**Project Name: Railway Reservation System**

Data Definition Language of the Database:

CREATE DATABASE Railway\_Reservation\_System

CREATE TABLE Login(

Username varchar (30) NOT NULL,

Password varchar (30) NOT NULL

);

CREATE TABLE TrainList (

TrainID INT Primary Key,

TrainCode varchar(100) NOT NULL,

TrainName varchar(50) NOT NULL,

RouteFrom varchar(50) NOT NULL,

RouteTo varchar(30) NOT NULL,

DepartureTime time NOT NULL,

ArrivalTime time NOT NULL,

TrainType varchar(50) NOT NULL,

TotalSeats numeric (8,2) NOT NULL,

TicketFare numeric (8,2) NOT NULL,

);

CREATE TABLE Schedule (

ScheduleID INT Primary Key,

ScheduleCode varchar(100) NOT NULL,

TrainID INT NOT NULL,

StationName varchar(30),

ScheduleType varchar(20) NOT NULL,

DepartureTime time NOT NULL,

ArrivalTime time NOT NULL,

TrainType varchar(20) NOT NULL,

Foreign Key (TrainID) references TrainList,

);

CREATE TABLE Passenger (

PNRID INT Primary Key,

UserName varchar(50) NOT NULL,

FirstName varchar(50) NOT NULL,

LastName varchar(50) NOT NULL,

ContactNumber varchar(20) NOT NULL,

Gender varchar(30) NOT NULL,

DoB varchar(30) NOT NULL,

Email varchar(50) NOT NULL,

Password varchar(50) NOT NULL,

Picture image,

Address varchar(250) NOT NULL,

PostCode INT NOT NULL,

);

CREATE TABLE Reservation (

ResID INT Primary Key,

PNRID INT NOT NULL,

TrainID INT NOT NULL,

SourceStation varchar(100) NOT NULL,

DestinationStation varchar(100) NOT NULL,

TravelDate varchar(30) NOT NULL,

ScheduleID INT NOT NULL,

Foreign Key (ScheduleID) references Schedule,

Foreign Key (TrainID) references TrainList,

Foreign Key (PNRID) references Passenger

);

CREATE TABLE Payments (

PaymentID varchar(30) Primary Key,

ResID INT NOT NULL,

PNRID INT NOT NULL,

Amount numeric(8, 2) NOT NULL,

PaymentMethod varchar(50) NOT NULL,

FOREIGN KEY (ResID) REFERENCES Reservation,

FOREIGN KEY (PNRID) REFERENCES Passenger

);

Data Manipulation Language of the Database:

INSERT INTO TrainList (TrainID, TrainCode, TrainName, RouteFrom, RouteTo, DepartureTime, ArrivalTime, TrainType, TotalSeats, TicketFare)

VALUES

(101, 'EKSP123', 'Suborno Express', 'Dhaka', 'Chattogram', '07:00:00', '13:00:00', 'Intercity', 800, 550.00),

(102, 'EKSP456', 'Sundarban Express', 'Dhaka', 'Khulna', '08:30:00', '17:45:00', 'Intercity', 900, 600.00),

(103, 'EKSP789', 'Parabat Express', 'Sylhet', 'Dhaka', '06:40:00', '13:30:00', 'Intercity', 750, 500.00),

(104, 'EKSP101', 'Rangpur Express', 'Dhaka', 'Rangpur', '09:00:00', '18:30:00', 'Intercity', 850, 700.00);

INSERT INTO Schedule (ScheduleID, ScheduleCode, TrainID, StationName, ScheduleType, DepartureTime, ArrivalTime, TrainType)

VALUES

(201, 'SCHD001', 101, 'Dhaka', 'Daily', '07:00:00', '07:00:00', 'Intercity'),

(202, 'SCHD002', 103, 'Narsingdi', 'Daily', '08:30:00', '08:35:00', 'Intercity'),

(203, 'SCHD003', 102, 'Brahmanbaria', 'Daily', '10:00:00', '10:05:00', 'Intercity'),

(204, 'SCHD004', 101, 'Feni', 'Daily', '12:00:00', '12:05:00', 'Intercity'),

(205, 'SCHD005', 104, 'Chattogram', 'Daily', '13:00:00', '13:00:00', 'Intercity');

INSERT INTO Passenger (PNRID, UserName, FirstName, LastName, ContactNumber, Gender, DoB, Email, Password, Address, PostCode)

VALUES

(301, 'rajib123', 'Rajib', 'Hasan', '01711234567', 'Male', '1995-05-10', 'rajib.hasan@gmail.com', 'pass123', 'Mirpur, Dhaka', 1216),

(302, 'tahsin321', 'Tahsin', 'Rahman', '01987654321', 'Male', '1990-09-22', 'tahsin.rahman@yahoo.com', 'secure456', 'GEC, Chattogram', 4000),

(303, 'afrin789', 'Afrin', 'Jahan', '01812340987', 'Female', '1998-02-14', 'afrin.jahan@outlook.com', 'afrin321', 'Banani, Dhaka', 1213),

(304, 'mehedi456', 'Mehedi', 'Kamal', '01655667788', 'Male', '1988-11-30', 'mehedi.kamal@hotmail.com', 'mehpass987', 'Khulna Sadar, Khulna', 9100);

INSERT INTO Reservation (ResID, PNRID, TrainID, SourceStation, DestinationStation, TravelDate, ScheduleID)

VALUES

(401, 301, 101, 'Dhaka', 'Chattogram', '2025-03-15', 201),

(402, 302, 101, 'Narsingdi', 'Chattogram', '2025-03-16', 202),

(403, 303, 103, 'Sylhet', 'Dhaka', '2025-04-10', 203),

(404, 304, 102, 'Dhaka', 'Khulna', '2025-04-12', 204);

