

FPT ACADEMY INTERNATIONAL FPT – APTECH COMPUTER EDUCATION





Center Name		ACE-THUDUC-1-FPT.	
		Address: 62 Street 36, Van Phuc Residential Area, Hiep Binh Phuoc Ward,Thu Duc City.	
Instructo	r	Mrs. Nguyen Ha Vy	
Semester		3	
Class		T5.2308.M0	
		Name	Student ID
		Ho Thi Bich Lien	Student1506037
Group me	embers	Vo Hoang Khai	Student1501207
		Nguyen Lam Chi Nguyen	Student1501858
_		Tran Thi Thao	Student1501286
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REVIEW 1

I. Acknowledge

First and foremost, we extend our sincere appreciation to our dedicated instructor, Mrs. Nguyen Ha Vy. Her insightful suggestions and unwavering encouragement were instrumental in helping us overcome not only technological challenges but also psychological tension. Without her guidance, our work would not have been successfully completed.

Furthermore, the seamless collaboration among our team members played a pivotal role in the successful execution and completion of this project. Despite encountering numerous obstacles along the way, our collective hard work, strong commitment, and camaraderie ultimately led us to achieve our goals.

Last but not least, we express our gratitude to Aptech's eProject assignment, which provided us with a golden opportunity to apply theoretical knowledge to real-world scenarios. The hands-on experience gained through this project is invaluable for our future careers.

II. Introduction

Welcome to the ARS airline ticket booking system! If you're looking for convenience and flexibility in booking your flights, we offer you an easy and fast online booking experience right from the comfort of your home. With ARS, choosing the right seat to meet your needs has never been easier.

We provide a wide range of seating options, from standard seats to VIP and business class, so you can enjoy your flight in style and comfort. Whether you choose a one-way or round-trip ticket, our system ensures that you have access to flights with flexible schedules and convenience.

Additionally, ARS offers a rewards points program, allowing you to earn points with every flight and redeem them for exciting future benefits. Plus, with our special promotional offers, you'll have the chance to grab discounted tickets and enjoy exclusive deals from us.

With just a few clicks, you can easily search for flights, compare ticket prices, and choose the class that best suits your preferences. Take advantage of the premium services and features offered by ARS to experience outstanding flights, with both luxury and cost savings.

Welcome to ARS – where every flight becomes easy, convenient, and full of great offers!

III. Synopsis

Currently, the ticketing system for ARS Airlines includes both online ticket sales through the website and offline sales at the counter. However, the company faces several issues. Customers can purchase tickets directly at the counter, but this often results in long wait times to be served. Additionally, although there is an option to buy tickets online, many customers still encounter difficulties in checking ticket prices and flight schedules. Furthermore, many customers are required to make cash payments when purchasing tickets at the counter, while online payment options may not yet be well established or could face obstacles.

IV. Problem definition

1. Online Flight Ticketing System of ARS Airlines

The online flight ticketing system of ARS Airlines is designed with a user-friendly and easy-to-navigate interface, allowing customers to easily search for and book flights. Users can choose from various seat types, including standard seats, VIP seats, and business class, catering to their needs and budgets.

Customers can book one-way or round-trip tickets, providing flexibility in planning their travel itineraries. The system also offers a points accumulation feature for each flight, allowing customers to earn rewards points that can be redeemed for attractive discounts on future flights.

Additionally, during holiday seasons, ARS Airlines provides special discount programs, enabling customers to save money and encouraging them to embark on convenient holiday travel. With all these features, the online flight ticketing system of ARS is sure to provide a smooth and enjoyable ticket booking experience for all customers.

2. ARS Airlines Online Flight Ticketing System

ARS Airlines' online flight ticketing system is designed to provide customers with convenient and efficient flight booking. Users can easily search for flights based on criteria such as departure and destination locations, flight dates and times, and other options.

The system allows customers to book their flights, while providing flexible options for canceling and rescheduling tickets when necessary. Customers can easily manage their bookings through their personal accounts, making it easier to track their schedules.

In particular, the system also allows users to choose seats according to their personal preferences to ensure comfort throughout the journey. With all these features, ARS's online flight ticketing system helps customers plan their trips conveniently and quickly.

3. Easy Seat Selection and Booking Process

We believe that choosing a seat is not just a step in the booking process, but also a part of the flying experience. Therefore, we have created a smart booking system that gives you the freedom to explore and choose the most suitable seat. With vivid 3D cabin maps, detailed information about each seat and a simple booking process, we are committed to bringing you a perfect flight booking experience.

V. Customer Requirements (ARS Flight Booking System Version)

1. Home Page:

a. Header

- Airline logo: Place the logo in the center to create strong brand recognition. Navigation bar.
- Search flights: This is the core function, so it should be placed in a prominent position, usually to the right of the logo.

- Booking management: Allows customers to access booking history, cancel tickets, change tickets. Promotions: Display promotions, special offers.
- Contact: Provide channels to contact the airline.
- Login/Register: Place in a visible position for customers to easily manage their accounts.

b. Body:

- + Search for flights:
 - Departure: Departure airport
 - Destination: Arrival airport
- Departure date/Return date: Allows customers to select departure and return dates (if round-trip tickets)
 - Seat class: Economy, business, first class
 - Number of passengers: Adults, children, infants
- "Find flights" button: When clicking on this button, the system will display a list of suitable flights.
- + Other utilities:
- Special offers: Display accompanying service packages such as purchasing additional baggage, selecting seats, travel insurance, etc.
 - Booking instructions: Provide detailed instructions for new customers.
 - FAQ: Answers to common customer questions.
 - News: Update the latest news about airlines, attractive destinations, promotions, etc.

c. Footer

- + Contact information: Address, phone number, email, fanpage,...
- + Policy: Terms of use, privacy policy, ticket cancellation policy,...
- + Payment: Displays accepted payment methods.
- + Partners: Displays logos of airline partners.
- + Copyright: Copyright information and year.

2. Flight listing page:

- + Flight list: Displays full information about the flights found, including:
- + Airline

- + Departure/arrival airport
- + Departure/arrival time
- + Flight time
- + Fare
- + Aircraft type
- + Number of seats remaining
- + Sort options: Allow customers to sort search results by price, flight time, airline, etc.
- + Filter: Helps customers filter search results based on criteria such as:
 - Seat class
 - Flight time
 - Fare.

3. List Flight Routes Page:

- + Purpose: Display a list of flights found after customers enter search information (departure point, destination, departure date, return date, ...).
- + Display content:
- + Flight information:
 - Airline: Name of the airline operating the flight.
 - Departure/arrival airport: Name of the departure and arrival airport.
 - Departure/arrival time: Estimated departure and arrival time at the airport.
 - Flight time: Estimated flight time.
 - Fare: Fare for each class.
 - Aircraft type: Model of the aircraft operating the flight.
 - Remaining seats: Number of remaining seats on the flight.
- + "Book" button: When clicking on this button, customers will be redirected to the flight details page to select seats, add services and pay.
- + Additional information:
 - Checked baggage: Number of free checked baggage for each class.
 - Carry-on baggage: Allowed size and weight of carry-on baggage.

In-flight services: Additional services such as meals, entertainment, wifi, etc.

- + Search and filter:
- Search bar: Allows customers to search for flights using keywords such as flight number, airport, airline.
- + Filter:
 - Fare: Allows customers to select the desired price range.
 - Departure time: Allows customers to select the appropriate departure time.
- Flight time: Allows customers to choose the flight with the shortest or longest flight time.
 - Seat class: Allows customers to choose the seat class they want to book (economy,

business, first class).

- Airline: Allows customers to choose their preferred airline.

+ Sort:

- Price: Arrange results in ascending or descending order of ticket price.
- Departure time: Arrange by earliest or latest.
- Flight time: Arrange by shortest or longest flight time

+ Advanced features:

- Flight comparison: Allows customers to compare multiple flights at once to make a decision.
- Seat selection: Displays the seat layout and allows customers to choose seats directly on the flight listing page.
 - Flexible booking: Allows customers to book one-way and round-trip tickets

+ Objective:

- Provides complete and accurate information: Helps customers easily compare and choose the right flight.
- Friendly interface: Intuitive, easy-to-use interface design helps customers find information quickly.
- Diverse features: Provides many search, filter and sort options to meet the diverse needs of customers.

4. News Page:

- This page will show news about tourism throughout Vietnam.

