

FlightNo	Class	FlightType	Adult Price	Children Price	Infant Price	Tax
CI602	Business	Direct	2999.00	2999.00	500.00	7.50
CI602	Econ	Direct	999.00	746.00	500.00	7.50

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Search Console

Flight ID :	All	Carrier :	All	Origin :	HKG	Destination :	TPE	Aircraft :	All
Estimated Date Of Arrival (EDA) :	20 - 05 - 2016	Flight No. :	All	Flight Type :	All				
Estimated Date Of Departure (EDD) :	10 - 07 - 2016	Travel Time :	0	h	0	m			
Estimated Time Of Departure (ETD) :	04:19	Keywords :	Please enter keywords for search ...						
Estimated Time Of Arrival (ETA) :	04:19	<input type="button" value="Search"/> <input type="button" value="Reset"/>							

Flight ID	IATA	Origin	Destination	Aircraft	Estimated Date Of Departure	Estimated Time Of Departure	Estimated Date Of Arrival	Estimated Time Of Arrival
1	CI	HKG	TPE	747-400	20/6/2015 上午 1...	10:15:00	20/6/2015 上午 1...	11:55:00
2	CI	HKG	TPE	A330-300	20/6/2015 上午 1...	13:25:00	20/6/2015 上午 1...	15:05:00
3	CI	HKG	TPE	A330-300	20/6/2015 上午 1...	17:35:00	20/6/2015 上午 1...	19:15:00
4	BR	HKG	TPE	A330-300	22/6/2015 上午 1...	7:00:00	22/6/2015 上午 1...	18:45:00
5	BR	HKG	TPE	A330-300	22/6/2015 上午 1...	0:55:00	22/6/2015 上午 1...	22:40:00
6	BR	HKG	TPE	A330-300	23/6/2015 上午 1...	9:25:00	23/6/2015 上午 1...	21:10:00
7	CX	HKG	TPE	A330-300	20/6/2015 上午 1...	2:15:00	20/6/2015 上午 1...	14:15:00
8	CX	HKG	TPE	A330-300	20/6/2015 上午 1...	3:10:00	20/6/2015 上午 1...	15:05:00
9	CX	HKG	TPE	A330-300	22/6/2015 上午 1...	4:55:00	22/6/2015 上午 1...	16:45:00
10	CX	HKG	TPE	A330-300	22/6/2015 上午 1...	6:25:00	22/6/2015 上午 1...	18:15:00
...

FlightNo	Class	FlightType	Adult Price	Children Price	Infant Price	Tax
CI602	Business	Direct	2999.00	2999.00	500.00	7.50
CI602	Econ	Direct	999.00	746.00	500.00	7.50

Kindly Reminder

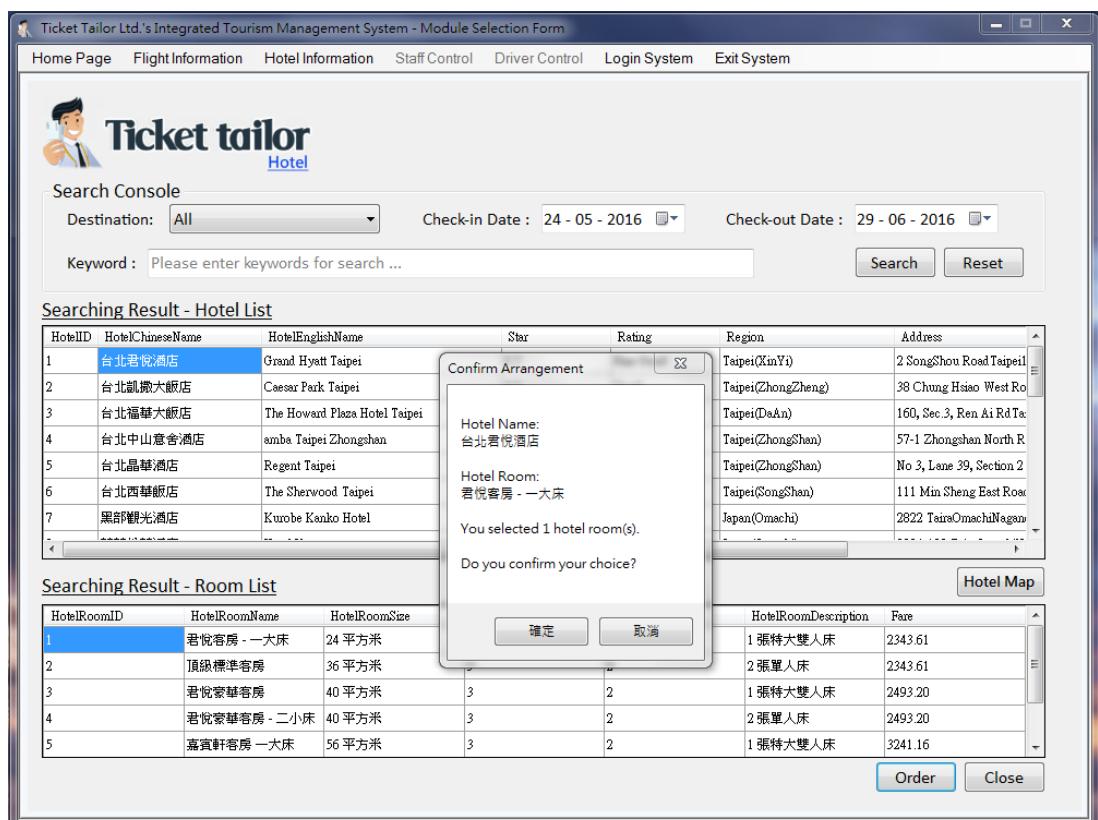
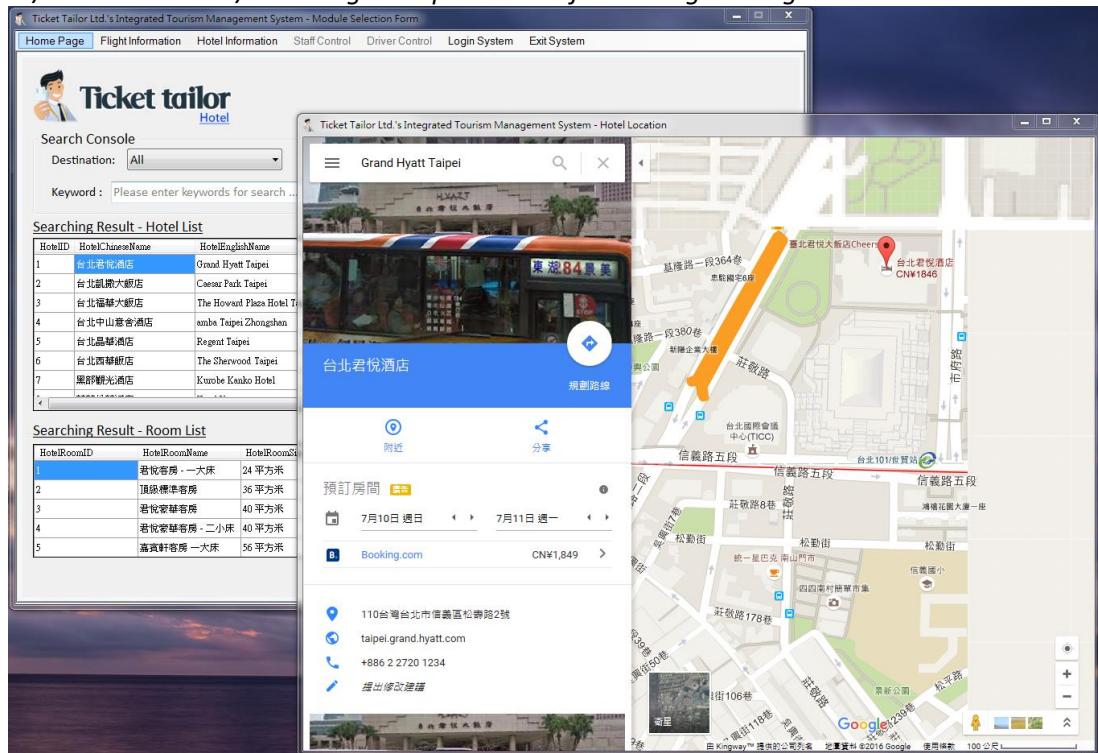
You should select the choice of air ticket before choosing hotel.