INSERT INTO Payments (PaymentID, ResID, PNRID, Amount, PaymentMethod)

VALUES

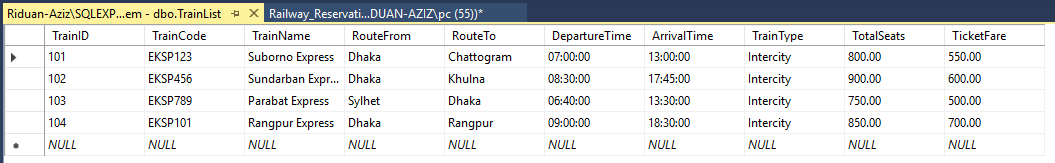
('BK202501', 401, 301, 550.00, 'bKash'),

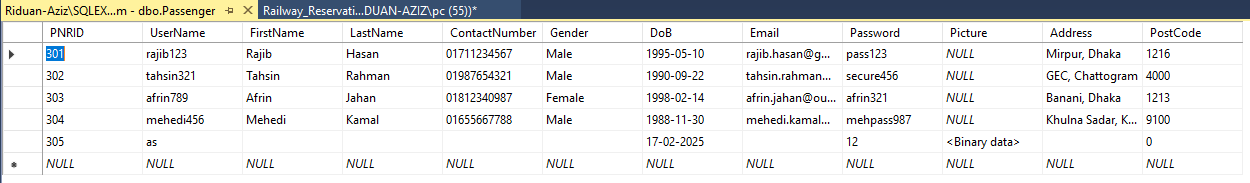
('NG202502', 402, 302, 600.00, 'Nagad'),

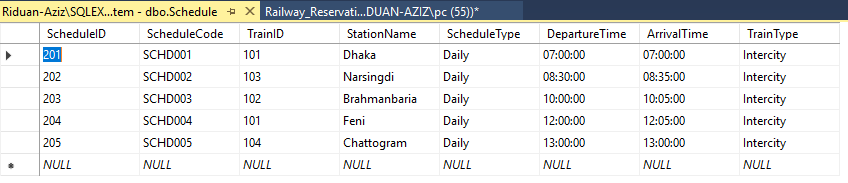
('RK202503', 403, 303, 500.00, 'Rocket'),

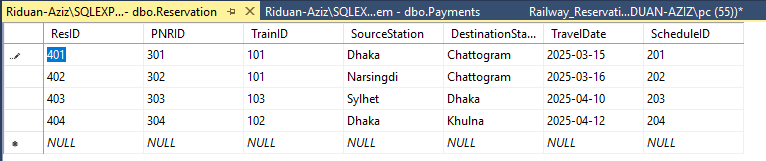
('CC202504', 404, 304, 700.00, 'Credit Card');

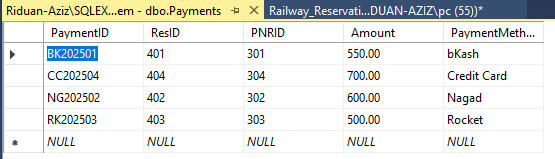
Table Diagrams:

Trains Table:

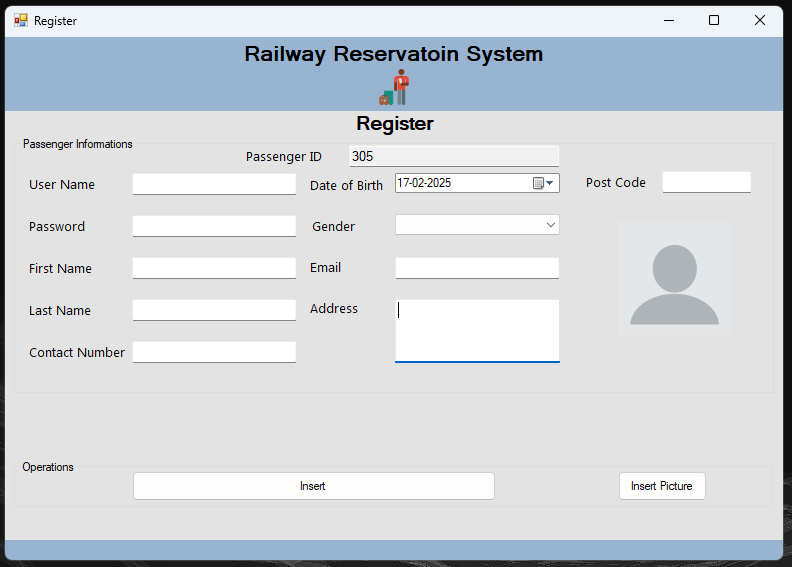
Passengers Table:

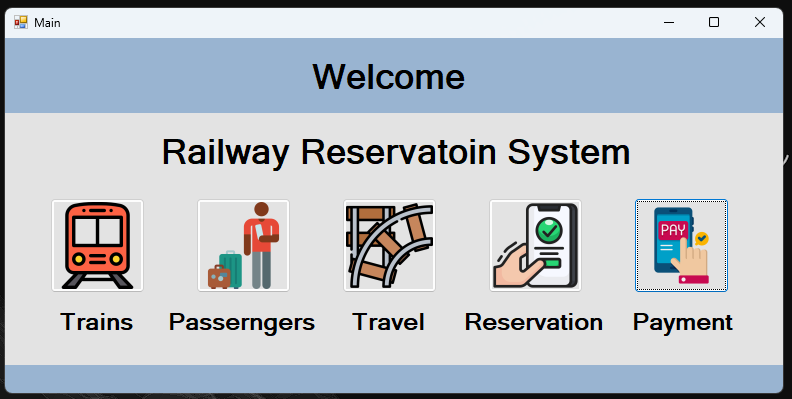
Schedules Table:

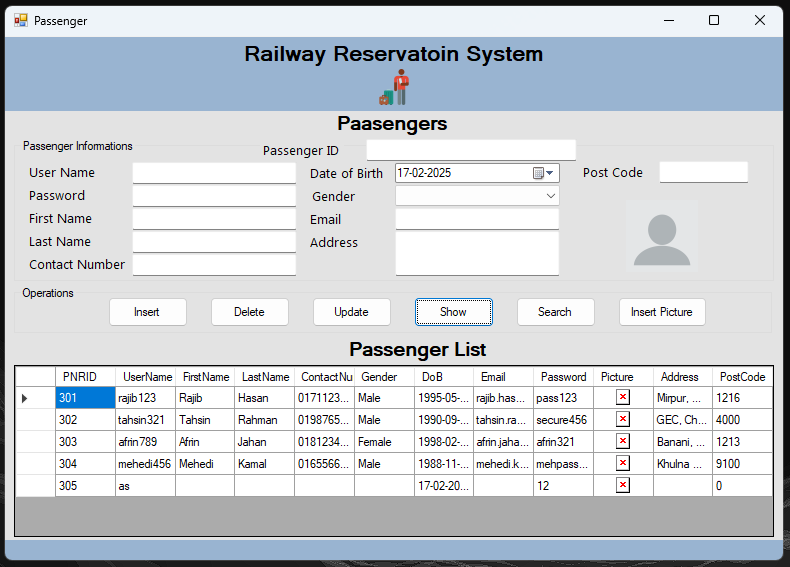
Reservations Table:

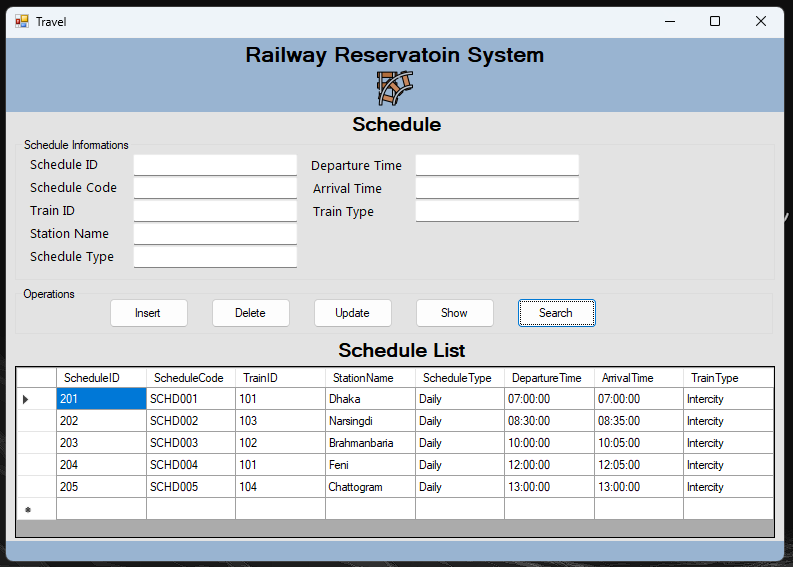
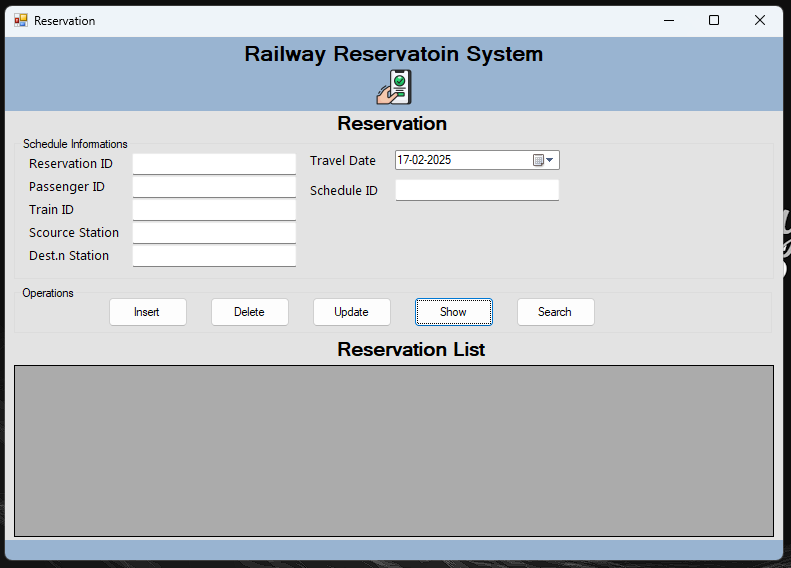
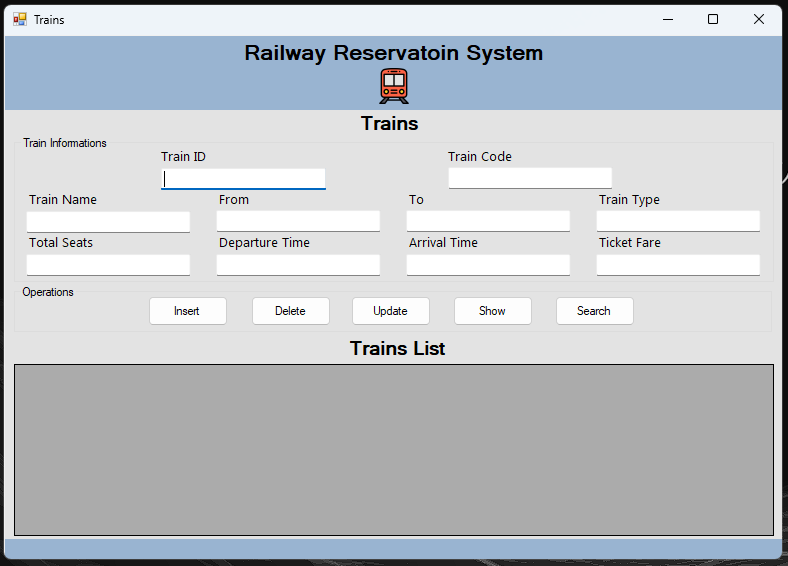
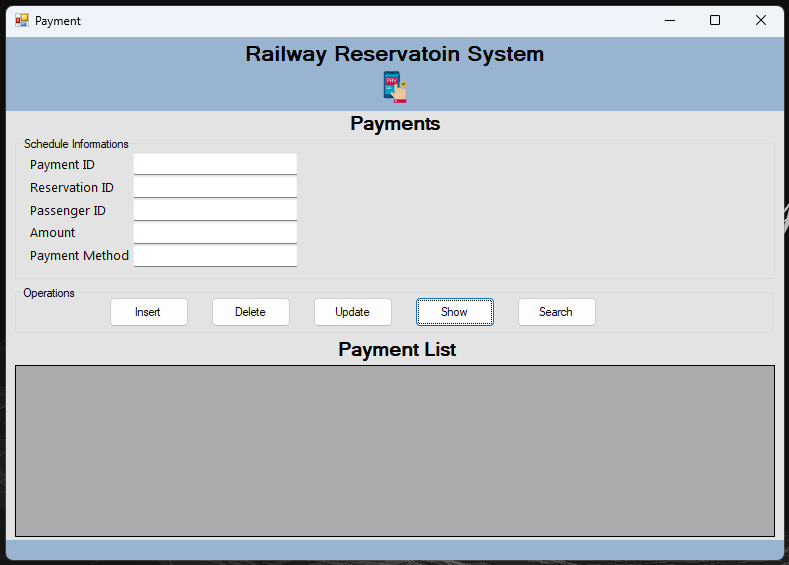
Payments Table:

Front-end Interfaces:









**Back-end C# Programs:**

**Login:**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.Linq;

using System.Security.Cryptography;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

using static System.Windows.Forms.VisualStyles.VisualStyleElement;

namespace Railway\_Reservation\_System

{

public partial class Login : Form

{

public Login()

{

InitializeComponent();

}

SqlConnection conn = new SqlConnection(@"Data Source=RIDUAN-AZIZ\SQLEXPRESS;Initial Catalog=Railway\_Reservation\_System;Integrated Security=True");

private void Login\_Load(object sender, EventArgs e)

{

}

private void LoginBTN\_Click(object sender, EventArgs e)

{

try

{

conn.Open();

string query = "SELECT COUNT(\*) FROM Passenger WHERE Username = @username AND Password = @password";

using (SqlCommand cmd = new SqlCommand(query, conn))

{

cmd.Parameters.AddWithValue("@username", UserTB.Text);

cmd.Parameters.AddWithValue("@password", PassTB.Text);

int userExists = (int)cmd.ExecuteScalar();

if (userExists > 0)

{

Main form1 = new Main();

form1.Show();

}

else

{

MessageBox.Show("Please enter correct Username and Password", "Alert", MessageBoxButtons.OK, MessageBoxIcon.Error);

}

}

}

catch (Exception ex)

{

MessageBox.Show("Error: " + ex.Message, "Exception", MessageBoxButtons.OK, MessageBoxIcon.Error);

}

conn.Close();

}

private void RegBTN\_Click(object sender, EventArgs e)

{

Register register = new Register();

register.Show();

}

}

}

**Register:**

using control;

using Microsoft.IdentityModel.Tokens;

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.IO;

using System.Linq;

using System.Runtime.ConstrainedExecution;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

using static System.Windows.Forms.VisualStyles.VisualStyleElement;

namespace Railway\_Reservation\_System

{

public partial class Register : Form

{

public Register()

{

InitializeComponent();

}

SqlConnection conn = new SqlConnection(@"Data Source=RIDUAN-AZIZ\SQLEXPRESS;Initial Catalog=Railway\_Reservation\_System;Integrated Security=True");

DataTable dt = new DataTable();

private void Register\_Load(object sender, EventArgs e)

{

SqlDataAdapter adapter = new SqlDataAdapter("Select isnull(max(cast(PNRID as int)),0)+1 from Passenger", conn);

adapter.Fill(dt);

RTB1.Text = dt.Rows[0][0].ToString();

}

private void RegInsBTN\_Click(object sender, EventArgs e)

{

try

{

conn.Open();

SqlCommand cmd = new SqlCommand("INSERT INTO Passenger(PNRID,UserName,Password, FirstName,LastName,ContactNumber,DoB,Gender,Email,Address,PostCode,Picture) Values ('" + RTB1.Text + "','" + PTB1.Text + "', '" + PTB2.Text + "','" + PTB3.Text + "', '" + PTB4.Text + "', '" + PTB5.Text + "', '" + this.DTP1.Text + "', '" + RCB1.Text + "','" + PTB8.Text + "', '" + PTB9.Text + "', '" + PTB10.Text + "', '" + RPB1.Image + "')", conn);

cmd.Parameters.AddWithValue("@Picture", getPhoto());

cmd.ExecuteNonQuery();

MessageBox.Show("Registration Completed");

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private object getPhoto()

{

MemoryStream st = new MemoryStream();

RPB1.Image.Save(st, pictureBox1.Image.RawFormat);

return st.GetBuffer();

}

private void PInsPic\_Click(object sender, EventArgs e)

{

OpenFileDialog openFileDialog = new OpenFileDialog();

if (openFileDialog.ShowDialog() == DialogResult.OK)

{

RPB1.Image = new Bitmap(openFileDialog.FileName);

}

}

}

}

**Main:**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace Railway\_Reservation\_System

{

public partial class Main : Form

{

public Main()

{

InitializeComponent();

}

private void TBTN\_Click(object sender, EventArgs e)

