

Vanier College
Faculty of Science and Technology
System Development
420-436-VA

Deliverable 03

Green Team

Andy-Tason Nguyen-Chao

Damiano Visalli

Md Saqliyan Islam

Uraib Ahmed Lakhani

Yassine El Yamani

In collaboration with Muhammad Zahid Hussain

We, the Green Team, certify that this assignment is our own work

I, Andy-Tason Nguyen-Chao, student ID# 2071047, certify that I have contributed to this deliverable, A.T.N.C.

I, Md Saqliyan Islam, student ID# 2062427, certify that I have contributed to this deliverable, M.S.I.

I, Uraib Ahmed Lakhani, student ID# 2049924, certify that I have contributed to this deliverable, U.A.L

I, Damiano Visalli, student ID# 2062581, certify that I have contributed to this deliverable, D.V

I, Yassine El Yamani, student ID# 2059045, certify that I have contributed to this deliverable, Y.E

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Executive Overview

This deliverable document will go over the documentation of the technical parts of the web application that will be created along the project and the revised business problems after a thorough exchange of information with our client concerning the current system and the new one.

It starts with a summary description of the project's client, Muhammad Zahid Hussain, and his travel agency, *Voyages Zawss Travel & Tours*, which offers services that cover booking flights and lodgings, guiding their customer to local tour agencies in their desired place of travel. They use *Saber & Asmodeus*, software to process the quotes and other travel services, and Excel as a local manual database since their computer knowledge is limited.

The Business problems have been revised with a clearer understanding of our client's current system and its processes. The problems are still similar to the aforementioned ones in the previous deliverable which are a web application currently incomplete, a lack of any features that would help the communication between customers to the agency, and a lack of an ability to gather marketing leads. For our client's workflow fluidity and efficiency, implementation of features such as customer information-collecting forms for the booking and quotes, the return of results to the customers, and the creation of both customer and admin profiles. As for customer support, a *Contact Us* page will be added. All of these functionalities with other basic page navigation will compose the web application which will be search engine optimized to have more online presence.

This document also includes descriptions of system processes. Describing all features that can be done using the future web application as a client and admin.

The Appendices listed are documentations of the technical parts which will be used as templates for our codes: Appendix 1 showcases the system diagram for the entire information system; Appendix 2 will present a Unified Modeling Language (UML) diagrams of said system; Appendix 3 contains use case templates based use cases from the system diagram; Appendix 4 demonstrates the Class diagram and Appendix 5 will contain screenshots from the system, forms, and documents used by the client.

Summary Description of the Client

Muhammad Zahid Hussain owns a travel agency named Voyages Zawss located in Montreal and composed of two other employees. His agency has the purpose of booking tickets and helping the process of their travel. They average around 25 clients per day, which are mostly travelers and tourists, with fluctuation during pre-holidays.

Mr. Zahid is not tech savvy and mostly does all his work manually through phone, emails, text messaging, Microsoft Word, and Microsoft Excel. Most clients who want to book tickets contact him through the phone and he collects their information and stores it in Excel sheets. After collecting the info, he uses *Amadeus* and *Sabre* to check prices for the ticket and sends a quote to the client through email because the prices are not fixed and vary depending on multiple factors, such as destination, number of passengers, etc.

Business Problem

Now that we have a better understanding of how the client's current system works, we have revised the business problem. Now, our Project intends to solve the following business problems of our client:

- It is to replace the current uncompleted website of the agency
- There is no function/process to collect customers' information/request to make a travel quote
- There is no function for the agency to return responses to customers, whether its a quote or response from "Contact Us"
- There is no ability to gather leads for marketing with proper consent
 - An example of this may be requesting an email for promotions at checkout.
 - In need of a search engine optimization (*SEO*)

Our client's business service goes as is: Customers request quotes with their provided information (Number of People, Place of Travel, Hotel Requirement); The Agency collects said information; The Agency processes the information through the *Sabre* Software to make a quote; The Agency sends the created quote to the customer; The customer pays the received quote.