- Searching & Booking process in customer view – Flight Searching and Booking.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho
 Student Number: 150533022, 150032356, 150321559, 150031347
 Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering



- Searching & Booking process in customer view – Hotel Searching and Booking.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor **Ticket Tailor Ltd.'s Integrated Tourism Management System** **Confirm Reservation**

Information Zone

AIR TICKET INFORMATION HOTEL SCHEDULE INFORMATION

Contact Us

How To Sell Tickets Online - Ticket Commission

Tick Commission

Please take this number tag to customer services counter for reserve services.

Print Number Tag

Google+ Click here to find more information

Kindly Reminder

You can click the appropriate link to get more information.

Zero per-ticket fees We don't charge any markup on ticket sales but you can set some if you like and keep it. Or you can pass

Customise your ticket page You can customise the colours, font and add a logo to provide a branded experience for your customers.

Staff Control Driver Control Login System Exit System

Number Tag Confirmation

Number Tag : **7** Handle Confirm Reservation

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor **Air + Hotel Saver**

Number Tag : **7**

Flight ID	Flight No	Flight Type	EDA	EDD	ETA	ETD	Carrier	Dest
1	CI602	Direct	2015-06-20	2015-06-20	11:55:00	10:15:00	中華航空	HKG

Air Ticket

Class : Econ Adult Price : 999 Adult Tax: 74.92 Person : 1 Subtotal = 3223.92

Child Price : 746 Child Tax: 55.95 Person : 0

Infant Price : 500 Infant Tax: 37.5 Person : 0

Confirm Arrangement

Do you Confirm the above reservation?

是(Y) 否(N)

Hotel

Check-in Date : 29 - 06 - 2016 Check-out Date : 30 - 06 - 2016 Subtotal = 2343.61

Price : 2343.61 Night : 1 Bundle discount(\$150) 150 OK

Grand total = HK\$5,417.53

Confirm Order Cancel Order Back

- Confirm booking in staff view.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor

Customer Booking Apply

Please fill in the form with customer information.

Customer ID : C001

Last Name : SE

First Name : SE

Date Of Birth : 29 - 06 - 2016

Gender : M

Passport : S12345678

Contact : 12345678

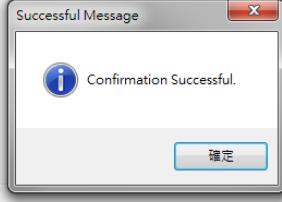
Nationality : Chinese

Successful Message

Confirmation Successful.

確定

Confirm Arrangement Close



tickettailor_db_group6

依主鍵排序: 無

+ 選項

	CustID	Surname	GivenName	DateOfBirth	Gender	Passport	Contact	Nationality
<input type="checkbox"/>	C001	Chan	Chi Ming	1982-03-15	M	F1842154	95215852	Chinese
<input type="checkbox"/>	C002	Wong	Chun Tin	1991-03-31	F	G6645132	96254685	Chinese
<input type="checkbox"/>	C003	Tang	Tai Chi	1979-09-24	M	T2165158	91254854	Chinese
<input type="checkbox"/>	C004	Man	Chi Kuen	1952-01-18	M	G2514144	92548475	Chinese
<input type="checkbox"/>	C005	Lee	Man Tao	1983-04-16	M	A1254855	92165845	Chinese
<input type="checkbox"/>	C006	Leung	Shun Yee	1991-02-19	F	B1215485	91236545	Chinese
<input type="checkbox"/>	C007	Lee	Ka Man	1998-06-05	F	R2315845	92548548	Chinese
<input type="checkbox"/>	C008	Lung	Chi Kin	1985-12-06	M	R1254856	97584254	Chinese
<input type="checkbox"/>	C009	Chan	Siu Dong	1973-08-19	M	G6584251	94652514	Chinese
<input type="checkbox"/>	C010	Cheung	Tai Tim	1978-08-17	M	J56698452	94521575	Chinese
<input type="checkbox"/>	C011	Fung	Chi Tak	1977-02-15	M	T15515155	96251675	Chinese
<input type="checkbox"/>	C012	Chan	Man Sheung	1976-06-18	F	F21251515	95462415	Chinese
<input checked="" type="checkbox"/>	C013	SE	SE	2016-06-29	M	S12345678	12345678	Chinese

✓ 27 1 C1602 Econ Direct 1 0 0 1073.92 55.95 37.50 2016-06-29 admin C013

✓ 1 2016-06-29 2016-06-30 C013 1 1 2343.61 2016-06-29 admin

- The demonstration of the successful air ticket and hotel booking confirmation.

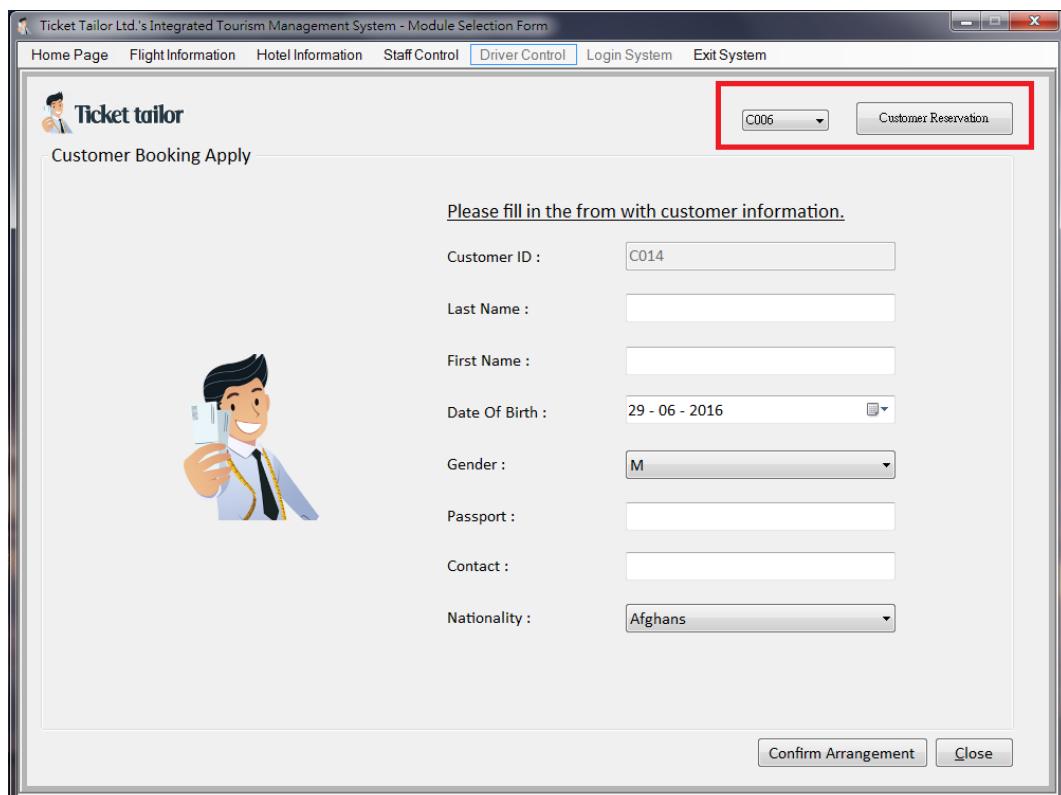
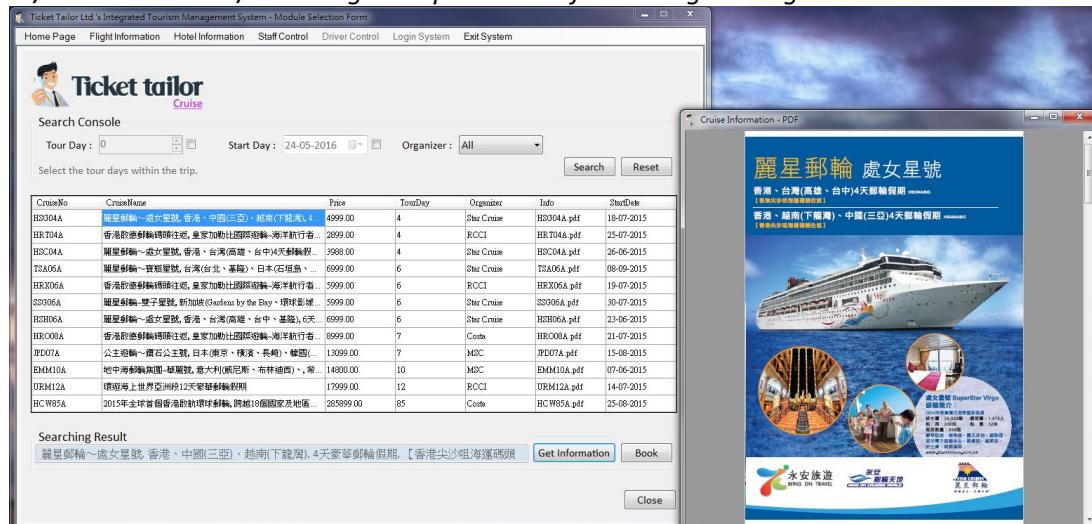
System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering



