



AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)

FACULTY OF SCIENCE & TECHNOLOGY

Object Oriented Programming-2

Project for Fall 2023-2024

Section: K

Group: 06

Title: Airlines Management System

Submitted To

Taslimur Rahman

Submitted By:

NAME	ID
MD. Bahauddin Sakib	22-46093-1
Fardil Chowdhury	22-46109-1
MD. Shakil	22-46659-1
MD. Motasim Billah	22-46653-1

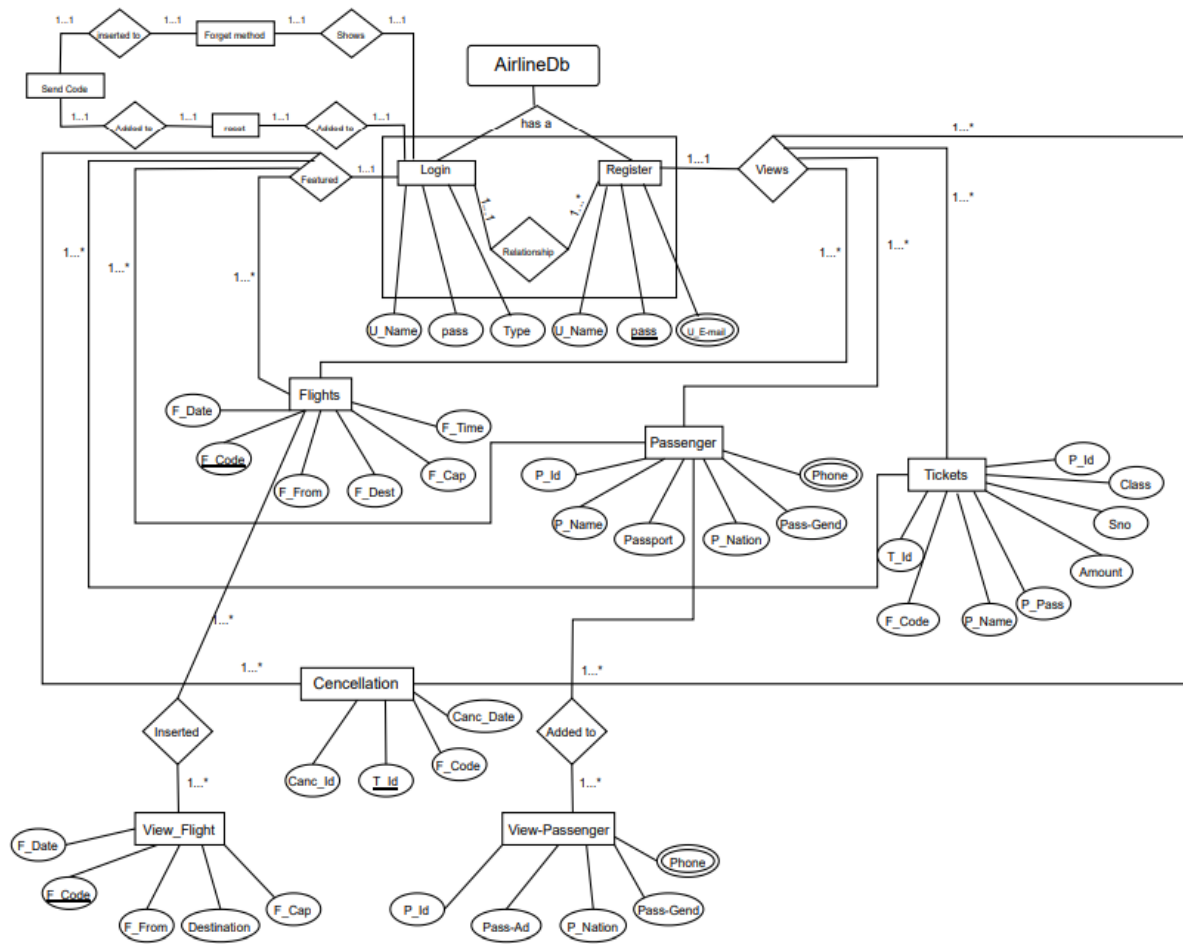
Project Contribution:

- **MD. Bahauddin Sakib** – User Interface Design, Full Code Writing and Collaboration with team members.
- **Fardil Chowdhury** – User Interface Design, Report Writing and Collaboration with team members.
- **MD. Shakil** – Report Writing.
- **MD. Motasim Billah** – Report Writing.

