

FPT ACADEMY INTERNATIONAL FPT – APTECH COMPUTER EDUCATION

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FLIGHT BOOKING

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Month 02 Year 2019

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1 Problem Definition

In recent years, people's mobility and demand for tourism has increased. More and more vehicles contribute to the development of transport network problems. Types of vehicles such as buses, coaches, taxis, trains ... only meet short travel distances and don't bring high safety to customers. Airlines in Vietnam is growing with many famous brands such as Vietnamairlines, VietJet, JetStar ... bringing high competitive.

With the purpose of serving the quality of life, serving the needs of customers, our FTA airline company was born to meet the increasing demand and travel of domestic customers. In the context of increasingly busy and bustling life, the issue of air ticket booking is quite a problem. Suppose we had a quick flight tomorrow but today the job is too busy and we can't go to the ticket counter directly to buy it, or buy online tickets online but we don't know where to buy, the form and the procedure is too complicated, the price is too high or sometimes there is no suitable flight for us. To solve this problem, our airline has developed the "Flight Tickets Anywhere (FTA)" website, which helps customers to book flight tickets anytime, anywhere and most quickly.

With a friendly, simple, easy-to-use interface, experienced and enthusiastic online support team, high speed website to meet the needs of access, especially on peak occasions, FTA will help customers book tickets The ball machine is fast with the simplest procedure, especially the price is cheap compared to other firms.

2 Customer Requirement Specification

2.1 User use System

Customer:

 Who use the webpage to search flight, Book flight, payment, and Tracing their booking (View detail of history booking). Customers can sign up to become a meber of a webpage.

Admin:

- Who manage the web: Can Create, update: Passenger, Account, Airline, Airport, Region and other information of the web and make report.

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2.2. Functional Requirements.

2.2.1 Customer

Search Flight:

- Customer choice departure, destination, depart day, return day, number of customer, airline on web for searching the flight that they want.
- Departure, destination, depart day, number of customer is required, cusomter choise in view. Customer can choise depart day from present to one year in future. Number customer default is one if customer do not input. Maximum every booking is nine include Child, Infant, Adult.
- View must have notifications to customer if they input invalid imfomation.
- The web will return all flight corresponding with search condition of passenger.

❖ Book Flight:

- Passenger can choice Flight from list of after they search. The web will display imfomation of the the flight choosen. Include: Class, terms of class, Depart time, Arrive time, Aircraff, Departure, Destination.
- After choice Flight passeger will see Price sumary include fare, Tax, Fee carrier charges.
- Continue to fill information detail: Title, given name, Last name, date of birth, gender, Contact info: phone number, Email address.
- Accept Term then select payment online with Card number, Name on card, Expiration date.
- Customer can edit departure, destination, depart day, return day, number of customer, airline in booking process before make payment. The web will give new flights according to new information that customer input.
- After payment successful, system will send email ticket in PDF format to customer, Customer can print this ticket to check-in in airport.
- In Booking process must have notifications when input value is not valid.

***** Trace Booking

Customer can view their trip information by enter following exactly imfomation:
 Reservation, Last Name, Email Address or logon by account to see all history

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booking. If customers are not the member, they can only view history of booking by Reservation, Last Name, Email Address for every finding.

- Web will display about list of flight that customer booked: , Depart time, Arrive time, Aircraff, Departure, Destination.

❖ Sign up

- Customer can sign up to system to become a member of system.
- Customer fill account id, account name, email, phone, location, date of birth, gender into form that system provide to sign up.
- Account id, account name, email, phone is required.
- View have notifications if imformation customer input is not valid or sign up success.

❖ Login

- If Customer signed up they can logon to system by filling account Id, password registried.
- Customer can view, update their profile information (Account name, date of birth, gender, email, phone).
- Customer can view history booking: Depart time, Arrive time, Aircraff, Departure, Destination,....
- View have to display message if logon fail or display name of customer in webpage.

View News, Contact info of the web.

- In home page display recommend about cheap fligh from airline, Customer can choise derect from this to book flight.
- When customer need help they can view contact information of the web: Email, phone to contact.

2.2.2 Admin

Dashboard

- Admin can view Sale overview: Total sale in days, in month, Total profit.
- View list of lastest Booking include imformation: Airline, Departure, destination,...
- View list of new member, total member.

***** Make Report

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- The admin can make report by input filter: Airline, Airport, Region in range of time. Print report with PDF Format.

User management

- Create, update, view, delete information of user in system by input Account ID, Account Name.
- Grant, revoke role to user.

***** Manage information about Web:

About info displayed in view that customer can choise direct when search flight. Or admin use to filter when make report, view dashboard. All value input has to valid and has notifications

- **Airline:** This is information about provider flight. Admin can create Airline by input AirlineID, Airline Name. Update Region by input AirlineName.
- **Airport:** This is information about where passenger can depart or arrive. Admin can create Airport by in put Airport ID, Airport Name, Region ID the Airport belong.
- **Region:** This is imformation about that Airport located. Admin can Create region by input RegionID, Region Name. Update Region by input Region name.
- **Contact info:** admin can create or edit contact info of the web: Phone, email, time work.

2.3 System Requirements

2.3.1 Hardware Requirements

Server:

Component	Requirement	
CPU	Processor type:	
	Core-compatible processor or faster	
	Processor speed:	
	Recommended: 2.0 GHz or faster	
os	Microsoft Windows 7 with IIS 7 or higher	

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Memory (RAM)	RAM: Minimum: 3 GB Recommended: 4 GB or more
Hard Drive	Free space: Minimum: 20 GB Recommended: 50 GB or more Maximum: Operating system maximum

Client:

Component	Requirement
CPU	Processor type: Core-compatible processor or faster Processor speed: Recommended: 2.0 GHz or faster
os	All OS(Window ,Linux ,Android ,Mac OS)
Memory (RAM)	RAM: Minimum: 3 GB Recommended: 4 GB or more Maximum: Operating system maximum
Hard Drive	Free space: Minimum: 20GB

2.3.2. Software Requirements.

Server:

Component	Requirement

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Visual Studio	Visual Studio 2013 or higher
Microsoft .NET Framework	Version 4.5 or higher
RDBMS	Microsoft SQL Server 2012 or higher
Front-End	HTML5CSS3(sass, Bootstrap 3), JavaScript(JQuery), Ajax
Back-End	ASP.NET MVC 5, ASP.NET WEB API 2, Entity Framework

