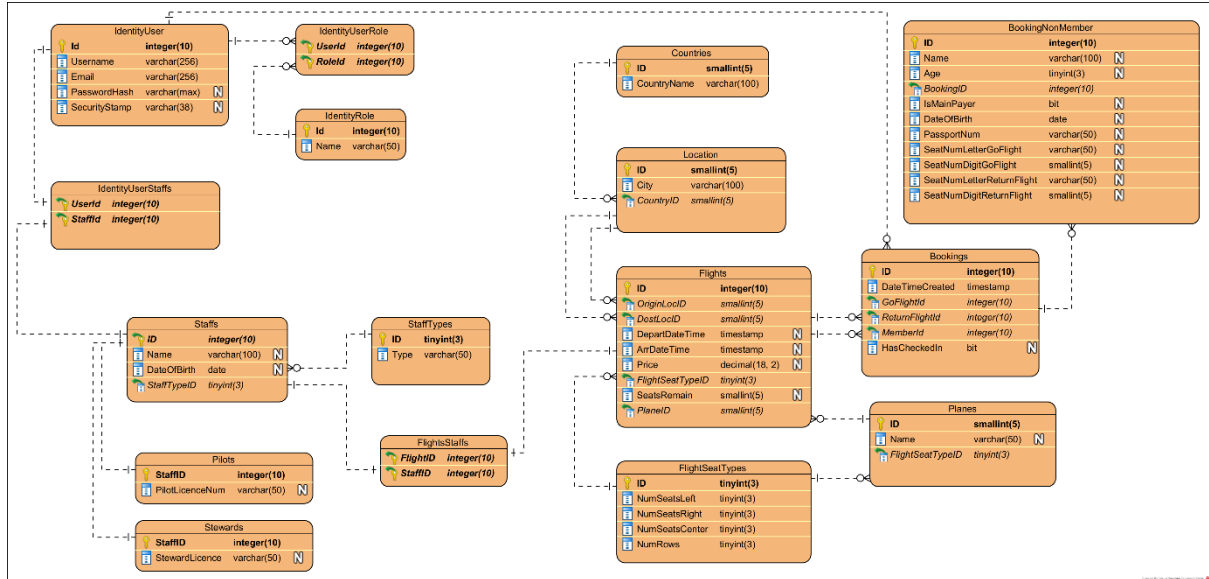


FlyAir

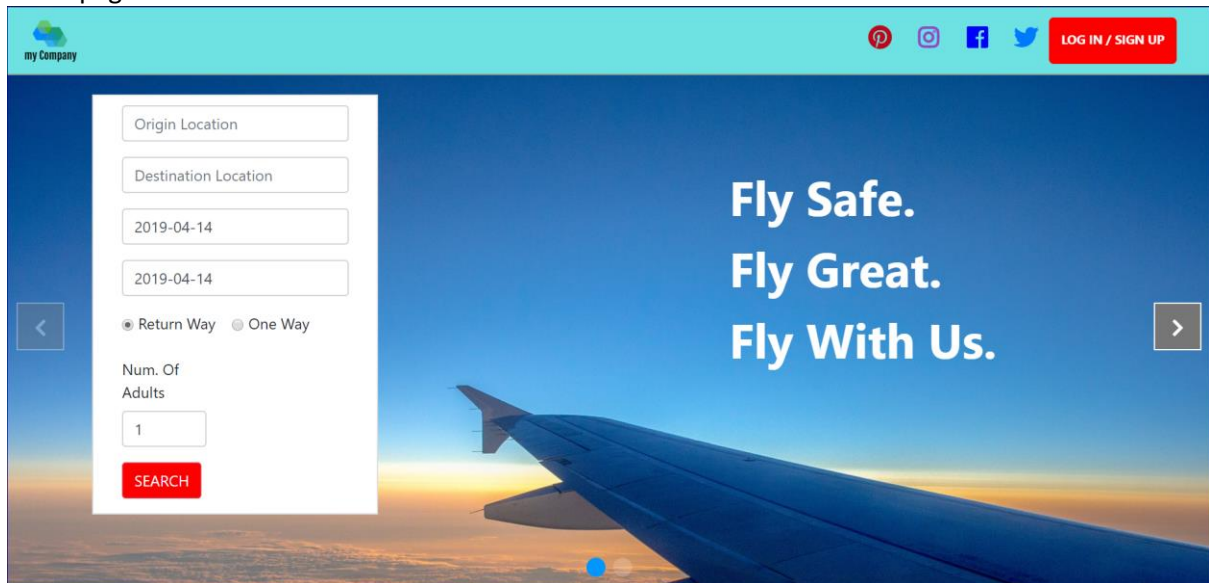
Objective: A web portal for customers to book flights/seats and to manage their bookings. This web portal also allows company employees to manage internal issues such as flight management, staff management, inventory management.