Table of Contents

<u>Topics</u>	<u>Page No.</u>
1) Er Diagram	04
2) User Story	05-07
3) Form Images	07-14
4) Schema of Database	15-16

ER Diagram :



Overview:

The Airline Management System is a desktop-based Windows application developed using the C#.NET platform and a Microsoft SQL (MsSQL) database. The system provides functionalities for Admins, Users, and Ticket Sellers to manage passenger information, flight details, ticket booking, and cancellations.

User Stories:

Admin Features:

Signup:

- Admins can sign up by providing an email, username, and password.
- Password must be at least 8 characters with a mix of uppercase letters, lowercase letters, numbers, and symbols.

Login :

- Secure login using a username, password, and user type.
- Password must meet specified criteria.
- Option to show entered password.

Forget Password:

- Admins can reset their password through email verification.

Home:

- Admin dashboard for managing users and ticket sellers.
- Logout option.

User Management:

- Add Passenger: Record passenger information, reset data, view passenger details, and navigate back to user management.
- View Passenger: Update, delete, reset, and go back to add passenger page.
- Flight Information: Update, delete, reset, go back to User Management, and refresh data.

- Ticket: Book tickets, reset data, search passenger booking information by ticket ID, and return to the login page.
- Cancellation Table: Cancel tickets, reset data, refresh data, return to the login page, and delete ticket booking information.

Seller Management:

- Manage ticket booking, ticket cancellation, and return to the login page.

User Features:

User Management:

- Add Passenger: Record passenger information, reset data, view passenger details, and navigate back to user management.
- View Passenger: Update, delete, reset, and go back to add passenger page.
- Flight Information: Update, delete, reset, go back to User Management, and refresh data.
- Ticket: Book tickets, reset data, search passenger booking information by ticket ID, and return to the login page.
- Cancellation Table: Cancel tickets, reset data, refresh data, return to the login page, and delete ticket booking information.

Ticket Seller Features:

Seller Management:

- Manage ticket booking, ticket cancellation, and return to the login page.

Ticket:

- Book tickets, reset data, search passenger booking information by ticket ID, and return to the login page.

Cancellation Table:

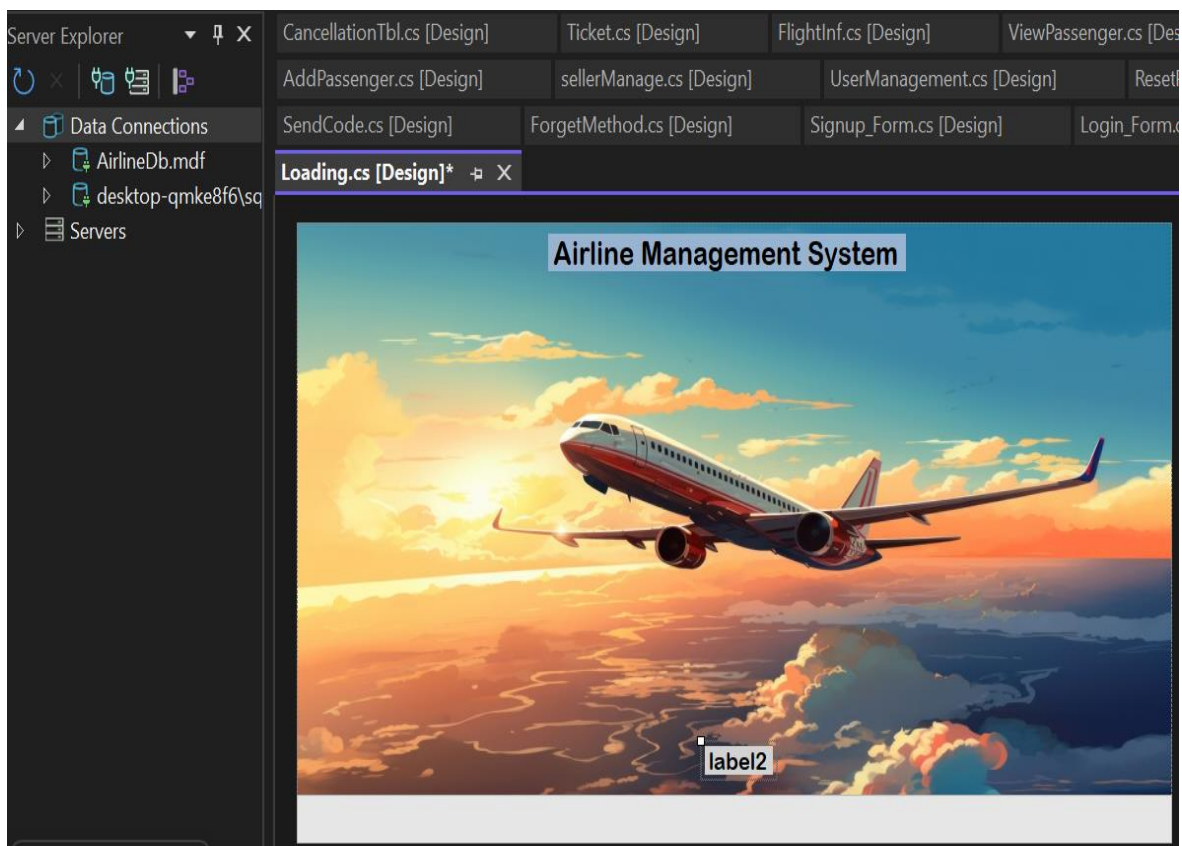
- Cancel tickets, reset data, refresh data, return to the login page, and delete ticket booking information.

Conclusion:

The Airline Management System provides a comprehensive solution for efficient management of passenger details, flight information, ticket bookings, and cancellations. The system ensures secure authentication, user-friendly interfaces, and streamlined processes for administrators, users, and ticket sellers.

Form Images :

Loading :



Signup Form:

The screenshot displays the Visual Studio IDE with the 'Signup_Form.cs [Design]' window active. The interface is divided into several sections:

- Server Explorer:** Located on the left, it shows a tree view with 'Data Connections' containing 'AirlineDb.mdf' and 'desktop-qmke8f6\sq', and 'Servers'.
- Toolbox:** Located on the far left, it contains icons for various UI controls.
- Design View:** The main area shows a form titled 'Get started!' with a blue background on the left side. The form includes:
 - Email:** A text input field.
 - User Name:** A text input field.
 - Password:** A text input field with a 'Show Password' checkbox to its right.
 - Selected Type:** A text input field.
 - Buttons:** Three buttons labeled 'SIGNUP' (green), 'RESET' (grey), and 'BACK' (grey).
 - Footer:** A link that says 'Already have an account? Login here'.
- Output Window:** Located at the bottom left, it is currently empty.

Login Form:

Server Explorer

- Data Connections
 - AirlineDb.mdf
 - desktop-qmke8f6\sq
 - Servers

Output

CancellationTbl.cs [Design] Ticket.cs [Design] FlightInf.cs [Design] ViewPasseng

AddPassenger.cs [Design] sellerManage.cs [Design] UserManagement.cs [Design]

SendCode.cs [Design] ForgetMethod.cs [Design] Signup_Form.cs [Design] Log

Loading.cs [Design]*

Welcome To American Airlines!