Client:

Component	Requirement		
CPU	Processor type:		
	Core -compatible processor or faster		
	Processor speed:		
	Recommended: 2.0 GHz or faster		
os	All OS(Window ,Linux)		
Memory (RAM)	RAM:		
	Minimum: 2 GB		
	Recommended: 4 GB or more		
	Maximum: Operating system maximum		
Hard Drive	Free space:		
	Minimum: 20GB		
Web Browser	Firefox 60+,Chrome 60+		

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Review 1 - Task Sheet

Project Ref. No.: Project title: Flight Booking		Activity Plan Prepared by: Trí		Date of Preparation of Activity Plan		
Sr.No.	Task	Start Date	End Date	Actual day	Member's Name	status
1	Problem Definition					
2	Customer Requir Specification					
3	Functional Requirement Specification	15/02/2019	17/02/2019	3	All members	Complete
4	System Requirements					

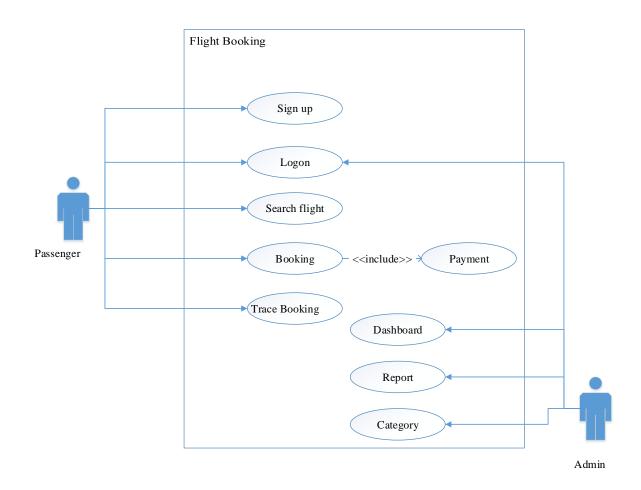
Group Leader Faculty

Nguyen Huu Tri Nguyen Hoang Thao



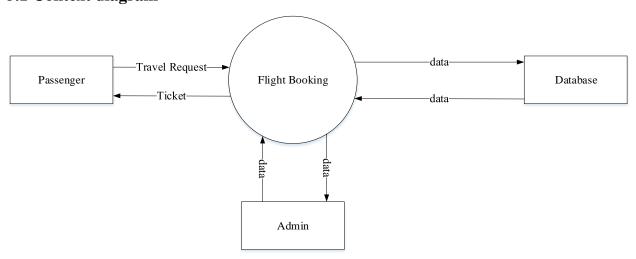
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4. Use – case



5. Data Flow Diagram (DFD)

5.1 Context diagram



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5.2 DFD Level 1

5.2.1 Sign up



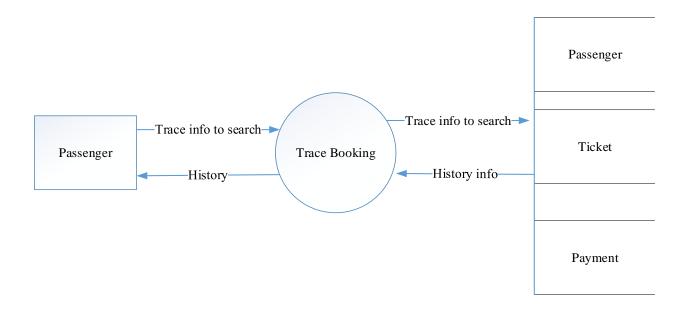
5.2.2 Logon



5.2.3 Search Flight



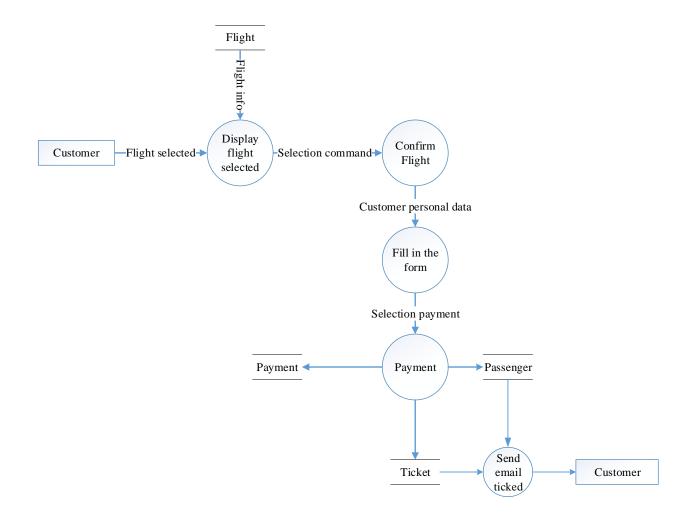
5.2.4 Trace Booking



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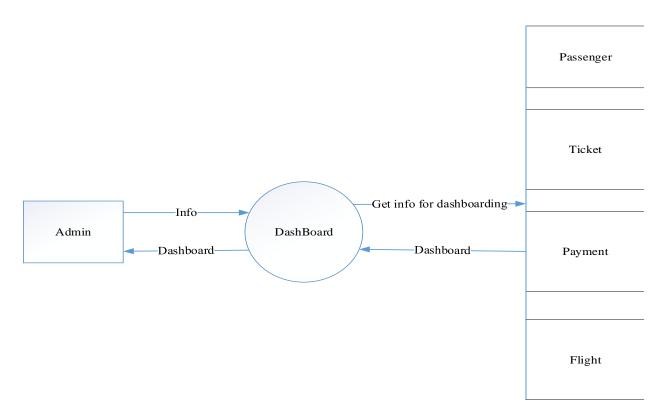
5.2.5 Booking



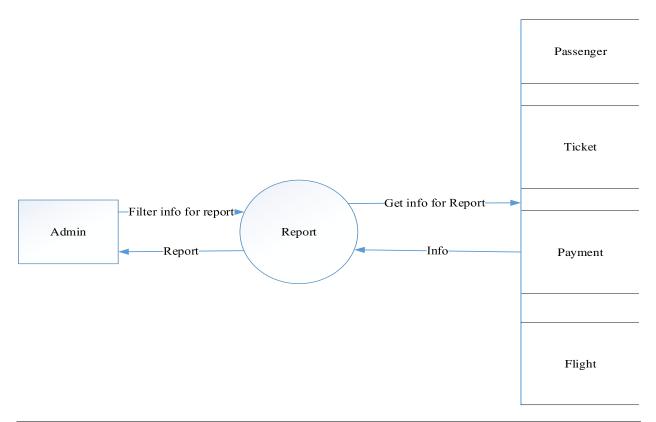
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5.2.6 Dashboard