Database design:



Features:

Homepage:



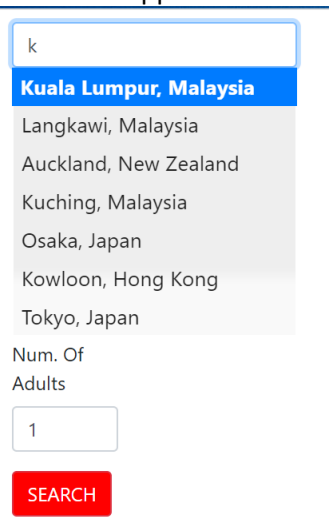
(For Public Users)

1) Flight Search Box

☒ Return Way ☐ One Way
Num. Of Adults

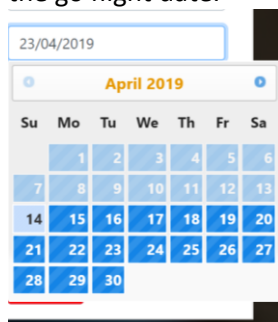
- The above search box is done using jQuery UI autocomplete plugin.

- Users only need to input letters of the desired destination and a dropdown with relevant location will appear. Users can then select the location which they want.



A screenshot of a flight search interface. At the top, there is a text input field containing the letter 'k'. Below this field is a dropdown menu with a blue header bar that reads 'Kuala Lumpur, Malaysia'. The dropdown list contains the following locations: 'Langkawi, Malaysia', 'Auckland, New Zealand', 'Kuching, Malaysia', 'Osaka, Japan', 'Kowloon, Hong Kong', and 'Tokyo, Japan'. Below the dropdown menu, there is a label 'Num. Of Adults' followed by a text input field containing the number '1'. At the bottom of the form is a red button with the text 'SEARCH' in white capital letters.

- Users are only limited to the names available in the database. Else, the location box will be cleared to avoid invalid searches.
- Users select dates based on the dropdown calendar. The go flight date has to be more than or equals the current date. The return flight date is limited to be always more than or equals the go flight date.



A screenshot of a date selection interface. At the top, there is a text input field containing the date '23/04/2019'. Below this field is a calendar for the month of April 2019. The calendar has a header with the days of the week: 'Su', 'Mo', 'Tu', 'We', 'Th', 'Fr', 'Sa'. The dates are displayed in a grid. The date '23' is highlighted in blue, indicating it is the selected date. The calendar also shows the days of the week for the following month, May, starting with 'Su' on the 28th.

2) Search results page

- After search criteria is entered, users go to search results page whereby users select their desired timing.

Penang, Malaysia - Singapore, Singapore

< 25/4/2019 26/4/2019 27/4/2019 28/4/2019 29/4/2019 >

Departure Time	Arrival Time	Selection
27/4/2019 1:00 PM	27/4/2019 2:30 PM	<input type="checkbox"/>

Singapore, Singapore - Penang, Malaysia

< 26/4/2019 27/4/2019 28/4/2019 29/4/2019 30/4/2019 >

Departure Time	Arrival Time	Selection
28/4/2019 9:00 PM	28/4/2019 10:30 PM	<input type="checkbox"/>

- On the same page itself, users can still navigate to other dates to see other flights available by selecting the date or by selecting the arrows at the section above the flight details. The current selected date would be the centre box highlighted in dark orange.

Penang, Malaysia - Singapore, Singapore

< 25/4/2019 26/4/2019 27/4/2019 28/4/2019 29/4/2019 >

Departure Time	Arrival Time	Selection
27/4/2019 1:00 PM	27/4/2019 2:30 PM	<input type="checkbox"/>

Singapore, Singapore - Penang, Malaysia

< 26/4/2019 27/4/2019 28/4/2019 29/4/2019 30/4/2019 >

Departure Time	Arrival Time	Selection
28/4/2019 9:00 PM	28/4/2019 10:30 PM	<input type="checkbox"/>

- After desired flight is selected, a red tick appears at the 'Selection' column.