5. Access rights

a. Administrator:

- + Homepage: System overview, performance indicators, notifications.
- + Flight management:
 - Add, edit, delete flights.
 - Manage flight schedules, fares, aircraft types.
 - Manage the number of seats, seat class allocation.
- + Airport management:
 - Manage information about airports, routes.
 - Update scheduled flight times, check-in times.
- + Aircraft management:
 - Manage information about aircraft types, number of seats, configurations.
 - Staff management:
 - Manage staff information, assign access rights.
 - Customer management:
 - View customer information, booking history.
 - Manage loyalty programs.
- + Reports:
 - View statistical reports on revenue, bookings, passengers, etc.
- + System settings:
 - System configuration, software updates.

b. Agent:

- + Homepage: Overview of orders, revenue.
- + Order Management:
 - View, edit, cancel orders.
 - Manage customer information.
 - Print e-tickets.
- + Reports:
 - -View revenue reports, number of tickets sold.

c. Customers:

- + Homepage:
 - Search for flights.
 - Manage bookings.
 - Check booking history.
 - Update personal information.
 - Search and book tickets:
 - Search for flights based on criteria.
 - Select seats, add services.
 - Payment.
 - Manage bookings:
 - View order details.
 - Cancel, change tickets.
 - Print e-tickets.

d. Unregistered customers

- + Homepage:
 - Search for flights.
 - Sign up for an account.
 - Log in.
 - Access levels:
- + Administrator: Full access to all system functions.
- + Agent: Limited access, mainly focused on order management and reporting.
- + Customers: Access to functions related to searching, booking tickets and managing personal information.
 - + Security features:
 - Two-factor authentication: Ensure account security.
- Detailed authorization: Each user is only allowed to access the functions they are authorized to.
 - Log audit: Record all user activities for monitoring and control.
 - + Objectives:
 - Ensure information security: Protect customer and airline data.
- Increase management efficiency: Help manage system operations easily and effectively.
- Improve customer experience: Provide customers with an intuitive, easy-to-use interface and convenient services.

6. Non-functional Requirement Specifications

- Good using Interface and Experience
- Clean code
- Try hard to improve the performance

- Try limit bugs on this website

VI. Requirement Analysis

1. List of inputs for the system

- + User login information:
 - **Username**: The unique identifier for the user.
 - **Password**: The user's password to authenticate the login process.

+ Seat preferences and booking details:

- **Seat Preferences:** Options like seat class (e.g., VIP, Standard), window or aisle seat, seat number (if applicable), or even seating location (front, middle, rear).
- **Booking Details:** This includes the origin, destination, travel date, and time, along with any special requests or needs for the trip (e.g., wheelchair access, extra luggage, etc.).

+ Payment information:

- **Payment Methods:** Credit card, debit card, PayPal, or other payment methods.
- Payment Details: Credit card number, expiration date, CVV, billing address, etc.
- **Transaction Confirmation:** Information to confirm that payment has been successfully processed.

+ User feedback and reviews of the ARS airline service:

- **Ratings:** The user can rate the ARS airline service, comfort, punctuality, etc.
- **Review Text**: Optional comments about their experience.
- **Suggestions/Complaints**: Users can provide additional feedback for improvements.

2. List of Outputs Expected from the System:

- + Fast loading and smooth page redirection for an efficient booking process:
- **Performance**: The system should load pages quickly and allow users to navigate seamlessly between different sections, like seat selection, payment gateway, and booking confirmation.
- **Responsive Design**: The booking process should be optimized for various devices (desktops, tablets, smartphones), ensuring a smooth experience.
- **Minimal delays**: Reducing any loading times or buffering during the booking process to enhance user satisfaction.
- User dashboard displaying booked trips, upcoming schedules, and personalized recommendations:
- **Booked Trips**: A list of past and upcoming trips for the logged-in user, including details like route, date, and time.
- **Upcoming Schedules**: Display schedules for future trips, allowing users to plan their next journey.
- **Personalized Recommendations**: Based on user preferences, past trips, and ratings, the system should suggest relevant trips or deals (e.g., routes they commonly travel or new offers on popular routes).

+ Booking confirmation and e-tickets:

- **Booking** Confirmation: After a successful booking, the user should receive a confirmation message, along with key details like booking reference number, travel date, and time.
- E-Tickets: An electronic ticket (PDF, QR code, or another format) sent to the user's email or accessible in their dashboard. This serves as proof of booking and includes trip details.

+ Additional Considerations:

- Security: Since personal and payment data is involved, the system should use encryption and adhere to security best practices to protect sensitive information.
- User Experience (UX): Ensure the UI is user-friendly, with clear instructions and error handling (e.g., invalid login or payment failure).
- Scalability: The system should handle a large number of users and transactions, especially during peak seasons or holidays.

3. Overview of Processes involved in the system

+ User Authentication and Profile Management.

- User Registration: Allows users to create accounts with essential details (name, email, phone number, passport info, etc.).
- Login and Security: Ensures secure access using email/password or twofactor authentication (2FA).
- Profile Management: Users can update their personal and payment information, view booking history, and manage preferences.

+ Flight and schedule management.

- Flight Search: Users can search for available flights based on dates, locations, and other preferences (e.g., direct flights, class, etc.).
- Flight Details: Includes information on departure times, flight duration, available classes (economy, business, first class), and special offers.
- Schedule Updates: Real-time updates on flight delays, cancellations, or changes in departure times.

+ Seat Selection and Booking Process.

- Seat Availability: Displays available seating options (aisle, window, or middle) and class options (economy, business, etc.).
- Seat Reservation: Users can select their preferred seats during booking or checkin.
- Booking Process: Guides users through selecting flights, entering passenger information, adding extra services (baggage, meals), and confirming booking.

+ Payment Processing.

- Payment Options: Supports a range of payment methods like credit cards, digital wallets, and bank transfers.
 - Secure Payment: Ensures secure transactions with encryption and tokenization.
- Confirmation and Invoices: Once payment is processed, users receive booking confirmations and invoices via email or app notifications.

4. Hardware and Software required for implementing the project

> Hardware:

- Core i5 processor or higher RAM 8 GB or higher, Color SVGA
- Hard drive capacity 500 GB Mouse Keyboard

> Software:

- Visual Studio .Net / ASP
- .Net Framework
- Frontend: HTML/CSS, Bootstrap, Antdesign
- Backend: ASP.NET core Web $\hat{\text{MVC}}$
- Data storage: SQL Server Management Studio (SSMS)

TASK SHEET REVIEW 1

Project Ref. No.: eP/Advertisement Portal Management System/01		Project Plan	Activity Plan Prepare	Date of Preparation of Activity Plan:			
Sr. No.	Task	Title.	d By:	Actua l Start Date	Actu al Day s	Team Mate Names	Status
1	Acknowledge	AIRLINES RESERVATION		13/12/2024	1	All Members	Completed
2	Introduction			13/12/2024	1	All Members	Completed
3	Statement of problem		All member	13/12/2024	1	All Members	Completed
4	Problem definition			13/12/2024	1	All Members	Completed
5	Customer's Requirement Specifications			13/12/2024	1	All Members	Completed
6	Requirement analysis			13/12/2024	1	All Members	Completed

Supervisor: Mrs. Nguyen Ha Vy

Design Plan: AIRLINES

RESERVATION

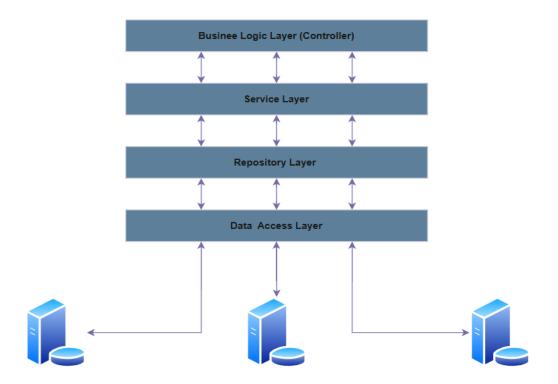
REVIEW 2

I.

RESERVATION

Design Plan: AIRLINES

Architecture & Design of the Project



1. Presentation

- Exposes interaction capabilities for the end users or applications / systems wanting to interact with it.
- Interacts with the Business Logic layer.
- Can interact with other applications (through their presentation layers).

2. Business Logic

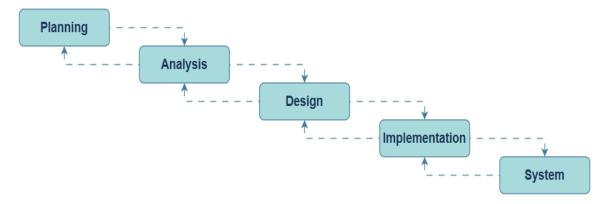
- Expresses domain knowledge, to be utilized from the Presentation layer.
- Interacts with the Data Access layer.
- Can interact with other applications (through their presentation layers).

3. Data Access

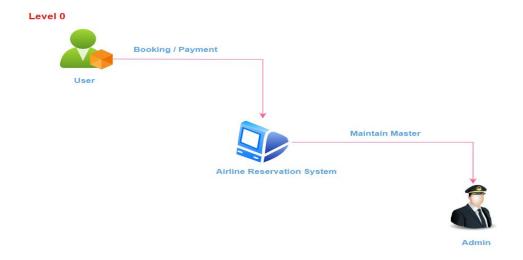
- Acts as a data persistence, to be utilized from Business Logic.
- Can interact with other applications (through their presentation layers).