{

Trains trains = new Trains();

trains.Show();

}

private void PBTN\_Click(object sender, EventArgs e)

{

Passenger passenger = new Passenger();

passenger.Show();

}

private void Main\_Load(object sender, EventArgs e)

{

}

private void TvBTN\_Click(object sender, EventArgs e)

{

Travel travel = new Travel();

travel.Show();

}

private void ResBTN\_Click(object sender, EventArgs e)

{

Reservation reservation = new Reservation();

reservation.Show();

}

private void CanBTN\_Click(object sender, EventArgs e)

{

Payment payment = new Payment();

payment.Show();

}

}

}

**Passenger:**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.IO;

using System.Linq;

using System.Reflection;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

using static System.Windows.Forms.VisualStyles.VisualStyleElement;

using static System.Windows.Forms.VisualStyles.VisualStyleElement.StartPanel;

namespace Railway\_Reservation\_System

{

public partial class Passenger : Form

{

DataTable dt = new DataTable("Table");

int index;

public Passenger()

{

InitializeComponent();

}

SqlConnection conn = new SqlConnection(@"Data Source=RIDUAN-AZIZ\SQLEXPRESS;Initial Catalog=Railway\_Reservation\_System;Integrated Security=True");

private void Passenger\_Load(object sender, EventArgs e)

{

PNRList.DataSource = dt;

}

private void TInsBTN\_Click(object sender, EventArgs e)

{

try

{

conn.Open();

SqlCommand cmd = new SqlCommand("INSERT INTO Passenger(PNRID,UserName,Password, FirstName,LastName,ContactNumber,DoB,Gender,Email,Address,PostCode,Picture) Values ('" + PTB.Text + "','" + PTB1.Text + "', '" + PTB2.Text + "','" + PTB3.Text + "', '" + PTB4.Text + "', '" + PTB5.Text + "', '" + this.DTP1.Text + "', '" + RCB1.Text + "','" + PTB8.Text + "', '" + PTB9.Text + "', '" + PTB10.Text + "', '" + PPB1.Image + "')", conn);

cmd.Parameters.AddWithValue("@Picture", getPhoto());

cmd.ExecuteNonQuery();

MessageBox.Show("Registration Completed");

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private object getPhoto()

{

MemoryStream st = new MemoryStream();

PPB1.Image.Save(st, pictureBox1.Image.RawFormat);

return st.GetBuffer();

}

private void PInsPic\_Click(object sender, EventArgs e)

{

OpenFileDialog openFileDialog = new OpenFileDialog();

if (openFileDialog.ShowDialog() == DialogResult.OK)

{

PPB1.Image = new Bitmap(openFileDialog.FileName);

}

}

private void TDltBTN\_Click(object sender, EventArgs e)

{

if (PNRList.SelectedRows.Count > 0)

{

PNRList.Rows.RemoveAt(PNRList.SelectedRows[0].Index);

}

String Query = "delete from Passenger where PNRID= '" + this.PTB.Text + "';";

SqlCommand cmd = new SqlCommand(Query, conn);

SqlDataReader myReader;

try

{

conn.Open();

myReader = cmd.ExecuteReader();

MessageBox.Show("Deleted");

while (myReader.Read())

{

}

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void PNRList\_CellContentClick(object sender, DataGridViewCellEventArgs e)

{

index = e.RowIndex;

DataGridViewRow row = PNRList.Rows[index];

PTB.Text = row.Cells[0].Value.ToString();

PTB1.Text = row.Cells[1].Value.ToString();

PTB2.Text = row.Cells[2].Value.ToString();

PTB3.Text = row.Cells[3].Value.ToString();

PTB4.Text = row.Cells[4].Value.ToString();

PTB5.Text = row.Cells[5].Value.ToString();

DTP1.Text = row.Cells[6].Value.ToString();

RCB1.Text = row.Cells[7].Value.ToString();

PTB8.Text = row.Cells[8].Value.ToString();

PTB9.Text = row.Cells[9].Value.ToString();

PTB10.Text = row.Cells[10].Value.ToString();

if (row.Cells[11].Value is Image image)

{

PPB1.Image = image;

}

}

private void TShwBTN\_Click(object sender, EventArgs e)

{

try

{

dt.Rows.Clear();

conn.Open();

SqlCommand cmd = new SqlCommand("select \* from Passenger", conn);

cmd.ExecuteNonQuery();

SqlDataAdapter da = new SqlDataAdapter(cmd);

PNRList.DataSource = null;

da.Fill(dt);

PNRList.DataSource = dt;

conn.Close();

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

}

private void TUpdBTN\_Click(object sender, EventArgs e)

{

String Query = "update Passenger set UserName= '" + this.PTB1.Text + "', Password= '" + this.PTB2.Text + "' , FirstName= '" + this.PTB3.Text + "', LastName= '" + this.PTB4.Text + "', ContactNumber= '" + this.PTB5.Text + "', DoB= '" + this.DTP1.Text + "', Gender= '" + this.RCB1.Text + "', Email= '" + this.PTB8.Text + "' ,Address= '" + this.PTB9.Text + "', PostCode= '" + this.PTB10.Text + "' Where PNRID= '" + this.PTB.Text + "';";

SqlCommand cmd = new SqlCommand(Query, conn);

SqlDataReader myReader;

try

{

conn.Open();

myReader = cmd.ExecuteReader();

MessageBox.Show("Updated");

while (myReader.Read())

{

}

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void TSrhBTN\_Click(object sender, EventArgs e)

{

conn.Open();

SqlCommand cmd2 = new SqlCommand("Select UserName,Password,FirstName,LastName,ContactNumber,DoB,Gender,Email,Address,PostCode,Picture from Passenger where PNRID=@idpar", conn);

cmd2.Parameters.AddWithValue("idpar", PNRList.Text.Trim());