<div> <div><</div> <div>25/4/2019</div> <div>26/4/2019</div> <div>27/4/2019</div> <div>28/4/2019</div> <div>29/4/2019</div> <div>></div> </div>		
Departure Time	Arrival Time	Selection
27/4/2019 1:00 PM	27/4/2019 2:30 PM	<input checked="" type="checkbox"/>

Singapore, Singapore - Penang, Malaysia

<div> <div><</div> <div>26/4/2019</div> <div>27/4/2019</div> <div>28/4/2019</div> <div>29/4/2019</div> <div>30/4/2019</div> <div>></div> </div>		
Departure Time	Arrival Time	Selection
28/4/2019 9:00 PM	28/4/2019 10:30 PM	<input checked="" type="checkbox"/>

- User must select at least one go Flight before can proceed to next step.
- Next, users will be prompted to enter guest details. It is possible to have a single user book for multiple guests. Thus, more than one guest details form will appear for such cases.

Flight Details

Penang, Malaysia - Penang, Malaysia
 Go Flight Departure Time: 27/4/2019 1:00:00 PM
 Go Flight Arrival Time: 27/4/2019 2:30:00 PM

Singapore, Singapore - Singapore, Singapore
 Return Flight Departure Time: 28/4/2019 9:00:00 PM
 Return Flight Arrival Time: 28/4/2019 10:30:00 PM

Guest Details

Guest 1
 Name *

Date Of Birth *

Passport ID *

- Next, users are required to confirm booking details

Confirm Booking

Guest 1
 Name: second@abc.com
 Age: 0
 Date Of Birth: 5/4/2019
 Passport ID: A53151

- Booking completed.

3) Member Account

- Members can manage and view their account through the manage account page. Details such as personal details and upcoming flight will also appear in this page.

Your Account Details

Email	SECOND@ABC.COM
UserName	second@abc.com
Upcoming Flight:	Singapore, Singapore to Busan, South Korea 21 Apr 2019 12:00 AM

[Your Bookings](#)[Change Password](#)

- Members can view their bookings through the “Your Bookings” link. From the subsequent page, users will be able to check-in and select their flight seats. Note that only flights which have not passed will be enabled for check-in. Else, it will be shown as expired.

Your Bookings

Booking ID: 34

Go Flight

Departure Date: 21/4/2019

Departure Time: 11:00 AM

Journey: Singapore, Singapore - Ipoh, Malaysia

[Check-in](#)

Booking ID: 33

Go Flight

Departure Date: 21/4/2019

Departure Time: 12:00 AM

Journey: Singapore, Singapore - Busan, South Korea

[Check-in](#)

Booking ID: 30

Go Flight

Departure Date: 25/3/2019

Departure Time: 7:00 PM

Journey: Barcelona, Spain - Singapore, Singapore

Return Flight

Departure Date: 26/3/2019

Departure Time: 12:00 PM

Journey: Singapore, Singapore - Barcelona, Spain

EXPIRED

Booking ID: 27

Go Flight

Departure Date: 23/3/2019

Departure Time: 2:00 PM

4) Check-in and seat selection

- View:

Web Check In

Penang, Malaysia - Singapore,
Singapore

Singapore, Singapore - Penang,
Malaysia

SUBMIT

second@abc.com Selected Seat: Not Selected

adasdd Selected Seat: Not Selected
fdvwww Selected Seat: Not Selected

A	B	C	D	E	F	G	H
1A	1B	1C	1D	1E	1F	1G	1H
2A	2B	2C	2D	2E	2F	2G	2H
3A	3B	3C	3D	3E	3F	3G	3H
4A	4B	4C	4D	4E	4F	4G	4H
5A	5B	5C	5D	5E	5F	5G	5H

- Users will need to select the desired flight and guest before selecting the seat.
- As users select the seats, the seat colour will appear as yellow.

Web Check In

Penang, Malaysia - Singapore,
Singapore

Singapore, Singapore - Penang,
Malaysia

SUBMIT

second@abc.com Selected Seat: 2D

adasdd Selected Seat: Not Selected
fdvwww Selected Seat: Not Selected

A	B	C	D	E	F	G	H
1A	1B	1C	1D	1E	1F	1G	1H
2A	2B	2C	2D	2E	2F	2G	2H
3A	3B	3C	3D	3E	3F	3G	3H
4A	4B	4C	4D	4E	4F	4G	4H
5A	5B	5C	5D	5E	5F	5G	5H

- When user switches guest selection, the previously selected seat will be disabled for selection.