Narrative Description of the Present Information System

To book a trip, customers of Voyages Zawss have to contact the agency, mostly by phone, and present their demands. Following the call, the customers will have to give some of their personal information as well as the trip's information, such as the number of passengers, age, gender, etc. by email.

Upon receiving this information, the agency processes the info through the *Sabre and Amadeus* software to check the fare for corresponding flights. Afterward, they send the best-matched quote back to the customer via email

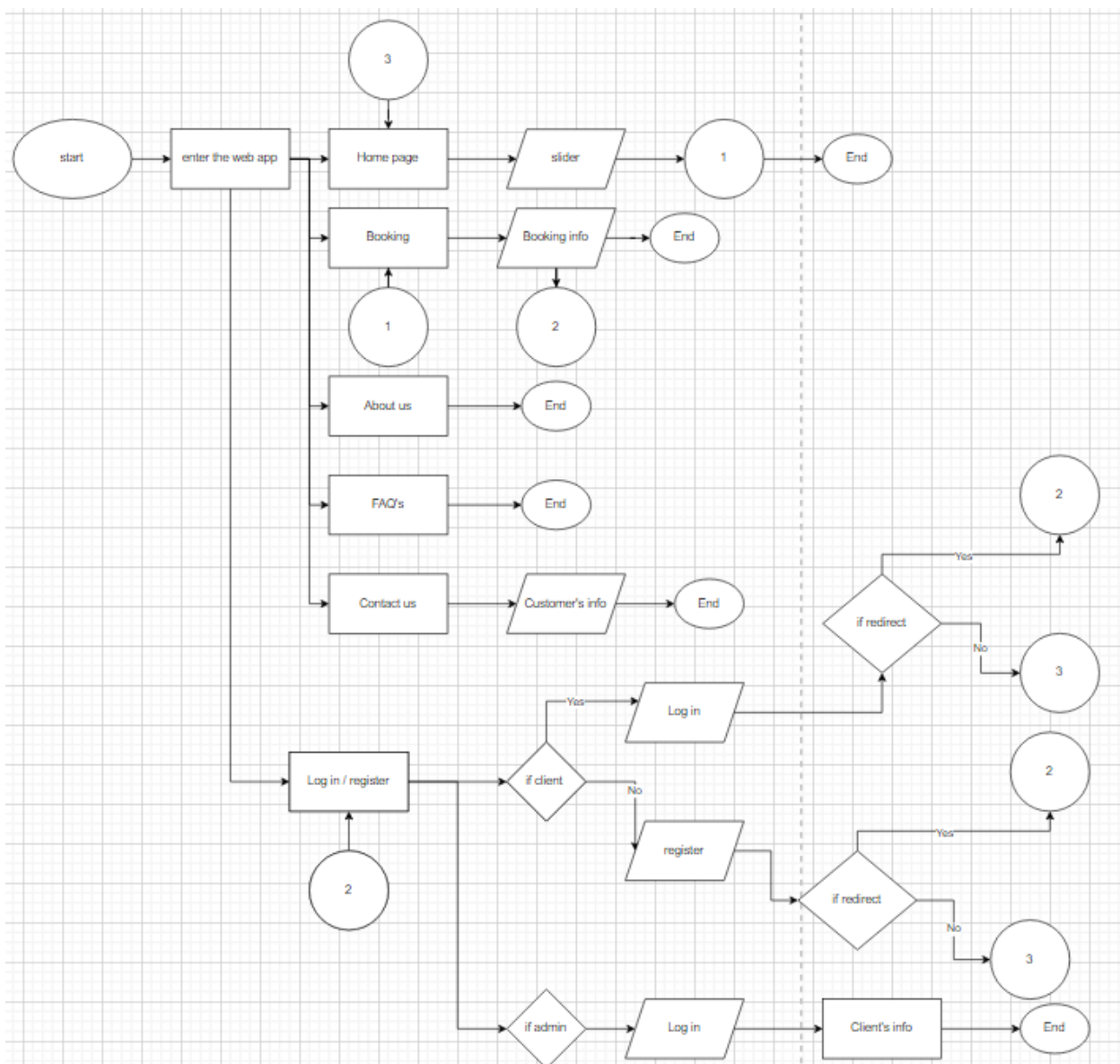
The customer will fulfill the payment by e-transfer or by credit card. With this, the agency will begin the process of buying the tickets and prepare guidance for the customer. Once done, they send everything to the customers.