依主鍵排序: 無										
+ 選項		CruiseBookingID	CruiseNo	AdultNum	ChildNum	AdultPrice	ChildPrice	OrderDate	OrderBy	CustID
<input type="checkbox"/>		1	EMM10A	3	2	44400	29600	2016-04-04	han1	C002
<input type="checkbox"/>		2	HRO08A	4	6	35996	32394	2016-06-28	admin	C009
<input type="checkbox"/>		3	EMM10A	6	1	88800	8880	2016-06-25	admin	C005
<input type="checkbox"/>		4	HSH06A	9	0	62991	0	2016-06-22	admin	C012
<input checked="" type="checkbox"/>		5	HSG04A	1	0	4999	0	2016-06-29	admin	C006

- The demonstration of the successful cruise booking confirmation.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor
Attraction

Search Console

City : Tokyo Keyword :

Searching Result

		Cancellation:	Price
		Free	HK\$300 / Adult
	Name: DisneySea Admission	City: Tokyo	Price
	Duration: 10h	HK\$300	/ Child
	Cancellation: Free	HK\$400	/ Adult
		Name: MountFuji Lake Ashi	City: Tokyo
		Duration: 10h30m	Price
		HK\$130	/ Child

Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form

Home Page Flight Information Hotel Information Staff Control Driver Control Login System Exit System

Ticket tailor
Attraction

Booking Console

Attraction Name :

City : Duration : Cancellation :

Number of Adult : Ticket Price : SubTotal of Adult :

Number of Child : Ticket Price : SubTotal of Child :

Attraction Photo

Confirm Arrangement

Do you Confirm the above reservation?

是(Y) 否(N)

Grand total =

- The attraction searching and booking process in staff view.

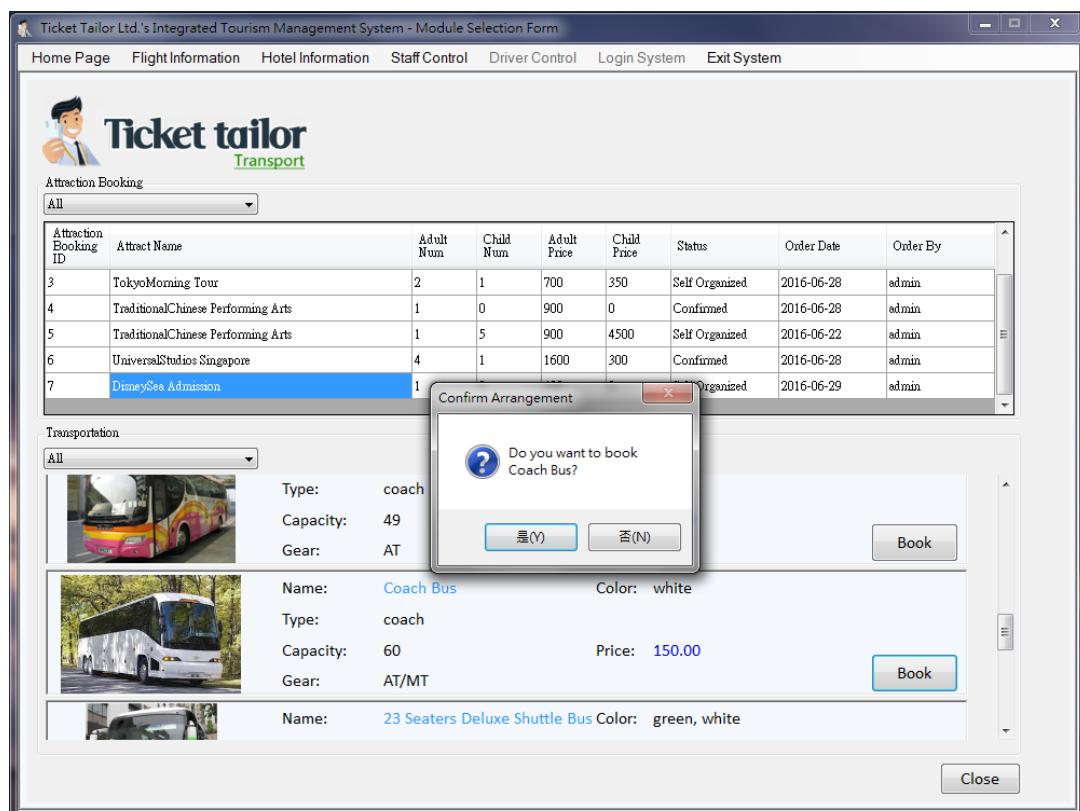
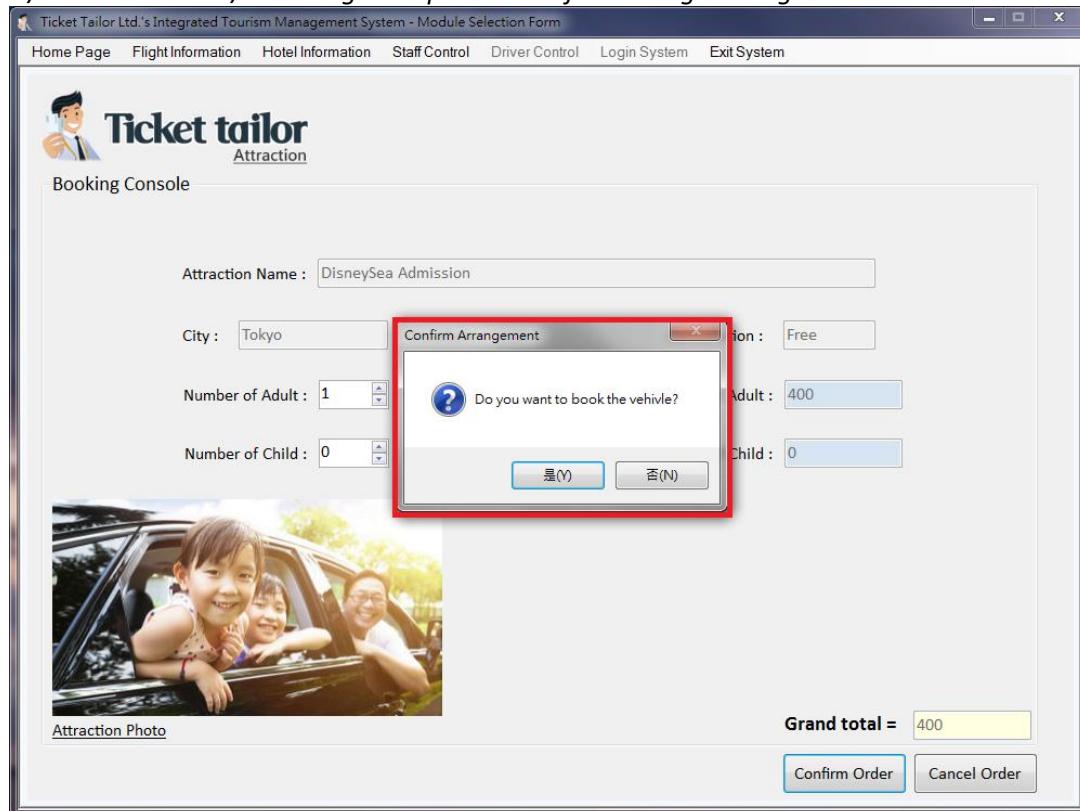
System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering



- The vehicle booking process in staff view.

