

Web Application Code:

Default.asp

```
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>IAD Labs - Muhammad Hammad Latif</title>

    <style>        body, html {    margin: 0;    padding: 0;    font-
family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
background-color: #F8F4E1;    color: #4E1F00;
}

.header {    background-color:
#4E1F00;    color: #F8F4E1;
text-align: center;    padding:
30px 0;    font-size: 36px;
font-weight: bold;
}

.subheader {    text-
align: center;    font-
size: 22px;    margin-
top: 10px; color:
#7D3C00;
}

.layout {    display: flex;
justify-content: center;
align-items: flex-start;
```

```
padding: 40px; gap:
40px;
}
```

```
.sidebar { width: 240px; background-color:
#fff; border: 2px solid #4E1F00; border-
radius: 10px; padding: 20px; box-shadow:
0px 4px 12px rgba(0, 0, 0, 0.1); overflow:
hidden; /* Add this line */
}
```

```
.sidebar ul { list-style-
type: none; padding-
left: 0; margin: 0;
}
```

```
.sidebar li {
margin-bottom: 6px;
}
```

```
.sidebar a,
.sidebar button.toggle-btn { display: block; width: 100%;
text-align: left; text-decoration: none; background: none;
border: none; color: #4E1F00; font-weight: bold; font-
size: 16px; padding: 10px 16px; border-radius: 8px; /* More
rounding like your screenshot */ cursor: pointer; transition:
background-color 0.3s ease; box-sizing: border-box;
}
```

```
.sidebar a:hover,  
.sidebar button.toggle-btn:hover { background-color:  
#F0E6D2;  
}
```

```
.submenu { display:  
none; padding-  
left: 15px;  
margin-top: 4px;  
}
```

```
.submenu a, .submenu  
button.toggle-btn { font-  
weight: normal; font-size:  
15px; padding: 6px 12px;  
border-radius: 6px;  
}
```

```
.submenu a:hover, .submenu  
button.toggle-btn:hover {  
background-color: #F0E6D2;  
}
```

```
.active { display: block  
!important;  
}
```

```
.content {  
    flex: 1;  
    max-width: 600px;  
}
```

```
.card {    background-color:  
#FFFFFF; border: 2px solid  
#4E1F00;    border-radius:  
10px;    padding: 30px 50px;  
text-align: center;    box-  
shadow: 0px 4px 12px rgba(0,  
0, 0, 0.1);  
}
```

```
.card h2 {    color:  
#4E1F00;    margin-  
bottom: 10px;  
}
```

```
.card p {    color:  
#663300;    font-  
size: 16px;  
}
```

```
.footer {    text-  
align: center;  
padding: 15px;  
font-size: 14px;
```

```
color: #999;
margin-top: 50px;
}
```

```
</style>
```

```
<script>  function toggleSubmenu(id) {      var
submenu = document.getElementById(id);
submenu.classList.toggle("active");

}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
  <form id="form1" runat="server">
```

```
    <div class="header">IAD Labs</div>
```

```
    <div class="subheader">Muhammad Hammad Latif</div>
```

```
    <div class="layout">
```

```
      <div class="sidebar">
```

```
        <ul>
```

```
          <li>
```

```
            <button class="toggle-btn" type="button" onclick="toggleSubmenu('lab2Menu')">Lab 2</button>
```

```
            <ul class="submenu" id="lab2Menu">
```

```
              <li><a href="IAD_Lab_2/Default.aspx">Code Demonstration</a></li>
```

```
              <li><a href="LAB_2_Problem_Statement.pdf">Problem Statement</a></li>
```

```
              <li><a href="LAB_2_Code.pdf">Code Review</a></li>
```

```
              <li><a href="LAB_2_Outputs.pdf">Outputs</a></li>
```

```
            </ul>
```


<button class="toggle-btn" type="button" onclick="toggleSubmenu('lab3Menu')">Lab 3</button>

<ul class="submenu" id="lab3Menu">

Code Demonstration

Problem Statement

Code Review

Outputs

<button class="toggle-btn" type="button" onclick="toggleSubmenu('lab4Menu')">Lab 4</button>

<ul class="submenu" id="lab4Menu">

Code Demonstration

Problem Statement

Code Review

Outputs

<button class="toggle-btn" type="button" onclick="toggleSubmenu('lab5Menu')">Lab 5</button>

<ul class="submenu" id="lab5Menu">

Code Demonstration

Problem Statement

Code Review

```

        <li><a href="LAB_5_Outputs.pdf">Outputs</a></li>

    </ul>

</li>

<li>

    <button class="toggle-btn" type="button" onclick="toggleSubmenu('lab6Menu')">Lab 6</button>

    <ul class="submenu" id="lab6Menu">

        <li><a href="LAB_6_Problem_Statement.pdf">Problem Statement</a></li>

        <li><a href="LAB_6_Code.pdf">Code Review</a></li>

        <li><a href="LAB_6_Outputs.pdf">Outputs</a></li>

        <li>

            <button class="toggle-btn" type="button" onclick="toggleSubmenu('lab6Q1')">Q1</button>

            <ul class="submenu" id="lab6Q1">

                <li><a href="IAD_LAB_6B/Q1/partA/Default.aspx">Part 1</a></li>

                <li><a href="IAD_LAB_6B/Q1/partB/answer.html">Part 2</a></li>

                <li><a href="IAD_LAB_6B/Q1/partC/Default.aspx">Part 3</a></li>

            </ul>

        </li>

        <li><a href="IAD_LAB_6B/Q2/CustomerForm.aspx">Q2</a></li>

        <li><a href="IAD_LAB_6B/Q3/CustomerCookie.aspx">Q3</a></li>

    </ul>

</li>

<li>

    <button class="toggle-btn" type="button" onclick="toggleSubmenu('lab9Menu')">Lab 9</button>

    <ul class="submenu" id="lab9Menu">

        <li><a href="LAB_9_Problem_Statement.pdf">Problem Statement</a></li>

        <li><a href="LAB_9_Code.pdf">Code Review</a></li>

        <li><a href="LAB_9_Outputs.pdf">Outputs</a></li>

```

Q1 Code Demonstration

Q2 Code Demonstration

<button class="toggle-btn" type="button" onclick="toggleSubmenu('PIEAS-Airlines')">Proceed to PIEAS Airlines Web Application</button>

<ul class="submenu" id="PIEAS-Airlines">

Code Demonstration

Code Review

</div>

<div class="content">

<div class="card">

<h2>Welcome to PIEAS Airline</h2>

<p>Select a lab from the menu to get started.</p>

</div>

</div>

</div>

<div class="footer">© 2025 Muhammad Hammad Latif - All rights reserved.</div> </form>

</body>

</html>

Home.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Home.aspx.vb" Inherits="Home" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>PIEAS Airlines</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Welcome to PIEAS Airlines</h1>

        <p>We are happy to have you here! Choose an option below:</p>

        <!-- Login and Register buttons -->

        <asp:Button ID="btnLogin" runat="server" Text="Login" OnClick="btnLogin_Click" CssClass="btn" />

        <br /><br />

        <asp:Button ID="btnRegister" runat="server" Text="Register" OnClick="btnRegister_Click" CssClass="btn" />

    </form>

</body>

</html>
```

Home.aspx.vb

Imports System

Imports System.Web.UI

Partial Class Home

Inherits System.Web.UI.Page

Protected Sub btnLogin_Click(sender As Object, e As EventArgs)