The agency will have the records in the admin page and can access them anytime.

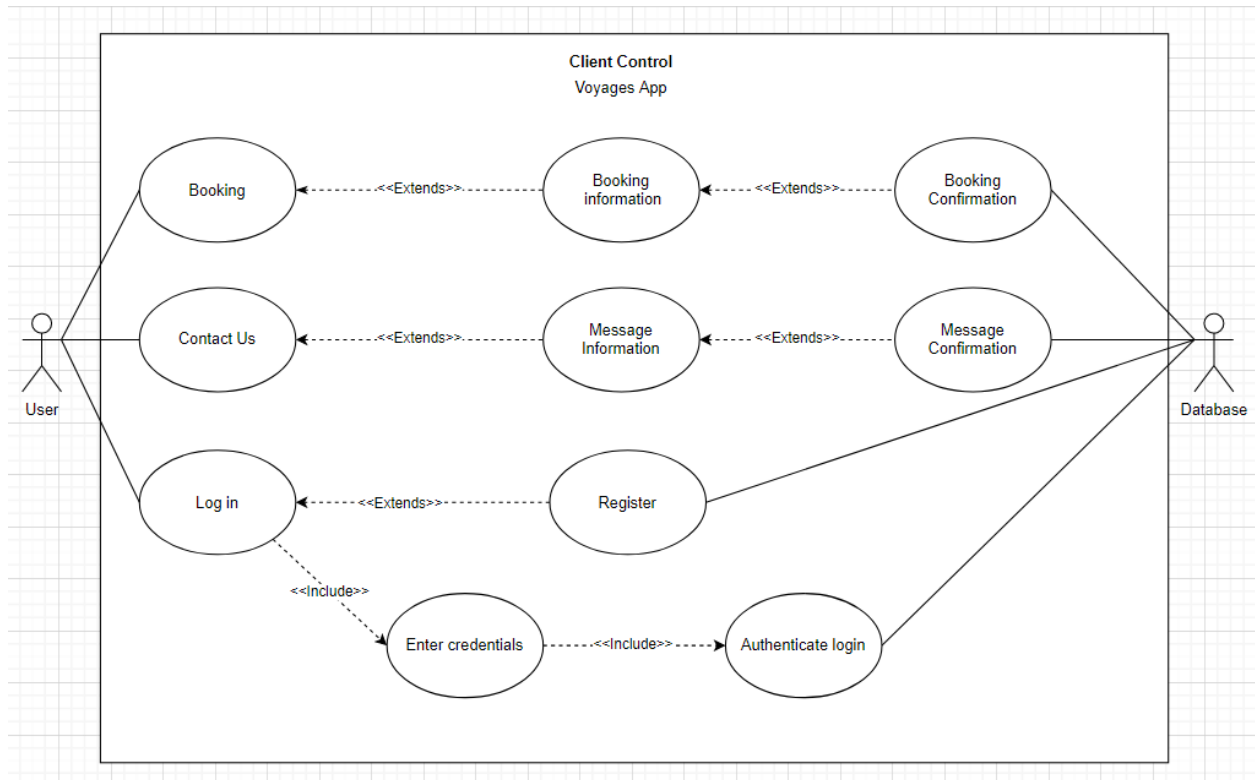
For any questions that customers may have, they are able to call or use the contact us page on the website