SqlDataReader myReader;

myReader = cmd2.ExecuteReader();

if (myReader.Read())

{

PTB1.Text = myReader["UserName"].ToString();

PTB2.Text = myReader["PassWord"].ToString();

PTB3.Text = myReader["FirstName"].ToString();

PTB4.Text = myReader["LastName"].ToString();

PTB5.Text = myReader["ContactNumber"].ToString();

DTP1.Text = myReader["DoB"].ToString();

RCB1.Text = myReader["Gender"].ToString();

PTB8.Text = myReader["Email"].ToString();

PTB9.Text = myReader["Address"].ToString();

PTB10.Text = myReader["PostCode"].ToString();

}

else

{

PTB1.Text = "";

PTB2.Text = "";

PTB3.Text = "";

PTB4.Text = "";

PTB5.Text = "";

DTP1.Text = "";

RCB1.Text = "";

PTB8.Text = "";

PTB9.Text = "";

PTB10.Text= "";

MessageBox.Show("No Data Found");

}

conn.Close();

}

}

}

**Trains:**

using control;

using Microsoft.IdentityModel.Tokens;

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.IO;

using System.Linq;

using System.Runtime.ConstrainedExecution;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

using static System.Windows.Forms.VisualStyles.VisualStyleElement;

namespace Railway\_Reservation\_System

{

public partial class Trains : Form

{

public Trains()

{

InitializeComponent();

}

SqlConnection conn = new SqlConnection(@"Data Source=RIDUAN-AZIZ\SQLEXPRESS;Initial Catalog=Railway\_Reservation\_System;Integrated Security=True");

DataTable dt = new DataTable();

private void Register\_Load(object sender, EventArgs e)

{

SqlDataAdapter adapter = new SqlDataAdapter("Select isnull(max(cast(PNRID as int)),0)+1 from Passenger", conn);

adapter.Fill(dt);

RTB1.Text = dt.Rows[0][0].ToString();

}

private void RegInsBTN\_Click(object sender, EventArgs e)

{

try

{

conn.Open();

SqlCommand cmd = new SqlCommand("INSERT INTO Passenger(TrainID,UserName,Password, FirstName,LastName,ContactNumber,DoB,Gender,Email,Address,PostCode,Picture) Values ('" + RTB1.Text + "','" + PTB1.Text + "', '" + PTB2.Text + "','" + PTB3.Text + "', '" + PTB4.Text + "', '" + PTB5.Text + "', '" + this.DTP1.Text + "', '" + RCB1.Text + "','" + PTB8.Text + "', '" + PTB9.Text + "', '" + PTB10.Text + "', '" + RPB1.Image + "')", conn);

cmd.Parameters.AddWithValue("@Picture", getPhoto());

cmd.ExecuteNonQuery();

MessageBox.Show("Registration Completed");

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private object getPhoto()

{

MemoryStream st = new MemoryStream();

RPB1.Image.Save(st, pictureBox1.Image.RawFormat);

return st.GetBuffer();

}

private void PInsPic\_Click(object sender, EventArgs e)

{

OpenFileDialog openFileDialog = new OpenFileDialog();

if (openFileDialog.ShowDialog() == DialogResult.OK)

{

RPB1.Image = new Bitmap(openFileDialog.FileName);

}

}

}

**Schedule:**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.Linq;

using System.Reflection;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace Railway\_Reservation\_System

{

public partial class Travel : Form

{

public Travel()

{

InitializeComponent();

}

DataTable dt = new DataTable("Table");

int index;

SqlConnection conn = new SqlConnection(@"Data Source=RIDUAN-AZIZ\SQLEXPRESS;Initial Catalog=Railway\_Reservation\_System;Integrated Security=True");

private void TInsBTN\_Click(object sender, EventArgs e)

{

try

{

conn.Open();

SqlCommand cmd = new SqlCommand("INSERT INTO Schedule(ScheduleID,ScheduleCode,TrainID, StationName,ScheduleType,DepartureTime,ArrivalTime,TrainType) Values ('" + TBTN1.Text + "','" + TBTN2.Text + "', '" + TBTN3.Text + "','" + TBTN4.Text + "', '" + TBTN5.Text + "', '" + TBTN6.Text + "', '" + this.TBTN7.Text + "', '" + TBTN8.Text + "')", conn);

cmd.ExecuteNonQuery();

MessageBox.Show("Insertion Completed");

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void TDltBTN\_Click(object sender, EventArgs e)

{

if (SchList.SelectedRows.Count > 0)

{

SchList.Rows.RemoveAt(SchList.SelectedRows[0].Index);

}

String Query = "delete from Schedule where ScheduleID= '" + this.TBTN1.Text + "';";

SqlCommand cmd = new SqlCommand(Query, conn);

SqlDataReader myReader;

try

{

conn.Open();

myReader = cmd.ExecuteReader();

MessageBox.Show("Deleted");

while (myReader.Read())

{

}

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void SchList\_CellContentClick(object sender, DataGridViewCellEventArgs e)

{

index = e.RowIndex;

DataGridViewRow row = SchList.Rows[index];

TBTN1.Text = row.Cells[0].Value.ToString();

TBTN2.Text = row.Cells[1].Value.ToString();

TBTN3.Text = row.Cells[2].Value.ToString();

TBTN4.Text = row.Cells[3].Value.ToString();

TBTN5.Text = row.Cells[4].Value.ToString();

TBTN6.Text = row.Cells[5].Value.ToString();

TBTN7.Text = row.Cells[6].Value.ToString();

TBTN8.Text = row.Cells[7].Value.ToString();

}

private void TUpdBTN\_Click(object sender, EventArgs e)