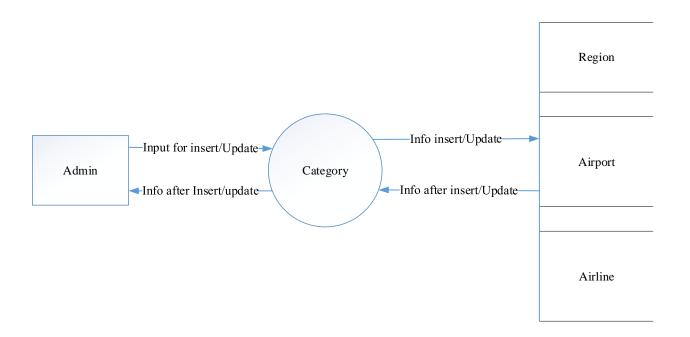
5.2.7 Report



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5.2.7 Category

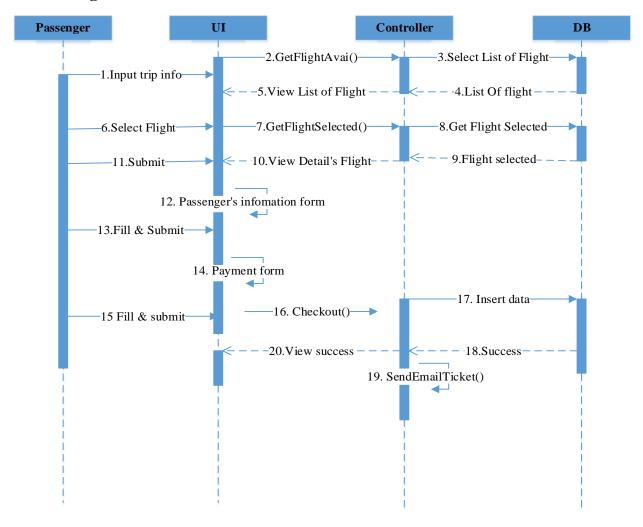


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6. Sequence

6.1 Booking



Author				
Use case name	Booking			
Actor	Passenger	Passenger		
Description	Passenger wanna bo	Passenger wanna booking flight		
Requirements	Passenger provide information about trip			
Pre-conditions				
Post -Condition	Success: have a mes	Success: have a message confirm and get Ticket.		
Basic flow	Actor action	System Responses		

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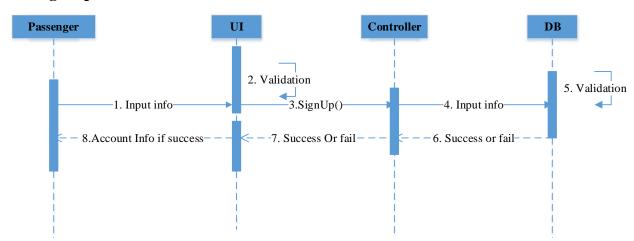
getFlightAvai() to controller to get data from DB with info that passenger input. 1. Input the trip info into booking page, then click Searh. 6. Passenger choise flight from UI then click Select button. 11. Passenger submit the flight on UI 13. Passenger input information to form and submit 15. Passenger input payment info and submit 15. Passenger input payment info and submit 16. Passenger input information to form and submit 17. Passenger input payment info and submit 18. Passenger input payment info and submit 19. Dareturn flight detail that passenger selected to controller. 19. Ochroller return view of detail that passenger selected. 10. Controller return view of detail that passenger selected. 12. Display form that passenger input info.		2. System call
data from DB with info that passenger input. 1. Input the trip info into booking page, then click Searh. 6. Passenger choise flight from UI then click Select button. 11. Passenger submit the flight on UI 13. Passenger input information to form and submit 15. Passenger input payment info and submit 15. Passenger input payment info and submit 16. Passenger input information to form and submit 17. Passenger input payment info and submit 18. Controller return view to UI. 19. System call getFlightSelected() to Controller to get flight detail that passenger selected. 19. DB return flight detail that passenger selected. 10. Controller return view of detail that passenger selected. 11. Input the trip info input. 3. Controller get match info that passenger input. 5. Controller return view to UI. 7. System call getFlightSelected() to Controller to get flight detail that passenger selected from DB. 9. DB return flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 12. Display form that		getFlightAvai() to
1. Input the trip info into booking page, then click Searh. 6. Passenger choise flight from UI then click Select button. 11. Passenger submit the flight on UI 13. Passenger input information to form and submit 15. Passenger input payment info and submit 15. Passenger input payment info and submit 16. Passenger submit the flight on UI 11. Passenger input information to form and submit 15. Passenger input payment info and submit 16. Passenger input information to form and submit 17. System call getFlightSelected() to Controller to get flight detail that passenger selected. 18. Controller get match info from DB. 19. DB return all match info to controller. 10. Controller return view to UI. 21. System call getFlightSelected() to Controller to get flight detail that passenger selected from DB. 22. DB return all match info to controller. 23. Controller get match info from DB. 24. DB return all match info to controller. 25. Controller return view to UI. 26. System call getFlightSelected() to Controller to get flight detail that passenger selected. 28. Controller get match info from DB.		controller to get
input. 1. Input the trip info into booking page, then click Searh. 6. Passenger choise flight from UI then click Select button. 11. Passenger submit the flight on UI 13. Passenger input information to form and submit 15. Passenger input payment info and submit 15. Passenger input payment info and submit 16. Passenger submit the flight on UI 17. System call getFlightSelected() to Controller to get flight detail that passenger selected. 8. Controller get match info from DB. 5. Controller return view to UI. 7. System call getFlightSelected() to Controller to get flight detail that passenger selected. 8. Controller get match info from DB. 9. DB return all match info to controller. 5. Controller return view to UI. 7. System call getFlightSelected() to Controller to get flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 11. Input the trip info into booking page, then click Searh. 5. Controller return view to UI. 7. System call getFlightSelected() to Controller to get flight detail that passenger selected. 8. Controller return view of detail that passenger selected to controller. 10. Controller return view of detail that passenger selected.		data from DB with
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11. Passenger submit the flight on UI 13. Passenger input information to form and submit 15. Passenger input payment info and submit 15. Passenger input payment info and submit 16. Passenger input payment info and submit 17. System call getFlightSelected() to Controller to get flight detail that passenger selected. 18. Controller get flight detail that passenger selected from DB. 19. DB return flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 12. Display form that		5. Controller return
the flight on UI 13. Passenger input information to form and submit 15. Passenger input payment info and submit 15. Passenger input payment info and submit 16. Passenger input payment info and submit 17. System call getFlightSelected() to Controller to get flight detail that passenger selected. 18. Controller get flight detail that passenger selected from DB. 19. DB return flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 12. Display form that		view to UI.
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and submit 15. Passenger input payment info and submit 8. Controller get flight detail that passenger selected from DB. 9. DB return flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 12. Display form that		Controller to get flight
selected. 15. Passenger input payment info and submit 8. Controller get flight detail that passenger selected from DB. 9. DB return flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 12. Display form that		detail that passenger
payment info and submit 8. Controller get flight detail that passenger selected from DB. 9. DB return flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 12. Display form that		selected.
submit detail that passenger selected from DB. 9. DB return flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 12. Display form that		8. Controller get flight
selected from DB. 9. DB return flight detail that passenger selected to controller. 10. Controller return view of detail that passenger selected. 12. Display form that		detail that passenger
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10. Controller return view of detail that passenger selected. 12. Display form that		detail that passenger
view of detail that passenger selected. 12. Display form that		selected to controller.
passenger selected. 12. Display form that		10. Controller return
12. Display form that		view of detail that
		passenger selected.
passenger input info.		12. Display form that
		passenger input info.