```

' Redirect to login page if already registered
Response.Redirect("Login.aspx")
End Sub

Protected Sub btnRegister_Click(sender As Object, e As EventArgs)

' Redirect to registration page if not registered
Response.Redirect("Register.aspx")

End Sub

End Class

```

Register.aspx

```

<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Register.aspx.vb" Inherits="Register" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server"><title>Register</title></head>

<body>

<form id="form1" runat="server">

<h2>Register</h2>

<asp:Label ID="lblErrorMessage" runat="server" ForeColor="Red" /><br />

<asp:TextBox ID="txtUsername" runat="server" Placeholder="Username" /><br />

<asp:TextBox ID="txtPassword" runat="server" TextMode="Password" Placeholder="Password" /><br />

<asp:TextBox ID="txtName" runat="server" Placeholder="Full Name" /><br />

<asp:TextBox ID="txtEmail" runat="server" Placeholder="Email" /><br />

<asp:TextBox ID="txtPhone" runat="server" Placeholder="Phone" /><br />

<asp:TextBox ID="txtAddress" runat="server" Placeholder="Address" /><br />

<asp:DropDownList ID="ddlGender" runat="server">

<asp:ListItem Text="Select Gender" Value="" />

<asp:ListItem Text="Male" Value="M" />

```

```

        <asp:ListItem Text="Female" Value="F" />
        <asp:ListItem Text="Other" Value="O" />
    </asp:DropDownList><br />
    <asp:TextBox ID="txtDOB" runat="server"/><br />
    <asp:Button ID="btnRegister" runat="server" Text="Register" OnClick="btnRegister_Click" /><br />
    <asp:Label ID="lblMessage" runat="server" ForeColor="Green" />    </form>
</body>
</html>

```

Register.aspx.vb

Imports System.Data.SqlClient

Partial Class Register

Inherits System.Web.UI.Page

Protected Sub btnRegister_Click(sender As Object, e As EventArgs)

Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString

Using conn As New SqlConnection(connStr) conn.Open()

Dim checkUsernameCmd As New SqlCommand("SELECT COUNT(*) FROM Users WHERE
Username = @u", conn)

checkUsernameCmd.Parameters.AddWithValue("@u", txtUsername.Text)

Dim usernameExists As Integer = Convert.ToInt32(checkUsernameCmd.ExecuteScalar())

If usernameExists > 0 Then lblErrorMessage.Text = "Username already
exists. Please choose another one." lblErrorMessage.Visible = True

Return

End If

```
Dim transaction As SqlTransaction = conn.BeginTransaction()
```

```
Try
```

```
Dim cmdUser As New SqlCommand("INSERT INTO Users (Username, Password, RoleID, Email)  
VALUES (@u, @p, 2, @e); SELECT SCOPE_IDENTITY()", conn, transaction)
```

```
cmdUser.Parameters.AddWithValue("@u", txtUsername.Text)
```

```
cmdUser.Parameters.AddWithValue("@p", txtPassword.Text)
```

```
cmdUser.Parameters.AddWithValue("@e", txtEmail.Text)
```

```
Dim userID As Integer = Convert.ToInt32(cmdUser.ExecuteScalar())
```

```
Dim cmdCust As New SqlCommand("INSERT INTO Customers (UserID, Name, Email, Phone,  
Address, Gender, DOB) VALUES (@uid, @name, @e, @phone, @addr, @gender, @dob)", conn,  
transaction) cmdCust.Parameters.AddWithValue("@uid", userID)
```

```
cmdCust.Parameters.AddWithValue("@name", txtName.Text)
```

```
cmdCust.Parameters.AddWithValue("@e", txtEmail.Text)
```

```
cmdCust.Parameters.AddWithValue("@phone", txtPhone.Text)
```

```
cmdCust.Parameters.AddWithValue("@addr", txtAddress.Text)
```

```
cmdCust.Parameters.AddWithValue("@gender", ddlGender.SelectedValue)
```

```
cmdCust.Parameters.AddWithValue("@dob", Convert.ToDateTime(txtDOB.Text))
```

```
cmdCust.ExecuteNonQuery()
```

```
transaction.Commit()
```

```
lblMessage.Text = "Registration successful. <a href='Login.aspx'>Click here to login</a>."
```

```
Catch ex As Exception transaction.Rollback() lblErrorMessage.Text = "An error  
occurred during registration." lblErrorMessage.Visible = True
```

```
End Try
```

```
End Using
```

End Sub

End Class

Login.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Login.aspx.vb" Inherits="Login" %> <!DOCTYPE
html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server"><title>Login</title></head>

<body>

    <form id="form1" runat="server">

        <h2>Login</h2>

        <asp:Label ID="lblMessage" runat="server" ForeColor="Red" /><br />

        Username:<br />

        <asp:TextBox ID="txtUsername" runat="server" /><br />

        Password:<br />

        <asp:TextBox ID="txtPassword" runat="server" TextMode="Password" /><br />

        <asp:Button ID="btnLogin" runat="server" Text="Login" OnClick="btnLogin_Click" />    </form>

    </body>

</html>
```

Login.aspx.vb

Imports System.Data.SqlClient

Imports System.Web.Security

Partial Class Login

Inherits System.Web.UI.Page

Protected Sub btnLogin_Click(sender As Object, e As EventArgs)

```

Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString

Using conn As New SqlConnection(connStr)

    Dim cmd As New SqlCommand("SELECT U.UserID, U.Username, R.RoleName FROM Users U
INNER JOIN Roles R ON U.RoleID = R.RoleID WHERE U.Username = @Username AND U.Password =
@Password", conn)      cmd.Parameters.AddWithValue("@Username",
txtUsername.Text)      cmd.Parameters.AddWithValue("@Password",
txtPassword.Text)

    conn.Open()

    Dim reader As SqlDataReader = cmd.ExecuteReader()

    If reader.Read() Then

        Session("UserID") = reader("UserID")

        Session("Username") = reader("Username").ToString()

        Session("UserRole") = reader("RoleName").ToString()

        FormsAuthentication.SetAuthCookie(Session("Username"), False)

        Select Case Session("UserRole").ToString()

            Case "Admin"

                Response.Redirect("AdminDashboard.aspx")

            Case "Customer"

                Response.Redirect("CustomerDashboard.aspx")

            Case "Crew"

                Response.Redirect("CrewDashboard.aspx")

            Case "Technician"

                Response.Redirect("TechnicianDashboard.aspx")

            Case "Pilot"

                Response.Redirect("PilotDashboard.aspx")

            Case Else

                lblMessage.Text = "Unrecognized role."

```

End Select

Else

lblMessage.Text = "Invalid username or password."