User Name:

Password:

Forgot password? ☐ Show Password

Selected Type:

LOGIN **RESET** **BACK**

Don't have an account ? Register here

Forget Method:

Server Explorer

- Data Connections
 - AirlineDb.mdf
 - desktop-qmke8f6\sq
 - Servers

Output

CancellationTbl.cs [Design] Ticket.cs [Design] FlightInf.cs [Design] ViewPassenger.cs [

AddPassenger.cs [Design] sellerManage.cs [Design] UserManagement.cs [Design] Re

SendCode.cs [Design] **ForgetMethod.cs [Design]** Signup_Form.cs [Design] Login_F

Loading.cs [Design]*

Airline Management System

Select Method:

Send code via Email

BACK

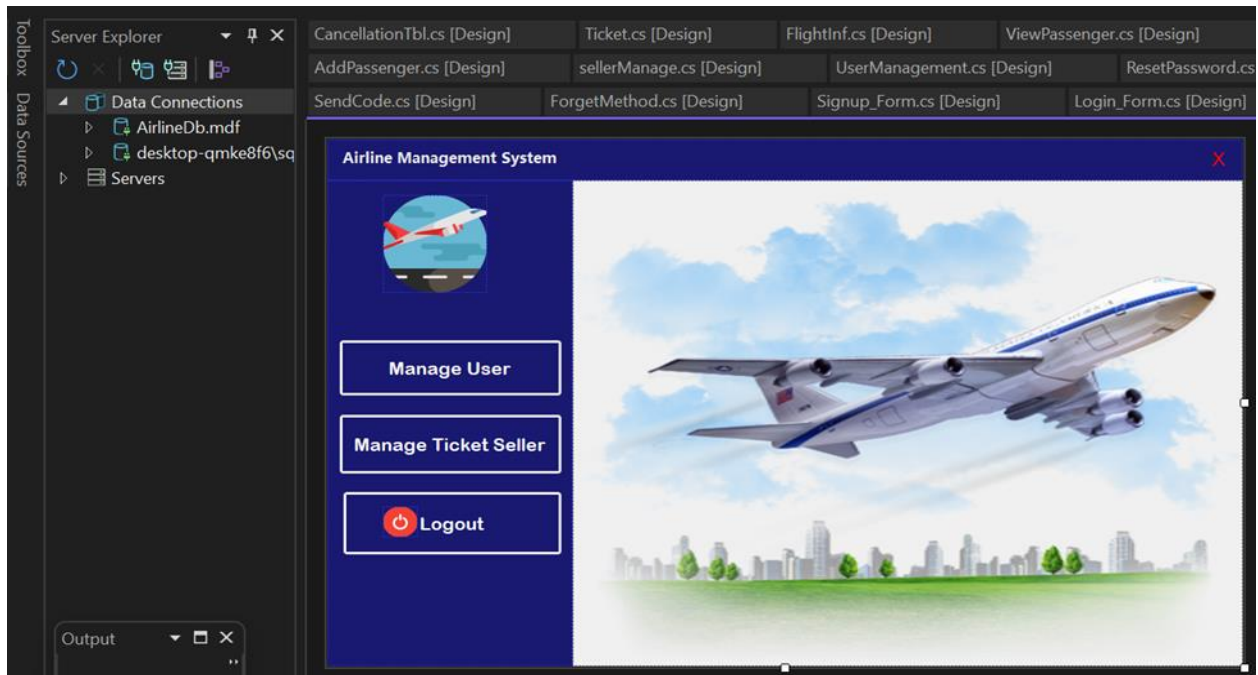
Send Code:

The screenshot shows the 'Send Code Via Email' form within the 'Airline Management System' application. The form is titled 'Send Code Via Email' and features a yellow envelope icon with a smiley face. It includes an 'Email:' label followed by a text input field, a 'SEND Code' button, an 'Enter Code:' label followed by a text input field, a 'Verify' button, and a 'BACK' button. The background of the form is light gray. The application window has a dark blue title bar with the text 'Airline Management System' and a red close button. The interface is displayed in a Visual Studio environment with the 'SendCode.cs [Design]' file selected in the Solution Explorer.