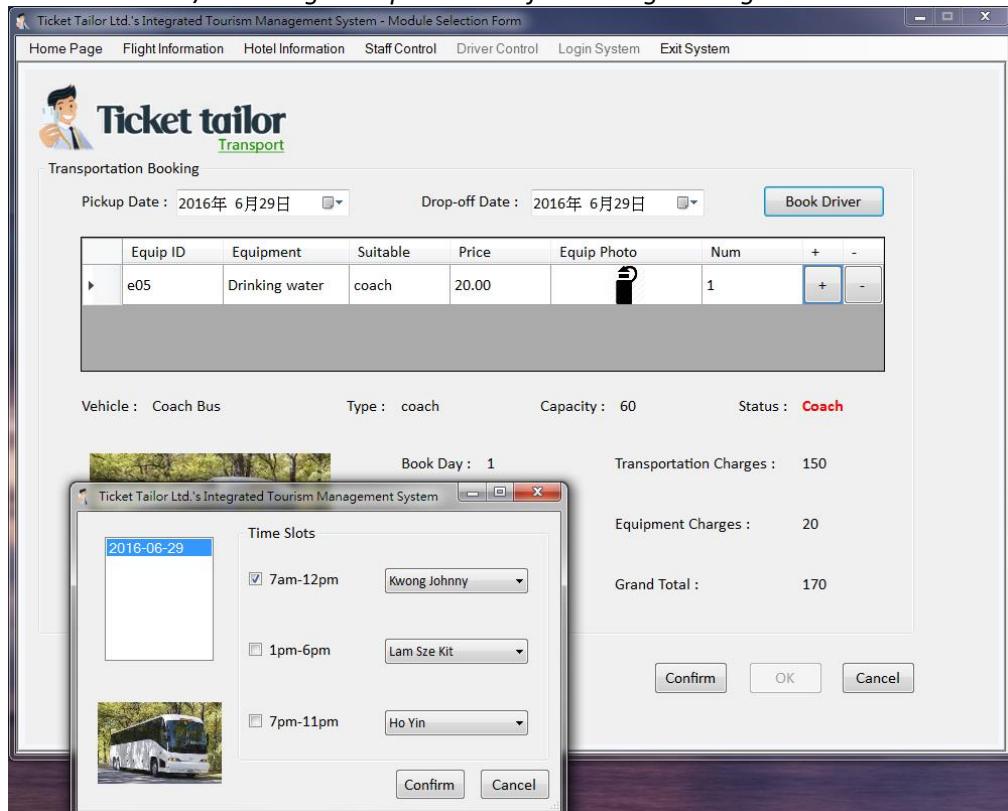
System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering



Attraction Booking Details											
+ 選項											
	AttractionBookingID	AttractionName	AdultNum	ChildNum	AdultPrice	ChildPrice	Status	OrderDate	OrderBy	CustID	
<input type="checkbox"/>	1	Disneyland Admission	2	3	600	600	Confirmed	2016-11-14	fail	C005	
<input type="checkbox"/>	2	Yangmingshan National Park	4	1	2400	400	Confirmed	2016-06-25	admin	C005	
<input type="checkbox"/>	3	TokyoMorning Tour	2	1	700	350	Self Organized	2016-06-28	admin	C003	
<input type="checkbox"/>	4	TraditionalChinese Performing Arts	1	0	900	0	Confirmed	2016-06-28	admin	C011	
<input type="checkbox"/>	5	TraditionalChinese Performing Arts	1	5	900	4500	Self Organized	2016-06-22	admin	C012	
<input type="checkbox"/>	6	UniversalStudios Singapore	4	1	1600	300	Confirmed	2016-06-28	admin	C008	
<input checked="" type="checkbox"/>	7	Disney Sea Admission	1	0	400	0	Confirmed	2016-06-29	admin	C009	

Vehicle Booking Details											
←→											
	VehicleBookingID	VehicleID	AttractionBookingID	BookDay	OrderDate	OrderBy	PickupDate	DropoffDate	DriverCost	VehicleBookPrice	
<input type="checkbox"/>	1	car07	1	1	2015-11-14	fail	2015-11-20	2015-11-20	900.00	998.00	
<input type="checkbox"/>	2	car01	2	1	2016-06-28	admin	2016-06-28	2016-06-28	0.00	26.94	
<input type="checkbox"/>	3	car08	4	1	2016-06-28	admin	2016-06-28	2016-06-28	2400.00	150.00	
<input type="checkbox"/>	4	car12	6	3	2016-06-28	admin	2016-06-28	2016-06-30	2500.00	300.00	
<input checked="" type="checkbox"/>	5	car08	7	1	2016-06-29	admin	2016-06-29	2016-06-29	800.00	150.00	

Driver Roster Details											
←→											
	DriverRosterID	BookingDate	CustID	VehicleBookingID		VehicleBookingID	EquipID	EquipNum	EquipBookPrice		
<input type="checkbox"/>	1	2015-11-20	C005	1	<input type="checkbox"/>	1	e03	2	157.60		
<input type="checkbox"/>	1	2016-06-28	C008	4	<input type="checkbox"/>	2	e01	3	85.80		
<input type="checkbox"/>	3	2016-06-28	C011	3	<input type="checkbox"/>	2	e02	2	143.20		
<input checked="" type="checkbox"/>	3	2016-06-29	C009	5	<input type="checkbox"/>	2	e03	2	157.60		
<input type="checkbox"/>	6	2016-06-28	C008	4	<input type="checkbox"/>	3	e05	2	40.00		
<input type="checkbox"/>	8	2016-06-28	C011	3	<input type="checkbox"/>	4	e05	2	40.00		
<input type="checkbox"/>	9	2016-06-28	C008	4	<input type="checkbox"/>	5	e05	1	20.00		
<input type="checkbox"/>	11	2016-06-28	C011	3	<input checked="" type="checkbox"/>						

- The demonstration of the successful attraction booking with reserve vehicle, equipment, and driver.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

The screenshot shows two windows side-by-side. The left window is titled 'Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form'. It displays a booking summary for Customer ID C001. The summary includes sections for Flight Booking Details, Hotel Booking Details, Cruise Booking Details, Attraction Booking Details, Vehicle Booking Details, and Equipment Details. A large table lists flight bookings with columns for Flight Order ID, Flight Schedule ID, Flight Class No, Flight Class Type, Flight Type, Adult Num, Child Num, Infant Num, and Adult Total Price. The total price is HK\$13,951.35. Below the table, it says 'Grand total = HK\$21,688.21'. The right window is titled 'All Booking Confirmation Report' and shows a detailed breakdown of the bookings, including flight, hotel, attraction, vehicle, and cruise bookings, with their respective payment details and sub-totals.

- Data report of customer booking record and generate PDF booking confirmation.