End If

End Using

End Sub

End Class

Logout.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Logout.aspx.vb" Inherits="Logout" %>
```

```
<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head runat="server"><title>Logout</title></head>
```

```
<body>
```

```
<form id="form1" runat="server">
```

```
<h2>You have been logged out.</h2>
```

```
<a href="Login.aspx">Login Again</a>
```

```
</form>
```

```
</body>
```

```
</html>
```

Logout.aspx.vb

Partial Class Logout

Inherits System.Web.UI.Page

Protected Sub Page_Load(ByVal sender As Object, ByVal e As EventArgs) Handles Me.Load

Session.Abandon()

End Sub

End Class

Customer.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="CustomerDashboard.aspx.vb"
Inherits="CustomerDashboard" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server"><title>Customer Dashboard</title></head>

<body>

    <form id="form1" runat="server">

        <h2>Welcome, <%= Session("Username") %></h2>

        <asp:Label ID="lblRedirect" runat="server" ForeColor="Red" /><br /><br />

        <asp:Button ID="btnBookFlight" runat="server" Text="Book a Flight" OnClick="btnBookFlight_Click" /><br
/><br />

    </form>

</body>

</html>
```

Customer.aspx.vb

Partial Class CustomerDashboard

Inherits System.Web.UI.Page

Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load

If Session("UserRole") Is Nothing Then

Response.Redirect("Login.aspx")

Elseif Session("UserRole").ToString() <> "Customer" Then

lblRedirect.Text = "Access Denied. Redirecting..."

Response.Redirect("Login.aspx")

End If

End Sub

Protected Sub btnBookFlight_Click(sender As Object, e As EventArgs)

 Response.Redirect("BookFlight.aspx")

End Sub

End Class

BookFlight.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="BookFlight.aspx.vb" Inherits="BookFlight" %>
```

```
<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head runat="server">
```

```
    <title>Book a Flight</title>
```

```
</head>
```

```
<body>
```

```
    <form id="form1" runat="server">
```

```
        <h2>Book a Flight</h2>
```

Select a Flight:


```
<asp:DropDownList ID="ddlFlights" runat="server" AutoPostBack="True"
```

```
    OnSelectedIndexChanged="ddlFlights_SelectedIndexChanged" Width="400px" />
```

```
<br /><br />
```

```
<asp:Panel ID="pnlSeatSelection" runat="server" Visible="false">
```

```
    <h3>Flight Details</h3>
```

```
    <asp:Label ID="lblFlightDetails" runat="server" />
```

```
<br /><br />
```

```

    Available Seats: <asp:Label ID="lblAvailableSeats" runat="server" Font-Bold="true" />
    <br />
    Price per Seat: <asp:Label ID="lblFare" runat="server" Font-Bold="true" />
    <br /><br />

    Number of Seats:<br />
    <asp:TextBox ID="txtSeatCount" runat="server"
        AutoPostBack="True" OnTextChanged="txtSeatCount_TextChanged" Width="60px" />
    <br /><br />

    Total Amount:<br />
    <asp:Label ID="lblTotal" runat="server" Font-Bold="true" Font-Size="Large" />
    <br /><br />

    <asp:Button ID="btnBook" runat="server" Text="Book Flight" OnClick="btnBook_Click" />
</asp:Panel>

<br />
    <asp:Label ID="lblMessage" runat="server" />
</form>
</body>
</html>

```

BookFlight.aspx.vb

Imports System.Data

Imports System.Data.SqlClient

Imports System.Collections.Generic

Partial Class BookFlight

Inherits System.Web.UI.Page

Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString

Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load

 If Session("UserID") Is Nothing Then

 Response.Redirect("Login.aspx")

 End If

 If Not IsPostBack Then

 LoadAvailableFlights() txtSeatCount.Text =

 "1"

 End If

End Sub

Private Sub LoadAvailableFlights() ddlFlights.Items.Clear()

ddlFlights.Items.Add(New ListItem("-- Select Flight --", ""))

Using conn As New SqlConnection(connStr)

 Dim cmdText As String = "SELECT f.FlightID, " &

 "a1.City + ' (' + f.Origin + ')' + ' to ' + " &

 "a2.City + ' (' + f.Destination + ')' + " &

 "" - ' + CONVERT(VARCHAR, f.DepartureTime, 106) + " &

 "" ' + CONVERT(VARCHAR, f.DepartureTime, 108) AS FlightInfo, " &

 "f.AvailableSeats " &

 "FROM Flights f " &

 "JOIN Airport a1 ON f.Origin = a1.Code " &

 "JOIN Airport a2 ON f.Destination = a2.Code " &

 "WHERE f.AvailableSeats > 0 " &

```
        "AND f.DepartureTime > GETDATE() " &  
"ORDER BY f.DepartureTime"
```

```
        Dim cmd As New SqlCommand(cmdText, conn)  
conn.Open()
```

```
        Using reader As SqlDataReader = cmd.ExecuteReader()  
            While reader.Read()  
                Dim item As New ListItem()          item.Text = reader("FlightInfo").ToString() & " (" &  
reader("AvailableSeats").ToString() & " seats available)"          item.Value =  
reader("FlightID").ToString()          ddlFlights.Items.Add(item)  
            End While  
        End Using  
    End Using  
End Sub
```

```
Protected Sub ddlFlights_SelectedIndexChanged(sender As Object, e As EventArgs)  
lblTotal.Text = ""    pnlSeatSelection.Visible = False
```

```
    If ddlFlights.SelectedValue <> "" Then  
LoadFlightDetails()    pnlSeatSelection.Visible =  
True  
    End If  
End Sub
```

```
Private Sub LoadFlightDetails()  
    Using conn As New SqlConnection(connStr)  
        Dim cmdText As String = "SELECT f.Price, f.AvailableSeats, " &  
        "a1.City AS OriginCity, a2.City AS DestinationCity, " &
```

```

"CONVERT(VARCHAR, f.DepartureTime, 106) AS FlightDate, " &
"CONVERT(VARCHAR, f.DepartureTime, 108) AS DepartureTime, " &
"CONVERT(VARCHAR, f.ArrivalTime, 108) AS ArrivalTime " &
"FROM Flights f " &
"JOIN Airport a1 ON f.Origin = a1.Code " &
"JOIN Airport a2 ON f.Destination = a2.Code " &
"WHERE f.FlightID = @FlightID"

```

```

Dim cmd As New SqlCommand(cmdText, conn)
cmd.Parameters.AddWithValue("@FlightID", ddlFlights.SelectedValue)      conn.Open()

```

```

Using reader As SqlDataReader = cmd.ExecuteReader()
    If reader.Read() Then      lblFlightDetails.Text =
reader("OriginCity").ToString() & " to " &
reader("DestinationCity").ToString() & "<br/>Date: " &
reader("FlightDate").ToString() & "<br/>Departure: " &
reader("DepartureTime").ToString() & "<br/>Arrival: " &
reader("ArrivalTime").ToString()

```

```

    lblFare.Text = "PKR " & Convert.ToDecimal(reader("Price")).ToString("N2")
    lblAvailableSeats.Text = reader("AvailableSeats").ToString()

```

```

    End If
End Using
End Using
End Sub

```

```

Protected Sub txtSeatCount_TextChanged(sender As Object, e As EventArgs)
    CalculateTotal()
End Sub

```

```

Private Sub CalculateTotal()

    If ddlFlights.SelectedValue = "" Or String.IsNullOrEmpty(txtSeatCount.Text) Then

        Return

    End If


    Dim seatCount As Integer

    If Not Integer.TryParse(txtSeatCount.Text, seatCount) Or seatCount < 1 Then

lblMessage.Text = "Please enter a valid number of seats."      lblMessage.ForeColor =
Drawing.Color.Red

        Return

    End If


    Using conn As New SqlConnection(connStr)

        conn.Open()


        ' Check available seats

        Dim availCmd As New SqlCommand("SELECT AvailableSeats FROM Flights WHERE FlightID =
@FlightID", conn)

        availCmd.Parameters.AddWithValue("@FlightID", ddlFlights.SelectedValue)