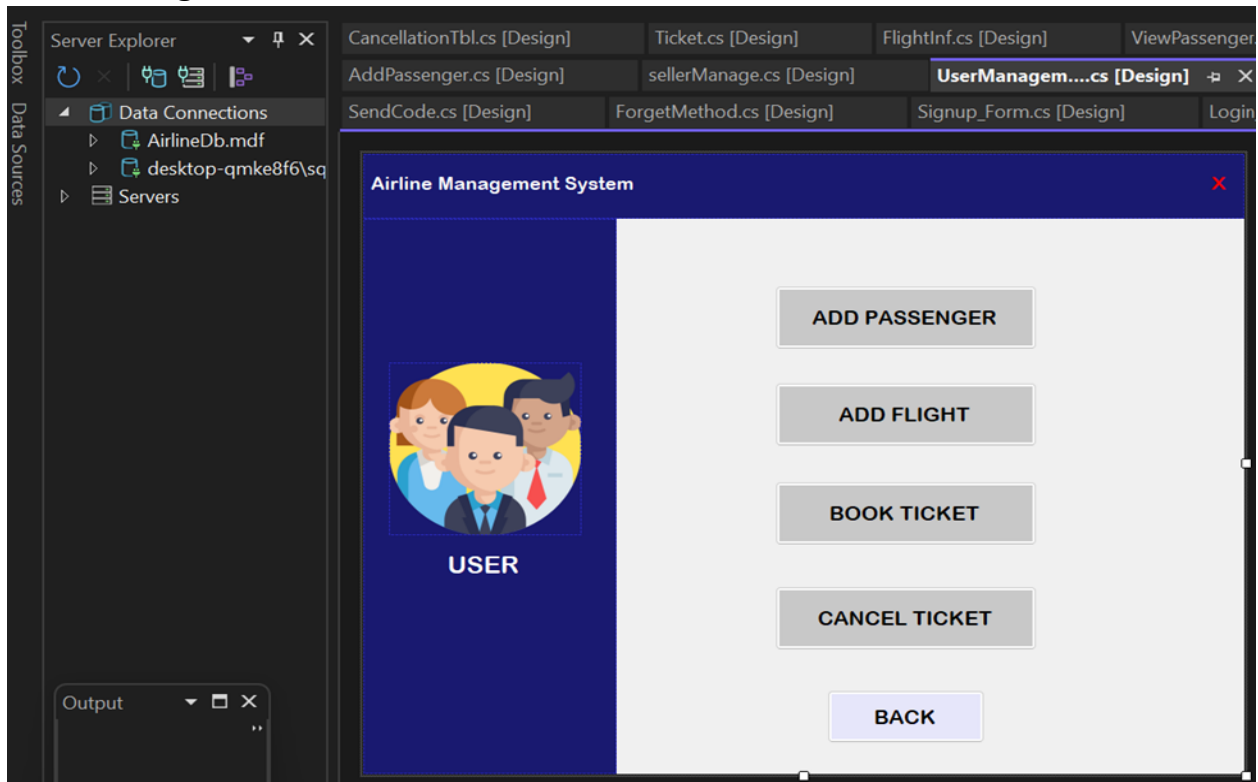
Reset_Password :

The screenshot shows the 'Reset Your Password' form within the 'Airline Management System' application. The form is titled 'Reset Your Password' and features a blue padlock icon with a yellow speech bubble containing three asterisks. It includes a 'New Password:' label followed by a text input field, a 'Confirm Password:' label followed by a text input field, a 'BACK' button, and a 'RESET' button. The background of the form is light gray. The application window has a dark blue title bar with the text 'Airline Management System' and a red close button. The interface is displayed in a Visual Studio environment with the 'ResetPassword.cs [Design]' file selected in the Solution Explorer.