The screenshot shows a 'Company Business Performance' report. It features a 'Graphic Report' section with a 'Salary and Retirement Fund' chart. The chart is titled 'Salary and Retirement Fund Chart' and displays salary and retirement fund deduction data for various employees. The Y-axis lists employees: Chan See Yum, Au Siu Tak, Chan Tai Shun, Lam Hin On, Leung Chin Ning, Cheung Ming, Kam Hiu Lung, Leung Siu Kuen, Yuk Siu Kam, Chan Yuen Han, Tang Cheuk Fan, Siu Yao Fai, Lam Sin Cheong, and Chan Siu Ming. The X-axis shows salary amounts ranging from 0 to 35,000. Yellow bars represent salary, and red bars represent retirement fund deduction. The legend indicates: Salary (Yellow) and Retirement Fund Deduction (Red). The total sum of the bars for each employee is also displayed at the end of each bar.

- Data report of company business performance with bar chart.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

The screenshot shows a Windows application window titled "Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form". The main title bar has icons for minimize, maximize, and close. Below the title bar is a menu bar with "Home Page", "Flight Information", "Hotel Information", "Staff Control", "Driver Control", "Login System", and "Exit System". The main content area is titled "Product Management Console". At the top of this section is a horizontal navigation bar with tabs: "Flight Product Maintain", "Hotel Product Maintain", "Cruise Product Maintain", "Attraction Product Maintain", and "Vehicle Product Maintain". The "Vehicle Product Maintain" tab is currently selected and highlighted in blue. Below the tabs are four input fields: "* Name:" with a text input box, "Duration:" with a dropdown menu, "Adult Price:" with a text input box, "City:" with a dropdown menu, "Cancellation:" with a dropdown menu, and "Child Price:" with a text input box. Below these fields is a large table listing various tourism products. The table columns are: Name, Duration, Cancellation, Photo, City, Adult Price, and Child Price. The table rows include: AdventureCove Waterpark (selected), BlueMountain Day Tour, BridgeClimb Experience, Disneyland Admission, DisneySea Admission, MountFuji Lake Ashi, NightSafari Adventure, OperaHouse Guided Working Tour, SEAAquarium, ShrimpFishing Barbecue, SingaporeZoo Adventure, TaipeiTea Culture Day, and TokyoMorning Tour. Each row displays the product name, duration, cancellation type, photo thumbnail, city, and prices for both adults and children. At the bottom of the table is a "Product remaining quantity:" input field, an "Upload Image" button, and buttons for "Insert", "Update", and "Delete". A "Close" button is located at the bottom right of the main window.

➤ Product Management Console Module.

The screenshot shows a Windows application window titled "Ticket Tailor Ltd.'s Integrated Tourism Management System - Module Selection Form". The main title bar has icons for minimize, maximize, and close. Below the title bar is a menu bar with "Home Page", "Flight Information", "Hotel Information", "Staff Control", "Driver Control", "Login System", and "Exit System". The main content area is titled "Ticket tailor". Below it is a sub-section titled "Kiosk Order Record". This section contains a table with three columns: "Tag ID", "Type", and "Booking Detail". The table rows are: 1 (Ticket, CI614-Econ-Direct), 1 (Hotel, 標準客房), 2 (Hotel, 精緻套房), 2 (Ticket, EK385-Econ-Direct), 3 (Hotel, 尊爵高級套房), 4 (Ticket, KA864-Econ-Direct), 5 (Ticket, EK385-Econ-Direct), 6 (Hotel, 褒宇客房一大床), 6 (Hotel, 精緻套房), and 6 (Ticket, KA876-Econ-Direct). At the bottom of the table are buttons for "Clear All", "Delete", and "Close".

➤ Enquiry the unconfirmed temporary booking data in the information kiosk.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

12. Test Plan

Cycle: Multiple-Document Interface parental control (frmModuleSelection)

Number.	Test Case	Expected Result	Actual result
1	Press the “Home Page” menu strip	Close the bottom form of same page and display frmInfo.	As expected
2	Press the “Flight Information” menu strip	Restart the bottom form of frmInfo and display frmAir.	As expected
3	Press the “Hotel Information” menu strip	Restart the bottom form of frmInfo and display frmHotelSche.	As expected
4	Press the “Staff Control” without login the staff account	The menu strip was disabled.	As expected
5	Press the “Staff Control” with logged in the staff account	The sub menu of staff control correspond related action will displayed. The menu strip of “Login System” will disable and display frmConsole.	As expected
6	Press the “Driver Control” without login the staff account	The menu strip was disabled.	As expected
7	Press the “Driver Control” with logged in the driver account	The sub menu of driver control. The menu strip of “Login System” will disable and display frmRoster.	As expected
8	Press the “Login System” menu strip	Move to frmLogin module	As expected
9	Press the “Exit System” menu strip	Display the yes no question to ask for confirm, than close the existing program of system.	As expected

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105 / SE1A Higher Diploma in Software Engineering

Cycle: Home Page with information (frmInfo)

Number.	Test Case	Expected Result	Actual result
1	Press the “Air Ticket Information” banner	Move to the frmAir Module	As expected
2	Press the “Hotel information” banner	Move to the frmHotelSche Module	As expected
3	Press the embed Youtube video	Play the Youtube video	As expected
4	Press the “E-mail Address” button	Open the Microsoft Outlook by the default email setup	As expected
5	Press another button under “About us” label	Open browser to the default page	As expected
6	Press the banner in the bottom	Open browser to the default page	As expected
7	Press the “Confirm Reservation” button without searching	The menu strip was disabled.	As expected
8	Press the “Confirm Reservation” button after searching and pressed order button	Display frmNumberTag module to Generate order tag id.	As expected

Cycle: System Login (frmLogin)

Number.	Test Case	Expected Result	Actual result
1	Login with valid username and valid password	Logged in. Display the successful message and display frmConsole by enter staff account or display frmRoster by enter driver account.	As expected
2	Login with invalid username and invalid password	Not logged in. Display the error message.	As expected
3	Login with valid username and invalid password	Not logged in. Display the error message.	As expected
4	Login with invalid username and valid password	Not logged in. Display the error message.	As expected

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Cycle: Staff Console (frmConsole)

Number.	Test Case	Expected Result	Actual result
1	Press the “Confirm Reservation” button after searching and pressed order button	Display frmNumberTag module to Generate order tag id.	As expected
2	Enter the valid tag to take a number tag confirmation	Display the related booking module for booking confirmation.	As excepted
3	Enter the invalid tag to take a number tag confirmation	Reject the action when the number tags not existing in database.	Pass the action
4	Press the “Sign Out” button	Display the successful message and move to the home page.	As excepted

Cycle: Driver Console (frmRoster)

Number.	Test Case	Expected Result	Actual result
1	Press the “Sign Out” button	Display the successful message and move to the home page.	As excepted

Cycle: Create Account Console (frmRegister)

Number.	Test Case	Expected Result	Actual result
1	Press the “Confirm Arrangement” Button with valid value	Display successful message.	As excepted
2	Press the “Confirm Arrangement” Button with null value	Display the error message for null columns.	As excepted
3	Press the “Confirm Arrangement” Button with existing user id	Display the id existing message.	As excepted
4	Press the “Close” button	Close form	As excepted

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Cycle: Customer Personal Information Form (frmCustomer)

Number.	Test Case	Expected Result	Actual result
1	Press the "Confirm Arrangement" Button with valid value	Display successful message.	As excepted
2	Press the "Confirm Arrangement" Button with null value	Display the error message for null columns.	As excepted
3	Select the existing customer ID in combo box for booking confirmation	Display the successful message.	As excepted
4	Press the "Close" button	Close form.	As excepted

Cycle: Air Ticket Enquiry (frmAir)

Number.	Test Case	Expected Result	Actual result
1	Press the "Order" button with selected option	Display the successful message and confirm the booking amount.	As excepted
2	Select the invalid date which have no related data in database	No searching result for display.	As excepted
3	Searching keywords with invalid words and phrases	No searching result for display.	As excepted
4	Searching keywords with valid words and phrases	Display the related data with the keywords	As excepted

Cycle: Hotel Schedule Enquiry (frmHotelSche)