        Dim availableSeats As Integer = Convert.ToInt32(availCmd.ExecuteScalar())


        If seatCount > availableSeats Then      lblMessage.Text =

"Only " & availableSeats & " seats available."

        lblMessage.ForeColor = Drawing.Color.Red

        Return

    End If


    ' Get price per seat

```

```

Dim priceCmd As New SqlCommand("SELECT Price FROM Flights WHERE FlightID = @FlightID", conn)

priceCmd.Parameters.AddWithValue("@FlightID", ddlFlights.SelectedValue)

Dim pricePerSeat As Decimal = Convert.ToDecimal(priceCmd.ExecuteScalar())

' Calculate total

Dim total As Decimal = pricePerSeat * seatCount

lblTotal.Text = "PKR " & total.ToString("N2")      lblMessage.Text
= ""

End Using

End Sub

Protected Sub btnBook_Click(sender As Object, e As EventArgs)

If ddlFlights.SelectedValue = "" Then

    lblMessage.Text = "Please select a flight."

    lblMessage.ForeColor = Drawing.Color.Red

    Return

End If

Dim seatCount As Integer

If Not Integer.TryParse(txtSeatCount.Text, seatCount) Or seatCount < 1 Then

lblMessage.Text = "Please enter a valid number of seats."      lblMessage.ForeColor =
Drawing.Color.Red

    Return

End If

Using conn As New SqlConnection(connStr)

conn.Open()

' Get available seats for this flight

```

```
Dim availCmd As New SqlCommand("SELECT AvailableSeats FROM Flights WHERE FlightID = @FlightID", conn)
```

```
availCmd.Parameters.AddWithValue("@FlightID", ddlFlights.Selected.Value)
```

```
Dim availableSeats As Integer = Convert.ToInt32(availCmd.ExecuteScalar())
```

```
If seatCount > availableSeats Then      lblMessage.Text =
```

```
"Only " & availableSeats & " seats available."
```

```
lblMessage.ForeColor = Drawing.Color.Red
```

```
Return
```

```
End If
```

```
' Get flight price and aircraft ID
```

```
Dim flightCmd As New SqlCommand("SELECT Price, AircraftID FROM Flights WHERE FlightID = @FlightID", conn)
flightCmd.Parameters.AddWithValue("@FlightID",
ddlFlights.Selected.Value)
```

```
Dim flightPrice As Decimal = 0
```

```
Dim aircraftID As Integer = 0
```

```
Using reader As SqlDataReader = flightCmd.ExecuteReader()
```

```
If reader.Read() Then      flightPrice =
```

```
Convert.ToDecimal(reader("Price"))      aircraftID =
```

```
Convert.ToInt32(reader("AircraftID"))
```

```
End If
```

```
End Using
```

```
' Calculate total amount
```

```
Dim totalAmount As Decimal = flightPrice * seatCount
```


' Start transaction

Dim transaction As SqlTransaction = conn.BeginTransaction()

Try

' Get available seats for this aircraft

Dim seatsCmdText As String = "SELECT TOP (@SeatCount) SeatID, SeatNumber " &

"FROM Seats " &

"WHERE AircraftID = @AircraftID AND IsAvailable = 1 " &

"ORDER BY SeatNumber"

Dim seatsCmd As New SqlCommand(seatsCmdText, conn, transaction)

seatsCmd.Parameters.AddWithValue("@SeatCount", seatCount)

seatsCmd.Parameters.AddWithValue("@AircraftID", aircraftID)

Dim selectedSeatIDs As New List(Of Integer)()

Dim selectedSeatNumbers As New List(Of String)()

Using seatsReader As SqlDataReader = seatsCmd.ExecuteReader()

While seatsReader.Read()

selectedSeatIDs.Add(Convert.ToInt32(seatsReader("SeatID")))

selectedSeatNumbers.Add(seatsReader("SeatNumber").ToString())

End While

End Using

If selectedSeatIDs.Count < seatCount Then

lblMessage.Text = "Not enough available seats."

lblMessage.ForeColor = Drawing.Color.Red

transaction.Rollback()

Return

End If

' Create individual booking records for each seat

Dim bookingIDs As New List(Of Integer)()

For i As Integer = 0 To selectedSeatIDs.Count - 1

' Insert booking record for each seat

Dim bookingCmdText As String = "INSERT INTO Bookings (UserID, FlightID, BookingDate, Status, SeatNumber) " &

"OUTPUT INSERTED.BookingID VALUES (@UserID, @FlightID, GETDATE(), 'Confirmed', @SeatNumber)"

Dim bookingCmd As New SqlCommand(bookingCmdText, conn, transaction)

bookingCmd.Parameters.AddWithValue("@UserID", Session("UserID"))

bookingCmd.Parameters.AddWithValue("@FlightID", ddlFlights.SelectedValue)

bookingCmd.Parameters.AddWithValue("@SeatNumber", selectedSeatNumbers(i))

Dim bookingID As Integer = Convert.ToInt32(bookingCmd.ExecuteScalar())

bookingIDs.Add(bookingID)

' Mark seat as unavailable

Dim updateSeatCmd As New SqlCommand("UPDATE Seats SET IsAvailable = 0 WHERE SeatID = @SeatID", conn, transaction)

updateSeatCmd.Parameters.AddWithValue("@SeatID", selectedSeatIDs(i))

updateSeatCmd.ExecuteNonQuery()

Next

' Update available seats in Flights table

Dim updateFlightCmdText As String = "UPDATE Flights " &

"SET AvailableSeats = AvailableSeats - @SeatCount " &

"WHERE FlightID = @FlightID"

Dim updateFlightCmd As New SqlCommand(updateFlightCmdText, conn, transaction)

updateFlightCmd.Parameters.AddWithValue("@SeatCount", seatCount)

updateFlightCmd.Parameters.AddWithValue("@FlightID", ddlFlights.SelectedValue)

updateFlightCmd.ExecuteNonQuery()

' Create payment record (using the first booking ID as reference)

Dim paymentCmdText As String = "INSERT INTO Payments (BookingID, Amount, PaymentStatus) " &

"OUTPUT INSERTED.PaymentID VALUES (@BookingID, @Amount, 'Pending')"

Dim paymentCmd As New SqlCommand(paymentCmdText, conn, transaction)

paymentCmd.Parameters.AddWithValue("@BookingID", bookingIDs(0)) ' Use first booking ID

paymentCmd.Parameters.AddWithValue("@Amount", totalAmount)

Dim paymentID As Integer = Convert.ToInt32(paymentCmd.ExecuteScalar())

' Commit transaction

transaction.Commit()

' Store all needed values in session

Session("BookingID") = String.Join(",", bookingIDs) ' Store all booking IDs

Session("PaymentID") = paymentID

Session("FlightInfo") = ddlFlights.SelectedItem.Text

Session("Seats") = String.Join(",", selectedSeatNumbers)

Session("Amount") = "PKR " & totalAmount.ToString("N2")

' Redirect to payment page

Response.Redirect("Payment.aspx")

Catch ex As Exception

