JAVA AWT BASED - AIRLINE RESERVATION MANAGEMENT SYSTEM - SQL CONNECTIVITY USING JDBC

A

Report

Submitted in partial fulfillment of the

Requirements for the award of the Degree of

BACHELOR OF ENGINEERING

IN

INFORMATION TECHNOLOGY

By

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BONAFIDE CERTIFICATE

This is to certify that this project report titled ‘Airline Reservation Management System’ is a project work by Ms. Madireddy Abignya Reddy and Ms. G.R. Freya bearing roll nos. 1602-19-737-001 and 1602-19-737-032 who carried out the project under my supervision in the IV semester for the academic year 2020-2021.

Signature	Signature
Internal Examiner	External Examiner

ABSTRACT

This project on Airline Reservation Management System is the automation of registration process of airline system. The system provides information like passenger's information, flight information, list of all passengers, it allows storing and retrieving data related to the airline industry and make transactions related to airline travel etc. The system also allows us to add records when a passenger receives a ticket. For data storage and retrieval, we use SQL Developer Database. It enables us to add any number of records in our database. The project "Airline Reservation Management System" comprises of a large number of flights which belong to a particular airline.

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INTRODUCTION

REQUIREMENTS

TABLES	ATTRIBUTES
flight	f_code varchar(10) f_name varchar(20) src varchar(30) dst varchar(30)
passenger	pnr_no varchar(10) address varchar(30) nationality varchar(15) name varchar(20) gender varchar(10) ph_no varchar(15) passport_no varchar(20) fl_code varchar(10)
payment	pnr_no varchar(10) ph_no varchar(15) cheque_no varchar(15) card_no varchar(20) paid_amt varchar(10) pay_date varchar(20)
reservation	pnr_no varchar(10) ticket_id varchar(10) f_code varchar(10) jny_date varchar(20) jny_time varchar(10) src varchar(20) dst varchar(20)
sector	flight_code varchar(20) capacity varchar(10) class_code varchar(5) class_name varchar(20)

AIM AND PRIORITY OF THE PROJECT

To create a Java GUI based of Google Airline Reservation Management System which take the values related to passenger’s information, flight information, list of all passengers etc. These values are to be updated in the database using JDBC connectivity.

ARCHITECTURE AND TECHNOLOGY

Software Requirement Specifications:

Operating System Front End Back End Server Documentation: Windows 10

Frontend Software: Java NetBeans 12.0: JDK 14

Backend Software: SQL Developer

Java AWT:

Java AWT (Abstract Window Toolkit) is an API to develop GUI or window-based applications in java.Java AWT components are platform-dependent i.e. components are displayed according to the view of operating system. AWT is heavyweight i.e. its components are using the resources of OS.The java.awt package provides classes for AWT API such as TextField, Label, TextArea, RadioButton, CheckBox, Choice, List etc.

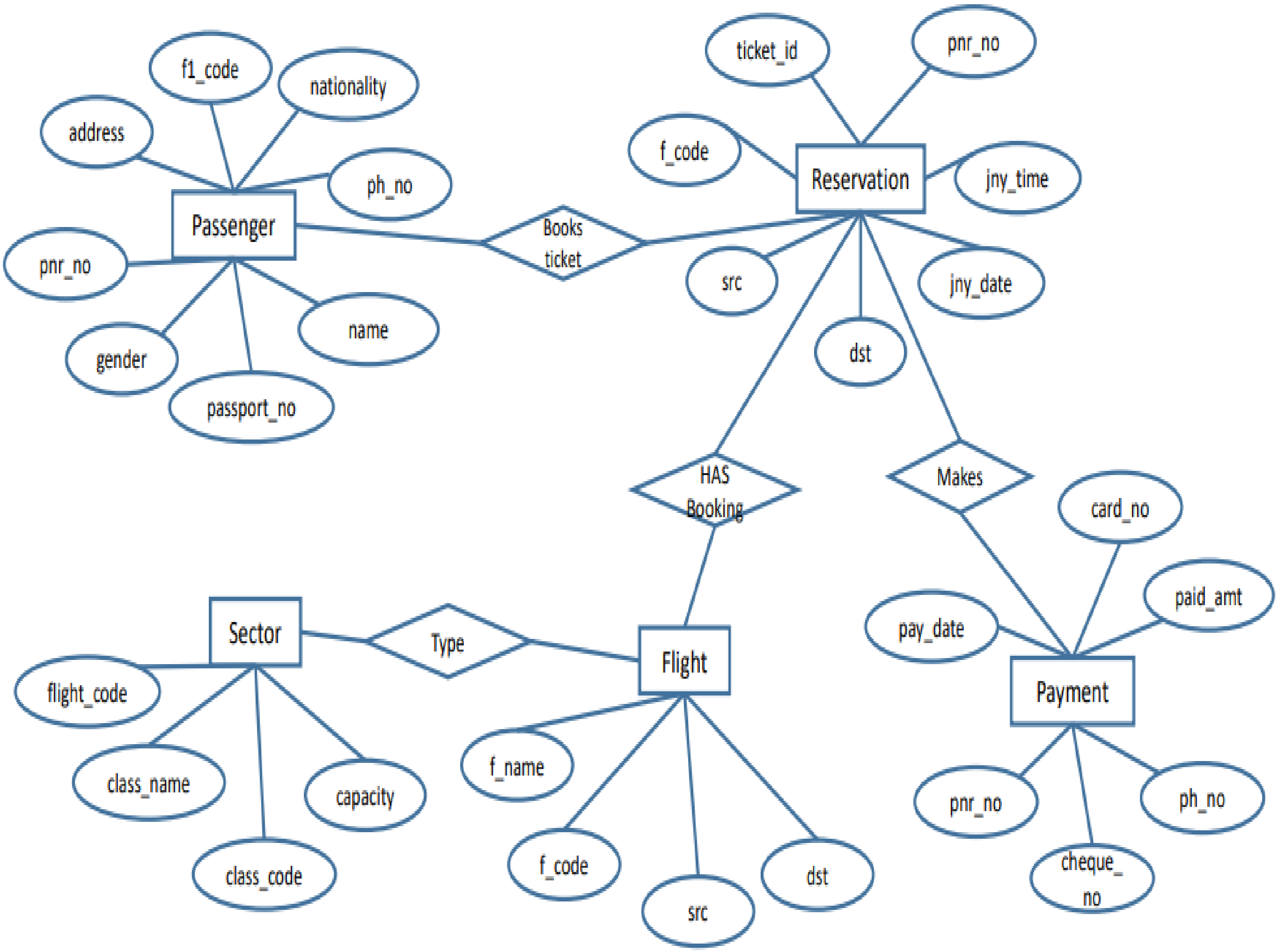
SQL:

Structure Query Language(SQL) is a database query language used for storing and managing data in Relational DBMS. SQL was the first commercial language introduced for E.F Codd's Relational model of database. Today almost all RDBMS (MySql, Oracle, Infomix, Sybase, MS Access) use SQL as the standard database query language. SQL is used to perform all types of data operations in RDBMS.

DESIGN

Entity relationship diagram

Airline Reservation Management System



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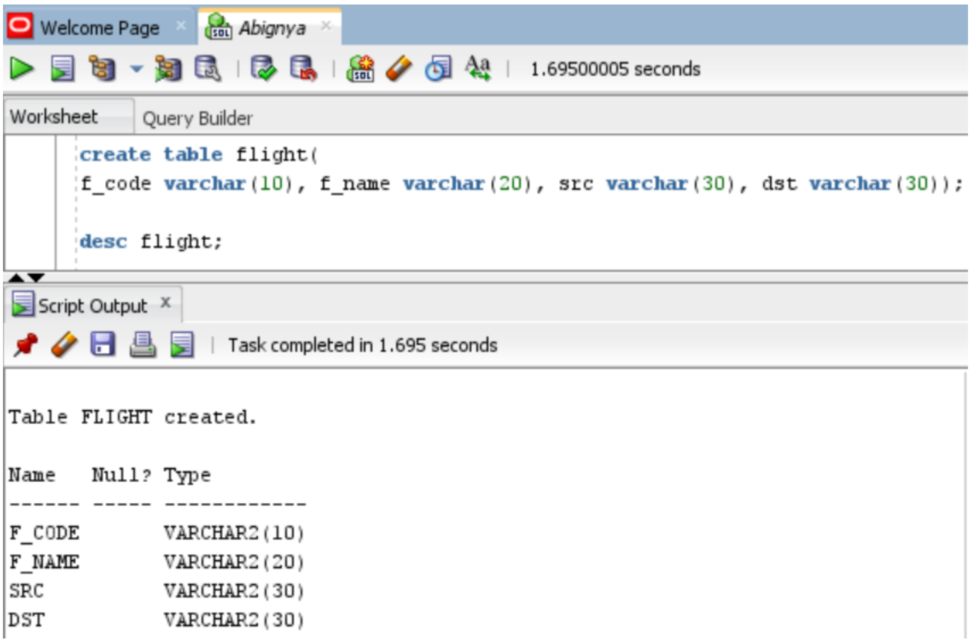
Database Design:

DDL Operations

- Flight table

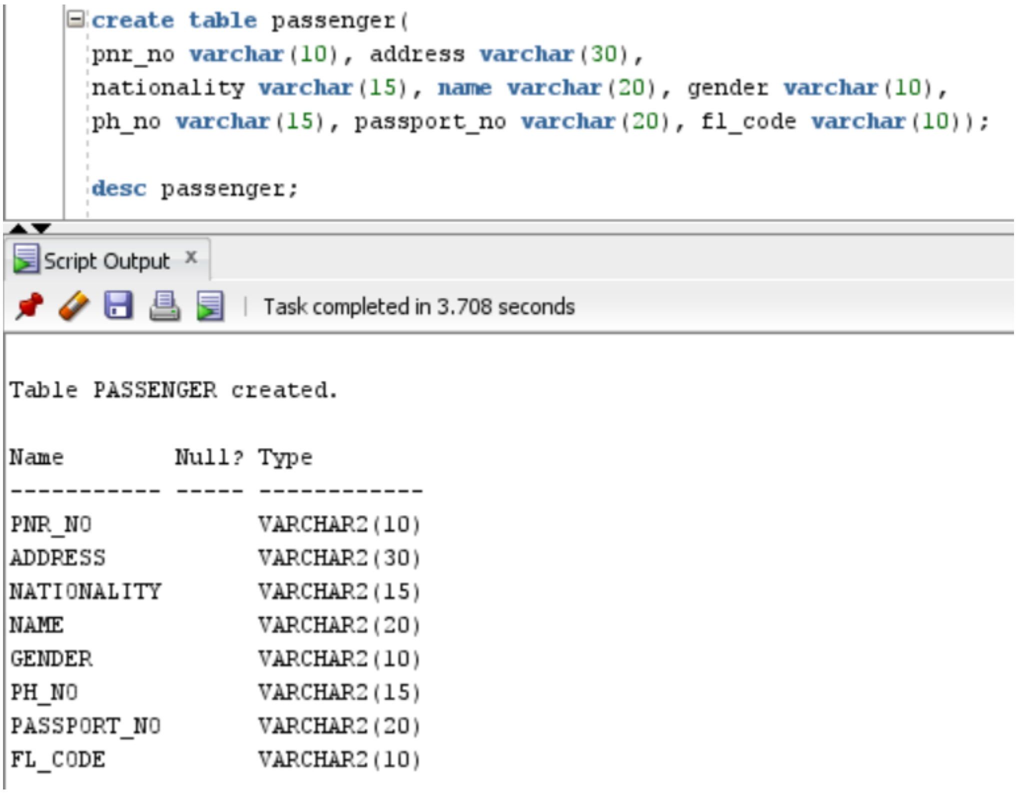


```
create table flight(
f_code varchar(10), f_name varchar(20), src varchar(30), dst varchar(30));

desc flight;
```

Task completed in 1.695 seconds

```
Table FLIGHT created.

Name   Null? Type
------ ----- ------------
F_CODE       VARCHAR2(10)
F_NAME       VARCHAR2(20)
SRC          VARCHAR2(30)
DST          VARCHAR2(30)
```

- Passenger table

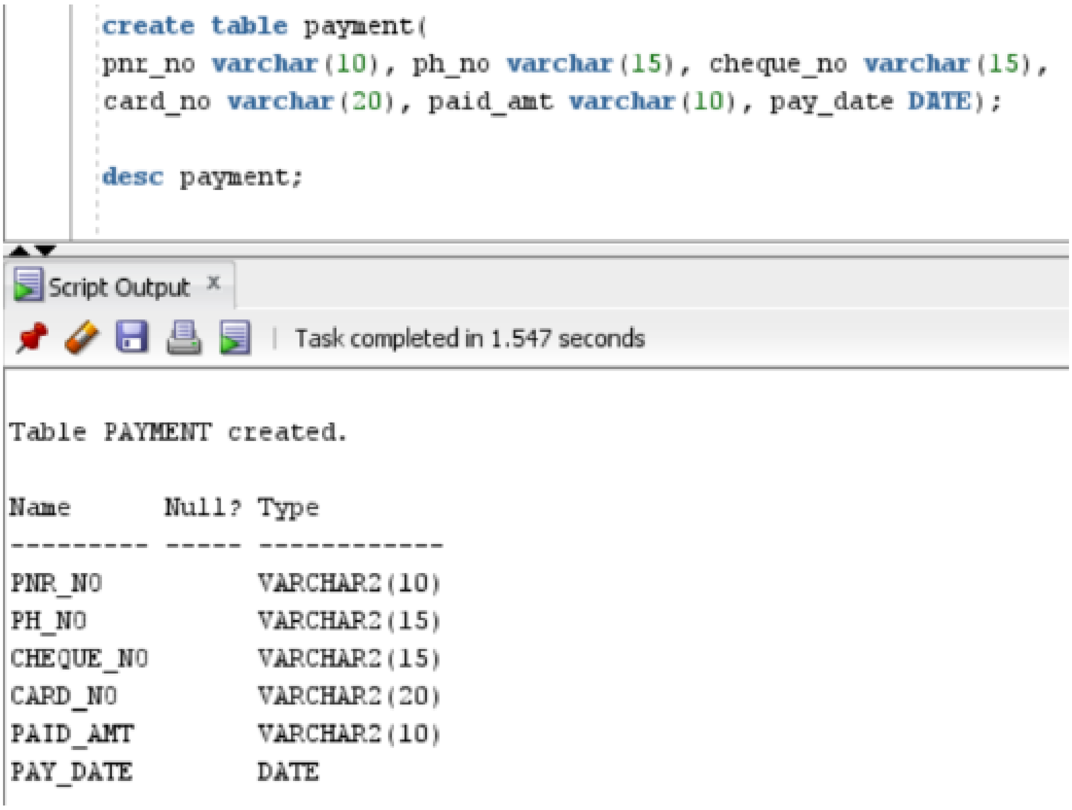


```
create table passenger(
pnr_no varchar(10), address varchar(30),
nationality varchar(15), name varchar(20), gender varchar(10),
ph_no varchar(15), passport_no varchar(20), fl_code varchar(10));

desc passenger;
```

Task completed in 3.708 seconds

```
Table PASSENGER created.

Name        Null? Type
----------- ----- ------------
PNR_NO            VARCHAR2(10)
ADDRESS           VARCHAR2(30)
NATIONALITY       VARCHAR2(15)
NAME              VARCHAR2(20)
GENDER            VARCHAR2(10)
PH_NO             VARCHAR2(15)
PASSPORT_NO       VARCHAR2(20)
FL_CODE           VARCHAR2(10)
```

➢ Payment table

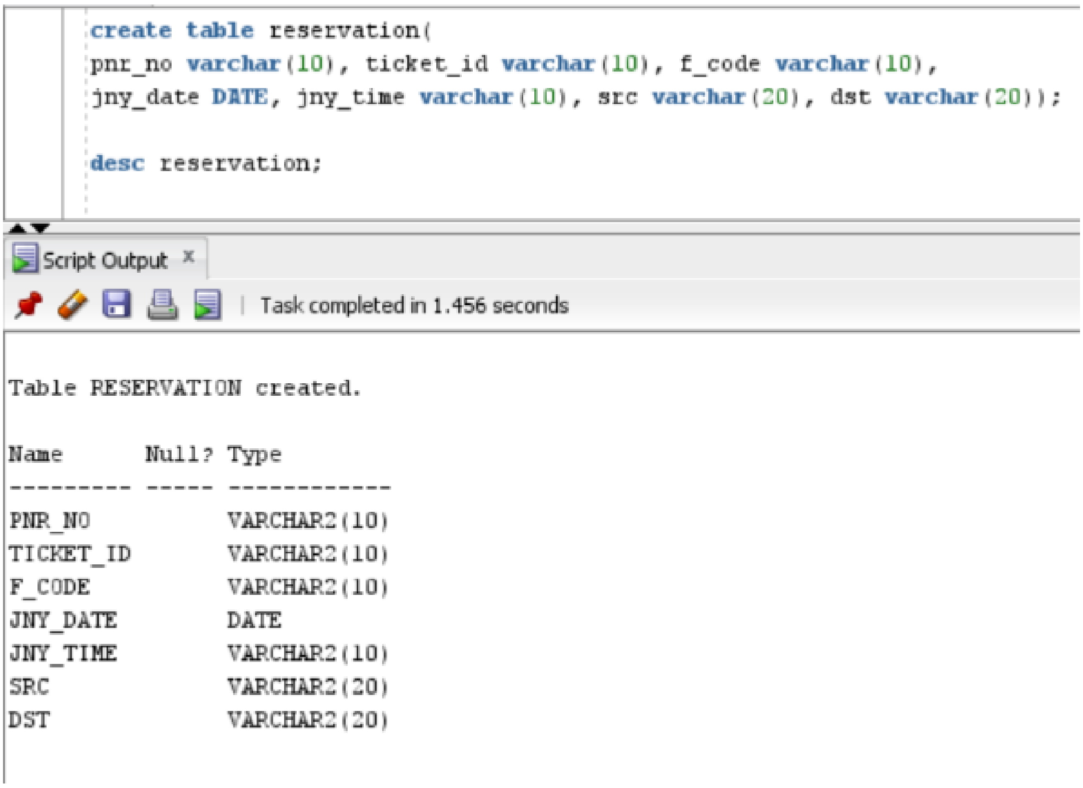


```
create table payment(
pnr_no varchar(10), ph_no varchar(15), cheque_no varchar(15),
card_no varchar(20), paid_amt varchar(10), pay_date DATE);

desc payment;
```