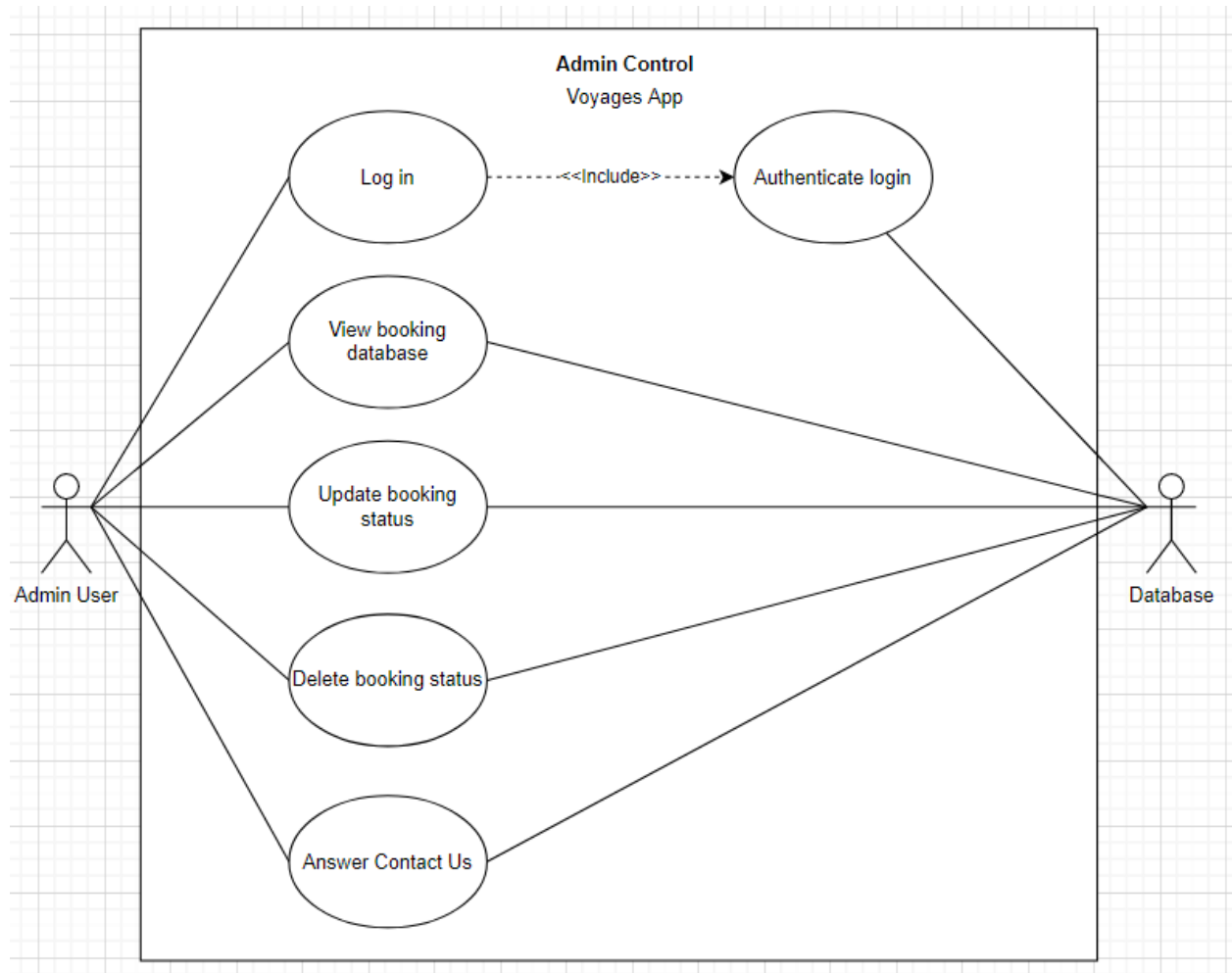
Our web application has the goal of replacing most of the manual labor of data collection with the use of forms that will collect and store customers' information and booking information into a database. This will in turn be accessible to the agency. This will help with the fluidity of the whole process while bringing new features such as updating and deleting booking requests, a contact page, etc.