```
' Rollback transaction on error
```

```
Try
```

```
    transaction.Rollback()
```

```
Catch rollbackEx As Exception
```

```
    ' Log rollback error if needed
```

```
End Try
```

```
    lblMessage.Text = "Error processing booking: " & ex.Message
```

```
lblMessage.ForeColor = Drawing.Color.Red
```

```
End Try
```

```
End Using
```

```
End Sub
```

```
End Class
```

Payment.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Payment.aspx.vb" Inherits="Payment"%>
```

```
<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head runat="server">
```

```
    <title>Payment</title>
```

```
</head>
```

```
<body>
```

```
    <form id="form1" runat="server">
```

```
        <div>
```

```
            <h2>Flight Payment</h2>
```

```
            <asp:Label ID="lblFlight" runat="server" Font-Bold="True" Text="Flight Info:" /><br />
```

```
            <asp:Label ID="lblSeats" runat="server" Font-Bold="True" Text="Seats Info:" /><br />
```

```
<asp:Label ID="lblAmount" runat="server" Font-Bold="True" Text="Amount:" ForeColor="Green" /><br />
```

```
<asp:Label ID="lblPaymentID" runat="server" Font-Bold="True" /><br /><br />
```

Card Number:


```
<asp:TextBox ID="txtCardNumber" runat="server" MaxLength="16" /><br /><br />
```

Card Holder Name:


```
<asp:TextBox ID="txtCardName" runat="server" /><br /><br />
```

Expiry Date:


```
<asp:TextBox ID="txtExpiry" runat="server" placeholder="MM/YY" /><br /><br />
```

CVV:


```
<asp:TextBox ID="txtCVV" runat="server" MaxLength="4" TextMode="Password" /><br /><br />
```

Payment Method:


```
<asp:DropDownList ID="ddlPaymentMethod" runat="server">
```

```
<asp:ListItem Text="-- Select Method --" Value="" />
```

```
<asp:ListItem Text="Credit Card" Value="Credit Card" />
```

```
<asp:ListItem Text="Debit Card" Value="Debit Card" />
```

```
<asp:ListItem Text="Mobile Wallet" Value="Mobile Wallet" />
```

```
<asp:ListItem Text="Bank Transfer" Value="Bank Transfer" />
```

```
<asp:ListItem Text="Cash on Counter" Value="Cash" />
```

```
</asp:DropDownList><br /><br />
```

```
<asp:Button ID="btnPay" runat="server" Text="Confirm Payment" OnClick="btnPay_Click" /><br /><br />
```

```
<asp:Label ID="lblStatus" runat="server" Font-Bold="True" /><br />
```

```
</div>
</form>
</body>
</html>
```

Payment.aspx.vb

```
Imports System.Data
```

```
Imports System.Data.SqlClient
```

```
Imports System.Configuration
```

```
Partial Class Payment
```

```
    Inherits System.Web.UI.Page
```

```
    Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString
```

```
    Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load
```

```
        If Session("UserID") Is Nothing Then
```

```
            Response.Redirect("Login.aspx")
```

```
        End If
```

```
        If Not IsPostBack Then
```

```
            If Session("BookingID") Is Nothing Or Session("Amount") Is Nothing Then
```

```
                lblStatus.Text = "Missing booking details. Please go back and book a flight."
```

```
                lblStatus.ForeColor = Drawing.Color.Red          btnPay.Enabled = False
```

```
                Return
```

```
            End If
```

```

        lblFlight.Text = Session("FlightInfo").ToString()
lblSeats.Text = Session("Seats").ToString()        lblAmount.Text =
Session("Amount").ToString()

        lblPaymentID.Text = "Payment ID: " & Session("PaymentID").ToString()

    End If

End Sub

Protected Sub btnPay_Click(sender As Object, e As EventArgs)

If ddlPaymentMethod.SelectedValue = "" Then        lblStatus.Text
= "Please select a payment method."        lblStatus.ForeColor =
Drawing.Color.Red

        Return

    End If

' Optional basic validation

    If txtCardNumber.Text = "" Or txtCardName.Text = "" Or txtExpiry.Text = "" Or txtCVV.Text = "" Then

lblStatus.Text = "Please fill in all payment details."        lblStatus.ForeColor = Drawing.Color.Red

        Return

    End If

Using conn As New SqlConnection(connStr)

conn.Open()

    Dim transaction As SqlTransaction = conn.BeginTransaction()

Try

        Dim cmdText As String = "UPDATE Payments " &
            "SET PaymentDate = GETDATE(), PaymentMethod = @Method, PaymentStatus =
'Completed' " &
            "WHERE PaymentID = @PaymentID"

```

```
Dim cmd As New SqlCommand(cmdText, conn, transaction)

cmd.Parameters.AddWithValue("@PaymentID", Session("PaymentID"))

cmd.Parameters.AddWithValue("@Method", ddlPaymentMethod.SelectedValue)

cmd.ExecuteNonQuery()
```

```
transaction.Commit()
```

```
lblStatus.Text = "Payment successful! Your booking is confirmed."

lblStatus.ForeColor = Drawing.Color.Green      btnPay.Enabled = False
```

```
ddlPaymentMethod.Enabled = False
```

```
Session.Remove("BookingID")

Session.Remove("PaymentID")

Session.Remove("Seats")

Session.Remove("Amount")

Session.Remove("FlightInfo")
```

```
Catch ex As Exception
```

```
Try
```

```
transaction.Rollback()
```

```
Catch
```

```
End Try
```

```
lblStatus.Text = "Payment failed: " & ex.Message
```

```
lblStatus.ForeColor = Drawing.Color.Red
```

```
End Try
```

```
End Using
```


End Sub

End Class

AdminDashboard.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="AdminDashboard.aspx.vb"
Inherits="AdminDashboard" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Admin Dashboard</title>

</head>

<body>

    <form id="form1" runat="server">

        <h1>Admin Dashboard</h1>

        <!-- Navigation using Buttons -->

        <asp:Button ID="btnAddAirport" runat="server" Text="Add Airport" PostBackUrl="~/AddAirPort.aspx" />
        <asp:Button ID="btnAddAircraft" runat="server" Text="Add Aircraft" PostBackUrl="~/AddAircraft.aspx" />
        <asp:Button ID="btnAddCrew" runat="server" Text="Add Crew" PostBackUrl="~/AddCrew.aspx" />
        <asp:Button ID="btnAddPilot" runat="server" Text="Add Pilot" PostBackUrl="~/AddPilot.aspx" />
        <asp:Button ID="AddSchedule" runat="server" Text="AddSchedule" PostBackUrl="~/AddSchedule.aspx"
/>

        <asp:Button ID="AddFlight" runat="server" Text="AddFlight" PostBackUrl="~/AddFlight.aspx" />
        <asp:Button ID="btnLogout" runat="server" Text="Logout" PostBackUrl="~/Logout.aspx" />

    </form>

    <hr />

    <h2>Welcome to Airline Admin Panel</h2>

    <p>Select a task using the buttons above.</p>
```

```
</form>
</body>
</html>
```

AdminDashboard.aspx.vb

Partial Class AdminDashboard

Inherits System.Web.UI.Page