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		14. UI validate and
		display payment form.
		16. UI call
		CheckOut() medthod
		to Controller.
		17. Controller insert
		data to DB.
		18. DB return
		message to controller.
		19. Controller call
		SendEmailTicket().
		20. Controller display
		message success to
		UI.
Alternative flow		
	All field is blank or day	There are message to
Exception	depart greater than day	passenger and no result
	return.	return

6.2 Sign Up



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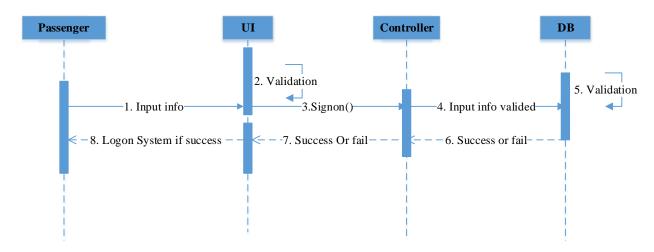
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Author		
Use case name	SignUp	
Actor	Passenger	
Description	Passenger wanna to registr	ry to website
Requirements	Passenger provide informa	tion to sign up
Pre-conditions		
Post -Condition	Success: Passeger become	member of website
Basic flow	1. Passger go to Sign up page then Input infomation. 8. If success passenger have become member of website with account.	2. UI Valadate 3. System call SignUp() to controller 4. Controller get match info from DB. 5. Validate info in DB 6 . DB return result. 7. Controller return view Sign up success or fail
Alternative flow		
Exception	 All field is blank. Email is blank or exitst. AccountID length is <3 or >20 Password lenth is < 6 or > 14. Account ID is exists in DB. 	There are message to passenger if input is not valid. If input is valid but Account ID is exists in DB, message return form DB.

	Prepared by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: UC/DFD/Sequence Diagram	SWD/Form No. 1
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6.3 Logon

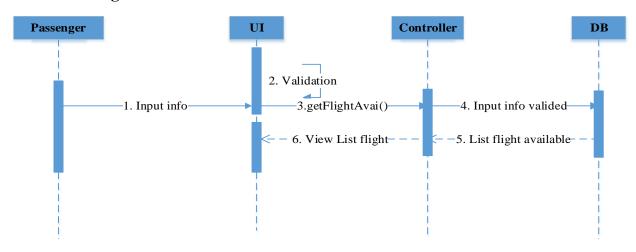


		I	
Author			
Use case name		Logon	
Actor		Passenger	
Description		Passenger wanna to logon	to website
Requirements		Passenger provide account	ID and password.
Pre-conditions		Passenger registed.	
Post -Condition		Success: Passeger logon to	website
		Actor action	System Responses
Basic flow		2. UI Valadate 1. Input Account info and submit. 2. UI Valadate 3. System call Sigon() controller 4. Controller get match info from DB. website 5. Validate info in DB 6. DB return result. 7. Controller return vie	
	Prepared	by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Men	nber	Nguyen Hoang Thao

Design Plan:	Document Name: UC/DFD/Sequence Diagram	SWD/Form No. 1
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Alternative flow		
		There are message to
	1. All field is blank.	passenger if input is not
Evantion	2. Account ID is not	valid.
Exception	exists in DB.	If input is valid but not
		match in DB, message
		return form DB.

6.4 Search Flight



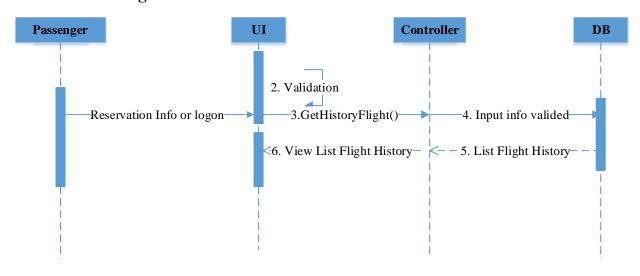
Author		
Use case name	Booking	
Actor	Passenger	
Description	Passenger wanna booking	flight
Requirements	Passenger provide information to search	
Pre-conditions		
Post -Condition	Success: All Flight match filter info return.	
	Actor action	System Responses
Davis Gara	2. Input the trip info	
Basic flow	into booking page,	2 111 11 1 1
	then click Searh.	2. UI Valadate

	Prepared by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Member	Nguyen Hoang Thao