Web Check In

Penang, Malaysia - Singapore,
Singapore

Singapore, Singapore - Penang,
Malaysia

SUBMIT

second@abc.com Selected Seat: 2D

adasdd Selected Seat: 3F
fdvwww Selected Seat: Not Selected

A	B	C	D	E	F	G	H
1A	1B	1C	1D	1E	1F	1G	1H
2A	2B	2C	2D	2E	2F	2G	2H
3A	3B	3C	3D	3E	3F	3G	3H
4A	4B	4C	4D	4E	4F	4G	4H
5A	5B	5C	5D	5E	5F	5G	5H

- Seat selection of different flights are independent of each other.

Web Check In

Penang, Malaysia - Singapore, Singapore

Singapore, Singapore - Penang, Malaysia

SUBMIT

second@abc.com Selected Seat: Not Selected

adasdd Selected Seat: Not Selected

fdvvvv Selected Seat: Not Selected

A	B	C	D	E	F	G	H
1A	1B	1C	1D	1E	1F	1G	1H
2A	2B	2C	2D	2E	2F	2G	2H
3A	3B	3C	3D	3E	3F	3G	3H
4A	4B	4C	4D	4E	4F	4G	4H
5A	5B	5C	5D	5E	5F	5G	5H

- All guests' seat must be selected before user is allowed to proceed.

5) Real time notification of newly booked flight.

- It is possible for this web app to display real time notification whenever a new booking is made, regardless of which user. It is done through signalR hub.

And the notification broadcast is only sent to specific client groups whereby the user is searching for a specific flight location (Each flight has two locations, the origin and the destination). i.e., if a user searches for a flight between Penang, Malaysia and Singapore, Singapore, only new booking flight between these two location will trigger notification to appear on the screen. Notification will last for a specified period in the program and will disappear after that.

- For example, imagine there are two concurrent users visiting the website and search for similar flight location. When User A completes a new booking (of similar flight location), User B will have notification appear on the screen.

my Company

18/4/2019

19/4/2019

20/4/2019

21/4/2019

22/4/2019

No Flights Available.

18/4/2019

19/4/2019

20/4/2019

21/4/2019

22/4/2019

No Flights Available.