```
Protected Sub Page_Load(ByVal sender As Object, ByVal e As EventArgs) Handles Me.Load
    If Session("UserRole") Is Nothing OrElse Session("UserRole").ToString() <> "Admin" Then
        Response.Redirect("Login.aspx")
    End If
End Sub
End Class
```

AddAirport.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="AddAirport.aspx.vb" Inherits="AddAirport" %>
```

```
<!DOCTYPE html>
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head runat="server">
```

```
<title>Add Airport</title>
```

```
</head>
```

```
<body>
```

```
<form id="form1" runat="server">
```

```
<h2>Add New Airport</h2>
```

```
Name: <asp:TextBox ID="txtName" runat="server" /><br />
```

```
City: <asp:TextBox ID="txtCity" runat="server" /><br />
```

```
Country: <asp:TextBox ID="txtCountry" runat="server" /><br />
```

```

Code: <asp:TextBox ID="txtCode" runat="server" /><br /><br />
<asp:Button ID="btnAddAirport" runat="server" Text="Add Airport" OnClick="btnAddAirport_Click" /><br
/><br />
<asp:Label ID="lblMessage" runat="server" ForeColor="Green" /> </form>
</body>
</html>

```

AddAirport.aspx.vb

```
Imports System.Data.SqlClient
```

```
Partial Class AddAirport
```

```
    Inherits System.Web.UI.Page
```

```
    Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString
```

```
    Protected Sub btnAddAirport_Click(sender As Object, e As EventArgs)
```

```
        Try
```

```
            Using conn As New SqlConnection(connStr)
```

```
                Dim cmd As New SqlCommand("INSERT INTO Airport (Name, City, Country, Code) VALUES
(@name, @city, @country, @code)", conn)
```

```
                cmd.Parameters.AddWithValue("@name", txtName.Text.Trim())
```

```
                cmd.Parameters.AddWithValue("@city", txtCity.Text.Trim())
```

```
                cmd.Parameters.AddWithValue("@country", txtCountry.Text.Trim())
```

```
                cmd.Parameters.AddWithValue("@code", txtCode.Text.Trim())
```

```
                conn.Open()
```

```
                cmd.ExecuteNonQuery()
```

```
            End Using
```

```

        ' Clear input fields
txtName.Text = ""      txtCity.Text
= ""      txtCountry.Text = ""
txtCode.Text = ""

        lblMessage.Text = "Airport successfully added!"

Catch ex As Exception

        lblMessage.ForeColor = Drawing.Color.Red

lblMessage.Text = "Error adding airport: " & ex.Message

    End Try

End Sub

End Class

```

AddAircraft.aspx

```

<%@ Page Language="VB" AutoEventWireup="false" CodeFile="AddAircraft.aspx.vb" Inherits="AddAircraft" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Add Aircraft</title>

</head>

<body>

    <form id="form1" runat="server">

        <h2>Add New Aircraft</h2>

        <asp:Label ID="lblModel" runat="server" Text="Model:"></asp:Label>

        <asp:TextBox ID="txtModel" runat="server"></asp:TextBox><br /><br />

        <asp:Label ID="lblCapacity" runat="server" Text="Capacity:"></asp:Label>

        <asp:TextBox ID="txtCapacity" runat="server"></asp:TextBox><br /><br />
    </form>

```

```

<asp:Label ID="lblManufacturer" runat="server" Text="Manufacturer:"></asp:Label>
<asp:TextBox ID="txtManufacturer" runat="server"></asp:TextBox><br /><br />

<asp:Label ID="lblStatus" runat="server" Text="Maintenance Status:"></asp:Label>
<asp:TextBox ID="txtStatus" runat="server"></asp:TextBox><br /><br />

<asp:Button ID="btnSaveAircraft" runat="server" Text="Save Aircraft"
OnClick="btnSaveAircraft_Click" /><br /><br />

<asp:Label ID="lblMessage" runat="server" ForeColor="Green"></asp:Label>    </form>
</body>
</html>

```

AddAircraft.aspx.vb

```
Imports System.Data.SqlClient
```

```
Partial Class AddAircraft
```

```
    Inherits System.Web.UI.Page
```

```
    Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString
```

```
    Protected Sub btnSaveAircraft_Click(sender As Object, e As EventArgs)
```

```
        Try
```

```
            Using conn As New SqlConnection(connStr)
```

```
                conn.Open()
```

```
                ' Insert new aircraft and get its ID
```

```
                Dim cmd As New SqlCommand("INSERT INTO Aircraft (Model, Capacity, Manufacturer,
```

MaintenanceStatus) OUTPUT INSERTED.AircraftID VALUES (@Model, @Capacity, @Manufacturer, @Status)",
conn)

cmd.Parameters.AddWithValue("@Model", txtModel.Text)

cmd.Parameters.AddWithValue("@Capacity", Convert.ToInt32(txtCapacity.Text))

cmd.Parameters.AddWithValue("@Manufacturer", txtManufacturer.Text)

cmd.Parameters.AddWithValue("@Status", txtStatus.Text)

Dim newAircraftId As Integer = Convert.ToInt32(cmd.ExecuteScalar())

Dim capacity As Integer = Convert.ToInt32(txtCapacity.Text)

' Insert seats based on capacity with default price

For seatNumber As Integer = 1 To capacity

Dim seatCmd As New SqlCommand("INSERT INTO Seats (AircraftID, SeatNumber, Price, IsAvailable) VALUES (@AircraftID, @SeatNumber, @Price, 1)", conn)

seatCmd.Parameters.AddWithValue("@AircraftID", newAircraftId)

seatCmd.Parameters.AddWithValue("@SeatNumber", seatNumber)

seatCmd.Parameters.AddWithValue("@Price", 5000) ' Default base price

seatCmd.ExecuteNonQuery()

Next

lblMessage.ForeColor = System.Drawing.Color.Green lblMessage.Text = "Aircraft added
successfully! Aircraft ID: " & newAircraftId & " with " & capacity & " seats."

' Clear form

txtModel.Text = ""

txtCapacity.Text = ""

txtManufacturer.Text = ""

txtStatus.Text = ""

```

        End Using

        Catch ex As Exception            lblMessage.ForeColor =
System.Drawing.Color.Red                lblMessage.Text = "Error: "
        & ex.Message

    End Try

End Sub

End Class

```

AddCrew.aspx

```

<%@ Page Language="VB" AutoEventWireup="false" CodeFile="AddCrew.aspx.vb" Inherits="AddCrew" %>
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server"><title>Add Crew Member</title></head>
<body>

    <form id="form1" runat="server">

        <h2>Add New Crew Member</h2>

        <asp:Label ID="lblCrewName" runat="server" Text="Name:"></asp:Label>

        <asp:TextBox ID="txtCrewName" runat="server"></asp:TextBox><br />

        <asp:Label ID="lblCrewExp" runat="server" Text="Experience Years:"></asp:Label>

        <asp:TextBox ID="txtCrewExp" runat="server"></asp:TextBox><br />

        <asp:Button ID="btnSaveCrew" runat="server" Text="Save Crew" OnClick="btnSaveCrew_Click" />

        <asp:Label ID="lblMsgCrew" runat="server" ForeColor="Green"></asp:Label>    </form>

    </body>
</html>

```

AddCrew.aspx.vb

```

Imports System.Data.SqlClient

```

Partial Class AddCrew

Inherits System.Web.UI.Page

Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString

Protected Sub btnSaveCrew_Click(sender As Object, e As EventArgs) Dim
experienceYears As Integer

' Validate experience input

If Not Integer.TryParse(txtCrewExp.Text, experienceYears) Then

lblMsgCrew.Text = "Please enter a valid number for experience years."