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		3. System call
		getFlightAvai() to
		controller to get data
		from DB with info
		that passenger input.
		4. Controller get match
		info from DB.
		5. DB return all match
		info to controller.
		6 .Controller return view
		to UI.
Alternative flow		
	All field is blank or day	There are message to
Exception	depart greater than day	passenger and no result
	return.	return

6.5 Trace Booking



Author	
Use case name	Trace Booking

	Prepared by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Member	Nguyen Hoang Thao

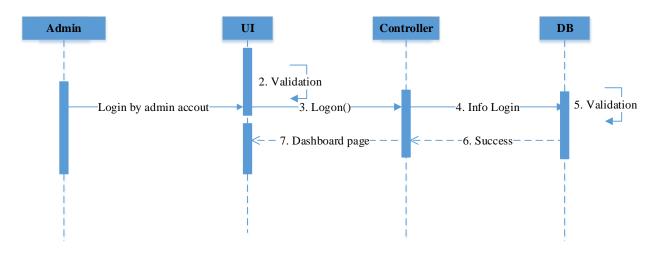
Design Plan:	Document Name: UC/DFD/Sequence Diagram	SWD/Form No. 1
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Actor	Passenger	
Description	Passenger wanna view history of booking	
Requirements	Passenger provide Reservation info to search or logon to website	
Pre-conditions	Passeger booking success at least once.	
Post -Condition	Success: All Flight History match info return.	
	Actor action	System Responses
Basic flow Alternative flow	Passger go to trace booking page input reservation info or logon to website	2. UI Valadate 3. System call GetHistoryFlight() to controller to get data from DB with info that passenger input. 4. Controller get match info from DB. 5. DB return all match info to controller. 6. Controller return view to UI.
Ancinauve now		There are masses to
Exception	Reservation code and email blank.	There are message to passenger and no result return

6.6 DashBoard

	Prepared by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: UC/DFD/Sequence Diagram	SWD/Form No. 1
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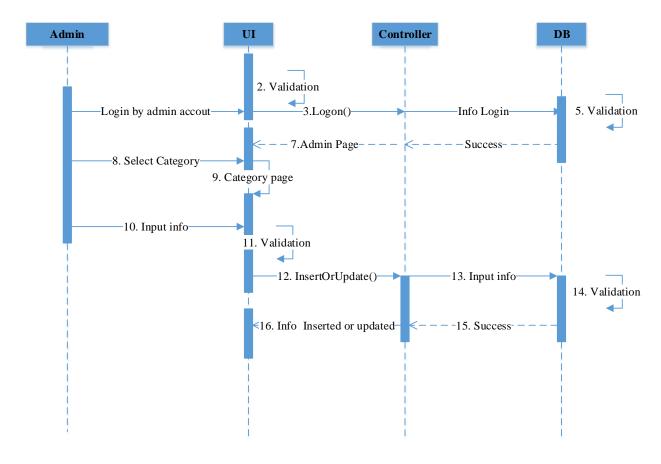
Author			
Use case name	DashBoard		
Actor	Admin		
Description	Admin view Dashboard ab	out general web active	
Description	infomation		
Requirements	Login by Admin account		
Pre-conditions			
Post -Condition	Success: Dashboard is disp	olay.	
	Actor action	System Responses	
		2. UI Valadate	
		3. System call Logon() to	
		controller to get data	
		from DB with info that	
	1. Login by admin	passenger input.	
Basic flow	account.	4. Controller get logon	
	account.	info from DB.	
		5. Validate logon info	
		6. DB return match logon	
		info to controller.	
		7 .Controller return view	
		Dashboard to UI.	

	Prepared by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: UC/DFD/Sequence Diagram	SWD/Form No. 1
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Alternative flow		
Exception	Account is not admin	There are message to passenger and no result return

6.7 Category



Author	
Use case name	Category
Actor	Admin
Description	Admin can to manage cateogry of website
Requirements	Login by Admin account
Pre-conditions	
Post -Condition	Success: Category is insert or update

	Prepared by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Member	Nguyen Hoang Thao

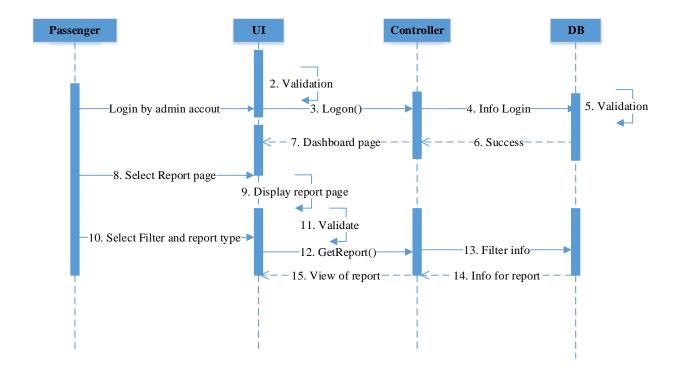
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	Actor action	System Responses
		2. UI Valadate
		3. System call Logon() to
		controller to get data
		from DB with info that
		passenger input.
		4. Controller get logon
		info from DB.
		5. Validate logon info
	1. Login by admin	6. DB return match logon
	account.	info to controller.
	8. Admin select	7 .Controller return
Basic flow	Category.	admin page to UI.
	10. Admin input	9. Category page display.
	information to insert or	11. Validate input.
	update then submit.	12. Call InsertOrUpdate()
		to controller.
		13. Controller send info
		to db.
		14. Validate info in DB.
		15. Return message
		success.
		16. Insert or update info
		success display in UI.
Alternative flow		
	Account is not admin,	There are message to
Exception	Input value is not valid	passenger and no result
		return

	Prepared by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: UC/DFD/Sequence Diagram	SWD/Form No. 1
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6.8 Report



Author			
Use case name		Category	
Actor		Admin	
Description Admin can to manage cateogry of website		eogry of website	
Requirements		Login by Admin account	
Pre-conditions			
Post -Condition		Success: Report information is display.	
		Actor action	System Responses
		1. Login by admin	2. UI Valadate
		account.	3. System call Logon() to
D		8. Admin select Report	controller to get data
Basic flow		page.	from DB with info that
		10. Admin input filter	passenger input.
		and select report type	4. Controller get logon
			info from DB.
	Prepared	l by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Men	nber	Nguyen Hoang Thao