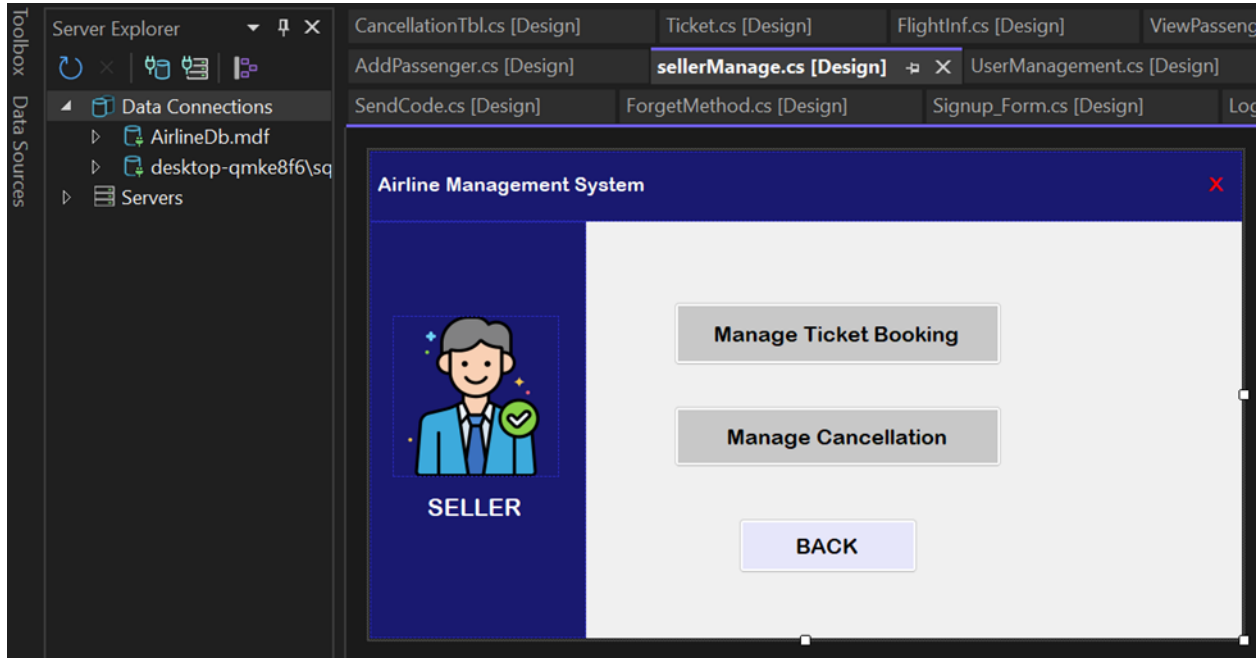
Reset_Password :