Penang, Malaysia - Singapore, Singapore

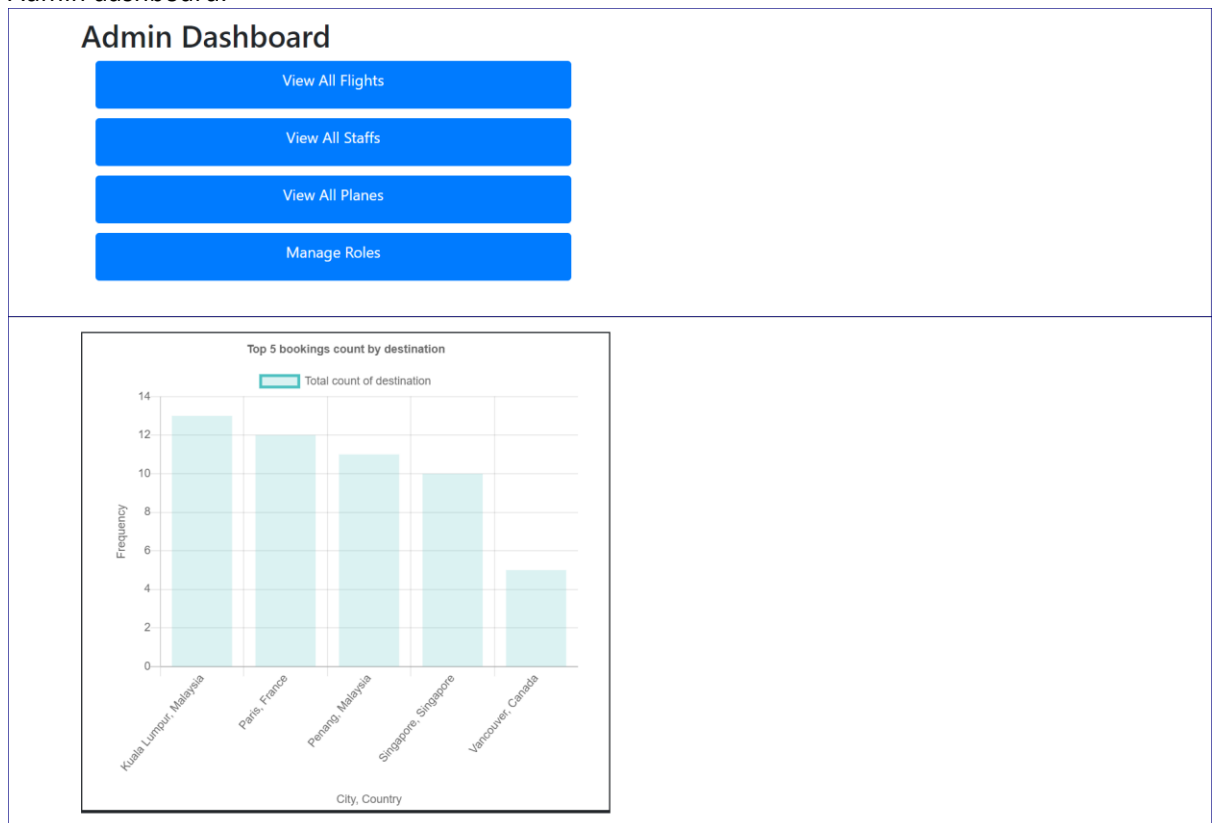
Singapore, Singapore - Penang, Malaysia

NEXT

Someone just booked a flight between these two location.

(For admin)

1) Admin dashboard:



- Admin able to view charts such as top 5 destination booked. This allows admin to have a quick overview on the business.

2) View All Flights

- View:

View All Flights

[Add Flight](#)

ID	DepartDateTime	ArrDateTime	Price	SeatsRemain	PlaneID	OriginLoc	DestLoc	FlightSeatType
4	20/12/2018 12:00:00 PM	20/12/2018 2:00:00 PM	0.00	0	2	Kuala Lumpur, Malaysia	Vancouver, Canada	Edit Delete Edit Staffs Edit Plane
7	22/12/2018 8:00:00 PM	23/12/2018 2:00:00 AM	0.00	0	0	Kuala Lumpur, Malaysia	Vancouver, Canada	Edit Delete Edit Staffs Edit Plane
9	21/12/2018 3:00:00 PM	21/12/2018 11:00:00 PM	0.00	0	1	Vancouver, Canada	Kuala Lumpur, Malaysia	Edit Delete Edit Staffs

- In this page, admin can view all flights and proceed to edit or delete flights. Can also edit staffs on duty for the flights and edit plane selection for the flight.

3) View All Staffs

- View:

View All Staffs				
Add New Staff				
	Name	Date Of Birth	Staff Type Name	
1	aa	3/1/2019	Pilot	Edit Details Delete Edit Role
2	bb	11/1/2019	Steward	Edit Details Delete Edit Role
3	cc	6/1/2019	Pilot	Edit Details Delete Edit Role
4	dd	6/1/2019	Pilot	Edit Details Delete Edit Role
5	ee	11/1/2019	Steward	Edit Details Delete Edit Role
6	ff	12/4/2018	Pilot	Edit Details Delete Edit Role
7	gg	8/7/2018	Pilot	Edit Details Delete Edit Role
8	hh	14/2/2013	Steward	Edit Details Delete Edit Role

- Admin is able to view, edit, add staffs from this page.

4) View All Planes

- View:

View All Planes					
Add New Plane					
	Name	FlightSeatTypeID	Left Seats	Center Seats	Right Seats
	plane 003	1	3	2	3
	plane 006	1	3	2	3
	plane 002	2	3	0	3
	plane 001	3	2	2	2
	plane 004	3	2	2	2
	plane 005	3	2	2	2

- Admin is able to view, edit plane characteristics, add new planes from this page.

5) Manage Roles

- Admin will be able to add new roles to the server from this page.

View Roles	
Id	Name
1	ADMIN
2	STAFF1
3	MEMBER
4	STAFF2
Add Role	

(For ordinary staffs)

1) Staff dashboard:

- Staff can see their upcoming flight on the dashboard page.

Staff Dashboard

Your Work

You have 1 flight duty coming up.

Flight ID:	2054
From:	Busan
Depart Time:	27/4/2019 3:00:00 AM
To:	Barcelona
Arrival Time:	28/4/2019 1:00:00 AM

ID: 13

Name: staff number 5

2) Staff Chat

- This web app features a chat hub for staffs to send real time messages between staffs. (P.S. No database was created for this chat feature. Thus, there is no conversation history recorded.)

- This feature is done using signalR hub.

- Users will be able to see current online users and be able to send messages to specific users. The program will recognize the group of users based on connection Id.

my Company

Your Chat Box

Current Online Users
staff5@abc.com

Enter message here

Send

my Company

Your Chat Box

Current Online Users
staff4@abc.com

Enter message here

Send