Design Plan:	Document Name: UC/DFD/Sequence Diagram	SWD/Form No. 1
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		5. Validate logon info
		6. DB return match logon
		info to controller.
		7 .Controller return
		admin page to UI.
		9. Report page display.
		11. Validate input.
		12. Call GetReport() to
		controller.
		13. Controller send info
		to db.
		14. DB return info for
		report.
		15. Report info display in
		UI
Alternative flow		
	Account is not admin,	There are message to
Exception	Input value is not valid	passenger and no result
	input value is not valid	return

	Prepared by (Student)	Approved by (Teacher)
Date: 27/02/2019	All Member	Nguyen Hoang Thao

Review 2 - Task Sheet

Project Ref. No.: Project title: Flight Booking		Activity Plan Prepared by: Trí		Date of Preparation of Activity Plan			
Sr.No.	Т	ask	Start Date	End Date	Actual day	Member's Name	status
1		Sign up	19/02/2019	19/02/2019	1	Phát	Complete
2		Login	19/02/2019	19/02/2019	1	Phát	Complete
3		Trace Booking	20/02/2019	20/02/2019	1	Phát	Complete
4	Use-Case	Category	21/02/2019	21/02/2019	1	Phát	Complete
5	Osc-Casc	Search flight	19/02/2019	19/02/2019	1	Trí	Complete
6		Report	20/02/2019	20/02/2019	1	Trí	Complete
7		Booking	20/02/2019	20/02/2019	1	Lâm	Complete
8		Dashboard	21/02/2019	22/02/2019	1	Lâm	Complete
9		Sign up	19/02/2019	19/02/2019	1	Phát	Complete
10		Login	19/02/2019	19/02/2019	1	Phát	Complete
11		Trace Booking	20/02/2019	20/02/2019	1	Phát	Complete
12	DED	Category	21/02/2019	21/02/2019	1	Phát	Complete
13	DFD	Search flight	19/02/2019	19/02/2019	1	Trí	Complete
14		Report	20/02/2019	20/02/2019	1	Trí	Complete
15		Booking	20/02/2019	20/02/2019	1	Lâm	Complete
16		Dashboard	21/02/2019	22/02/2019	1	Lâm	Complete
17		Sign up	19/02/2019	19/02/2019	1	Phát	Complete
18		Login	19/02/2019	19/02/2019	1	Phát	Complete
19		Trace Booking	20/02/2019	20/02/2019	1	Phát	Complete
20	Comy	Category	21/02/2019	21/02/2019	1	Phát	Complete
21	Sequence	Search flight	19/02/2019	19/02/2019	1	Trí	Complete
22		Report	20/02/2019	20/02/2019	1	Trí	Complete
23		Booking	20/02/2019	20/02/2019	1	Lâm	Complete
24		Dashboard	21/02/2019	22/02/2019	1	Lâm	Complete

Group Leader

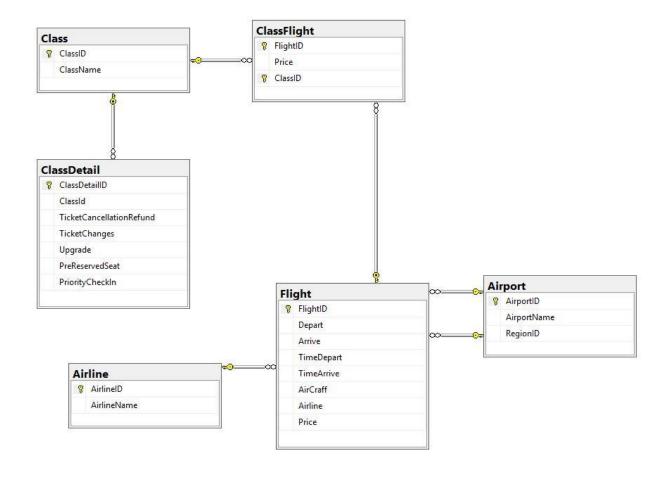
Faculty



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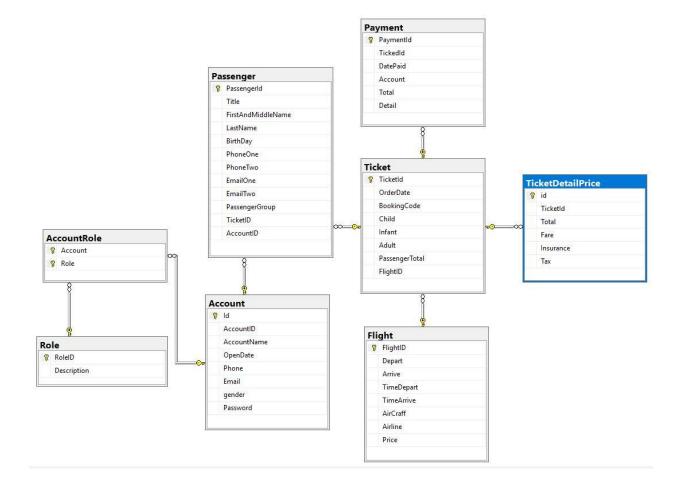
7. Entity Relationship (E-R) Diagram

7.1 E-R Diagram



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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7.2 Table

7.2.1 Region

Field Name	Data Type	Constraint	Description
RegionID	varchar(15)	Primary Key	The identification of Region
RegionName	Nvarchar(50)	Not null	

7.2.2 Airport

Field Name	Data Type	Constraint	Description
AirportID	varchar(15)	PK	The identification of Airport
AirportName	Nvarchar(50)	Not null	
RegionID	varchar(15)	Not null, FK	

	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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7.2.3 Airline

Field Name	Data Type	Constraint	Description
AirlineID	varchar(15)	PK	The identification of Airline
AirlineName	Nvarchar(50)	Not null	

7.2.4 Flight

Field Name	Data Type	Constraint	Description
FlightID	varchar(15)	PK	The identification of Flight
Depart	varchar(15)	Not null,FK	
Arrive	varchar(15)	Not null, FK	
TimeDepart	Datetime	Not null	
TimeArrive	Datetime	Not null	
AirCraff	Varchar(50)	Not null	
Airline	int	Not null, FK	
Price	float	Not null	

7.2.5 Class

Field Name	Data Type	Constraint	Description
ClassID	int	Primary Key	The identification of Region
ClassName	Varchar(50)	Not null	