Appendix 01



Appendix 02





Appendix 03

Use Case ID	Customer-Register		
Use Case Name	Customer Register		
Created By	Saqliyan & Damiano	Last Updated By	Andy
Date Created	09/28/22	Last Revision Date	10/06/22
Actors	<ul style="list-style-type: none"> • Customer (Primary) • Database (Secondary) 		
Description	Customer can create an account and add it to the database		
Trigger	Customer uses the “Register” button		
Preconditions	Customer does not have an account & is not logged in		
Post-Conditions	<ul style="list-style-type: none"> • Customer’s account is created & info is saved • Customer is able to login 		
Normal Flow	<ol style="list-style-type: none"> 1. Customer navigates to the “Log in/Register” page 2. On the page, Customer clicks on “Register” 3. Customer will be presented with the registration form and fill it out. <ol style="list-style-type: none"> a. Customer’s username b. Customer’s phone c. Customer’s email d. Customer’s password e. Confirmation of password 4. Customer clicks on “Register” 5. A message saying if the account was created successfully is displayed 6. Customer will be redirected to the previous page 		
Alternative Flows	<ol style="list-style-type: none"> 1. Customer attempts to confirm a booking form 2. Customer is redirected to the “Log in/Register” page 3. Customer clicks on “Register” 4. Customer will be presented with the registration form and fill it out. 5. The customer clicks “Save” 6. A message saying if the account was created successfully is displayed 7. The customer will be redirected to the previous page 		

Exceptions	4 (Normal) & 5 (Alt): User information is already in use
Includes	N/A
Frequency of Use	On Demand
Special Requirements	N/A
Assumptions	The customer is able to fill out the form
Notes and Issues	N/A

Use Case ID	Customer-Login		
Use Case Name	Customer Log in		
Created By	Saqliyan & Damiano	Last Updated By	Andy
Date Created	09/28/22	Last Revision Date	10/06/22
Actors	<ul style="list-style-type: none"> • Customer (Primary) • Database (Secondary) 		
Description	This use case logs in a customer into their account		
Trigger	The customer uses the “Login” button		
Preconditions	<ul style="list-style-type: none"> • Customer must already have created an account • Customer is not logged in 		
Post-Conditions	<ul style="list-style-type: none"> • Customer can now confirm their booking • Customer is logged in 		
Normal Flow	<ol style="list-style-type: none"> 1. Customer navigates to the “Log in/Register” page 2. Customer fills out the login form <ol style="list-style-type: none"> a. Customer’s Username b. Customer’s Password 3. Customer clicks login 4. Customer will be redirected to the previous page 		
Alternative Flows	<ol style="list-style-type: none"> 1. Customer attempts to confirm a booking form 2. Customer is redirected to the “Log in/Register” page 3. Customer fills out the login form 4. Customer clicks login 5. Customer is redirected back to the booking page 		
Exceptions	2 (Normal) & 3 (Alternate): User information is incorrect		
Includes	Customer-Register		
Frequency of Use	On Demand		
Special Requirements	N/A		
Assumptions	<ul style="list-style-type: none"> • Customer has an account in the database • Customer knows their login information 		
Notes and Issues	N/A		

Use Case ID	Admin-Login		
Use Case Name	Admin Log in		
Created By	Saqliyan & Damiano	Last Updated By	Andy
Date Created	09/28/22	Last Revision Date	10/06/22
Actors	<ul style="list-style-type: none"> • Admin (Primary) • Database (Secondary) 		
Description	Admin can log in into their account		
Trigger	Admin uses the “Login” button		
Preconditions	<ul style="list-style-type: none"> • Admin is not logged in • Admin is on the log in page 		
Post-Conditions	<ul style="list-style-type: none"> • Admin is logged in • Admin is redirected to the admin dashboard • Admin has access to the databases 		
Normal Flow	<ol style="list-style-type: none"> 1. Admin navigates to the “Log in/Register” page 2. Admin fills out the login form <ol style="list-style-type: none"> a. Admin’s username b. Admin’s password 3. Admin clicks “login” 4. Admin will be redirected to the admin dashboard 		
Alternative Flows	N/A		
Exceptions	4 (Normal) : User information is incorrect		
Includes	N/A		
Frequency of Use	On Demand		
Special Requirements	N/A		
Assumptions	<ul style="list-style-type: none"> • Admin is not logged in • Admin is on the log in page • Admin knows their login information 		
Notes and Issues	N/A		