II. Algorithms – Data Flowchart

1. The waterfall development Methodology

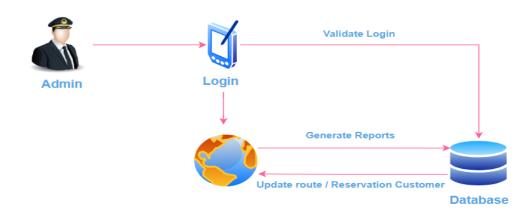


2. Context View of Online Airline Reservation System Ticket



3. Admin view of Online Airline Reservation System Ticket

Level 1

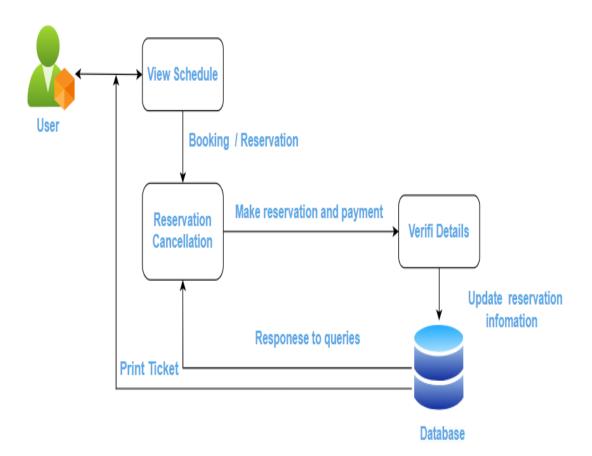


Design Plan: AIRLINES

RESERVATION

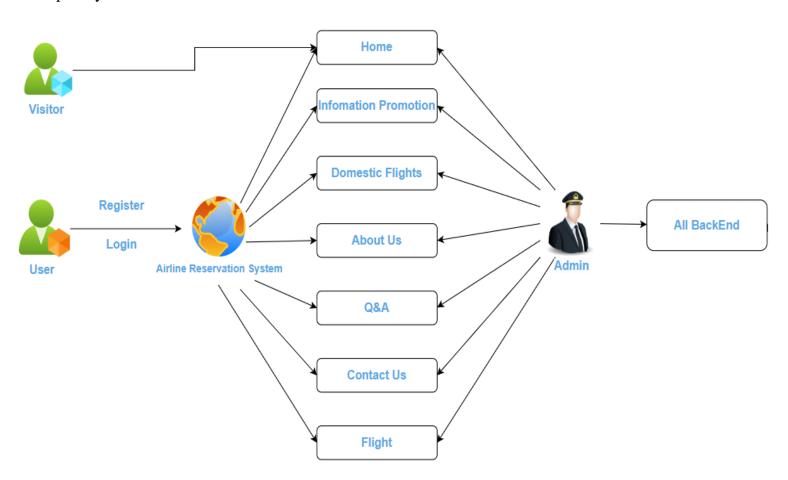
4. User view of Online Bus Ticket Reservation System

Level 2



III. Use case diagram for users and admin

A use case is a description of a system's behaviour as it responds to a request that originates from outside of that system (the user). In figure 3.4, a use case of the activities in a bus transport system is shown.



In other words a use case describes "who" can do "what" with the system in question. The use case technique is used to capture a system's behavioural requirements by detailing scenario-driven threads through the functional requirements.

1. User

a) Login as user:

Use Case Name	Login		
Use Case Name	Login		
Actors	Registered Customer		
Description	Customer who has registered an account can login		
Requirements	Customer provides username and password		
Pre-conditions	Customer must register an account		
Post anditions	Success: Customer is logged in to	website	
Post-conditions	Fail: Refill information		
	Actor's actions:	System's responses:	
	1. Visitor clicks 'Login' button on Home Page.	2. System redirects to Login Page with the following controls:	
		- "Email" text field	
Basic flow		- "Password" text field	
		- "Login" button	
		-"Register" button	
	3. Actor inputs Username and Password, then click the 'Login' button.	4. System checks the information.	
		5. System redirects to Customer's homepage.	
	Actor's actions:	System's responses:	
	1. Actor inputs invalid email and password.	System redirects to Login page with the following controls: - "Email" text field	
Exceptions		- "Password" text field - "Remember me!" check box field - "Login" button - "Forget password?" button System shows message: "Invalid username and password".	

b) Register as user:

Use Case Name	Register as user		
Actors	New Customer		
Actors	New Customer		
Description	Customer who has not registered a	an account	
Requirements	Customer registers an account on t	the website and becomes a member	
Pre-conditions	Customer provides their register in	nformation	
	Success: Customer creates a User account in this website		
Post-conditions	Fail: Refill information		
	Actor's actions:	System's responses:	
	1. Visitor clicks "Register" button on Home Page.	2. System redirects to Register page and displays Registration form with the following controls: - "Username" text field	
Basic flow		- "Fullname" text field - "Password" text field - "Email" text field - "Phone" text field	

RESERVATION

Design Plan: AIRLINES

	3. Customer inputs register's information and click "Register" button.	-"Register" button -"Login" button 4. System validates the information. 5. System inserts the account into database
	Actor's actions:	System's responses:
	 - Actor left "Username" text field blank. - Username has already existed. - Actor left "Password" text field blank. - Actor left "Confirm Password" text field blank. - Password and confirm password 	System displays message to customer: - "The Username field is required.". - "An account with this email or username already exists.". - "The Password field is required.". - Password must be between 4 and 30 characters.
Exceptions	don't match. - Actor left "Email" text field blank Email has already existed Actor left "Phone" text field blank Input phone is not numeric format or phone length is not between 10 and 12 characters Actor left "Email" text field blank, as form abc@gmail.com	 -" The Confirm Password field is required.". - "Confirm Password does not match password.". - "The Email field is required". - "An account with this email or username already exists.". - "The Phone field is required". - "The phone number must be between 10 and 12 digits". - "Email is invalid".

c) ARS Airline schedule

Use case name	ARS Airline schedule		
Actors	Registered Customer/ New Custom	ner	
Description	Customer can view Airline schedul	e and flight detail	
Requirements	Customer select flight schedule and then select flight to show fly route's details		
Pre-conditions	N/A		
Post-conditions N/A			
Basic flow	Actor's actions:	System's responses:	
	1. Actor select flight schedule	2. System shows list of flight routes	

d) Buy ticket:

Use case name	Buy ticket		
Actors	Registered customer		
Description	Customer can order their ticket for the	ne flight	
Requirements Customer select flight, seats, luggage buy t		nge buy tickets	
Pre-conditions	Customer must log into website and only can buy ticket for the seats		
which are available.			
Post-conditions	Success: Buy ticket successfully.		
	Fail: Ticket is canceled.		
Basic flow	Actor's actions:	System's responses:	

1. Actor chooses "Oder Ticket Now" to select bus they want.	2. System redirects to showtime page.
3. Actor chooses "seats" on the seating plan.	4. System redirects displays a list of selected seat and total price(includes setting prices for each age group)
5. Actor selects click "Place Oder" to confirm buying ticket	6. System validates inputs by flight's name of ticket
	7. System change status seating plan in database.
	8. System displays message : successful or error.

e) View account information:

Use case name	View account information		
Actors	Registered Customer		
Actors	Registered Customer		
Description	Customer can view account information		
Requirements	Customer login to this website		
Pre-conditions	Customer provides their register information		
Post-conditions	Success: Visitor creates a User account in this website		
	Fail: Refill information		
Basic flow	Actor's actions:	System's responses:	
	1. Actor select personal information	2. System shows details of personal information	

f) View booking history:

Use case name	View hooking history		
Use case name	View booking history		
Actors	Registered Customer		
Description	Customer can view booking detail		
Requirements	Requirements Customer select booking history to show booking's detail		
Pre-conditions	Customer provides their register information		
Post-conditions	Success: Customer creates a User account in this website		
	Fail: Refill information		
Basic flow	Actor's actions:	System's responses:	
	1. Actor select booking history	2. System shows detail of booking history	

g) View flight detail:

Use case name	View flight detail
Actors	Registered customer
Description	Customer can view flight detail
Requirements	Customer select flight to show detail
Pre-conditions	Customer must login if they want to comment on flight.
Post-conditions	Success: Customer creates a User account in this website
	Fail: Refill information

Basic flow	Actor's actions:	System's responses:
	1. Actor select flight detail	2. System shows information of flight.

h) Log out:

Tigo ogga nomeo	Logout	
Use case name	Log out	
Actors	Registered customer	
Description	Customer back to home page as new customer	
Requirements	Customer must has at least 1 account	
Pre-conditions	Customer must log in before log out	
Post-conditions	Success: Actor log out successfully	
	N/A	
Basic flow	Actor's actions:	System's responses:
	1. Actor click "Log out" button	System redirect customer to homepage.

i) Check ticket

Use case name	View ticket detail	
Actors	Registered Customer/ New Customer	
Description	Customer can view ticket detail	
Requirements	Customer input ticket number to show each ticket's detail	
Pre-conditions	N/A	

Post-conditions	N/A	
Basic flow	Actor's actions:	System's responses:
	1. Actor input ticket's number	2. System shows details of ticket

j) About Us

Use case name	Visit our page about ARS Airlines	
Actors		
Actors	Registered Customer/ New Custom	el
Description	Customer can view about us	
Requirements	Customer select about us button to show about us	
Pre-conditions	N/A	
Post-conditions	N/A	
Basic flow	Actor's actions:	System's responses:
	1. Actor select about us	2. System shows about us,

2. Admin

a) Login

Use case name	Login	
Actor	Admin	
Description	When admin wants to manage syst	tem
Requirements	Admin provides username and password	
Pre-conditions	Admin must be exist on database	
Post-conditions	Success: Admin is logged in to website admin	
	Fail: refill information	
	Actor's actions:	System's responses:
	1. Actor clicks on 'Login' button.	2. System redirects to Login Page with the following controls:
Dorio flore		- 'Username' text field - 'Password' text field
Basic flow		- "Login" button -"Register" button
	3. Actor inputs Username and	4. System checks the information
	Password, then click the 'Login' button.	5. System redirects to Customer's homepage.
Exceptions	Actor's actions:	System's responses:
	1. Actor inputs invalid email and password	System redirects to Login page with the following controls: - "Email" text field - "Password" text field - "Remember me!" check box field - "Login" button

	 - "Forget password?" button - System shows message: "Invalid username and password". - "Forget password?" button - System shows message: "Invalid
	username and password".
	- 'Login' button.

b) Manage account

> Create new account

Use case name	Create new member		
Actor	Admin		
Description	When admin wants to create a new	member	
Requirements	Actor provides product's information		
Pre-conditions	Actor is logged in admin		
Post-conditions	Success: new product is added into the database		
	Fail: refill information		
	Actor's actions:	System's responses:	

RESERVATION

Design Plan: AIRLINES

	Actor chooses Airline Management Tab on menu.	2. System displays a form with the following fields:- Airline management- Airline type management
Basic flow	3. Actor chooses Airline Management/ Airline type management Tab on menu. 5. Actor clicks 'Add New Airline / Airline type' button.	 4. System redirects to 'Bus/ Bus type' page and display a list of existing bus/ bus type. 6. System displays a form with the following fields: ID User Name Full Name Email Phone number
	7. Actor clicks 'Create Account "button.9. Actor inputs information to create new product	8. System validates inputs.10. System adds account into database.11. System displays confirmation message or error message.