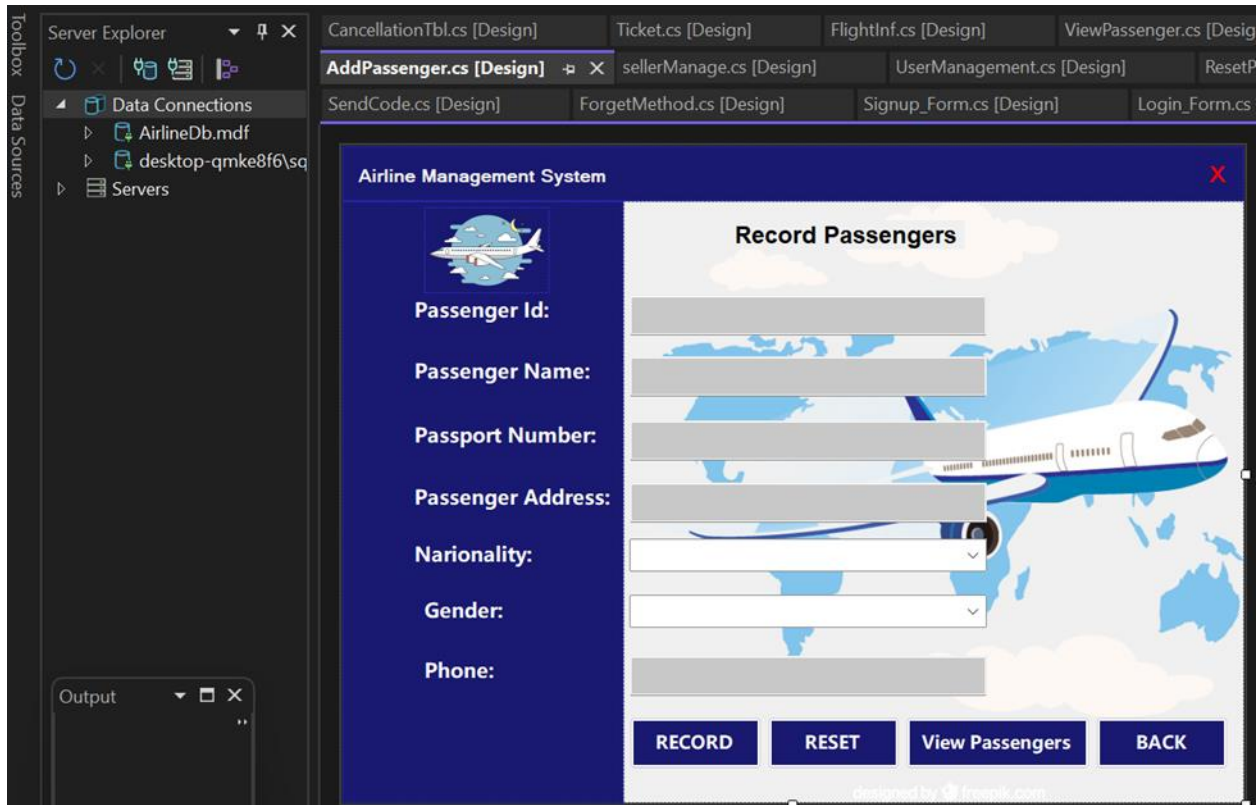
User Management:



Seller Management:



Add Passenger:



View Passenger:

The screenshot shows the 'View Passenger' form within the 'Airline Management System' application. The form is divided into two main sections. On the left, there is a list of input fields for passenger details: 'Passenger Id:', 'Name:', 'Passport:', 'Address:', 'Nationality:' (with a dropdown arrow), 'Gender:' (with a dropdown arrow), and 'Phone:'. Below these fields are four buttons: 'UPDATE', 'DELETE', 'RESET', and 'BACK'. On the right, there is a large rectangular area titled 'View Passenger Info' which is currently empty. The background of the application window shows a dark-themed interface with a 'Server Explorer' on the left and a list of open design files at the top, including 'CancellationTbl.cs [Design]', 'Ticket.cs [Design]', 'FlightInf.cs [Design]', 'ViewPassenger.cs [Design]', and 'Home.cs [Design]'.

Flight_Inf :

The screenshot shows the 'Flight_Inf' form within the 'Airline Management System' application. The form is divided into two main sections. On the left, there is a list of input fields for flight information: 'Flight Code:', 'From:' (with a dropdown arrow), 'Destination:' (with a dropdown arrow), 'TakeOfDate:' (with a date picker showing 'Wednesday, December 27, '), 'NumOfSeat:', and 'Flight Time:' (with a dropdown arrow). Below these fields are six buttons: 'Record', 'UPDATE', 'DELETE', 'RESET', 'BACK', and 'Refresh'. On the right, there is a large rectangular area titled 'Flight Schedule' which is currently empty. The background of the application window shows a dark-themed interface with a 'Server Explorer' on the left and a list of open design files at the top, including 'CancellationTbl.cs [Design]', 'Ticket.cs [Design]', 'FlightInf.cs [Design]', 'ViewPassenger.cs [Design]', and 'Home.cs [Design]'.

Ticket:

Server Explorer: Data Connections, AirlineDb.mdf, desktop-qmke8f6\sq, Servers

Output: Dat..., Erro..., Out...