Use Case ID	Admin-View		
Use Case Name	Admin View		
Created By	Saqliyan & Damiano	Last Updated By	Saqliyan & Andy
Date Created	09/28/22	Last Revision Date	10/06/22
Actors	<ul style="list-style-type: none"> • Admin (Primary) • Database (Secondary) 		
Description	Admin to view a detailed page of a selected booking entry from the database		
Trigger	Admin double-clicks a booking entry from the database		
Preconditions	There must be at least one booking entry in the database		
Post-Conditions	Detail page of the selected booking entry is prompted		
Normal Flow	<ol style="list-style-type: none"> 1. Admin navigates to the booking database 2. Admin selects a booking entry 3. Booking entry detail page prompts up 		
Alternative Flows	N/A		
Exceptions	2 (Normal). There are no customer bookings to view		
Includes	N/A		
Frequency of Use	On Demand		
Special Requirements	N/A		
Assumptions	Admin is located outside of an entry's detail page		
Notes and Issues	N/A		

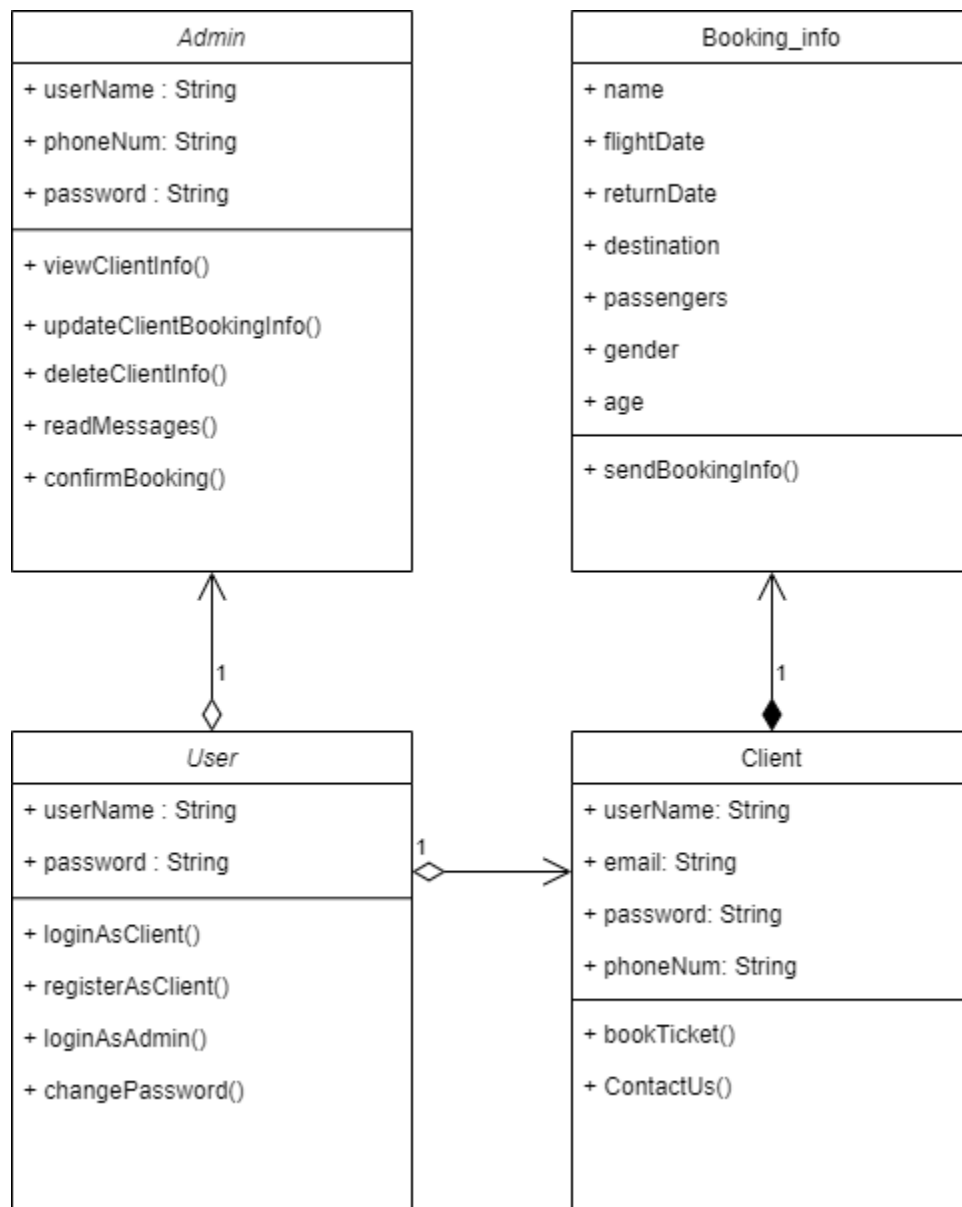
Use Case ID	Admin-Update		
Use Case Name	Admin Update		
Created By	Saqliyan & Damiano	Last Updated By	Andy
Date Created	09/28/22	Last Revision Date	10/06/22
Actors	<ul style="list-style-type: none"> • Admin (Primary) • Database (Secondary) 		
Description	Admin can update the details of a chosen booking entry, such as status and general information		
Trigger	Admin clicks on the “Update” while in the view of a booking entry		
Preconditions	There must be at least one booking entry in the database		
Post-Conditions	Selected booking entry is updated with the new information		
Normal Flow	<ol style="list-style-type: none"> 1. Admin navigates to the booking database 2. Admin selects a booking entry 4. Booking entry detail page prompts up 5. Admin changes at least one of the data fields 6. Admin clicks on “Update” 7. Confirmation prompt appears 8. Admin clicks on “Confirm update” 9. Booking entry is updated 		
Alternative Flows	N/A		
Exceptions	2 (Normal). There are no booking entry to view		
Includes	Admin-View		
Frequency of Use	On Demand		
Special Requirements	N/A		
Assumptions	There are booking entries in the database		
Notes and Issues	N/A		