> Edit account

Use case name	Edit account's detail		
A -4	A 1		
Actor	Admin		
Description	When admin wants to edit account		
Requirements	Admin provides product's information		
Pre-conditions	Actor is logged in admin		
Post-conditions	Success: account detail is edited in the database		
	Fail: refill information		
	Actor's actions:	System's responses:	

	1. Actor chooses Account Tab on	2. System redirects to 'Edit
	menu.	Account" page and display a list of
		existing member.
	3. Actor clicks on 'Edit" on a	4. System displays a form with
	member.	the following fields.
	memoer.	- ID
		- User Name
		- Full Name
		- Email
		- Phone number
	5. Actor chooses the account they want to update and input	6. System validates inputs.
	information.	7. System update information
		member into database.
j		
		8. System displays confirmation
		message or error message.
		9. System redirects to account's
		detail page.

> Delete account

Use case name	Delete account	
Actor	Admin	
Description	When admin wants to delete account from the database	
Requirements	Admin provides product's information	
Pre-conditions	Actor is logged in admin	
Post-conditions	Success: product is delete in the database	
	Fail: product is not delete from the database	
	Actor's actions:	System's responses:

Basic flow

	RESERVATION	
1. Actor chooses Account Tab on menu.	2. System redirects to 'Account List' page and display a list of existing account.	
3. Actor clicks 'Delete' button.	4. System delete account in the database	
	5. System displays confirmation or error.	

Design Plan: AIRLINES

c) Manage flight

> Create new flight

3		
Use case name	Create new flight	
Actor	Admin	
Description	When admin wants to create a ne	w flight
Requirements	Actor provides product's information	
_		
Pre-conditions	Actor is logged in admin	
Post-conditions	Success: new product is added into the database	
	The state of the s	
	Fail: refill information	
	Actor's actions:	System's responses:
	1. Actor chooses Flight	2. System displays a form with the
	Management Tab on menu.	List of domestic flights in Viet
Basic flow		Nam
	3. Actor chooses Flight List Tab	
	on menu.	4. System redirects to existing
		flight
	5. Actor clicks 'Add Flight'	
	button.	6. System displays a form with the
		following fields:
		- Flight
		- From
		- To
		- Departure Date
	7. Actor clicks 'Save' button.	- Return date
		- Start Time
	9. Actor inputs information to	- End Time
	create new product	- Price
		- Type Seat
		- Status
		- Select Flight
		- Note
		8. System validates inputs.
		10 System adds flight into
		10. System adds flight into
		database.

Supervisor : Mrs. Nguyen Ha Vy

Design Plan: AIRLINES

RESERVATION

	11. System displays confirmation
	message or error message.

29

> Edit flight

Euit iiight		
Use case name	Edit flight's detail	
Actor	Admin	
Description	When admin wants to edit flight	
Requirements	Admin provides product's information	
Pre-conditions	Actor is logged in admin	
Post-conditions	Success: flight is edited in the database	
	Fail: refill information	
	Actor's actions:	System's responses:
	 Actor chooses flight Tab on menu. Actor clicks on 'Edit' on a flight. 	 2. System redirects to 'Edit flight' and display a list of existing flight. 4. System displays a form with the following fields. Flight From To Departure Date Return date Start Time End Time Price Type Seat Status Select Flight Note
	5. Actor chooses the flight they want to edit and input information.	6. System validates inputs.7. System edit information flight into database.8. System displays confirmation message or error message.

> Delete flight

Use case name	Delete flight	
Actor	Admin	
Description	When admin wants to delete flight from the database	
Requirements	Admin provides product's information	
Pre-conditions	Actor is logged in admin	
Post-conditions	Success: flight is delete in the database	
	Fail: flight is not delete from the database	
	Actor's actions:	System's responses:
Basic flow	 Actor chooses Flight Tab on menu. Actor clicks 'Delete' button. 	 System redirects to 'List of domestic flights in Viet Nam' page and display a list of existing flight. System delete flight in the
		database5. System displays confirmation or error.

d) Manage discount

> Create new discount

Use case name	Create new Discount	
Actor	Admin	
TICCOI	7 Killini	
Description	When admin wants to create a n	ew Discount
Requirements	Actor provides product's information	
Pre-conditions	Actor is logged in admin	
Post-conditions	Success: new product is added into the database	
	Fail: refill information	
	Actor's actions:	System's responses:
Basic flow	Actor chooses Discount Management Tab on menu.	2. System redirects to 'Discount List 'page and display a list of existing Discount.
	3. Actor clicks 'Create New' button.	 4. System displays a form with the following fields: NameCity Price Discount Percent Description ImageFile
	5. Actor clicks 'Station management' button.	- StartDate - EndDate
	7. Actor inputs information to create new product	6. System validates inputs.
		8. System adds Discount into database.
		9. System displays confirmation message or error message.

> Edit discount

IIaa aaga waxaa	Edit discount's detail					
Use case name	Edit discoulit s detail					
Actor	Admin					
Description	When admin wants to edit discoun	t				
Requirements	Admin provides product's informa	ation				
Pre-conditions	Actor is logged in admin					
Post-conditions	Success: Discount edited in the dat	abase				
	Fail: refill information					
	Actor's actions:	System's responses:				
	 Actor chooses Discount Tab on menu. Actor clicks on 'View Details' on a Station. 	 System redirects to 'Edit discount' and display a list of existing product. System displays a form with the following fields. 				
	5. Actor chooses the criteria they want to update and input information.	 NameCity Price Discount Percent Description ImageFile StartDate EndDate 6. System validates inputs. 7. System update information Station into database. 8. System displays confirmation message or error message. 				

> Delete discount

Use case name	Delete discount						
Actor	Admin						
Description	When admin wants to delete disco	unt from the database					
Requirements	Admin provides product's informa	ation					
Pre-conditions	Actor is logged in admin						
Post-conditions	Success: Discount is delete in the database						
	Fail: Station is not delete from the	Fail: Station is not delete from the database					
	Actor's actions:	System's responses:					
Basic flow	1. Actor chooses Discount Tab on menu.	2. System redirects to 'Discount List' page and display a list of existing Station.					
Dusic now	3. Actor clicks 'Delete' button.	4. System delete Discount in the database					
		5. System displays confirmation or error.					

e) Manage Booking

> Create new booking

Use case name	Create new Booking						
Actor	Admin						
Description	When admin wants to create a n	When admin wants to create a new Booking					
Requirements	Actor provides product's inform	nation					
Pre-conditions	Actor is logged in admin						
Post-conditions	Success: new product is added into the database						
	Fail: refill information						
	Actor's actions:	System's responses:					
	1. Actor chooses Booking Management Tab on menu.	2. System redirects to 'Booking list 'and display a list of existing Booking.					
Basic flow	3. Actor clicks 'Create New Booking' button.	 4. System displays a form with the following fields: - BookingID - UserID - FlightID - TicketClassID - Status 					
	5. Actor clicks 'Booking management' button.7. Actor inputs information to create new product	- TotalPrice - DiscountID 6. System validates inputs.					
		8. System adds Booking into database.					
		9. System displays confirmation message or error message.					

Edit Booking

Edit Dooking						
Use case name	Edit Booking's detail					
Actor	Admin					
Description	When admin wants to edit Bookin	σ				
Description	When admin wants to east Bookin	8				
Requirements	Admin provides product's informa	ation				
Pre-conditions	Actor is logged in admin					
Post-conditions	Success: Booking is edited in the	database				
	Fail: refill information					
	Actor's actions:	System's responses:				
	 Actor chooses Booking Tab on menu. Actor clicks on 'View Details' on a Trip. 	2. System redirects to 'Edit Booking' page and display a list of existing product.4. System displays a form with the following fields.BookingIDUserID				
	5. Actor chooses the criteria they want to update and input information.	 FlightID TicketClassID Status TotalPrice DiscountID 6. System validates inputs. 7. System edit information Booking into database. 8. System displays confirmation message or error message. 				