7.2.6 ClassDetail

Field Name	Data Type	Constraint	Description
ClassDetailID	int	Primary Key	The identification
ClassId	Varchar(50)	Not null, FK	
TicketCancellationRefund	bit	Not null	
TicketChanges	bit	Not null	
Upgrade	bit	Not null	
PreReservedSeat	bit	Not null	
PriorityCheckIn	bit	Not null	

7.2.7 ClassFlight

Field Name	Data Type	Constraint	Description
FlightID	int	PK,FK	The identification
ClassID	Varchar(50)	PK,FK	
Price	float	Not null	

	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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7.2.8 Ticket

Field Name	Data Type	Constraint	Description
TicketId	int	PK,FK	The identification
OrderDate	datetime	Not null	
BookingCode	float	Not null	
Child	tinyint	Not null	
Infant	tinyint	Not null	
Adult	tinyint	Not null	
PassengerTotal	tinyint	Not null	
FlightID	int	Not null,FK	

7.2.9 Passenger

Field Name	Data Type	Constraint	Description
PassengerId	int	PK,FK	The identification
Title	Char(3)	Not null	
FirstAndMiddleName	varchar	Not null	
LastName	varchar	Not null	
BirthDay	varchar	Not null	
PhoneOne	varchar	Not null	
PhoneTwo	varchar		
EmailOne	varchar	Not null	
EmailTwo	varchar		
PassengerGroup	varchar	Not null	
TicketID	Int	Not null,FK	
AccountID	Int	FK	

	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: ERD/Table Design/Sitemap/UI	SWD/Form No. 1
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7.2.10 Payment

Field Name	Data Type	Constraint	Description
PaymentId	int	PK	The identification
TickedId	int	Not null	
DatePaid	datetime	Not null	
Account	int	Not null	
Total	real	Not null	
Detail	nvarchar(500)	Not null	
PaymentId	int	Not null,FK	
TickedId	int	Not null,FK	
DatePaid	datetime	Not null	
Account	varchar	Not null	
TicketID	Int	Not null,FK	
AccountID	Int	Not Null,FK	

7.2.11 TicketDetailPrice

Field Name	Data Type	Constraint	Description
id	int	PK	The identification
TicketId	int	Not null, FK	
Total	float	Not null	
Fare	float	Not null	
Insurance	float	Not null	
Tax	float	Not null	

	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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7.2.12 Account

Field Name	Data Type	Constraint	Description
Id	int	PK	The identification
AccountID	varchar(50)	Unique	
AccountName	nvarchar(100)	Not null	
OpenDate	datetime	Not null	
Phone	varchar(50)	Not null	
Email	varchar(50)	Unique	
gender	bit		
Password	Varchar(200)	Not null	

7.2.13 Role

Field Name	Data Type	Constraint	Description
RoleID	varchar(15)	PK	The identification
Description	nvarchar(50)		

7.2.14 AccountRole

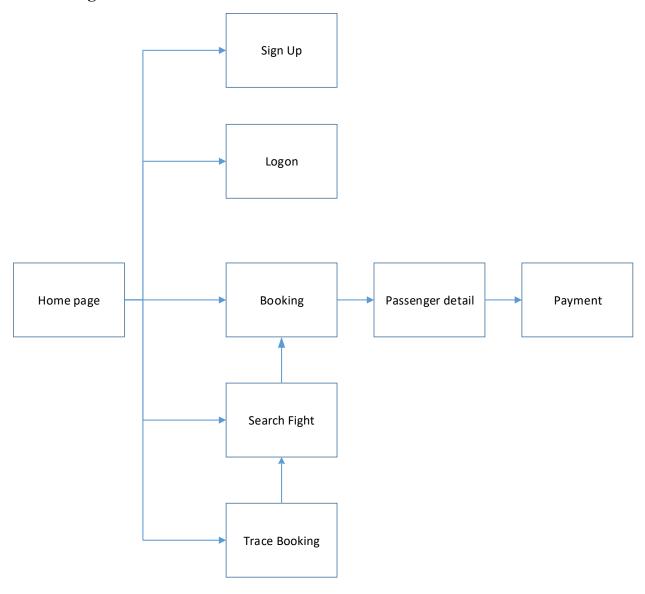
Field Name	Data Type	Constraint	Description
Account	int	PK,FK	The identification
Role	varchar(15)	PK,FK	The identification

	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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8. Site map

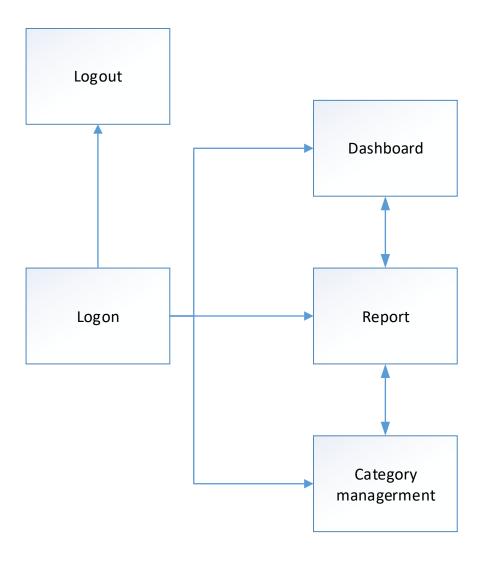
8.1 Passenger



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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8.2 Admin



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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9. UI

9.1 Home Page



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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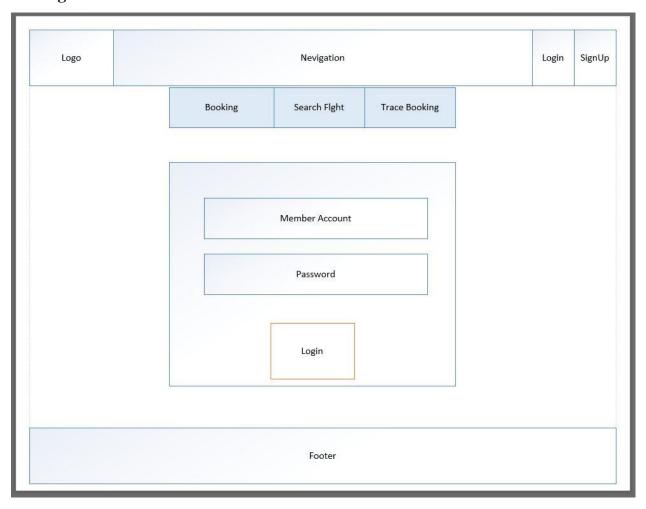
9.2 Sign Up