Number.	Test Case	Expected Result	Actual result
1	Press the "Order" button with selected option	Display the successful message and confirm the booking amount.	As excepted
2	Select the invalid date which have no related data in database	No searching result for display.	As excepted
3	Searching keywords with invalid words and phrases	No searching result for display.	As excepted
4	Searching keywords with valid words and phrases	Display the related data with the keywords	As excepted

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Cycle: Cruise Tour Enquiry (frmCruiseTour)

Number.	Test Case	Expected Result	Actual result
1	Press the "Book" button with selected option	Display the successful message and confirm the booking amount.	As excepted
2	Select the invalid date which have no related data in database	No searching result for display.	As excepted
3	Press "Get Information" button with selected option	Open the new window module for display PDF content.	As excepted

Cycle: Attraction Enquiry (frmAttraction)

Number.	Test Case	Expected Result	Actual result
1	Searching keywords with invalid words and phrases	No searching result for display.	As excepted
2	Searching keywords with valid words and phrases	Display the related data with the keywords.	As excepted
3	Press the "Order" button with selected option	Display the successful message and confirm the booking amount.	As excepted

Cycle: Air Ticket and Hotel Room Booking (frmOrder)

Number.	Test Case	Expected Result	Actual result
1	Press "Confirm Order" button after clicked 2 of the booking confirmation	Display a message box for asking confirmation, any other booking, and fill in the customer personal information.	As excepted
2	Press the "Cancel Order" button	Display a message box for asking cancellation.	As excepted
3	Press "Back" button	Move to previous page.	As excepted

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Cycle: Cruise Tour Booking (frmCruiseBooking)

Number.	Test Case	Expected Result	Actual result
1	Press the “Confirm Order” button	Display a message box for asking confirmation, any other booking, and fill in the customer personal information.	As excepted
2	Press the “Cancel Order” button	Display a message box for asking cancellation.	As excepted

Cycle: Attraction Trip Booking (frmAttractionBooking)

Number.	Test Case	Expected Result	Actual result
1	Press the “Confirm Order” button with 0 ticket demand	Display error message for re-select the ticket number of attraction.	As excepted
2	Press the “Confirm Order” button with only child ticket demand	Display error message to show the required quantity of adult must be at least one.	As excepted
3	Press the “Confirm Order” button with valid ticket demand	Display the successful message and ask for other booking.	As excepted
4	Press the “Cancel Order” button	Display a message box for asking cancellation.	As excepted

Cycle: Transportation booking with driver booking

(frmTransport, frmTransportBooking, frmDriverBooking)

Number.	Test Case	Expected Result	Actual result
1	Press the selected option row in attraction booking group box and select the related vehicle for booking	Move to frmTransportBooking form module and user can select the requirement.	As excepted
2	Select the related requirements and confirm the demands then press “OK” button	Display message for asking confirmation, then display successful message.	As excepted

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

Cycle: Customer Booking Record (frmAllBooking)

Number.	Test Case	Expected Result	Actual result
1	Press the “Flight Order” button for generate PDF report for the reservation records with the selected customer	Create the PDF report to list the air ticket booking records and display the current PDF file in the new window form.	As excepted
2	Press “Hotel Reservation” button for generate PDF report for the reservation records with the selected customer	Create the PDF report to list the hotel room booking records and display the current PDF file in the new window form.	As excepted
3	Press “Cruise Booking” button for generate PDF report for the reservation records with the selected customer	Create the PDF report to list the cruise tour booking records and display the current PDF file in the new window form.	As excepted
4	Press “Attraction Booking” button for generate PDF report for the reservation records with the selected customer	Create the PDF report to list the attraction booking records and display the current PDF file in the new window form.	As excepted
5	Press “All Booking” button for generate PDF report for the reservation records with the selected customer	Create the PDF report to list the all booking records and display the current PDF file in the new window form.	As excepted

Cycle: Product Management (frmProductManagement)

Number.	Test Case	Expected Result	Actual result
1	Insert, Update, or Delete action with some null column	Display error message and ask for re-enter the related column	As excepted
2	Insert, Update, or Delete action with valid column	Display the successful message in message box	As excepted

System Development Project

Project Scenario: Integrated Tourism Management System

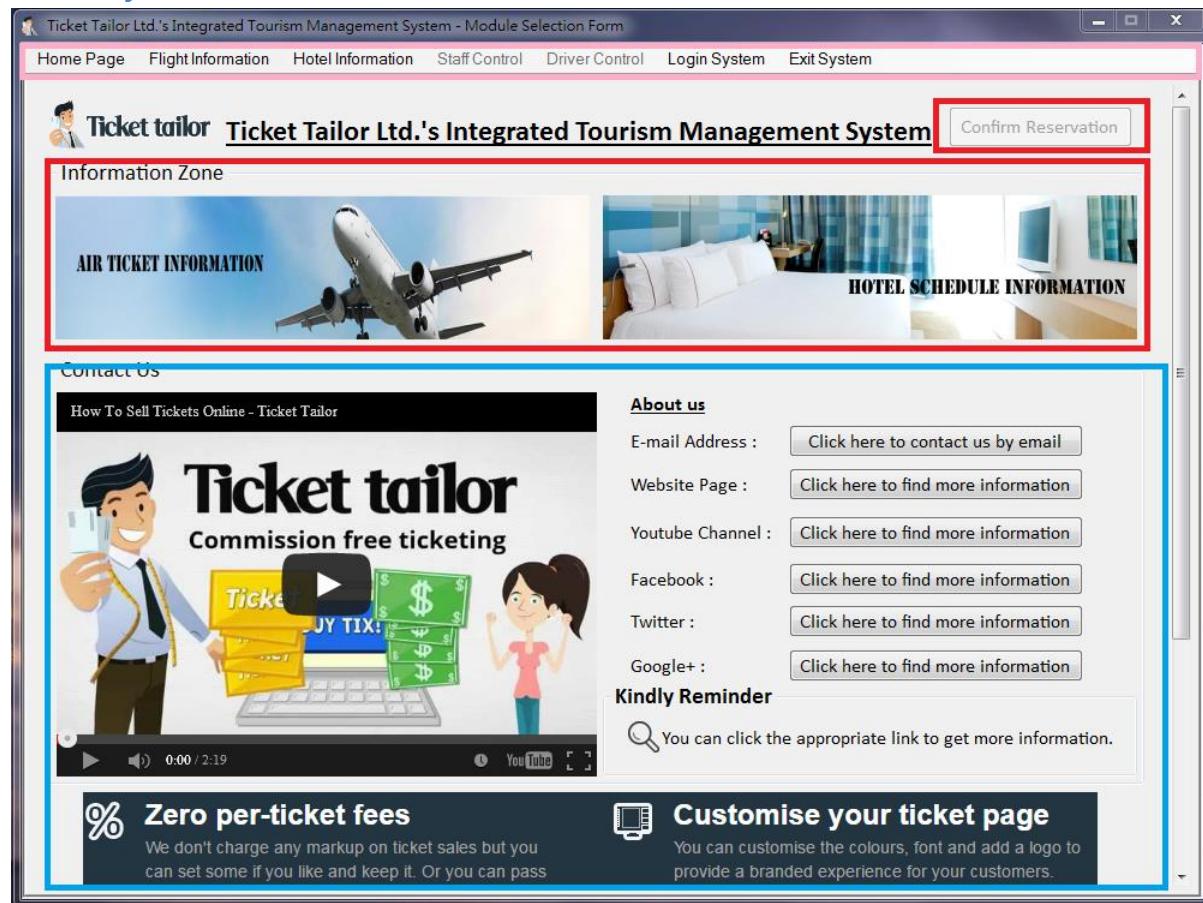
Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