Task completed in 1.547 seconds

```
Table PAYMENT created.

Name      Null? Type
--------- ----- ------------
PNR_NO          VARCHAR2(10)
PH_NO           VARCHAR2(15)
CHEQUE_NO       VARCHAR2(15)
CARD_NO         VARCHAR2(20)
PAID_AMT        VARCHAR2(10)
PAY_DATE        DATE
```

➢ Reservation table

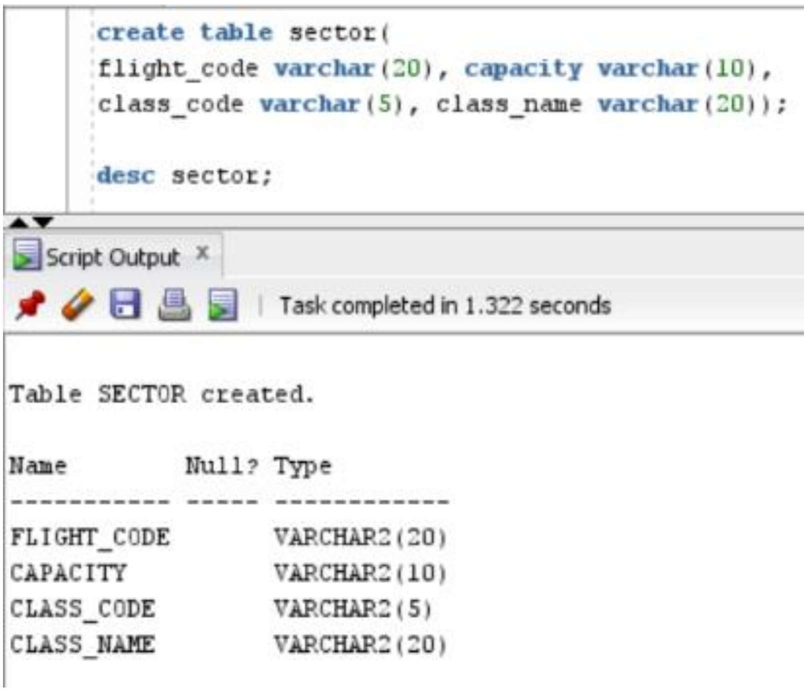


```
create table reservation(
pnr_no varchar(10), ticket_id varchar(10), f_code varchar(10),
jny_date DATE, jny_time varchar(10), src varchar(20), dst varchar(20));

desc reservation;
```

Task completed in 1.456 seconds

```
Table RESERVATION created.

Name      Null? Type
--------- ----- ------------
PNR_NO          VARCHAR2(10)
TICKET_ID       VARCHAR2(10)
F_CODE          VARCHAR2(10)
JNY_DATE        DATE
JNY_TIME        VARCHAR2(10)
SRC             VARCHAR2(20)
DST             VARCHAR2(20)
```

➢ Sector table



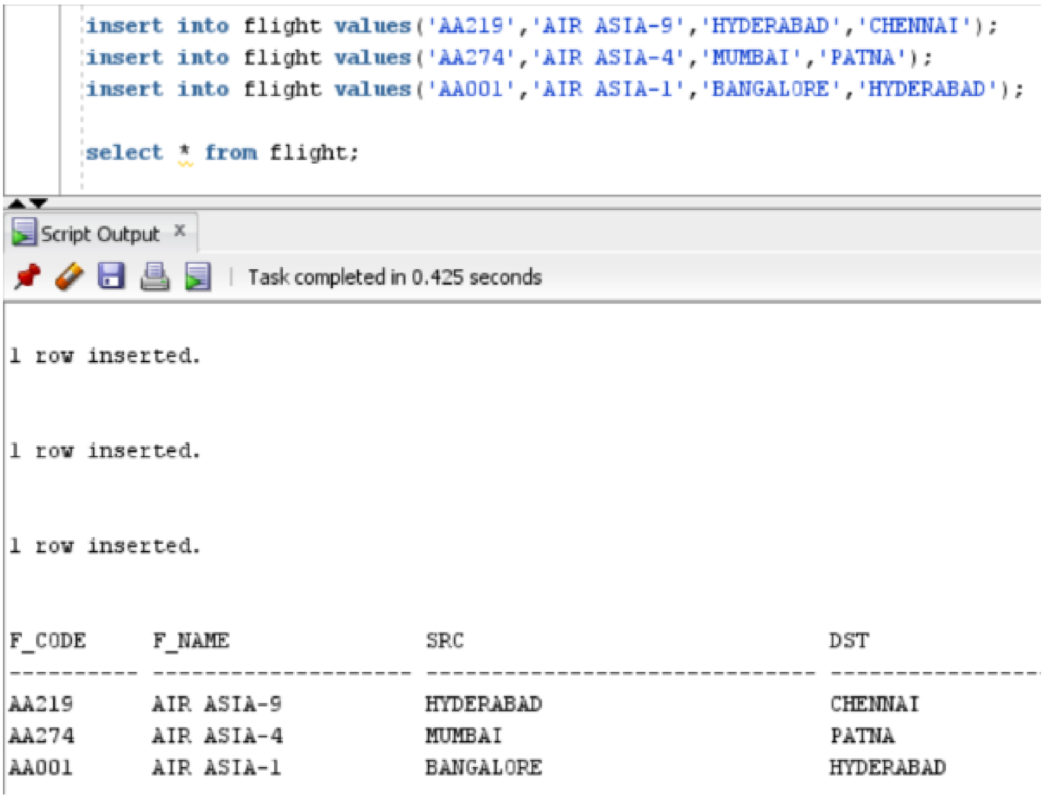
```
create table sector(
flight_code varchar(20), capacity varchar(10),
class_code varchar(5), class_name varchar(20));

desc sector;
```

Task completed in 1.322 seconds

```
Table SECTOR created.

Name        Null? Type
----------- ----- ------------
FLIGHT_CODE       VARCHAR2(20)
CAPACITY          VARCHAR2(10)
CLASS_CODE        VARCHAR2(5)
CLASS_NAME        VARCHAR2(20)
```

DML Operations

➢ Flight table

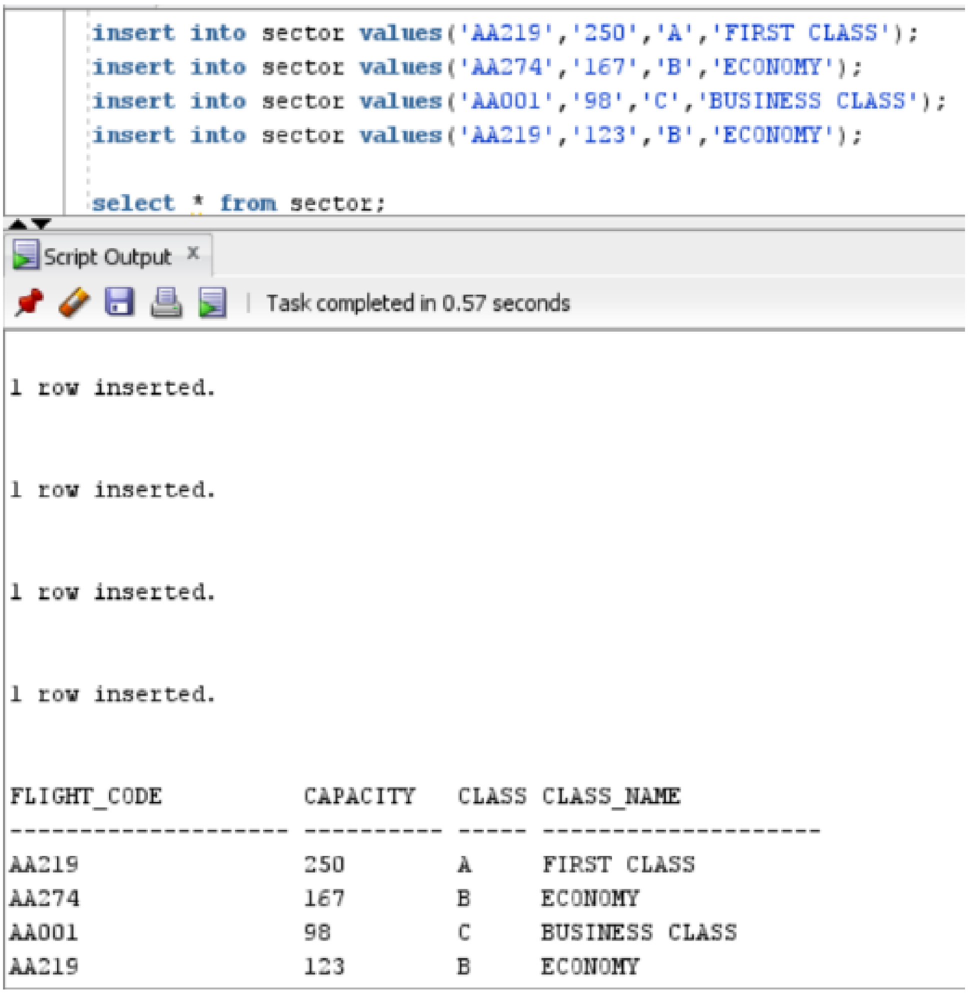


```
insert into flight values('AA219','AIR ASIA-9','HYDERABAD','CHENNAI');
insert into flight values('AA274','AIR ASIA-4','MUMBAI','PATNA');
insert into flight values('AA001','AIR ASIA-1','BANGALORE','HYDERABAD');

select * from flight;
```