lblMsgCrew.ForeColor = System.Drawing.Color.Red

Exit Sub

End If

Using conn As New SqlConnection(connStr)

Dim cmd As New SqlCommand("INSERT INTO Crew (Name, ExperienceYears) VALUES (@Name,
@Exp)", conn) cmd.Parameters.AddWithValue("@Name",

txtCrewName.Text) cmd.Parameters.AddWithValue("@Exp",

experienceYears) conn.Open() cmd.ExecuteNonQuery()

lblMsgCrew.Text = "Crew member added successfully!"

lblMsgCrew.ForeColor = System.Drawing.Color.Green End Using

End Sub

End Class

AddPilot.aspx

<%@ Page Language="VB" AutoEventWireup="false" CodeFile="AddPilot.aspx.vb" Inherits="AddPilot" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">


```

<head runat="server"><title>Add Pilot</title></head>

<body>

    <form id="form1" runat="server">

        <h2>Add New Pilot</h2>

        <asp:Label ID="lblName" runat="server" Text="Name:"></asp:Label>

        <asp:TextBox ID="txtName" runat="server"></asp:TextBox><br />

        <asp:Label ID="lblLicense" runat="server" Text="License Number:"></asp:Label>

        <asp:TextBox ID="txtLicense" runat="server"></asp:TextBox><br />

        <asp:Label ID="lblExp" runat="server" Text="Experience Years:"></asp:Label>

        <asp:TextBox ID="txtExp" runat="server"></asp:TextBox><br />

        <asp:Button ID="btnSavePilot" runat="server" Text="Save Pilot" OnClick="btnSavePilot_Click" />

        <asp:Label ID="lblMsgPilot" runat="server" ForeColor="Green"></asp:Label>    </form>

    </body>

</html>

```

AddPilot.aspx.vb

Imports System.Data.SqlClient

Partial Class AddPilot

Inherits System.Web.UI.Page

Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString

Protected Sub btnSavePilot_Click(sender As Object, e As EventArgs)

Using conn As New SqlConnection(connStr)

Dim cmd As New SqlCommand("INSERT INTO Pilot (Name, LicenseNumber, ExperienceYears)
VALUES (@Name, @License, @Exp)", conn)

cmd.Parameters.AddWithValue("@Name", txtName.Text)

cmd.Parameters.AddWithValue("@License", txtLicense.Text)

```

cmd.Parameters.AddWithValue("@Exp", Integer.Parse(txtExp.Text))      conn.Open()

cmd.ExecuteNonQuery()

    lblMsgPilot.Text = "Pilot added successfully!"

End Using

End Sub

End Class

```

AddSchedule.aspx

```

<%@ Page Language="VB" AutoEventWireup="false" CodeFile="AddSchedule.aspx.vb" Inherits="AddSchedule"
%>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server"><title>Add Schedule</title></head>

<body>

    <form id="form1" runat="server">

        <h2>Add New Schedule</h2>

        <asp:Label ID="lblDate" runat="server" Text="Flight Date:"></asp:Label>

        <asp:TextBox ID="txtFlightDate" runat="server"></asp:TextBox><br />

        <asp:Label ID="lblDeparture" runat="server" Text="Departure Time:"></asp:Label>

        <asp:TextBox ID="txtDepartureTime" runat="server"></asp:TextBox><br />

        <asp:Label ID="lblArrival" runat="server" Text="Arrival Time:"></asp:Label>

        <asp:TextBox ID="txtArrivalTime" runat="server"></asp:TextBox><br />

        <asp:Button ID="btnSaveSchedule" runat="server" Text="Save Schedule"
OnClick="btnSaveSchedule_Click" />

        <asp:Label ID="lblMessage" runat="server" ForeColor="Green"></asp:Label>    </form>

    </body>

</html>

```

AddSchedule.aspx.vb

Imports System.Data.SqlClient

Partial Class AddSchedule

Inherits System.Web.UI.Page

Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString

Protected Sub btnSaveSchedule_Click(sender As Object, e As EventArgs)

Dim departureTime As TimeSpan

Dim arrivalTime As TimeSpan

' Validate and parse departure time

If Not TimeSpan.TryParse(txtDepartureTime.Text, departureTime) Then

lblMessage.Text = "Invalid departure time format. Please use HH:mm:ss."

lblMessage.ForeColor = System.Drawing.Color.Red

Exit Sub

End If

' Validate and parse arrival time

If Not TimeSpan.TryParse(txtArrivalTime.Text, arrivalTime) Then

lblMessage.Text = "Invalid arrival time format. Please use HH:mm:ss."

lblMessage.ForeColor = System.Drawing.Color.Red

Exit Sub

End If

' If valid, proceed with database insert

Using conn As New SqlConnection(connStr)

Dim cmd As New SqlCommand("INSERT INTO Schedule (FlightDate, DepartureTime, ArrivalTime)

```

VALUES (@FlightDate, @DepartureTime, @ArrivalTime)", conn)

cmd.Parameters.AddWithValue("@FlightDate", DateTime.Parse(txtFlightDate.Text))

cmd.Parameters.AddWithValue("@DepartureTime", departureTime)

cmd.Parameters.AddWithValue("@ArrivalTime", arrivalTime)      conn.Open()

cmd.ExecuteNonQuery()      lblMessage.Text = "Schedule added successfully!"

lblMessage.ForeColor = System.Drawing.Color.Green      End Using

End Sub

End Class

```

AddFlight.aspx

```

<%@ Page Language="VB" AutoEventWireup="false" CodeFile="AddFlight.aspx.vb" Inherits="AddFlight" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head runat="server">

    <title>Add Flight</title>

</head>

<body>

    <form id="form1" runat="server">

        <h2>Add New Flight</h2>

        Flight Number:<br />

        <asp:TextBox ID="txtFlightNumber" runat="server" /><br /><br />

```

Select Aircraft:

<asp:DropDownList ID="ddlAircraftID" runat="server" />

Select Origin City:

<asp:DropDownList ID="ddlOrigin" runat="server" />

Select Destination City:

<asp:DropDownList ID="ddlDestination" runat="server" />

Select Schedule:

<asp:DropDownList ID="ddlScheduleID" runat="server" />

Select Crew:

<asp:DropDownList ID="ddlCrewID" runat="server" />

Price:

<asp:TextBox ID="txtPrice" runat="server" />

<asp:Button ID="btnSave" runat="server" Text="Save Flight" OnClick="btnSave_Click" />

<asp:Label ID="lblMessage" runat="server" />

</form>

</body>

</html>

AddFlight.aspx.vb

Imports System.Data

Imports System.Data.SqlClient

Imports System.Configuration

Partial Class AddFlight

Inherits System.Web.UI.Page

Dim connStr As String = ConfigurationManager.ConnectionStrings("DBConn").ConnectionString

Protected Sub Page_Load(sender As Object, e As EventArgs) Handles Me.Load

If Not IsPostBack Then

LoadDropdowns()

End If

End Sub

Private Sub LoadDropdowns()

Using conn As New SqlConnection(connStr)

conn.Open()

' Aircraft ID

Dim cmdAircraft As New SqlCommand("SELECT AircraftID, Model FROM Aircraft WHERE
MaintenanceStatus = 'Functional'", conn) ddlAircraftID.DataSource =

cmdAircraft.ExecuteReader() ddlAircraftID.DataTextField = "Model"

ddlAircraftID.DataValueField = "AircraftID" ddlAircraftID.DataBind()

ddlAircraftID.Items.Insert(0, New ListItem("-- Select Aircraft --", ""))

conn.Close()