Use case name	Delete Booking							
Actor	Admin							
Description	When admin wants to delete Book	When admin wants to delete Booking from the database						
Requirements	Admin provides product's inform	ation						
Pre-conditions	Actor is logged in admin							
Post-conditions	Success: Booking is delete in the database							
	Fail: Trip is not delete from the da	Fail: Trip is not delete from the database						
	Actor's actions:	System's responses:						
Basic flow	 Actor chooses Booking Tab on menu. Actor clicks 'Delete' button. 	2. System redirects to 'Booking List' page and display a list of existing Booking.						
		4. System delete Booking in the database						
		5. System displays confirmation or error.						

f) Revenue

Use case name	Revenue tracking
Actor	Admin
Description	When admin wants to check revenue
Requirements	Actor provides product's information
Pre-conditions	Actor is logged in admin
Post-conditions	N/A

		712227777777
	N/A	
	Actor's actions:	System's responses:
	1. Actor chooses Revenue Tab on menu.	2. System displays a form with the following fields:
Basic flow		Monthly revenueRevenue by route
	3. Actor chooses Monthly revenue / Revenue by route Tab on menu.	4. System redirects to 'Revenue by route / Revenue by route' page and display a list of revenue
		5. System displays a form with the following fields:ID
		NameDescriptionNoteRevenue

3. Pages

a) About Us

Use Case Name	N/A
Actors	N/A
Description	Customer can view About Page
Requirements	N/A
Pre-conditions	N/A
	N/A
Post-conditions	
	N/A

b) Contact Us:

Use Case Name	N/A
Actors	N/A
Description	Customer can view Contact Page
Requirements	N/A
Pre-conditions	N/A
	N/A
Post-conditions	
	N/A

c) **Q&A**

Use Case Name	N/A
Actors	N/A
Description	Customer can view Q&A Page
Requirements	N/A
Pre-conditions	N/A
	N/A
Post-conditions	
	N/A

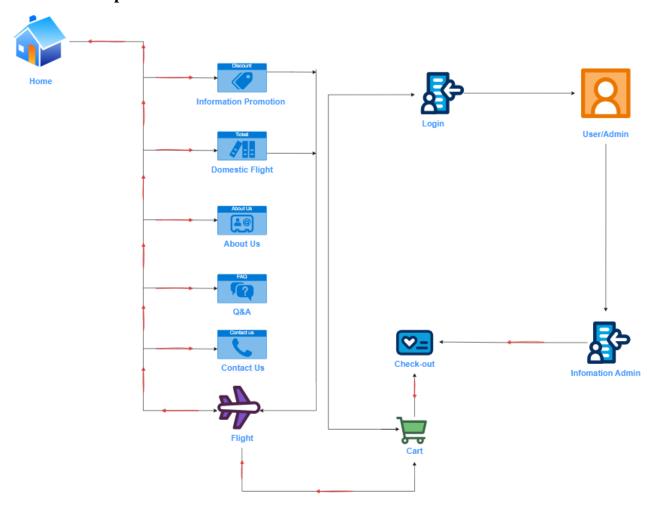
TASK SHEET REVIEW 2

Project Ref. No.: eP/Advertisement Portal Management System/01		Project Title:	Activi ty Plan Prepa	Date of Preparation of Activity Plan:			y Plan:
Sr. No.	Task		red By:	Actual Start Date	Actual Days	Team Mate Names	Status
1	Architecture & design of the project	AIRLINES RESERVATION		23/12/2024	1	All member	Completed
2	Algorithms – data flowchart		Ho Thi Bich Lien	23/12/2024	1	All member	Completed
3	Use case diagram for users and admin			23/12/2024	1	All member	Completed

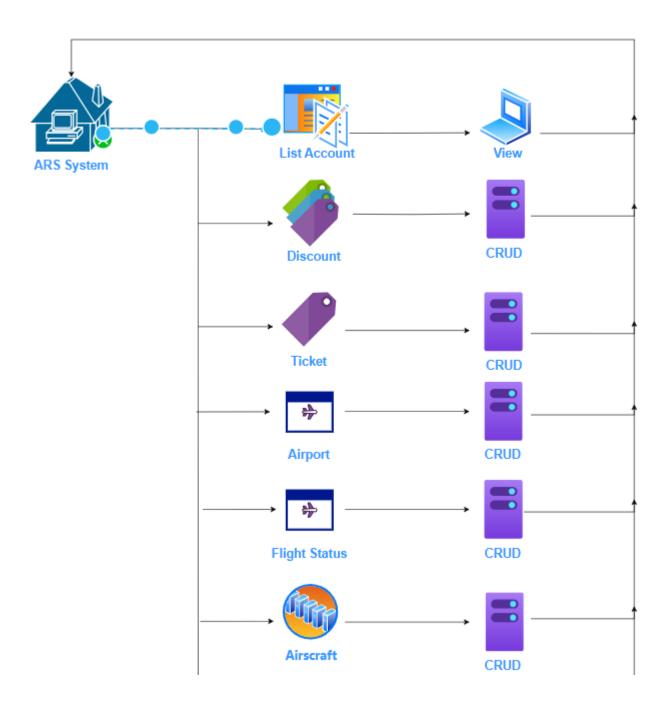
REVIEW 3

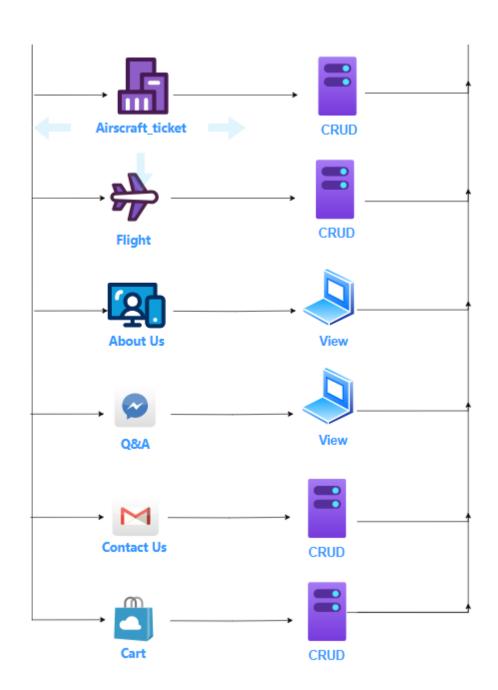
I. Site map

1. Client site map



2. Dashboard site map



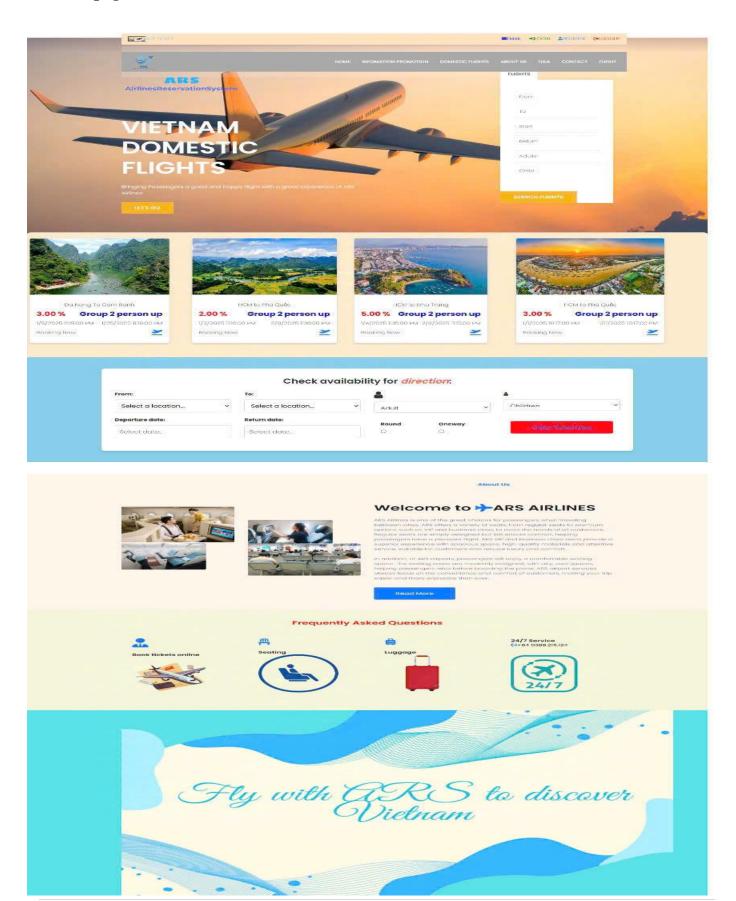


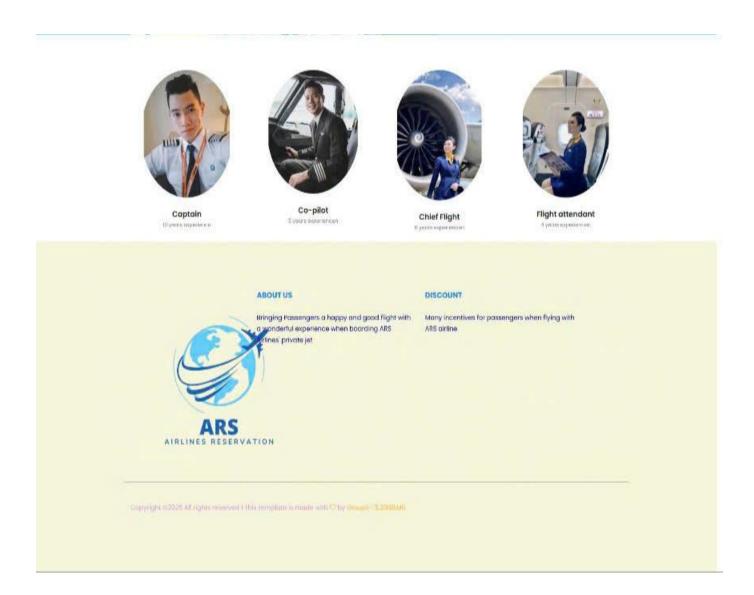
II. Graphical User Interface (GUI) design