Task completed in 0.425 seconds

```
1 row inserted.


1 row inserted.


1 row inserted.


F_CODE     F_NAME               SRC                            DST
---------- -------------------- ------------------------------ ----------------
AA219      AIR ASIA-9           HYDERABAD                      CHENNAI
AA274      AIR ASIA-4           MUMBAI                         PATNA
AA001      AIR ASIA-1           BANGALORE                      HYDERABAD
```

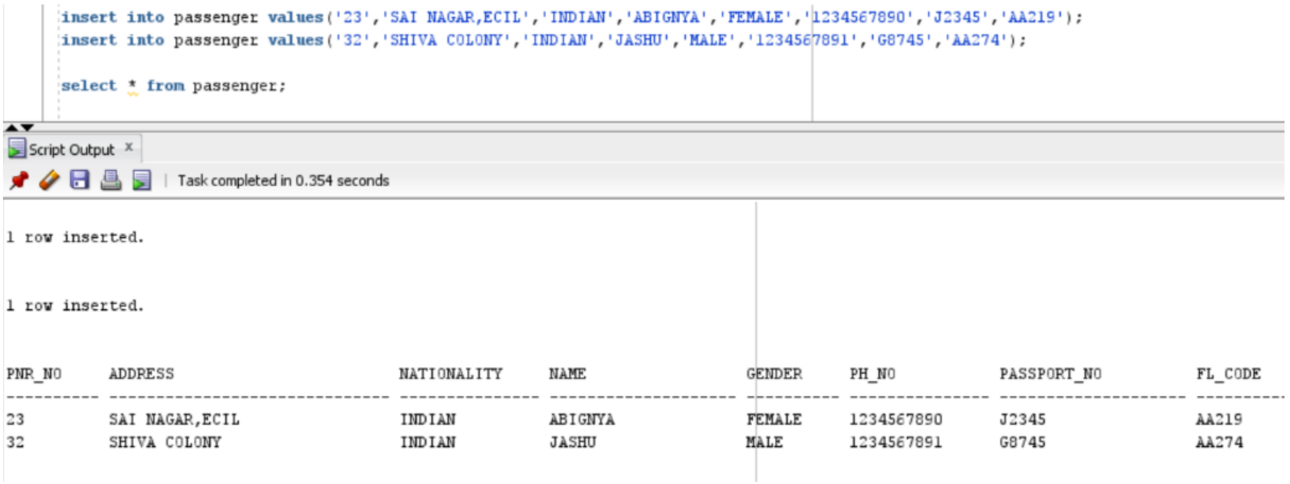
- Sector table



```
insert into sector values('AA219','250','A','FIRST CLASS');
insert into sector values('AA274','167','B','ECONOMY');
insert into sector values('AA001','98','C','BUSINESS CLASS');
insert into sector values('AA219','123','B','ECONOMY');

select * from sector;
```

```
1 row inserted.


1 row inserted.


1 row inserted.


1 row inserted.


FLIGHT_CODE          CAPACITY   CLASS CLASS_NAME
-------------------- ---------- ----- --------------------
AA219                250        A     FIRST CLASS
AA274                167        B     ECONOMY
AA001                98         C     BUSINESS CLASS
AA219                123        B     ECONOMY
```

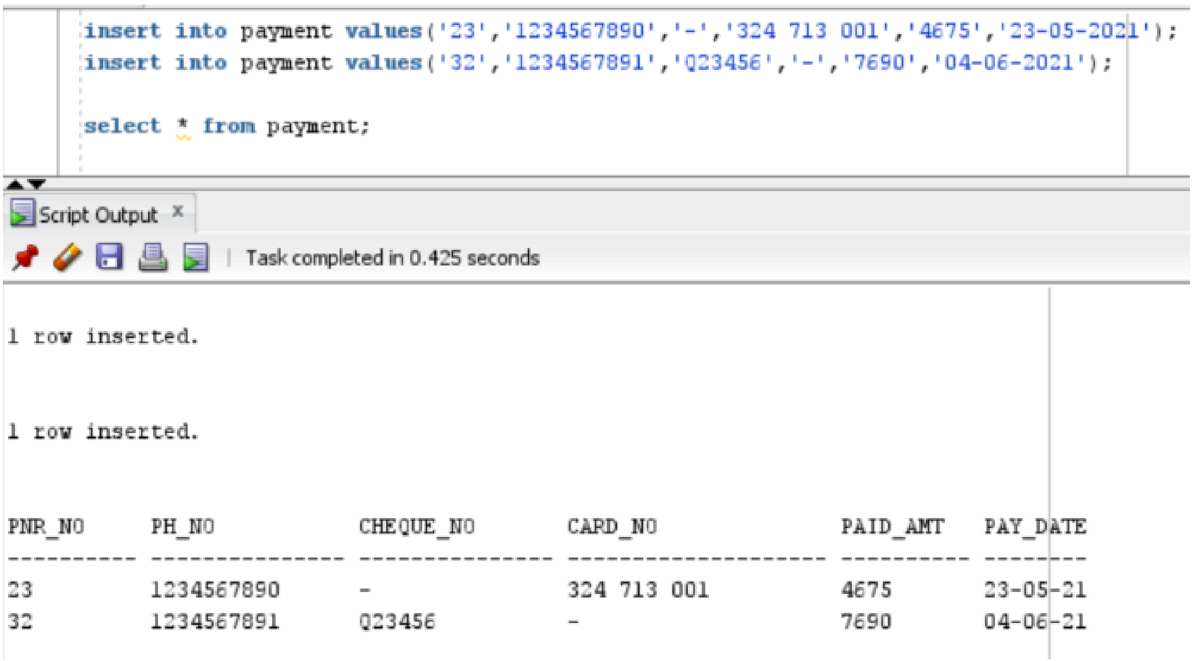
- Passenger table



```
insert into passenger values('23','SAI NAGAR,ECIL','INDIAN','ABIGNYA','FEMALE','1234567890','J2345','AA219');
insert into passenger values('32','SHIVA COLONY','INDIAN','JASHU','MALE','1234567891','G8745','AA274');

select * from passenger;
```

```
1 row inserted.


1 row inserted.


PNR_NO     ADDRESS                        NATIONALITY     NAME                 GENDER     PH_NO           PASSPORT_NO          FL_CODE
---------- ------------------------------ --------------- -------------------- ---------- --------------- -------------------- ---------
23         SAI NAGAR,ECIL                 INDIAN          ABIGNYA              FEMALE     1234567890      J2345                AA219
32         SHIVA COLONY                   INDIAN          JASHU                MALE       1234567891      G8745                AA274
```

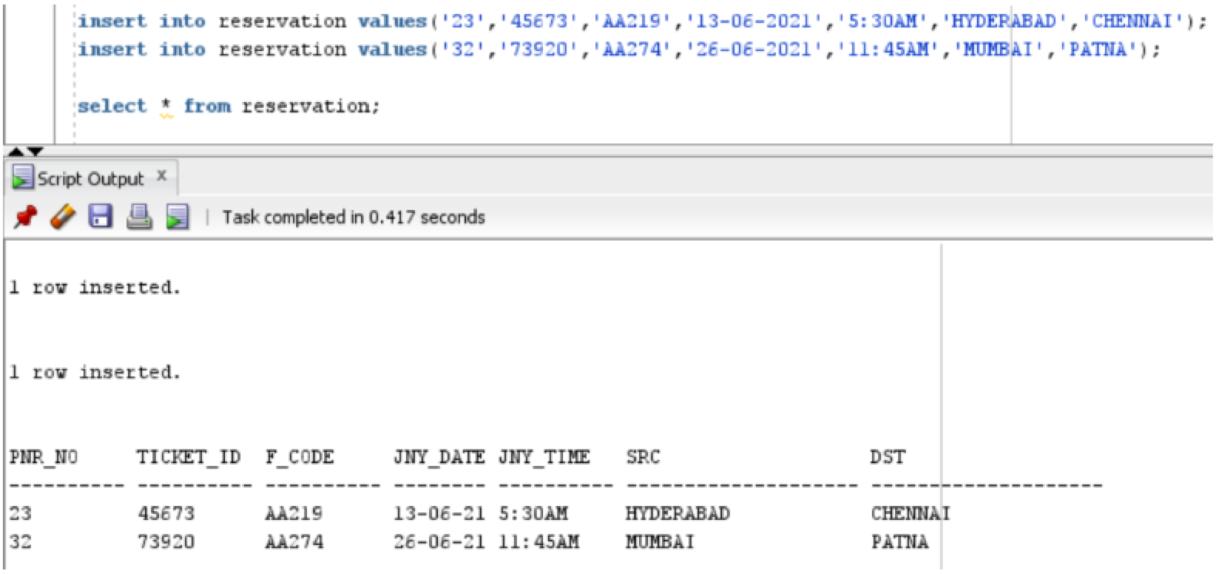
➢ Payment table



```
insert into payment values('23','1234567890','-','324 713 001','4675','23-05-2021');
insert into payment values('32','1234567891','Q23456','-','7690','04-06-2021');

select * from payment;
```

```
1 row inserted.


1 row inserted.


PNR_NO     PH_NO           CHEQUE_NO       CARD_NO              PAID_AMT   PAY_DATE
---------- --------------- --------------- -------------------- ---------- --------
23         1234567890      -               324 713 001          4675       23-05-21
32         1234567891      Q23456          -                    7690       04-06-21
```