End Using

Using conn As New SqlConnection(connStr)

conn.Open()

' Origin and Destination Cities

```
Dim cmdCity As New SqlCommand("SELECT DISTINCT City, Code FROM Airport ORDER BY City", conn)

Dim dt As New DataTable()

dt.Load(cmdCity.ExecuteReader())
```

```
ddlOrigin.DataSource = dt          ddlOrigin.DataTextField = "City"

ddlOrigin.DataValueField = "Code"   ddlOrigin.DataBind()

ddlOrigin.Items.Insert(0, New ListItem("-- Select Origin --", ""))
```

```
ddlDestination.DataSource = dt      ddlDestination.DataTextField = "City"

ddlDestination.DataValueField = "Code"  ddlDestination.DataBind()

ddlDestination.Items.Insert(0, New ListItem("-- Select Destination --", ""))

conn.Close()

End Using
```

```
Using conn As New SqlConnection(connStr)

conn.Open()
```

' Schedule ID

```
Dim cmdSchedule As New SqlCommand("SELECT ScheduleID, CONVERT(VARCHAR, FlightDate,
103) + ' - ' + " & "CONVERT(VARCHAR, DepartureTime, 108) + ' to ' + " & "CONVERT(VARCHAR, ArrivalTime,
108) AS ScheduleInfo FROM Schedule ORDER BY FlightDate", conn)

ddlScheduleID.DataSource = cmdSchedule.ExecuteReader()

ddlScheduleID.DataTextField = "ScheduleInfo"

ddlScheduleID.DataValueField = "ScheduleID"          ddlScheduleID.DataBind()

ddlScheduleID.Items.Insert(0, New ListItem("-- Select Schedule --", ""))

conn.Close()

End Using
```

```

        Using conn As New SqlConnection(connStr)

conn.Open()

        ' Crew ID

        Dim cmdCrew As New SqlCommand("SELECT CrewID, Name FROM Crew ORDER BY Name", conn)
ddlCrewID.DataSource = cmdCrew.ExecuteReader()        ddlCrewID.DataTextField = "Name"
ddlCrewID.DataValueField = "CrewID"        ddlCrewID.DataBind()        ddlCrewID.Items.Insert(0, New
ListItem("-- Select Crew --", ""))        conn.Close()

        End Using

        End Sub

```

```

        Protected Sub btnSave_Click(sender As Object, e As EventArgs)        If
ddlAircraftID.SelectedValue = "" Or ddlOrigin.SelectedValue = "" Or
ddlDestination.SelectedValue = "" Or ddlScheduleID.SelectedValue = "" Or
ddlCrewID.SelectedValue = "" Or String.IsNullOrEmpty(txtFlightNumber.Text) Or
String.IsNullOrEmpty(txtPrice.Text) Then        lblMessage.Text = "Please fill all required
fields."        lblMessage.ForeColor = Drawing.Color.Red

        Return

        End If

```

```

        If ddlOrigin.SelectedValue = ddlDestination.SelectedValue Then
lblMessage.Text = "Origin and Destination cannot be the same."
lblMessage.ForeColor = Drawing.Color.Red

        Return

        End If

```

```

        Try

        Using conn As New SqlConnection(connStr)

conn.Open()

```


' Get Aircraft Capacity

Dim capCmd As New SqlCommand("SELECT Capacity FROM Aircraft WHERE AircraftID = @AircraftID", conn)

capCmd.Parameters.AddWithValue("@AircraftID", ddlAircraftID.Selected.Value)

Dim totalSeats As Integer = Convert.ToInt32(capCmd.ExecuteScalar())

' Get DepartureTime and ArrivalTime from Schedule

Dim schedCmd As New SqlCommand("SELECT FlightDate, DepartureTime, ArrivalTime FROM Schedule WHERE ScheduleID = @ScheduleID", conn)

schedCmd.Parameters.AddWithValue("@ScheduleID", ddlScheduleID.Selected.Value)

Dim reader As SqlDataReader = schedCmd.ExecuteReader()

Dim departureTime As DateTime

Dim arrivalTime As DateTime

Dim flightDate As Date

If reader.Read() Then flightDate = CType(reader("FlightDate"), Date)

departureTime = flightDate.Add(CType(reader("DepartureTime"), TimeSpan))

arrivalTime = flightDate.Add(CType(reader("ArrivalTime"), TimeSpan))

Else

lblMessage.Text = "Schedule not found."

lblMessage.ForeColor = Drawing.Color.Red

Return

End If

reader.Close()

Dim basePrice As Decimal = Convert.ToDecimal(txtPrice.Text)

' Insert Flight

Dim insertCmd As New SqlCommand("INSERT INTO Flights (FlightNumber, AircraftID, Origin, Destination, ScheduleID, DepartureTime, ArrivalTime, TotalSeats, AvailableSeats, Price, CrewID) " &

"VALUES (@FlightNumber, @AircraftID, @Origin, @Destination, @ScheduleID, @DepartureTime, @ArrivalTime, @TotalSeats, @AvailableSeats, @Price, @CrewID)", conn)

insertCmd.Parameters.AddWithValue("@FlightNumber", txtFlightNumber.Text.Trim())

insertCmd.Parameters.AddWithValue("@AircraftID", ddlAircraftID.SelectedValue)

insertCmd.Parameters.AddWithValue("@Origin", ddlOrigin.SelectedValue)

insertCmd.Parameters.AddWithValue("@Destination", ddlDestination.SelectedValue)

insertCmd.Parameters.AddWithValue("@ScheduleID", ddlScheduleID.SelectedValue)

insertCmd.Parameters.AddWithValue("@DepartureTime", departureTime)

insertCmd.Parameters.AddWithValue("@ArrivalTime", arrivalTime)

insertCmd.Parameters.AddWithValue("@TotalSeats", totalSeats)

insertCmd.Parameters.AddWithValue("@AvailableSeats", totalSeats)

insertCmd.Parameters.AddWithValue("@Price", basePrice)

insertCmd.Parameters.AddWithValue("@CrewID", ddlCrewID.SelectedValue)

insertCmd.ExecuteNonQuery()

' Update seat prices uniformly - no differentiation between business/economy

Dim updateSeatPricesCmd As New SqlCommand("UPDATE Seats SET Price = @Price WHERE AircraftID = @AircraftID", conn)

updateSeatPricesCmd.Parameters.AddWithValue("@Price",

basePrice) updateSeatPricesCmd.Parameters.AddWithValue("@AircraftID",

ddlAircraftID.SelectedValue) updateSeatPricesCmd.ExecuteNonQuery()

lblMessage.ForeColor = Drawing.Color.Green

lblMessage.Text =

"Flight added successfully with " & totalSeats & " seats."

' Clear form

txtFlightNumber.Text = ""

txtPrice.Text = ""

ddlAircraftID.SelectedIndex = 0

ddlOrigin.SelectedIndex = 0

ddlDestination.SelectedIndex = 0

ddlScheduleID.SelectedIndex = 0

ddlCrewID.SelectedIndex = 0

End Using

Catch ex As Exception

lblMessage.ForeColor = Drawing.Color.Red

lblMessage.Text = "Error: " & ex.Message End

Try

End Sub End

Class