Use Case ID	Admin-Delete		
Use Case Name	Admin Delete		
Created By	Saqliyan & Damiano	Last Updated By	Andy
Date Created	09/28/22	Last Revision Date	10/06/22
Actors	<ul style="list-style-type: none"> • Admin (Primary) • Database (Secondary) 		
Description	Admin can delete a chosen booking entry from the database		
Trigger	Admin clicks on the “Delete” while in the view of a booking entry		
Preconditions	There must be at least one booking entry in the database		
Post-Conditions	Selected booking entry is deleted from the database		
Normal Flow	<ol style="list-style-type: none"> 1. Admin navigates to the booking database 2. Admin selects a booking entry 3. Booking entry detail page prompts up 4. Admin clicks on “Delete” 5. Confirmation prompt appears 6. Admin clicks on “Confirm deletion” 7. Booking entry is deleted 		
Alternative Flows	N/A		
Exceptions	2 (Normal). There are no booking entry to view		
Includes	Admin-View		
Frequency of Use	On Demand		
Special Requirements	N/A		
Assumptions	There are booking entries in the database		
Notes and Issues	N/A		

Use Case ID	Customer-Contact		
Use Case Name	Customer Contact		
Created By	Saqliyan & Damiano	Last Updated By	Andy
Date Created	09/28/22	Last Revision Date	10/06/22
Actors	<ul style="list-style-type: none"> • User (Primary) • Database (Secondary) 		
Description	User can leave a message for the admin		
Trigger	User clicks the send button		
Preconditions	<ul style="list-style-type: none"> • User is in the “Contact Us” page • User fills in each input 		
Post-Conditions	User’s message is stored in the message database		
Normal Flow	<ol style="list-style-type: none"> 1. User navigates to the “Contact Us” page 2. User fills in the form <ol style="list-style-type: none"> a. User’s email b. User’s message 3. User clicks “Send” 		
Alternative Flows	N/A		
Exceptions	2a. Email inputted is not valid		
Includes	N/A		
Frequency of Use	On Demand		
Special Requirements	N/A		
Assumptions	User enters something in the inputs		
Notes and Issues	N/A		