➢ Reservation table



```
insert into reservation values('23','45673','AA219','13-06-2021','5:30AM','HYDERABAD','CHENNAI');
insert into reservation values('32','73920','AA274','26-06-2021','11:45AM','MUMBAI','PATNA');

select * from reservation;
```

```
1 row inserted.


1 row inserted.


PNR_NO     TICKET_ID  F_CODE     JNY_DATE JNY_TIME   SRC                  DST
---------- ---------- ---------- -------- ---------- -------------------- --------------------
23         45673      AA219      13-06-21 5:30AM     HYDERABAD            CHENNAI
32         73920      AA274      26-06-21 11:45AM    MUMBAI               PATNA
```

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Front end programs and its connectivity

Java Database Connectivity (JDBC) is an application programming interface (API) for the programming language Java, which defines how a client may access a database. It is a Java-based data access technology used for Java database connectivity. It is part of the Java Standard Edition platform, from Oracle Corporation. It provides methods to query and update data in a database and is oriented towards relational databases.

The connection to the database can be performed using Java programming (JDBC API) as:

```java
package airline.management.system;

import java.sql.*;

public class conn{
    Connection c;
    Statement s;
    public conn(){
        String dbURL = "jdbc:oracle:thin:@218.248.0.7:1521:RDBMS";
        String username = "it19737001";
        String password = "vasavi";
        try{
            Class.forName("oracle.jdbc.driver.OracleDriver");
            c = DriverManager.getConnection(dbURL, username, password);
            s =c.createStatement();
        }catch(Exception e){
            System.out.println(e);
        }
    }
}
```

Thus, the connection from Java to Oracle database is performed and therefore, can be used for updating tables in the database directly.

Mainframe

```
package airline.management.system;

import java.awt.*;
import javax.swing.*;
import java.awt.event.*;

public class Mainframe extends JFrame{

  public static void main(String[] args) {
    new Mainframe().setVisible(true);
  }

  public Mainframe() {
    super("AIRLINE RESERVATION MANAGEMENT SYSTEM");
    initialize();
  }

  private void initialize() {

    setForeground(Color.CYAN);
    setLayout(null);

    JLabel AirlineManagementSystem = new JLabel("WELCOME!");
       AirlineManagementSystem.setForeground(Color.BLUE);
    AirlineManagementSystem.setFont(new Font("Tahoma", Font.PLAIN, 40));
       AirlineManagementSystem.setBounds(240, 150, 1000, 55);
       add(AirlineManagementSystem);


    JMenuBar menuBar = new JMenuBar();
       setJMenuBar(menuBar);

    JMenu FlightDetails = new JMenu("FLIGHT_DETAILS   ");
    FlightDetails.setForeground(Color.BLUE);
       menuBar.add(FlightDetails);

    JMenuItem InsertFlightDetails = new JMenuItem("Insert");
       FlightDetails.add(InsertFlightDetails);

    JMenuItem UpdateFlightDetails = new JMenuItem("Modify");
       FlightDetails.add(UpdateFlightDetails);

    JMenuItem ViewFlightDetails = new JMenuItem("View");
       FlightDetails.add(ViewFlightDetails);

    JMenuItem DeleteFlightDetails = new JMenuItem("Delete");
       FlightDetails.add(DeleteFlightDetails);

       JMenu PassengerDetails = new JMenu("PASSENGER_DETAILS   ");
    PassengerDetails.setForeground(Color.BLUE);
       menuBar.add(PassengerDetails);
```

```
JMenuItem SubmitPassengerDetails = new JMenuItem("Insert");
    PassengerDetails.add(SubmitPassengerDetails);

JMenuItem UpdatePassengerDetails = new JMenuItem("Modify");
    PassengerDetails.add(UpdatePassengerDetails);

JMenuItem DeletePassengerDetails = new JMenuItem("Delete");
    PassengerDetails.add(DeletePassengerDetails);

JMenuItem ViewPassengerDetails = new JMenuItem("View");
    PassengerDetails.add(ViewPassengerDetails);

JMenu PaymentDetails = new JMenu("PAYMENT_DETAILS   ");
PaymentDetails.setForeground(Color.BLUE);
    menuBar.add(PaymentDetails);

JMenuItem SubmitPaymentDetails = new JMenuItem("Insert");
    PaymentDetails.add(SubmitPaymentDetails);

JMenuItem UpdatePaymentDetails = new JMenuItem("Modify");
    PaymentDetails.add(UpdatePaymentDetails);

JMenuItem ViewPaymentDetails = new JMenuItem("View");
    PaymentDetails.add(ViewPaymentDetails);

JMenuItem DeletePaymentDetails = new JMenuItem("Delete");
    PaymentDetails.add(DeletePaymentDetails);

JMenu ReservationDetails = new JMenu("RESERVATION_DETAILS");
ReservationDetails.setForeground(Color.BLUE);
    menuBar.add(ReservationDetails);

JMenuItem SubmitReservationDetails = new JMenuItem("Insert");
    ReservationDetails.add(SubmitReservationDetails);

JMenuItem UpdateReservationDetails = new JMenuItem("Modify");
    ReservationDetails.add(UpdateReservationDetails);

JMenuItem ViewReservationDetails = new JMenuItem("View");
    ReservationDetails.add(ViewReservationDetails);

JMenuItem DeleteReservationDetails = new JMenuItem("Delete");
    ReservationDetails.add(DeleteReservationDetails);

    ViewFlightDetails.addActionListener(new ActionListener(){
   public void actionPerformed(ActionEvent ae){
      new Flight_Info();
   }
    });

InsertFlightDetails.addActionListener(new ActionListener(){
   public void actionPerformed(ActionEvent ae){
      try {
         new Insert_Flight_Info();
             } catch (Exception e) {
```

```
            e.printStackTrace();
                }
        }
         });

UpdateFlightDetails.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){
        try {
            new Update_Flight_Details();
                } catch (Exception e) {
            e.printStackTrace();
                }
        }
         });

DeleteFlightDetails.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){
        new Delete_Flight();
    }
     });

     SubmitPassengerDetails.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){
        try {
            new Add_Customer();
                } catch (Exception e) {
            e.printStackTrace();
                }
    }
     });

UpdatePassengerDetails.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){
        try {
            new Update_Passenger_Details();
                } catch (Exception e) {
            e.printStackTrace();
                }
    }
     });

ViewPassengerDetails.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){
        try {
            new Passenger_Details();
        } catch (Exception e) {
            e.printStackTrace();
                }
    }
     });

DeletePassengerDetails.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){
        new Delete_Passenger();
    }
    });

SubmitPaymentDetails.addActionListener(new ActionListener(){
   public void actionPerformed(ActionEvent ae){
      try {
         new Payment_Form();
              } catch (Exception e) {
         e.printStackTrace();
              }
   }
    });

UpdatePaymentDetails.addActionListener(new ActionListener(){
   public void actionPerformed(ActionEvent ae){
      try {
         new Update_Payment_Details();
              } catch (Exception e) {
         e.printStackTrace();
              }
   }
    });

ViewPaymentDetails.addActionListener(new ActionListener(){
   public void actionPerformed(ActionEvent ae){
      try {
         new Payment_Details();
              } catch (Exception e) {
         e.printStackTrace();
              }
   }
    });

DeletePaymentDetails.addActionListener(new ActionListener(){
   public void actionPerformed(ActionEvent ae){
      new Delete_Payment();
   }
    });

SubmitReservationDetails.addActionListener(new ActionListener(){
   public void actionPerformed(ActionEvent ae){
      try {
         new Ticket_Reservation();
              } catch (Exception e) {
         e.printStackTrace();
              }
   }
    });

UpdateReservationDetails.addActionListener(new ActionListener(){
   public void actionPerformed(ActionEvent ae){
      try {
         new Update_Journey_Details();
              } catch (Exception e) {
         e.printStackTrace();
              }
```

```
        }
         });

        ViewReservationDetails.addActionListener(new ActionListener(){
            public void actionPerformed(ActionEvent ae){
                try {
                    new Journey_Details();
                        } catch (Exception e) {
                    e.printStackTrace();
                        }
            }
         });

        DeleteReservationDetails.addActionListener(new ActionListener(){
            public void actionPerformed(ActionEvent ae){
                new Delete_Reservation();
            }
         });

        setSize(700,500);
        setLocation(285,100);
             setVisible(true);
    }
}
```