{

String Query = "update Schedule set ScheduleID= '" + this.TBTN1.Text + "', ScheduleCode= '" + this.TBTN2.Text + "' , TrainID= '" + this.TBTN3.Text + "', StationName= '" + this.TBTN4.Text + "', ScheduleType= '" + this.TBTN5.Text + "', DepartureTime= '" + this.TBTN6.Text + "', ArrivalTime= '" + this.TBTN7.Text + "', TrainType= '" + this.TBTN8.Text + "' Where ScheduleID= '" + this.TBTN1.Text + "';";

SqlCommand cmd = new SqlCommand(Query, conn);

SqlDataReader myReader;

try

{

conn.Open();

myReader = cmd.ExecuteReader();

MessageBox.Show("Updated");

while (myReader.Read())

{

}

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void TShwBTN\_Click(object sender, EventArgs e)

{

try

{

dt.Rows.Clear();

conn.Open();

SqlCommand cmd = new SqlCommand("select \* from Schedule", conn);

cmd.ExecuteNonQuery();

SqlDataAdapter da = new SqlDataAdapter(cmd);

SchList.DataSource = null;

da.Fill(dt);

SchList.DataSource = dt;

conn.Close();

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

}

private void TSrhBTN\_Click(object sender, EventArgs e)

{

conn.Open();

SqlCommand cmd2 = new SqlCommand("Select ScheduleID,ScheduleCode,TrainID,StationName,ScheduleType,DepartureTime,ArrivalTime,TrainType from Schedule where ScheduleID=@idpar", conn);

cmd2.Parameters.AddWithValue("idpar", SchList.Text.Trim());

SqlDataReader myReader;

myReader = cmd2.ExecuteReader();

if (myReader.Read())

{

TBTN1.Text = myReader["ScheduleID"].ToString();

TBTN2.Text = myReader["ScheduleCode"].ToString();

TBTN3.Text = myReader["TrainID"].ToString();

TBTN4.Text = myReader["StationName"].ToString();

TBTN5.Text = myReader["ScheduleType"].ToString();

TBTN6.Text = myReader["DepartureTime"].ToString();

TBTN7.Text = myReader["ArrivalTime"].ToString();

TBTN8.Text = myReader["TrainType"].ToString();

}

else

{

TBTN1.Text = "";

TBTN2.Text = "";

TBTN3.Text = "";

TBTN4.Text = "";

TBTN5.Text = "";

TBTN6.Text = "";

TBTN7.Text = "";

TBTN8.Text = "";

MessageBox.Show("No Data Found");

}

conn.Close();

}

private void Travel\_Load(object sender, EventArgs e)

{

}

}

}

**Reservations:**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace Railway\_Reservation\_System

{

public partial class Reservation : Form

{

public Reservation()

{

InitializeComponent();

}

DataTable dt = new DataTable("Table");

int index;

SqlConnection conn = new SqlConnection(@"Data Source=RIDUAN-AZIZ\SQLEXPRESS;Initial Catalog=Railway\_Reservation\_System;Integrated Security=True");

private void TInsBTN\_Click(object sender, EventArgs e)

{

try

{

conn.Open();

SqlCommand cmd = new SqlCommand("INSERT INTO Reservation(ResID,PNRID,TrainID, ScourceStaion,DestinationStation,TravelDate,ScheduleID) Values ('" + TBTN1.Text + "','" + TBTN2.Text + "', '" + TBTN3.Text + "','" + TBTN4.Text + "', '" + TBTN5.Text + "', '"+ TBTN10.Text +"', '" + TBTN6.Text + "')", conn);

cmd.ExecuteNonQuery();

MessageBox.Show("Insertion Completed");

TBTN1.Text = "";

TBTN2.Text = "";

TBTN3.Text = "";

TBTN4.Text = "";

TBTN5.Text = "";

TBTN10.Text = "";

TBTN6.Text = "";

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void TDltBTN\_Click(object sender, EventArgs e)

{

if (ResList.SelectedRows.Count > 0)

{

ResList.Rows.RemoveAt(ResList.SelectedRows[0].Index);

}

String Query = "delete from Reservation where ResID= '" + this.TBTN1.Text + "';";

SqlCommand cmd = new SqlCommand(Query, conn);

SqlDataReader myReader;

try

{

conn.Open();

myReader = cmd.ExecuteReader();

MessageBox.Show("Deleted");

while (myReader.Read())

{

}

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void SchList\_CellContentClick(object sender, DataGridViewCellEventArgs e)

{

index = e.RowIndex;

DataGridViewRow row = ResList.Rows[index];

TBTN1.Text = row.Cells[0].Value.ToString();

TBTN2.Text = row.Cells[1].Value.ToString();

TBTN3.Text = row.Cells[2].Value.ToString();

TBTN4.Text = row.Cells[3].Value.ToString();

TBTN5.Text = row.Cells[4].Value.ToString();

TBTN10.Text = row.Cells[5].Value.ToString();

TBTN6.Text = row.Cells[6].Value.ToString();

}

private void TUpdBTN\_Click(object sender, EventArgs e)

{

String Query = "update Reservation set ResID= '" + this.TBTN1.Text + "', PNRID= '" + this.TBTN2.Text + "' , TrainID= '" + this.TBTN3.Text + "', SourceStation= '" + this.TBTN4.Text + "', DestinationStation= '" + this.TBTN5.Text + "', TravelDate= '" + this.TBTN10.Text + "', ScheduleID= '" + this.TBTN6.Text + "' Where ResID= '" + this.TBTN1.Text + "';";

SqlCommand cmd = new SqlCommand(Query, conn);

SqlDataReader myReader;

try

{

conn.Open();

myReader = cmd.ExecuteReader();

MessageBox.Show("Updated");

while (myReader.Read())

{

}

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void TShwBTN\_Click(object sender, EventArgs e)

{

try

{

dt.Rows.Clear();

conn.Open();