Use Case ID	Customer-Booking		
Use Case Name	Customer Booking		
Created By	Saqliyan & Damiano	Last Updated By	Andy
Date Created	09/28/22	Last Revision Date	10/04/22
Actors	<ul style="list-style-type: none"> • Customer (Primary) • Database (Secondary) 		
Description	The customer send booking info to the admin		
Trigger	Customer presses the send button after inputting his information		
Preconditions	The customer must be logged in		
Post-Conditions	The customer sent the booking info to the admin		
Normal Flow	<ol style="list-style-type: none"> 1. The customer navigates to the booking page 2. The customer inputs booking info into corresponding boxes 3. 2.1 4. The customer clicks send 5. Confirmation message 		
Alternative Flows	N/A		
Exceptions	N/A		
Includes	N/A		
Frequency of Use	On Demand		
Special Requirements	N/A		
Assumptions	The customer is able to fill out the form completely and client is registered		
Notes and Issues	N/A		

Appendix 04



Appendix 05

Sabre Red™ Workspace - Sabre Travel Network

File Edit View Tools Window Help Contact Us

Favorites Tools Community Admin **sabre red**

Red App Centre

Sabre Agency eServices

A Profile Air Hotel Car PNR PF Keys Manual Command

CHICAGO OHARE (ORD) 20 MAR 2016 » LONDON HEATHROW (LHR) 27 MAR 2016 Filters: None Sort by: None

Fare Trend: [Bar chart showing fare trend]
 Travel Seasonality: [Bar chart showing volume is Moderate]
 Alternate Dates: Save USD 50 Depart: +3 Days Leave on Wed, Mar 23
 Fare Range: Others paid USD 1273 for this route USD 1320 - MDW 16 Miles USD 1533 - MKE 67 Miles
 Alternate Airports:

Flight	Origin	Destination	Class	Time	Fare
BA/AA 1541 British Airways	ORD - Chicago ...	LHR - London H...	763	7h 55min	SOURCE LOGO USD 1339.46
BA 295 British Airways	LHR - London ...	ORD - Chicago O...	744	8h 30min	
AA 90 American Airlines	ORD - Chicago ...	LHR - London H...	763	7h 55min	SOURCE LOGO USD 1339.46
AA 47 American Airlines	LHR - London ...	ORD - Chicago O...	777	8h 50min	
AA 90	ORD - Chicago ...	LHR - London H...	763	7h 55min	

ER

amadeus File Go To Settings Scripts About Search solutions, learning and support

New Booking File New Command Page New Traveller Profile

Retrieve Booking File by name, n Retrieve Advanced Enter GDS Commands, for example: ANLO Amadeus Your Smart Flows COVID-19

Command Page - Command Page 1

> TWD

TKT-0063836929299 RCI- 1A LOC-OH7KTZ

OD-ATL ATL SI- FCPI-0 POI-LON DOI-07APR21 IOI-91282671

1.ALDRIIDGE/LARISSA ADT ST

1 OATL DL1639 E 13JUN1032 OK TAVNA0BC NO

2 OMIA DL 825 E 21JUN0905 OK UAUQA0BQ NO

ATL

FARE F USD 131.16

EQUIV GBP 95.00

TOTALTAX GBP 27.70

TOTAL GBP 122.70

/FC ATL DL MIA53.02DL ATL78.14USD131.16END ZP ATL4.30MIA4.30 XF

ATL4.5MIA4.5

FE NONREF/NOCHGS NOPRE RSV DSEAT -BG DL

FP CASH

FOR TAX/FEE DETAILS USE TWD/TAX

4505 screen Line: 16 Column: 1

Main Page Command Page 1 Hi, can I help you?

Works Cited