Insert Flight Details

```
public class Flight_Info extends JFrame{

    private JTable table,table1;
    private JTextField textField;

    public static void main(String[] args){
             new Flight_Info().setVisible(true);
    }

    public Flight_Info(){

        getContentPane().setBackground(Color.WHITE);
        getContentPane().setFont(new Font("Tahoma", Font.PLAIN, 13));

             setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
             setSize(860,523);
             setLayout(null);
             setVisible(true);

             JLabel FlightDetails = new JLabel("FLIGHT INFORMATION");
             FlightDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
             FlightDetails.setForeground(new Color(100, 149, 237));
             FlightDetails.setBounds(160, 20, 570, 35);
             add(FlightDetails);

             JButton btnShow = new JButton("SHOW");
             btnShow.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnShow.setBounds(520, 20, 120, 30);
            add(btnShow);

        btnShow.addActionListener(new ActionListener() {
           public void actionPerformed(ActionEvent ae) {

               try {
                   conn c = new conn();
                   String str = "select * from sector";

                   ResultSet rs = c.s.executeQuery(str);

                   table.setModel(DbUtils.resultSetToTableModel(rs));

               }catch(SQLException e){
                   e.printStackTrace();
               }
           }
        });

        table = new JTable();
        table.setBackground(Color.WHITE);
            table.setBounds(23, 100, 800, 400);

        JScrollPane pane = new JScrollPane(table);
            pane.setBounds(23, 100, 800, 400);
        pane.setBackground(Color.WHITE);
        add(pane);

        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(850,600);
        setVisible(true);
        setLocation(210,30);

    }
}
```

Delete Flight Details

```
public class Delete_Flight extends JFrame{

    private JTextField textField;

    public static void main(String[] args){
            new Delete_Flight().setVisible(true);
    }

    public Delete_Flight(){

        getContentPane().setBackground(Color.WHITE);
        getContentPane().setFont(new Font("Tahoma", Font.PLAIN, 13));

            setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            setSize(860,523);
            setLayout(null);
            setVisible(true);

            JLabel Fcode = new JLabel("FLIGHT CODE");
            Fcode.setFont(new Font("Tahoma", Font.PLAIN, 20));
        Fcode.setBounds(80, 100, 200, 30);
            add(Fcode);

            JLabel FlightDetails = new JLabel("DELETE FLIGHT INFORMATION");
            FlightDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
            FlightDetails.setForeground(new Color(100, 149, 237));
            FlightDetails.setBounds(50, 20, 570, 35);
            add(FlightDetails);

            JButton btnShow = new JButton("DELETE");
            btnShow.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnShow.setBounds(220, 150, 120, 30);
            add(btnShow);

        btnShow.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent ae) {

                String code = textField.getText();

                try {
                    conn c = new conn();
                    String str = "delete from flight where f_code = '"+code+"'";

                    ResultSet rs = c.s.executeQuery(str);

                    JOptionPane.showMessageDialog(null,"Flight Deleted");
                    setVisible(false);

                }catch(SQLException e){
                    e.printStackTrace();
                }
            }
        });

        textField = new JTextField();
        textField.setBounds(220, 100, 200, 30);
            add(textField);

        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(550,270);
        setVisible(true);
        setLocation(400,200);

    }
}
```

Modify Flight Details

```
public class Update_Flight_Details extends JFrame{
```

```
JTextField textField,textField_1,textField_2,textField_3,textField_4,textField_5,textField_6;

public Update_Flight_Details(){
    getContentPane().setForeground(Color.BLUE);
    getContentPane().setBackground(Color.WHITE);
    setTitle("Update_Flight_Details");
    setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
    setSize(778,486);
    getContentPane().setLayout(null);

    JLabel FlightCode = new JLabel("Enter FLIGHT CODE of the flight to be updated");
    FlightCode.setFont(new Font("Tahoma", Font.PLAIN, 17));
    FlightCode.setBounds(40, 100, 450, 27);
    add(FlightCode);
    textField = new JTextField();
    textField.setBounds(420, 100, 150, 27);
    add(textField);

    JLabel Capacity = new JLabel("FLIGHT CAPACITY");
    Capacity.setFont(new Font("Tahoma", Font.PLAIN, 17));
    Capacity.setBounds(150, 140, 150, 27);
    add(Capacity);
        textField_1 = new JTextField();
    textField_1.setBounds(300, 140, 150, 27);
    add(textField_1);

    JLabel ClassCode = new JLabel("CLASS CODE");
    ClassCode.setFont(new Font("Tahoma", Font.PLAIN, 17));
    ClassCode.setBounds(150, 180, 150, 27);
    add(ClassCode);
        textField_2 = new JTextField();
    textField_2.setBounds(300, 180, 150, 27);
    add(textField_2);

    JLabel ClassName = new JLabel("CLASS NAME");
    ClassName.setFont(new Font("Tahoma", Font.PLAIN, 17));
    ClassName.setBounds(150, 220, 150, 27);
    add(ClassName);
        textField_3 = new JTextField();
    textField_3.setBounds(300, 220, 150, 27);
    add(textField_3);

    JLabel FlightName = new JLabel("FLIGHT NAME");
    FlightName.setFont(new Font("Tahoma", Font.PLAIN, 17));
    FlightName.setBounds(150, 260, 150, 27);
    add(FlightName);
        textField_4 = new JTextField();
    textField_4.setBounds(300, 260, 150, 27);
    add(textField_4);

    JLabel Source = new JLabel("SOURCE");
    Source.setFont(new Font("Tahoma", Font.PLAIN, 17));
    Source.setBounds(150, 300, 150, 27);
    add(Source);
    textField_5 = new JTextField();
```

```
      textField_5.setBounds(300, 300, 150, 27);
      add(textField_5);

      JLabel dst = new JLabel("DESTINATION");
      dst.setFont(new Font("Tahoma", Font.PLAIN, 17));
      dst.setBounds(150, 340, 150, 27);
      add(dst);
      textField_6 = new JTextField();
      textField_6.setBounds(300, 340, 150, 27);
      add(textField_6);

      JButton Next = new JButton("UPDATE");
      Next.setBounds(230, 400, 150, 30);
      Next.setBackground(Color.BLACK);
      Next.setForeground(Color.WHITE);
      add(Next);
      setVisible(true);

      JLabel AddPassengers = new JLabel("UPDATE FLIGHT DETAILS");
      AddPassengers.setForeground(Color.YELLOW);
      AddPassengers.setFont(new Font("Tahoma", Font.PLAIN, 31));
      AddPassengers.setBounds(145, 24, 442, 35);
      add(AddPassengers);

      Next.addActionListener(new ActionListener(){
        public void actionPerformed(ActionEvent ae){
          String flight_code = textField.getText();
          String capacity = textField_1.getText();
          String class_code =  textField_2.getText();
          String class_name = textField_3.getText();
          String f_name = textField_4.getText();
          String src = textField_5.getText();
          String dst = textField_6.getText();
          String f_code = textField.getText();

          try {
            conn c = new conn();
            String str = "UPDATE sector SET capacity = '"+capacity+"',class_code = 
'"+class_code+"',class_name = '"+class_name+"' WHERE flight_code = '"+flight_code+"'";
            String str1 = "UPDATE flight SET f_name = '"+f_name+"',src = '"+src+"',dst = 
'"+dst+"' WHERE f_code = '"+f_code+"'";
            c.s.executeUpdate(str);
            c.s.executeUpdate(str1);
            JOptionPane.showMessageDialog(null,"Details Updated");
            setVisible(false);
          } catch (Exception e) {
            e.printStackTrace();
         }
             }
      });
      setSize(630,510);
      setVisible(true);
      setLocation(300,70);
       }
    public static void main(String[] args){
        new Update_Flight_Details();
    }
}
```

View Flight Details

```
public class Flight_Info extends JFrame{

    private JTable table,table1;
    private JTextField textField;

    public static void main(String[] args){
            new Flight_Info().setVisible(true);
    }

    public Flight_Info(){

        getContentPane().setBackground(Color.WHITE);
        getContentPane().setFont(new Font("Tahoma", Font.PLAIN, 13));

            setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            setSize(860,523);
            setLayout(null);
            setVisible(true);

            JLabel FlightDetails = new JLabel("FLIGHT INFORMATION");
            FlightDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
            FlightDetails.setForeground(new Color(100, 149, 237));
            FlightDetails.setBounds(160, 20, 570, 35);
            add(FlightDetails);

            JButton btnShow = new JButton("SHOW");
            btnShow.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnShow.setBounds(520, 20, 120, 30);
            add(btnShow);

        btnShow.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent ae) {

                try {
                    conn c = new conn();
                    String str = "select * from sector";

                    ResultSet rs = c.s.executeQuery(str);

                    table.setModel(DbUtils.resultSetToTableModel(rs));

                }catch(SQLException e){
                    e.printStackTrace();
                }
            }
        });
        table = new JTable();
        table.setBackground(Color.WHITE);
```

```
            table.setBounds(23, 100, 800, 400);

        JScrollPane pane = new JScrollPane(table);
            pane.setBounds(23, 100, 800, 400);
        pane.setBackground(Color.WHITE);
        add(pane);

        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(850,600);
        setVisible(true);
        setLocation(210,30);
    }
}
```