Toolbox: Data Connections, AirlineDb.mdf, desktop-qmke8f6\sq, Servers

Server Explorer: CancellationTbl.cs [Design], Ticket.cs [Design], FlightInf.cs [Design], ViewPassenger.cs [Design], Home.cs [Design], AddPassenger.cs [Design], sellerManage.cs [Design], UserManagement.cs [Design], ResetPassword.cs [Design], SendCode.cs [Design], ForgetMethod.cs [Design], Signup_Form.cs [Design], Login_Form.cs [Design], Loading.cs [Design]*

Airline Management System

Ticket Id:

Flight Code:

Passenger Id:

Name:

Passport:

Nationality:

Amount:

SeatNO:

Class:

BOOK RESET

BACK Search By Id

Booking Details

Cancellation Tbl:


Server Explorer: Data Connections, AirlineDb.mdf, desktop-qmke8f6\sq, Servers

Output: Dat..., Erro..., Out...

Toolbox: Data Connections, AirlineDb.mdf, desktop-qmke8f6\sq, Servers

Server Explorer: CancellationTbl.cs [Design], Ticket.cs [Design], FlightInf.cs [Design], ViewPassenger.cs [Design], Home.cs [Design], AddPassenger.cs [Design], sellerManage.cs [Design], UserManagement.cs [Design], ResetPassword.cs [Design], SendCode.cs [Design], ForgetMethod.cs [Design], Signup_Form.cs [Design], Login_Form.cs [Design], Loading.cs [Design]*

Airline Management System



Cancel Id:

Ticket Id:

Flight Code:

Date: Wednesday, December 27,

CANCEL RESET

BACK REFRESH

Cancellation List

Schema of Data Base :

Admin:

```
CREATE TABLE [dbo].[admin] (  
    [id] INT IDENTITY (1, 1) NOT NULL,  
    [email] VARCHAR (MAX) NULL,  
    [username] VARCHAR (MAX) NULL,  
    [password] VARCHAR (MAX) NULL,  
    [date_created] DATE NULL,  
    [type] VARCHAR (50) NULL,  
    PRIMARY KEY CLUSTERED ([id] ASC)  
);
```

PassengerTbl:

```
CREATE TABLE [dbo].[PassengerTbl] (  
    [PassId] INT NOT NULL,  
    [PassName] VARCHAR (20) NOT NULL,  
    [Passport] VARCHAR (20) NOT NULL,  
    [PassAd] VARCHAR (50) NOT NULL,  
    [PassNat] VARCHAR (50) NOT NULL,  
    [PassGend] VARCHAR (10) NOT NULL,  
    [PassPhone] VARCHAR (20) NOT NULL,  
    PRIMARY KEY CLUSTERED ([PassId] ASC)  
);
```

FlightTBL:

```
CREATE TABLE [dbo].[FlightTBL] (  
    [Fcode] VARCHAR (20) NOT NULL,  
    [Fsrc] VARCHAR (20) NOT NULL,  
    [FDest] VARCHAR (20) NOT NULL,  
    [FDate] VARCHAR (50) NOT NULL,  
    [FCap] INT NOT NULL,  
    [Ftime] VARCHAR (50) NULL,  
    PRIMARY KEY CLUSTERED ([Fcode] ASC)  
);
```

Ticket:

```
CREATE TABLE [dbo].[TicketTbl] (  
    [TId]      INT          NOT NULL,  
    [Fcode]    VARCHAR (50) NOT NULL,  
    [PIId]     INT          NOT NULL,  
    [PName]    VARCHAR (50) NOT NULL,  
    [PPass]    VARCHAR (50) NOT NULL,  
    [PNation]  VARCHAR (50) NOT NULL,  
    [Amt]      INT          NOT NULL,  
    [Sno]      INT          NULL,  
    [Class]    VARCHAR (20) NULL  
);
```

CancelTbl:

```
CREATE TABLE [dbo].[CancelTbl] (  
    [CancId]    INT          NOT NULL,  
    [TicId]     INT          NOT NULL,  
    [Flcode]    VARCHAR (50) NOT NULL,  
    [CancDate]  VARCHAR (50) NOT NULL,  
    PRIMARY KEY CLUSTERED ([CancId] ASC)  
);
```