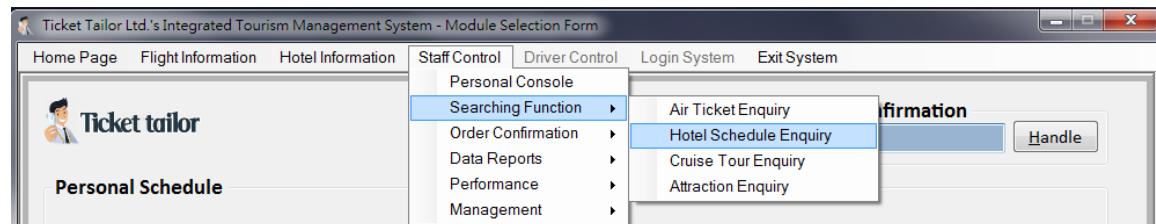
Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

13. User Guide

13.1 System Overview



- The basic control area for customer classified as 3 division :
 - I. Simple menu strip control (pink region)
 - II. Searching function for flight and hotel reservation (red region)
 - III. Company information (blue region)



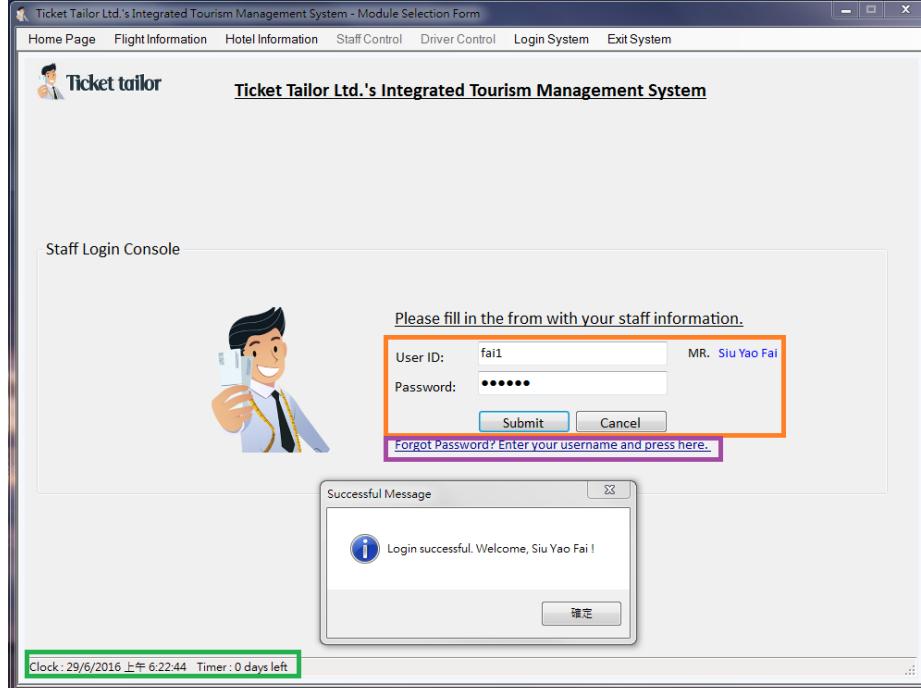
- After Login the system, the menu strip will enable more submenu control for different user.

System Development Project

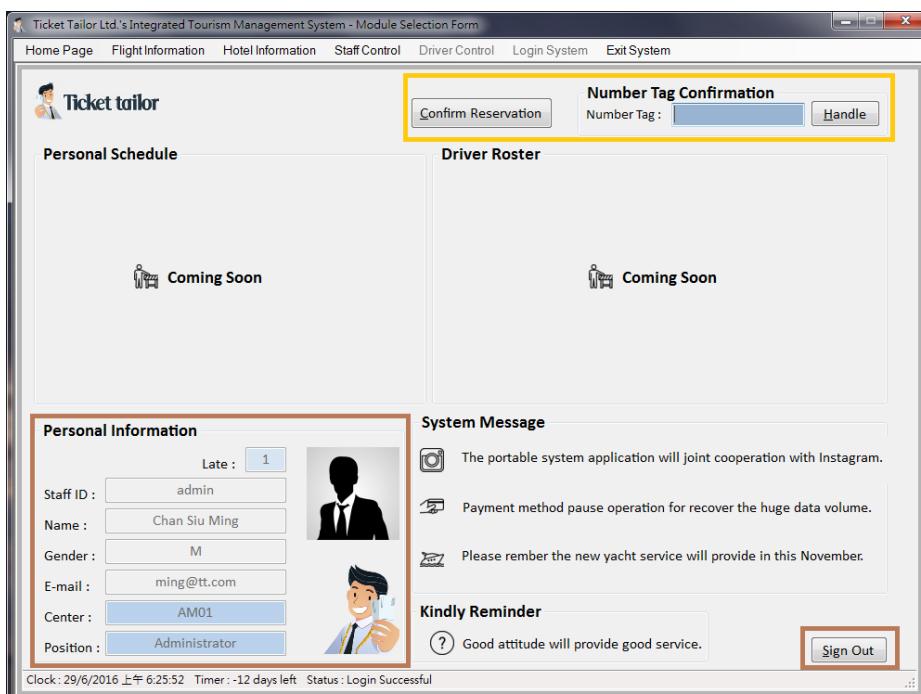
Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho
Student Number: 150533022, 150032356, 150321559, 150031347
Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

13.2 Login Module



- Account area by using SHA-1 for data hash (orange region)
- Forgot password function contain spare password (purple region)
- Clock and Schedule Timer (green region)



- Booking confirmation control (yellow region)
- Information area and sign out button (brown region)

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

13.3 Searching and Booking Module

The screenshot shows a Windows application window titled "Ticket Tailor Ltd's Integrated Tourism Management System - Module Selection Form". The menu bar includes "Home Page", "Flight Information", "Hotel Information", "Staff Control", "Driver Control", "Login System", and "Exit System".

Searching Result - Hotel List:

HotelID	HotelChineseName	HotelEnglishName	Star	Rating	Region	Address
1	台北君悅酒店	Grand Hyatt Taipei	4.5	Fine Good	Taipei(XinYi)	2 SongShou Road,Taipei
2	台北凱撒大酒店	Cæsar Park Taipei	4.0	Good	Taipei(ZhongZheng)	38 Chung Hsiao West Ro
3	台北福華大酒店	The Howard Plaza Hotel Taipei	4.0	Good	Taipei(DeAn)	160, Sec 3, Ren Ai Rd,Ta
4	台北中山晶華酒店	amba Taipei Zhongshan	3.5	Good	Taipei(ZhongShan)	57-1 Zhongshan North R
5	台北晶華酒店	Regent Taipei	5.0	Fine Good	Taipei(ZhongShan)	No 3, Lane 39, Section 2
6	台北西華飯店	The Sherwood Taipei	4.5	Fine Good	Taipei(SongShan)	111 Min Sheng East Roa
7	黑部觀光酒店	Kurobe Kanko Hotel	3.0	Good	Japan(Omachi)	2822 TairaOmachiNagan

Searching Result - Room List:

HotelRoomID	HotelRoomName	HotelRoomSize	MaxAdult	MaxChild	HotelRoomDescription	Fare
1	君悅客房 - 大床	24 平方米	3	2	1 張特大雙人床	2343.61
2	頂級標準客房	36 平方米	3	2	2 張單人床	2343.61
3	君悅豪華客房	40 平方米	3	2	1 張特大雙人床	2493.20
4	君悅豪華客房 - 二小床	40 平方米	3	2	2 張單人床	2493.20
5	嘉賓軒客房 - 大床	56 平方米	3	2	1 張特大雙人床	3241.16

Hotel Map: A button labeled "Hotel Map" is located in the top right corner of the Room List section.

- Searching control area (red region)
- Searching result with order submit (blue region)
- p.s. order will in accordance with the last mouse click of selected option
- Additional Information (orange region)

The screenshot shows the same application window with the "Login System" tab selected in the menu bar.