Insert Passenger Details

```
public class Add_Customer extends JFrame{

            JTextField textField,textField_1,textField_2,textField_3,textField_4,textField_5,textField_6;

        public Add_Customer(){
            getContentPane().setForeground(Color.BLUE);
            getContentPane().setBackground(Color.WHITE);
            setTitle("ADD CUSTOMER DETAILS");

            setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(778,486);
            getContentPane().setLayout(null);

            JLabel Passportno = new JLabel("PASSPORT NO");
            Passportno.setFont(new Font("Tahoma", Font.PLAIN, 17));
            Passportno.setBounds(150, 120, 150, 27);
            add(Passportno);

            textField = new JTextField();
            textField.setBounds(300, 120, 150, 27);
            add(textField);

            JButton Next = new JButton("SAVE");
            Next.setBounds(300, 420, 150, 30);
            Next.setBackground(Color.BLACK);
            Next.setForeground(Color.WHITE);
            add(Next);

            JLabel Pnrno = new JLabel("PNR NO");
            Pnrno.setFont(new Font("Tahoma", Font.PLAIN, 17));
            Pnrno.setBounds(150, 160, 150, 27);
            add(Pnrno);

            textField_1 = new JTextField();
            textField_1.setBounds(300, 160, 150, 27);
            add(textField_1);

            JLabel Address = new JLabel("ADDRESS");
```

```
Address.setFont(new Font("Tahoma", Font.PLAIN, 17));
Address.setBounds(150, 200, 200, 27);
add(Address);

textField_2 = new JTextField();
textField_2.setBounds(300, 200, 150, 27);
add(textField_2);

JLabel Nationality = new JLabel("NATIONALITY");
Nationality.setFont(new Font("Tahoma", Font.PLAIN, 17));
Nationality.setBounds(150, 240, 150, 27);
add(Nationality);

textField_3 = new JTextField();
textField_3.setBounds(300, 240, 150, 27);
add(textField_3);

JLabel Name = new JLabel("NAME");
Name.setFont(new Font("Tahoma", Font.PLAIN, 17));
Name.setBounds(150, 270, 280, 27);
add(Name);

textField_4 = new JTextField();
textField_4.setBounds(300, 280, 150, 27);
add(textField_4);

JLabel Gender = new JLabel("GENDER");
Gender.setFont(new Font("Tahoma", Font.PLAIN, 17));
Gender.setBounds(150, 320, 150, 27);
add(Gender);

JRadioButton NewRadioButton = new JRadioButton("MALE");
NewRadioButton.setBackground(Color.WHITE);
NewRadioButton.setBounds(300, 320, 70, 27);
add(NewRadioButton);

JRadioButton Female = new JRadioButton("FEMALE");
Female.setBackground(Color.WHITE);
Female.setBounds(380, 320, 100, 27);
add(Female);

JLabel Phno = new JLabel("PH NO");
Phno.setFont(new Font("Tahoma", Font.PLAIN, 17));
Phno.setBounds(150, 370, 150, 27);
add(Phno);

textField_5 = new JTextField();
textField_5.setBounds(300, 370, 150, 27);
add(textField_5);

setVisible(true);

JLabel AddPassengers = new JLabel("ADD CUSTOMER DETAILS");
AddPassengers.setForeground(Color.GREEN);
AddPassengers.setFont(new Font("Tahoma", Font.PLAIN, 31));
```

```
            AddPassengers.setBounds(125, 24, 442, 35);
            add(AddPassengers);

            JLabel Flightcode = new JLabel("FLIGHT CODE");
            Flightcode.setFont(new Font("Tahoma", Font.PLAIN, 17));
            Flightcode.setBounds(150, 80, 150, 27);
            add(Flightcode);
            textField_6 = new JTextField();
            textField_6.setBounds(300, 80, 150, 27);
            add(textField_6);

            Next.addActionListener(new ActionListener(){
                public void actionPerformed(ActionEvent ae){
                    String passport_No = textField.getText();
                    String pnr_no = textField_1.getText();
                    String address =  textField_2.getText();
                    String nationality = textField_3.getText();
                    String name = textField_4.getText();
                    String fl_code = textField_6.getText();
                    String gender = null;
                    String ph_no = textField_5.getText();

                    if(NewRadioButton.isSelected()){
                        gender = "male";

                    }else if(Female.isSelected()){
                        gender = "female";
                    }

                    try {
                        conn c = new conn();
                        String str = "INSERT INTO passenger values( '"+pnr_no+"', '"+address+"',
'"+nationality+"','"+name+"', '"+gender+"', '"+ph_no+"','"+passport_No+"', '"+fl_code+"')";

                        c.s.executeUpdate(str);
                        JOptionPane.showMessageDialog(null,"Customer Added");
                        setVisible(false);

                    } catch (Exception e) {
                        e.printStackTrace();
                 }
                          }
            });
            setSize(630,600);
            setVisible(true);
            setLocation(320,50);
             }
    public static void main(String[] args){
        new Add_Customer();
    }
}
```

Delete Passenger Details

```
public class Delete_Passenger extends JFrame{

    private JTextField textField;

    public static void main(String[] args){
            new Delete_Passenger().setVisible(true);
    }

    public Delete_Passenger(){

        getContentPane().setBackground(Color.WHITE);
        getContentPane().setFont(new Font("Tahoma", Font.PLAIN, 13));

            setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            setSize(860,523);
            setLayout(null);
            setVisible(true);

            JLabel Fcode = new JLabel("PNR CODE");
            Fcode.setFont(new Font("Tahoma", Font.PLAIN, 20));
        Fcode.setBounds(80, 100, 200, 30);
            add(Fcode);

            JLabel FlightDetails = new JLabel("DELETE PASSENGER INFORMATION");
            FlightDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
            FlightDetails.setForeground(new Color(100, 149, 237));
            FlightDetails.setBounds(20, 20, 570, 35);
            add(FlightDetails);

            JButton btnShow = new JButton("DELETE");
            btnShow.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnShow.setBounds(220, 150, 120, 30);
            add(btnShow);

        btnShow.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent ae) {

                String code = textField.getText();

                try {
                    conn c = new conn();
                    String str = "delete from passenger where pnr_no = '"+code+"'";

                    ResultSet rs = c.s.executeQuery(str);

                    JOptionPane.showMessageDialog(null,"Passenger Deleted");
                    setVisible(false);

                }catch(SQLException e){
                    e.printStackTrace();
                }
            }
        });

        textField = new JTextField();
        textField.setBounds(220, 100, 200, 30);
             add(textField);

        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
             setSize(550,270);
        setVisible(true);
        setLocation(400,200);

    }
}
```

Modify Passenger Details

```
public class Update_Passenger_Details extends JFrame{

             JTextField textField,textField_1,textField_2,textField_3,textField_4,textField_5,textField_6;

        public Update_Passenger_Details(){
            getContentPane().setForeground(Color.BLUE);
            getContentPane().setBackground(Color.WHITE);
            setTitle("UPDATE CUSTOMER DETAILS");

            setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(778,486);
            getContentPane().setLayout(null);

            JLabel Passportno = new JLabel("PASSPORT NO");
            Passportno.setFont(new Font("Tahoma", Font.PLAIN, 17));
            Passportno.setBounds(150, 120, 150, 27);
            add(Passportno);

            textField = new JTextField();
            textField.setBounds(300, 120, 150, 27);
            add(textField);

            JButton Next = new JButton("UPDATE");
            Next.setBounds(300, 420, 150, 30);
            Next.setBackground(Color.BLACK);
            Next.setForeground(Color.WHITE);
            add(Next);

            JLabel Pnrno = new JLabel("Enter PNR NO of the passenger to be updated");
            Pnrno.setFont(new Font("Tahoma", Font.PLAIN, 17));
            Pnrno.setBounds(20, 80, 500, 27);
            add(Pnrno);

            textField_1 = new JTextField();
            textField_1.setBounds(400, 80, 150, 27);
            add(textField_1);

            JLabel Address = new JLabel("ADDRESS");
            Address.setFont(new Font("Tahoma", Font.PLAIN, 17));
            Address.setBounds(150, 200, 200, 27);
            add(Address);
```

```
textField_2 = new JTextField();
textField_2.setBounds(300, 200, 150, 27);
add(textField_2);

JLabel Nationality = new JLabel("NATIONALITY");
Nationality.setFont(new Font("Tahoma", Font.PLAIN, 17));
Nationality.setBounds(150, 240, 150, 27);
add(Nationality);

textField_3 = new JTextField();
textField_3.setBounds(300, 240, 150, 27);
add(textField_3);

JLabel Name = new JLabel("NAME");
Name.setFont(new Font("Tahoma", Font.PLAIN, 17));
Name.setBounds(150, 280, 280, 27);
add(Name);

textField_4 = new JTextField();
textField_4.setBounds(300, 280, 150, 27);
add(textField_4);

JLabel Gender = new JLabel("GENDER");
Gender.setFont(new Font("Tahoma", Font.PLAIN, 17));
Gender.setBounds(150, 320, 150, 27);
add(Gender);

JRadioButton NewRadioButton = new JRadioButton("MALE");
NewRadioButton.setBackground(Color.WHITE);
NewRadioButton.setBounds(300, 320, 70, 27);
add(NewRadioButton);

JRadioButton Female = new JRadioButton("FEMALE");
Female.setBackground(Color.WHITE);
Female.setBounds(380, 320, 100, 27);
add(Female);

JLabel Phno = new JLabel("PH NO");
Phno.setFont(new Font("Tahoma", Font.PLAIN, 17));
Phno.setBounds(150, 370, 150, 27);
add(Phno);

textField_5 = new JTextField();
textField_5.setBounds(300, 370, 150, 27);
add(textField_5);

setVisible(true);

JLabel AddPassengers = new JLabel("UPDATE CUSTOMER DETAILS");
AddPassengers.setForeground(Color.GREEN);
AddPassengers.setFont(new Font("Tahoma", Font.PLAIN, 31));
AddPassengers.setBounds(110, 24, 442, 35);
add(AddPassengers);

JLabel Flightcode = new JLabel("FLIGHT CODE");
```

```
            Flightcode.setFont(new Font("Tahoma", Font.PLAIN, 17));
            Flightcode.setBounds(150, 160, 150, 27);
            add(Flightcode);

            textField_6 = new JTextField();
            textField_6.setBounds(300, 160, 150, 27);
            add(textField_6);

            Next.addActionListener(new ActionListener(){
                public void actionPerformed(ActionEvent ae){
                    String passport_No = textField.getText();
                    String pnr_no = textField_1.getText();
                    String address =  textField_2.getText();
                    String nationality = textField_3.getText();
                    String name = textField_4.getText();
                    String fl_code = textField_6.getText();

                    String gender = null;
                    String ph_no = textField_5.getText();

                    if(NewRadioButton.isSelected()){
                        gender = "male";

                    }else if(Female.isSelected()){
                        gender = "female";
                    }

                    try {
                        conn c = new conn();
                        String str = "UPDATE passenger SET address = '"+address+"',nationality = 
'"+nationality+"',name = '"+name+"',gender = '"+gender+"',ph_no = '"+ph_no+"',passport_No = 
'"+passport_No+"',fl_code = '"+fl_code+"' WHERE pnr_no = '"+pnr_no+"'";

                        c.s.executeUpdate(str);
                        JOptionPane.showMessageDialog(null,"Customer Details updated");
                        setVisible(false);

                    } catch (Exception e) {
                        e.printStackTrace();
                }
                          }
            });
            setSize(630,600);
            setVisible(true);
            setLocation(320,50);
             }
    public static void main(String[] args){
        new Update_Passenger_Details();
    }
}
```