1. Client GUI

Website Cart								Section 1Section 2
Website Nan	ne		Section 1	Section 2 Section 3	Section 4	Section 5 Sect	ion 6 Section 7	
	Article Picture			lr Ir	nput 1 nput 2 nput 3 nput 4			
	Button 1 Some default text to fill some space, and so more text	mething more so there is		Ir	nput 5 nput 6 utton 1			
	Input 1 Input 2 Input	3 Input 4 check check	Button 1					
	Article Picture			Article Pictur	e		Some default text to fill some space, and something more so there is more text	
	Article Picture		Article Picture					
	Article Picture	Article Picture		Article Pictur	е		Article Picture	
	Some default text to fill some space, and something more so there is more text	Button 2 Some default text to fill some space, and something more so there is more text		Button 3 ome default text to fill d something more so text			Button 4 default text to fill some space, mething more so there is more text	
Article Picture								
	Article Picture	Article Picture		Article Pictur	e		Article Picture	
	Some default text to fill some space, and something more so there is more text	Some default text to fill some space, and something more so there is more text		ome default text to fill d something more so text			default text to fill some space, mething more so there is more text	
Logo	Title 1 Some default text to fill so	me space, and something more so there	e is more text		tle 2 ome default te	ext to fill some s	pace, and something more so there	e is more text

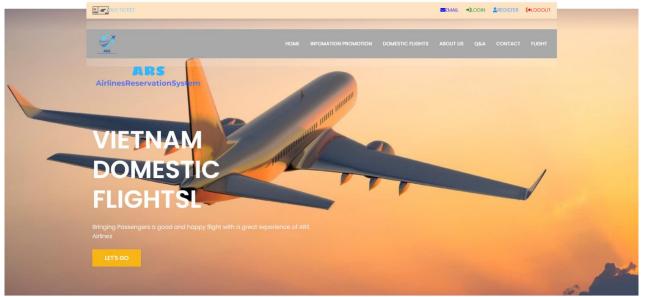
a) Home page (Index)





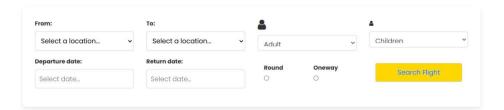
Process/Module Description and Details: overview of popular flights across Vietnam, search and book flights, Check tickets that the user has just added to the booking list.

b) Flight Schedule



SEARCH FLIGHTS

Lots of vouchers are waiting for you to fly around Vietnam with discounts up to



List booking of domestic flights in Vietnam

Flight Number	From	То	Start Time	End Time	Price	Status	Action
ARS004	Mộc Bài	Mộc Bài	1/6/2025 11:28:00 PM	1/5/2025 11:28:00 PM	\$444.00	On Flying	Booking
ARS003	Mộc Bài	Mộc Bài	1/12/2025 11:28:00 PM	1/11/2025 11:28:00 PM	\$333.00	Available	Booking
ARS002	Hcm	Hcm	1/11/2025 11:27:00 PM	1/10/2025 11:27:00 PM	\$222.00	Approved	Booking
ARS001	Mộc Bài	Mộc Bài	1/3/2025 10:16:00 PM	1/1/2025 10:16:00 PM	\$12.00	Pending	Booking

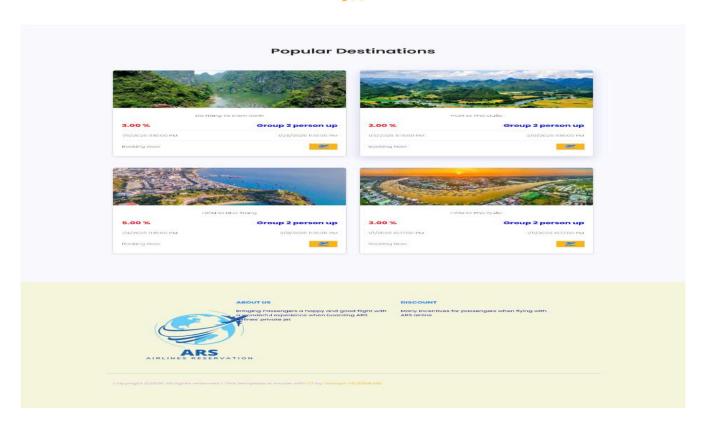


Process/Module Description and Details: search and booking trip, advanced search with sort and filter functions, proceed to pay for tickets.

c) Check Ticket

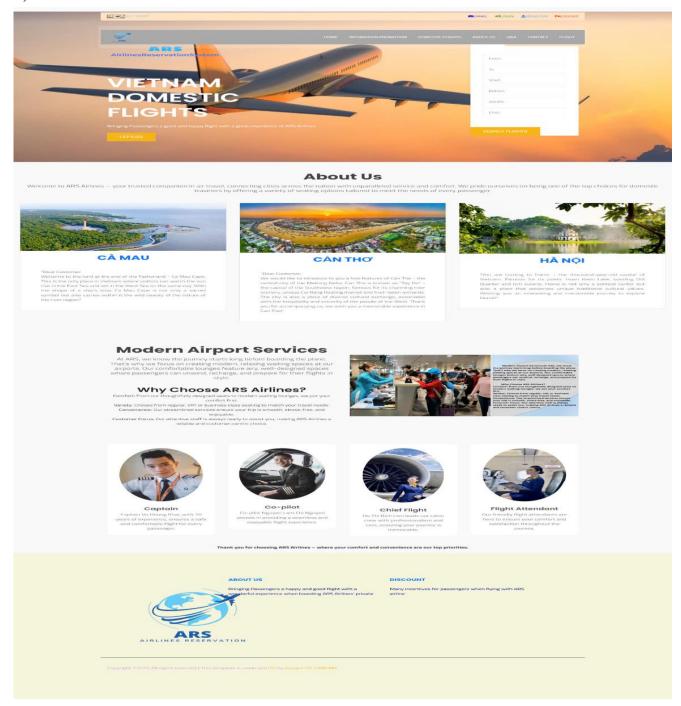






Process/Module Description and Details: overview of popular flight Routes in whole Viet Nam, search the tickets which the user has just added to the booking list.

d) About Us



Process/Module Description and Details: this page will display all latest about us on the world

e) **Q&A**



Q&A

1. Book tickets online

Answer:

Answert



3. Luggage

Analysis (Sewest Invarie) are allowed to compilitions) deem or serry-on compaging an soons. The compiler to the service of serry-on compaging an soons. The compiler in fragigacy makes to exceed the service of the ser

when here are not allowed on backs?

Question 3:

As each of your discovery that you's fraggature or becoming up on from as an institute process central and a control of the co



4. 24/7 Service

Notice:
The operand with receive eventment and respland to you within \$100 Question \$2, out of the operand within \$100 and \$10

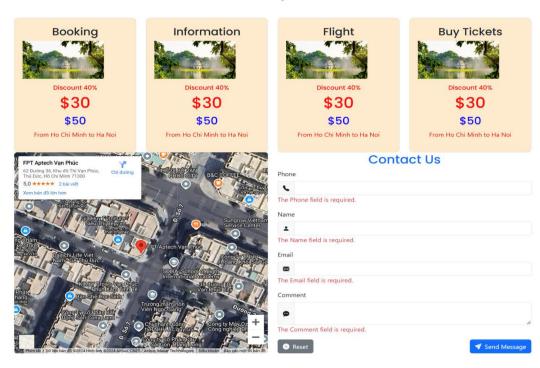


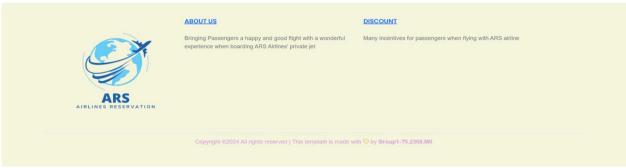


f) Contact Us



Contact For My ARS Airline





2. Dashboard GUI



Administration Page

Section 1

Section 2

Section 3

Section 4

Section 5

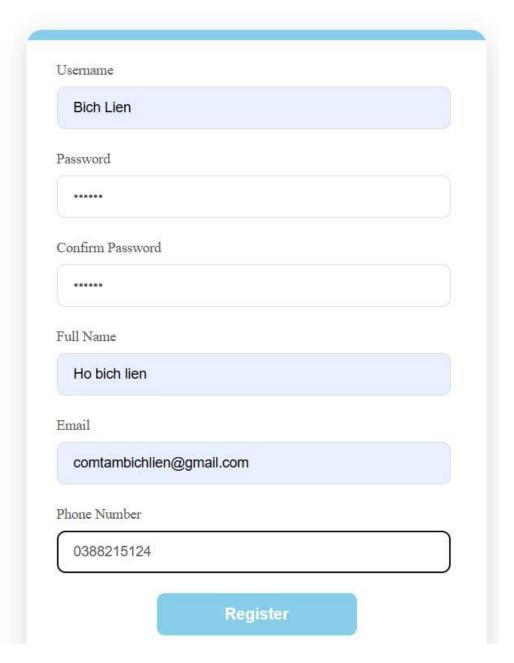
Section 1

Title 1	Title 2	Title 3	Title 4	Title 5
Some default text to fill some space, and something more so there is more text	Some default text to fill some space, and something more so there is more text	Some default text to fill some space, and something more so there is more text	Some default text to fill some space, and something more so there is more text	Button 1 Button 2