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: ERD/Table Design/Sitemap/UI	SWD/Form No. 1
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9.3 Logon



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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9.4 Search Flight



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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9.5 Booking



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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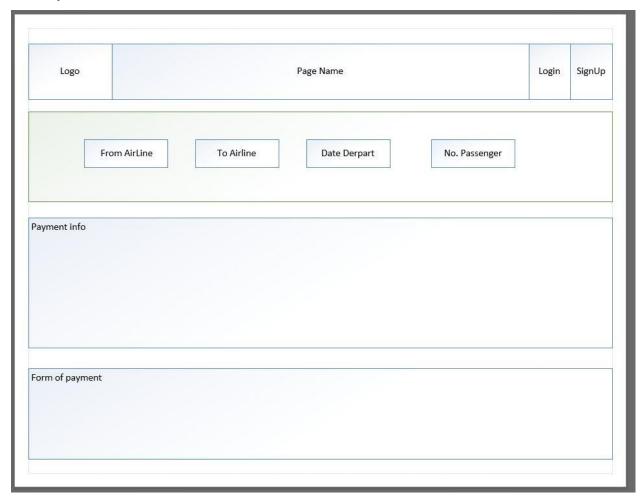
9.6 Passenger Info



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

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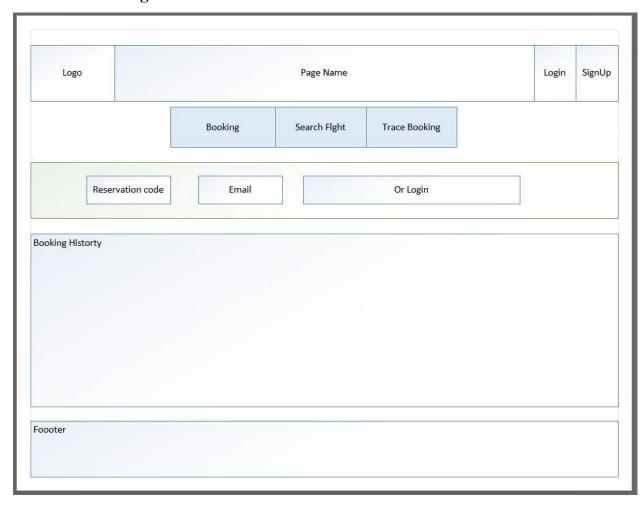
9.7 Payment



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: ERD/Table Design/Sitemap/UI	SWD/Form No. 1
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9.8 Trace Booking



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: ERD/Table Design/Sitemap/UI	SWD/Form No. 1
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9.9 Dashboard



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

Design Plan:	Document Name: ERD/Table Design/Sitemap/UI	SWD/Form No. 1
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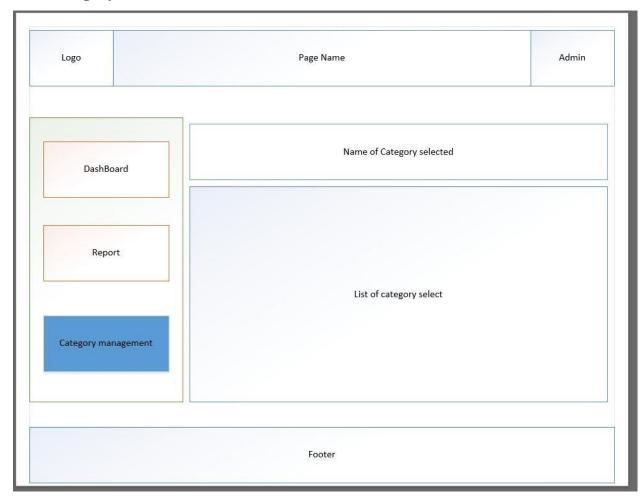
9.10 Report



	Prepared by all Member	Approved by (Teacher)	
Date: 01/03/2019	All Member	Nguyen Hoang Thao	

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9.11 Category



	Prepared by all Member	Approved by (Teacher)
Date: 01/03/2019	All Member	Nguyen Hoang Thao

Review 3 - Task Sheet

Project Ref. No.: Project title: Flight Booking		Activity Plan Prepared by: Trí		Date of Preparation of Activity Plan		
Sr.No.	Task	Start Date	End Date	Actual day	Member's Name	status
1	Draw Entity relationship diagram	23/02/2019	24/02/2019	2	Trí	Complete
2	Describing table.	24/02/2019	24/02/2019	1	Trí	Complete
3	Frontend - Home page implementation	25/02/2019	25/02/2019	1	Lâm	Complete
4	Frontend – Sign Up page implementation	25/02/2019	25/02/2019	1	Phát	Complete
5	Frontend - Logon page implementation	25/02/2019	25/02/2019	1	Phát	Complete
6	Frontend – Trace Booking page implementation	26/02/2019	26/02/2019	1	Phát	Complete
7	Frontend – Search Flight page implementation	25/02/2019	25/02/2019	1	Trí	Complete
8	Frontend – Search Flight Result page implementation	26/02/2019	26/02/2019	1	Trí	Complete
9	Frontend – Booking page implementation	27/02/2019	27/02/2019	1	Lâm	Complete
10	Frontend – Passenger imformation page implementation	27/02/2019	27/02/2019	1	Lâm	Complete
11	Frontend – Payment imformation page implementation	27/02/2019	27/02/2019	1	Lâm	Complete
12	Backend – Insert/Update Region	27/02/2019	27/02/2019	1	Phát	Complete
13	Backend – Insert/Update Airport	27/02/2019	27/02/2019	1	Phát	Complete
14	Backend – Insert/Update Airline	27/02/2019	27/02/2019	1	Phát	Complete
15	Backend – Get information for Dashboard	28/02/2019	28/02/2019	1	Lâm	Complete
16	Backend – Get information for Statistical Reports	01/03/2019	01/03/2019	1	Trí	Complete
17	Report – Ticket form	27/02/2019	27/02/2019	1	Lâm	Complete
18	Report - Trace booking by time	29/02/2019	29/02/2019	1	Phát	Complete
19	Report – List flight by Airport, Airline, Time	29/02/2019	01/03/2019	2	Trí	Complete

Group Leader

Faculty

Nguyen Huu Tri

Nguyen Hoang Thao