SqlCommand cmd = new SqlCommand("select \* from Reservation", conn);

cmd.ExecuteNonQuery();

SqlDataAdapter da = new SqlDataAdapter(cmd);

ResList.DataSource = null;

da.Fill(dt);

ResList.DataSource = dt;

conn.Close();

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

}

private void TSrhBTN\_Click(object sender, EventArgs e)

{

conn.Open();

SqlCommand cmd2 = new SqlCommand("Select ResID,PNRID,TrainID,SourceStation,DestinationStation,TravelDate,ScheduleID from Reservation where ResID=@idpar", conn);

cmd2.Parameters.AddWithValue("idpar", ResList.Text.Trim());

SqlDataReader myReader;

myReader = cmd2.ExecuteReader();

if (myReader.Read())

{

TBTN1.Text = myReader["ResID"].ToString();

TBTN2.Text = myReader["PNRID"].ToString();

TBTN3.Text = myReader["TrainID"].ToString();

TBTN4.Text = myReader["SourceStation"].ToString();

TBTN5.Text = myReader["DestinationStation"].ToString();

TBTN10.Text = myReader["TravelDate"].ToString();

TBTN6.Text = myReader["ScheduleID"].ToString();

}

else

{

TBTN1.Text = "";

TBTN2.Text = "";

TBTN3.Text = "";

TBTN4.Text = "";

TBTN5.Text = "";

TBTN10.Text = "";

TBTN6.Text = "";

MessageBox.Show("No Data Found");

}

conn.Close(); }}}

**Payments:**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Data.SqlClient;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace Railway\_Reservation\_System

{

public partial class Payment : Form

{

public Payment()

{

InitializeComponent();

}

private void Payment\_Load(object sender, EventArgs e)

{

}

DataTable dt = new DataTable("Table");

int index;

SqlConnection conn = new SqlConnection(@"Data Source=RIDUAN-AZIZ\SQLEXPRESS;Initial Catalog=Railway\_Reservation\_System;Integrated Security=True");

private void TInsBTN\_Click(object sender, EventArgs e)

{

try

{

conn.Open();

SqlCommand cmd = new SqlCommand("INSERT INTO Payment(PaymentID,ResID,PNRID,Amount,PaymentMethod) Values ('" + TBTN1.Text + "','" + TBTN2.Text + "', '" + TBTN3.Text + "','" + TBTN4.Text + "', '" + TBTN5.Text + "'", conn);

cmd.ExecuteNonQuery();

MessageBox.Show("Insertion Completed");

TBTN1.Text = "";

TBTN2.Text = "";

TBTN3.Text = "";

TBTN4.Text = "";

TBTN5.Text = "";

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void TDltBTN\_Click(object sender, EventArgs e)

{

if (PayList.SelectedRows.Count > 0)

{

PayList.Rows.RemoveAt(PayList.SelectedRows[0].Index);

}

String Query = "delete from Payment where PaymentID= '" + this.TBTN1.Text + "';";

SqlCommand cmd = new SqlCommand(Query, conn);

SqlDataReader myReader;

try

{

conn.Open();

myReader = cmd.ExecuteReader();

MessageBox.Show("Deleted");

while (myReader.Read())

{

}

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void SchList\_CellContentClick(object sender, DataGridViewCellEventArgs e)

{

index = e.RowIndex;

DataGridViewRow row = PayList.Rows[index];

TBTN1.Text = row.Cells[0].Value.ToString();

TBTN2.Text = row.Cells[1].Value.ToString();

TBTN3.Text = row.Cells[2].Value.ToString();

TBTN4.Text = row.Cells[3].Value.ToString();

TBTN5.Text = row.Cells[4].Value.ToString();

}

private void TUpdBTN\_Click(object sender, EventArgs e)

{

String Query = "update Payment set PaymentID= '" + this.TBTN1.Text + "', ResID= '" + this.TBTN2.Text + "' , PNRID= '" + this.TBTN3.Text + "', Amount= '" + this.TBTN4.Text + "', PaymentMethod= '" + this.TBTN5.Text + "';";

SqlCommand cmd = new SqlCommand(Query, conn);

SqlDataReader myReader;

try

{

conn.Open();

myReader = cmd.ExecuteReader();

MessageBox.Show("Updated");

while (myReader.Read())

{

}

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

conn.Close();

}

private void TShwBTN\_Click(object sender, EventArgs e)

{

try

{

dt.Rows.Clear();

conn.Open();

SqlCommand cmd = new SqlCommand("select \* from Payment", conn);

cmd.ExecuteNonQuery();

SqlDataAdapter da = new SqlDataAdapter(cmd);

PayList.DataSource = null;

da.Fill(dt);

PayList.DataSource = dt;

conn.Close();

}

catch (Exception ex)

{

MessageBox.Show(ex.Message);

}

}

private void TSrhBTN\_Click(object sender, EventArgs e)

{

conn.Open();

SqlCommand cmd2 = new SqlCommand("Select PaymentID,ResID,PNRID,Amount,PaymentMethod from Payment where PaymentID=@idpar", conn);

cmd2.Parameters.AddWithValue("idpar", PayList.Text.Trim());

SqlDataReader myReader;

myReader = cmd2.ExecuteReader();

if (myReader.Read())

{

TBTN1.Text = myReader["PaymentID"].ToString();

TBTN2.Text = myReader["ResID"].ToString();

TBTN3.Text = myReader["PNRID"].ToString();

TBTN4.Text = myReader["Amount"].ToString();

TBTN5.Text = myReader["PaymentMethod"].ToString();

}

else

{

TBTN1.Text = "";

TBTN2.Text = "";

TBTN3.Text = "";

TBTN4.Text = "";

TBTN5.Text = "";

MessageBox.Show("No Data Found");

}

conn.Close();

}

}

}