a) Login

> Register

Register



Register

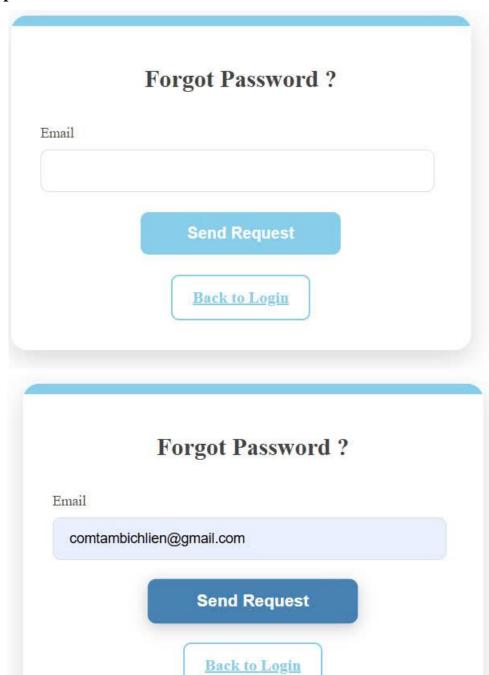
Password	Vui lòng điền vào trường này.	
Confirm Passw	ord	
Full Name		
i un ivame		
Email		
Phone Number		

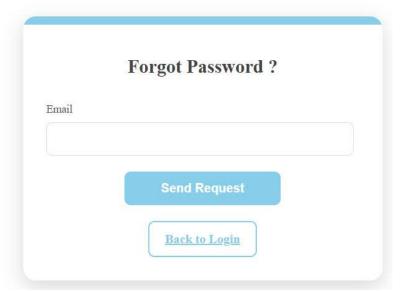
	Welcome Back	
Email		
Password		
Password		
Password	Login	
Password	Login Register	

Error: Email or Password is incorrect. Please re-enter!

	Welcome Back	
Email		
Password		
	Login	
	Login Register	

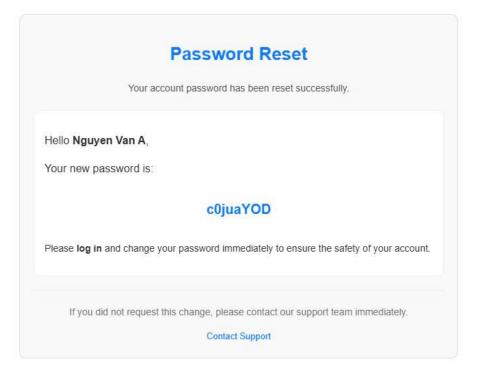
> Forgot password





Your new password is: Hộp thư đến x

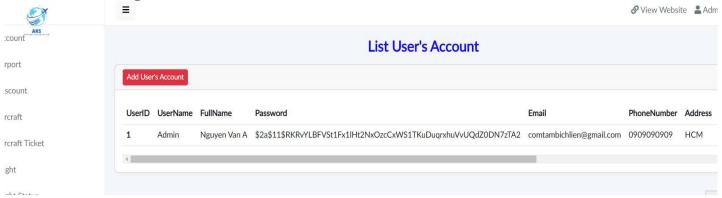




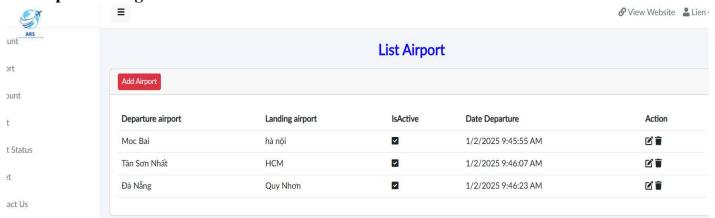
Process/Module Description and Details: these pages show authentication system includes login for existing users, registration for new users, and a password recovery feature for those who forget their passwords. Users log in with their credentials, register by providing necessary details, and can recover passwords through a secure process such as email verification.

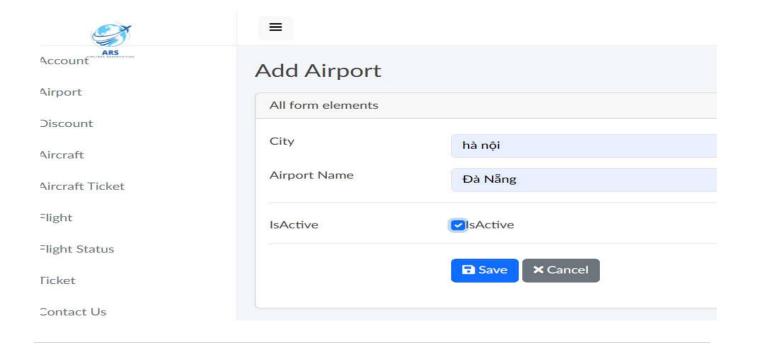
b) Admin page

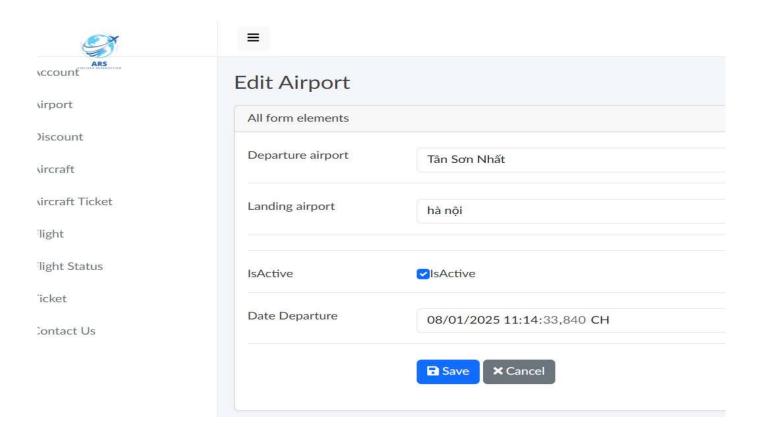
> Account Management



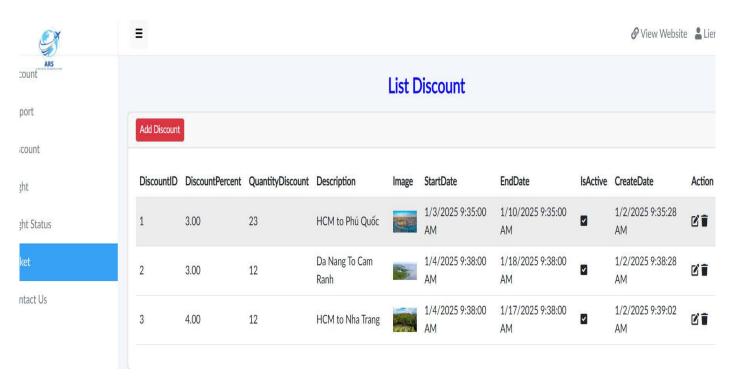
> Airport Management







> Discount Management



iboard				
	Add Discount			
ts				
2 S	All form elements			
rts				
11.5				
nation Airport	DiscountPercent	3		
Status Airport				
	QuantityDiscount	22		
Account				
Account	Description	HCM to Ph	nú Quốc	
ts				
unt	Image	Chọn tệp	hanoi.png	
diff				
All	StartDate	11/01/202	25 11:20 CH	
ng				
	EndDate	07/04/000	NE 44 00 CH	
lations	Liubate	26/01/202	25 11:20 CH	
	Discount			

Edit Discount

All form elements				
DiscountPercent	3.00			
QuantityDiscount	yDiscount 22			
Description	HCM to Ph	nú Quốc		
Image	Chọn tệp	Không có tệp nào được chọn		
StartDate	11/01/202	5 11:20 CH		
- 1-				

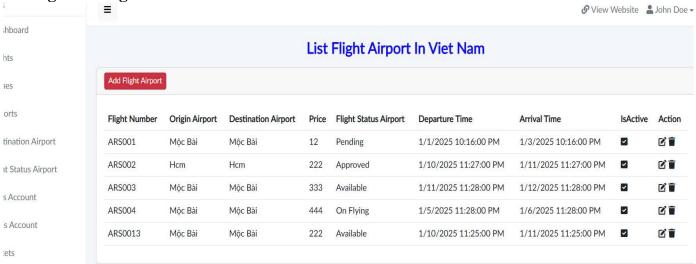
> Airscraft Management



> Airscraft_ticket Management



> Flight Management



pard Add Flight All form elements Flight Number ARS0013 tion Airport Choose From Airport Mộc Bài tatus Airport Choose To Airport Hcm count Choose Status Airport Available ccount Price 222 Departure Time 10/01/2025 11:25 CH nt Arrival Time 11/01/2025 11:25 CH Is Active IsActive 5 **□** Save × Cancel ions \equiv board Edit Flight S All form elements 25 Flight Number rts ARS001322 Choose From Airport nation Airport ---select---Status Airport Choose To Airport ---select---Account Choose Status Airport ---select---Account Price 222 ts Departure Time 10/01/2025 11:25 CH