Air Ticket:

Flight ID	Flight No	Flight Type	EDA	EDD	ETA	ETD	Carrier	Dest
3	CI614	Direct	2015-06-20	2015-06-20	19:15:00	17:35:00	中華航空	HKG

Air Ticket Details:

Class :	Econ	Adult Price :	931	Adult Tax:	69.82	Person :	1	Subtotal =	0
Child Price :	694	Child Tax:	52.05	Person :	0	OK			
Infant Price :	500	Infant Tax:	37.5	Person :	0				

Hotel:

HotelID	Hotel Chinese Name	Hotel English Name	Hotel Room ID	Hotel Room Name	Hotel Room Size	Description	Max number for Adult	Max number for Child
4	台北中山晶華酒...	amba Taipei Zhon...	20	標準客房	35 平方米	1 張特大雙人床	3	2

Booking Summary:

Check-in Date :	29 - 06 - 2016	Check-out Date :	30 - 06 - 2016	Subtotal =	0	
Price :	1645.5	Night :	1	Bundle discount(\$150)	150	OK
				Grand total =	0	

Buttons: Confirm Order, Cancel Order, Back.

- Booking control area with 2 of the "OK" confirm button

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

14. Project Schedule

14.1 Gantt chart of the Integrated Tourism Management System

All process in implementation specification will merge of developing program testing and debugging by showing the program function name

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

14.2 Project Log

The timetable for the group mate's work

Scheduled		Task Action List	Initial
Start Day	End Day	Event	Person in charge
Requirement Specification			
1/2	2/2	Cover page & Directory	Au Chi Chung
2/2	4/2	Study Background	Whole group mates
5/2	7/2	Abstract & Assumption & Introduction	Au Chi Chung
8/2	14/2	Problems Finding	Li Kai Kwong
15/2	21/2	Functional Requirement	Kwok Yuk Lam
15/2	21/2	Non-Functional Requirement	Yu Kwok Ho
22/2	28/2	Conclusion	Yu Kwok Ho
Due Date		1/3	Whole group mates
System Analysis and Design Specification			
29/2	6/3	Project proposal design	Au Chi Chung
29/2	6/3	Abstract	Au Chi Chung
7/3	13/3	Refined problem	Li Kai Kwong
14/3	20/3	Refined functional requirement	Kwok Yuk Lam, Li Kai Kwong
21/3	27/3	System architecture	Au Chi Chung, Kwok Yuk Lam
28/3	3/4	Database Design	Yu Kwok Ho
28/3	3/4	System Design with UML (Class Diagram)	Au Chi Chung
21/3	27/3	System Design with UML (Use Case Diagram)	Li Kai Kwong
8/4	10/4	Project Schedule	Kwok Yu Lam
12/4	13/4	Conclusion	Yu Kwok Ho
14/4	14/4	Appendices	Whole group mates
Due Date		15/4	Whole group mates
Assignment Integrate Version			
15/4	15/4	Typesetting	Whole group mates
Due date		15/4	Whole group mates
Assignment Implementation Specification			
4/4	14/4	Design Implementation	Yu Kwok Ho
5/5	18/5	Design User Interface	Au Chi Chung
19/5	19/5	frmModuleSelection (Multiple-Document Interface parental control)	Au Chi Chung
1/6	2/6	frmInfo (Information page)	Au Chi Chung
23/5	23/5	frmLogin (Login module)	Au Chi Chung, Yu Kwok Ho

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

9/6	10/6	frmRegister (Create staff account module)	Au Chi Chung
23/5	31/5	frmConsole (Staff control)	Au Chi Chung
20/6	20/6	frmRoster (Driver control)	Li Kai Kwong
7/6	8/6	frmCustomer (Customer personal information after booking confirmation)	Au Chi Chung, Yu Kwok Ho
30/5	2/6	frmAir (Air ticket enquiry)	Kwok Yuk Lam
2/6	4/6	frmHotelSche (Hotel room enquiry)	Kwok Yuk Lam, Yu Kwok Ho
5/6	7/6	frmCruiseTour (Cruise Tour enquiry)	Yu Kwok Ho
4/6	6/6	frmAttraction (Attraction enquiry)	Li Kai Kwong
7/6	10/6	frmTransport (Transportation enquiry)	Li Kai Kwong
4/6	9/6	frmOrder (Flight and Hotel Booking)	Kwok Yuk Lam
7/6	9/6	frmCruiseBooking (Cruise Tour Booking)	Yu Kwok Ho
9/6	12/6	frmAttractionBooking (Attraction Booking)	Yu Kwok Ho
10/6	13/6	frmTransportBooking (Transportation Booking)	Li Kai Kwong
10/6	13/6	frmDriverBooking (Driver Booking)	Li Kai Kwong
19/5	19/5	frmNumberTag (Generate tag after customer booking)	Au Chi Chung
23/6	24/6	frmAllBooking (Customer booking confirmation record enquiry)	Au Chi Chung, Yu Kwok Ho
25/6	27/6	frmPerformance (Chart of company record)	Yu Kwok Ho
15/6	17/6	frmProductManagement (Insert, Modify, Delete action for productions)	Yu Kwok Ho
20/6	20/6	frmRecord (Enquiry temporary data in kiosk)	Kwok Yuk Lam
25/6	28/6	Final Report	Au Chi Chung
29/6	29/6	Presentation with Powerpoint	Whole group mates
Due Date		30 / 6	Whole group mates

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

15. Conclusion

In order to replace the original system and process, we produce a prototype of Integrated Tourism Management System successfully and which can solve the issues effectively. For example, the database implementation can handle the problem of data inconsistency because we unified data storage location that staff can manage database easily.

As mentioned earlier system function, an Integrated Tourism Management System basically include login, product information, product details enquiry, taking orders and generate different report, other function include ticket status regularly check function. Also, well-designed and user-friendly interface is great help for the company.

Efficiency is nowadays the basic requirement, computerized system and design ordering system there are many benefits. First, reduce service delivery time, using the current method often use a lot of manpower and material. If write down the order records by paper, search the records would be a long time and staff has to physically go to each section, that produce transaction delay problem.

In case of this, we decide to simplify the process of customer when they need to searching information or take a reservation via the information kiosk. At the same time, some of the booking process will assign for staff to introduce with client who ready for a reservation. That it can reduce the waiting time for customers and it can disperse the crowd efficiency. Also, the system can also distribute working schedule to driver that they can apply the jobs quickly when using the system.

To sum up, we designed the blueprint of the system process which correspond any problems or risks. In addition, we will follow up with the internal adjustment when the system was adopted.

System Development Project

Project Scenario: Integrated Tourism Management System

Name: Au Chi Chung, Kwok Yuk Lam, Li Kai Kwong, Yu Kwok Ho

Student Number: 150533022, 150032356, 150321559, 150031347

Course/ Class: IT114105/ SE1A Higher Diploma in Software Engineering

List of references

Prezi, “Online Ordering System for Hammer best Furniture” (1st October 2014) Available at:

<https://prezi.com/nhgiiimtvxczs/online-ordering-system-for-hammerbest-furniture/>

Microsoft, “Securing the Retail Store Series” Available at:

<https://msdn.microsoft.com/en-us/library/aa479366.aspx>

ULTIMA™, “Register - Online Ordering System” Available at:

<http://trade.ultimafurniture.co.uk/register>

ULTIMA™, “Login - Online Ordering System” Available at:

<http://trade.ultimafurniture.co.uk/login>

Agile Modeling, “UML 2 Use Case Diagram: An Agile Introduction” Available at:

<http://www.agilemodeling.com/artifacts/useCaseDiagram.htm>

Microsoft, “UML Use Case Diagrams: Guidelines” Available at:

<https://msdn.microsoft.com/en-us/library/dd409432.aspx>

IBM developer Works, “The operational context diagram” Available at:

<https://www.ibm.com/developerworks/architecture/library/ar-introocdv1/>

VP Gallery, “Sequence diagram” Available at:

<http://www.visual-paradigm.com/VPGallery/diagrams/Sequence.html>

“What are Entity Relationship Model / Diagram?” Available at:

http://www.webopedia.com/TERM/E/entity_relationship_diagram.html

“Entity Relationship Diagrams” Available at:

<http://www.smartdraw.com/resources/tutorials/entity-relationship-diagrams/>