11/01/2025 11:25 CH

02/01/2025 11:25:44,726 CH

× Cancel

IsActive

□ Save

Arrival Time

Create Date

Is Active

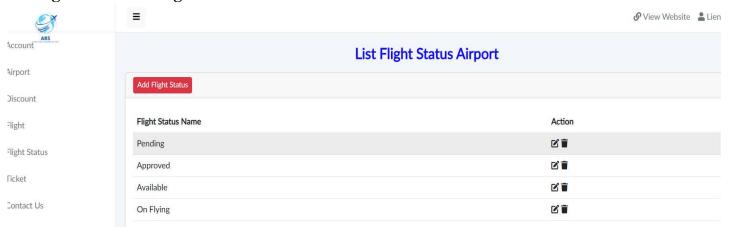
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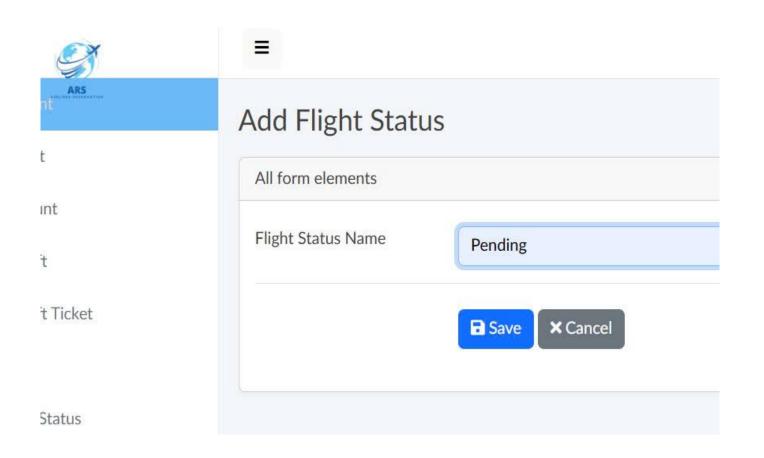
All

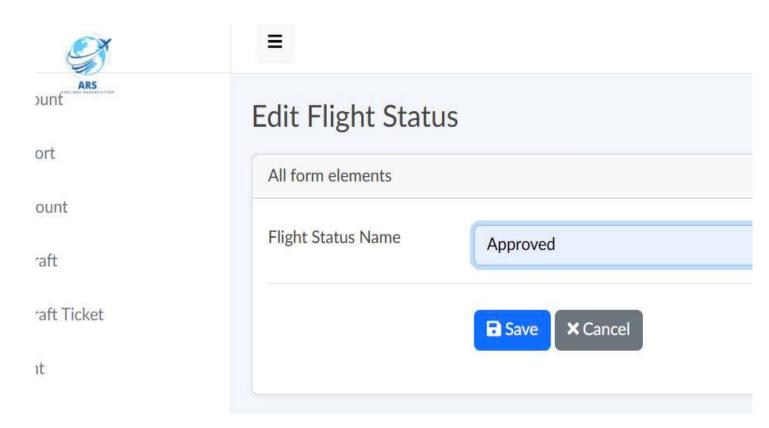
ng

lations

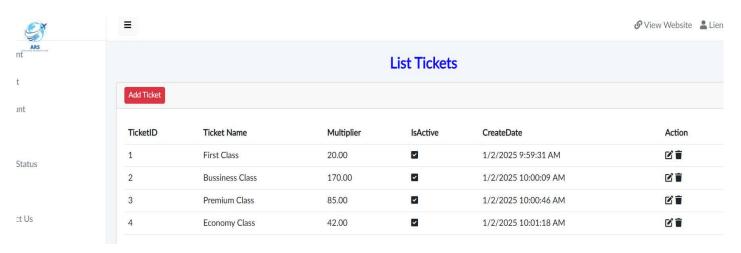
> Flight Status Management







> Ticket Management



Dashboard

Ilights

Irlines

Irports

Destination Airport

Ilight Status Airport

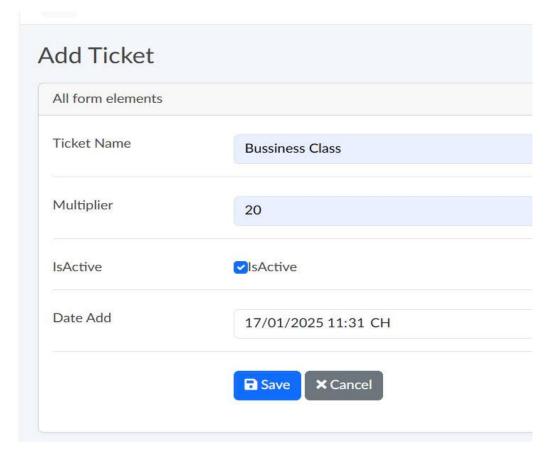
Dle's Account

Ser's Account

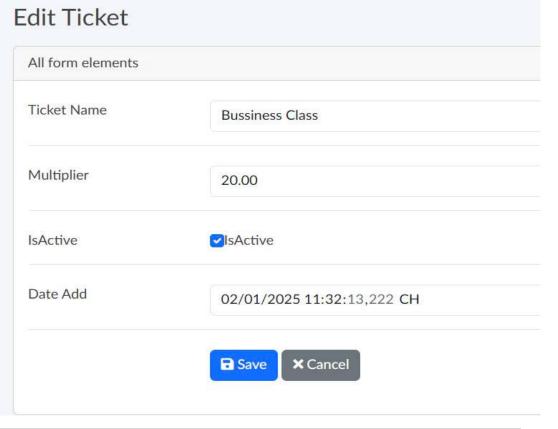
Tickets

Discount

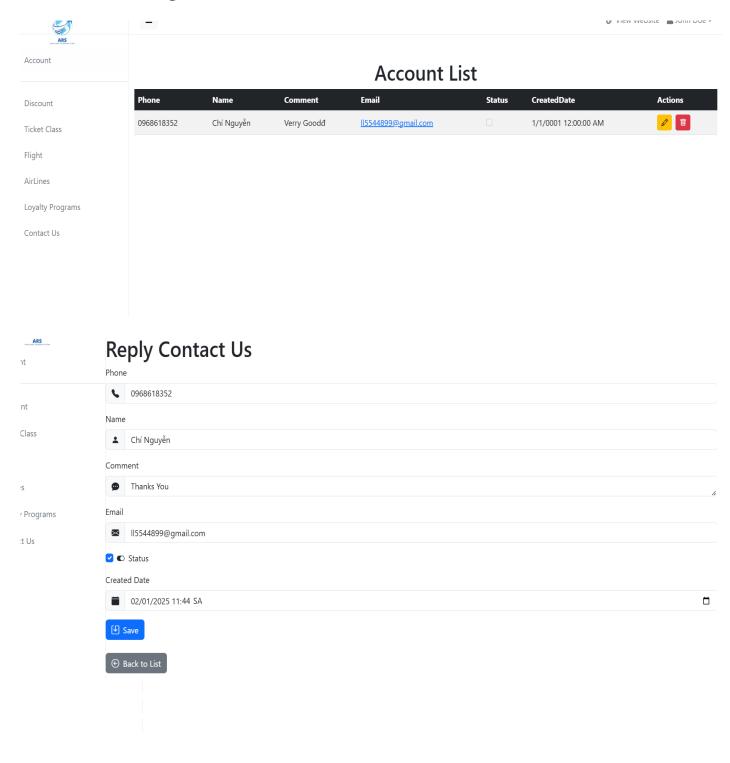
iew All







> Contac Us Management





Contact Information Updated Hôp thư đến \times





Dear Chí Nguyễn,

We are thrilled to inform you that your contact details have been updated successfully in our system. Here is the updated information:

C Phone: 0968618352

Email: comtambichlien@gmail.com

Reply: Thanks You

Thank you for staying in touch with us! If you have any questions or need further assistance, feel free to reach out anytime.

© 2025 Your Company Name. All rights reserved.

Process/Module Description and Details: displays the booking page including:

• Select Trip:

Detailed information about departure point, destination, departure time and ticket price will be displayed.

• Discount Code:

Users can enter the discount code (if any) to enjoy special benefits before making payment.

• Online Payment:

Users make online payment using credit card. The system ensures the safety of personal information and transactions. This booking process allows users to be flexible in choosing a trip. In addition, it provides the option to use discount codes and facilitates online payment, optimizing the booking experience on the website.

TASK SHEET REVIEW 3

Project Ref. No.: eP/Advertisement Portal Management System/01		Project Title:	Activity Plan Prepared By:	Date of Preparation of Activity Plan:			ity Plan:
Sr. No.	Task			Actu al Star t Dat e	Actual Days	Team Mate Names	Status
1	Site Map		Ho Thi	3/01/2025	1	All member	Completed
2	Graphical User Interface (GUI) design	AIRLINES RESERVATION	Bich Lien	3/01/2025	1	All member	Completed