View Passenger Details

```
public class Passenger_Details extends JFrame{
```

```
JTable table;
JButton Show;
private JTextField textField;

public static void main(String[] args){
   new Passenger_Details();
}

public Passenger_Details(){

   setTitle("Passenger_Details");
       getContentPane().setBackground(Color.WHITE);
       setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

       setLayout(null);

       JButton Show = new JButton("SHOW");
       Show.setBounds(680, 30, 100, 30);
       add(Show);

       JLabel ReservationDetails = new JLabel("PASSENGER DETAILS");
       ReservationDetails.setForeground(Color.BLUE);
       ReservationDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
       ReservationDetails.setBounds(280, 27, 359, 31);
       add(ReservationDetails);

       Show.addActionListener(new ActionListener(){
      public void actionPerformed(ActionEvent ae){
                 try{

            conn c = new conn();

            String str = "select * from passenger";
            ResultSet rs=c.s.executeQuery(str);

            table.setModel(DbUtils.resultSetToTableModel(rs));

                 }catch(Exception e){}
      }
       });

   table = new JTable();
   table.setBackground(Color.WHITE);
       table.setBounds(23, 300, 800, 300);

   JScrollPane pane = new JScrollPane(table);
       pane.setBounds(23, 100, 800, 450);
   pane.setBackground(Color.WHITE);
   add(pane);

   setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
       setSize(860,600);
   setLocation(210,30);
       setVisible(true);
```

```
  }
}
```

Insert Payment Details

```
public class Passenger_Details extends JFrame{

  JTable table;
  JButton Show;
  private JTextField textField;

  public static void main(String[] args){
    new Passenger_Details();
  }

  public Passenger_Details(){

    setTitle("Passenger_Details");
       getContentPane().setBackground(Color.WHITE);
       setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

       setLayout(null);

       JButton Show = new JButton("SHOW");
       Show.setBounds(680, 30, 100, 30);
       add(Show);

       JLabel ReservationDetails = new JLabel("PASSENGER DETAILS");
       ReservationDetails.setForeground(Color.BLUE);
       ReservationDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
       ReservationDetails.setBounds(280, 27, 359, 31);
       add(ReservationDetails);

       Show.addActionListener(new ActionListener(){
      public void actionPerformed(ActionEvent ae){
              try{

         conn c = new conn();

         String str = "select * from passenger";
         ResultSet rs=c.s.executeQuery(str);

         table.setModel(DbUtils.resultSetToTableModel(rs));

              }catch(Exception e){}
      }
       });

    table = new JTable();
    table.setBackground(Color.WHITE);
       table.setBounds(23, 300, 800, 300);

    JScrollPane pane = new JScrollPane(table);
       pane.setBounds(23, 100, 800, 450);
```

```
        pane.setBackground(Color.WHITE);
        add(pane);

        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(860,600);
        setLocation(210,30);
            setVisible(true);
    }
}
```

Delete Payment Details

```
public class Passenger_Details extends JFrame{

    JTable table;
    JButton Show;
    private JTextField textField;

    public static void main(String[] args){
        new Passenger_Details();
    }

    public Passenger_Details(){

        setTitle("Passenger_Details");
            getContentPane().setBackground(Color.WHITE);
            setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

            setLayout(null);

            JButton Show = new JButton("SHOW");
            Show.setBounds(680, 30, 100, 30);
            add(Show);

            JLabel ReservationDetails = new JLabel("PASSENGER DETAILS");
            ReservationDetails.setForeground(Color.BLUE);
            ReservationDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
            ReservationDetails.setBounds(280, 27, 359, 31);
            add(ReservationDetails);

            Show.addActionListener(new ActionListener(){
           public void actionPerformed(ActionEvent ae){
                       try{

                 conn c = new conn();

                 String str = "select * from passenger";
                 ResultSet rs=c.s.executeQuery(str);

                 table.setModel(DbUtils.resultSetToTableModel(rs));

                       }catch(Exception e){}
           }
            });
        table = new JTable();
        table.setBackground(Color.WHITE);
            table.setBounds(23, 300, 800, 300);

        JScrollPane pane = new JScrollPane(table);
            pane.setBounds(23, 100, 800, 450);
        pane.setBackground(Color.WHITE);
        add(pane);

        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(860,600);
        setLocation(210,30);
            setVisible(true);
    }
}
```

Modify Payment Details

```
public class Passenger_Details extends JFrame{

    JTable table;
    JButton Show;
    private JTextField textField;

    public static void main(String[] args){
        new Passenger_Details();
    }

    public Passenger_Details(){

        setTitle("Passenger_Details");
            getContentPane().setBackground(Color.WHITE);
            setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

            setLayout(null);

            JButton Show = new JButton("SHOW");
            Show.setBounds(680, 30, 100, 30);
            add(Show);

            JLabel ReservationDetails = new JLabel("PASSENGER DETAILS");
            ReservationDetails.setForeground(Color.BLUE);
            ReservationDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
            ReservationDetails.setBounds(280, 27, 359, 31);
            add(ReservationDetails);

            Show.addActionListener(new ActionListener(){
           public void actionPerformed(ActionEvent ae){
                    try{

                conn c = new conn();

                String str = "select * from passenger";
```

```
               ResultSet rs=c.s.executeQuery(str);

               table.setModel(DbUtils.resultSetToTableModel(rs));

                    }catch(Exception e){}
         }
          });

      table = new JTable();
      table.setBackground(Color.WHITE);
          table.setBounds(23, 300, 800, 300);

      JScrollPane pane = new JScrollPane(table);
          pane.setBounds(23, 100, 800, 450);
      pane.setBackground(Color.WHITE);
      add(pane);

      setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
          setSize(860,600);
      setLocation(210,30);
          setVisible(true);
   }
}
```

View Payment Details

```
public class Payment_Details extends JFrame{

   JTextField textField;
   JTable table;
   JLabel Sector;
   JLabel FlightCode, Capacity, Classcode, Classname, label;

   public static void main(String[] args) {
      new Payment_Details();
   }
   public Payment_Details(){
          initialize();
   }
   private void initialize(){
      setTitle("PAYMENT_DETAILS");
          getContentPane().setBackground(Color.WHITE);
          setSize(860,486);
          setLayout(null);

      table = new JTable();
          table.setBounds(45, 329, 766, 87);
          add(table);

          JButton Show = new JButton("SHOW");
          Show.setFont(new Font("Tahoma", Font.PLAIN, 17));
      Show.setBackground(Color.BLACK);
      Show.setForeground(Color.WHITE);
          Show.setBounds(530, 150, 150, 26);
          add(Show);
```

```
     Sector = new JLabel("PAYMENT DETAILS");
     Sector.setForeground(Color.BLUE);
     Sector.setFont(new Font("Tahoma", Font.PLAIN, 31));
     Sector.setBounds(200, 145, 300, 39);
     add(Sector);

     FlightCode = new JLabel("PNR_NO");
     FlightCode.setFont(new Font("Tahoma", Font.PLAIN, 13));
     FlightCode.setBounds(84, 292, 108, 26);
     add(FlightCode);

     Capacity = new JLabel("PAID_AMOUNT");
     Capacity.setFont(new Font("Tahoma", Font.PLAIN, 13));
     Capacity.setBounds(183, 298, 92, 14);
     add(Capacity);

     Classcode = new JLabel("PAY_DATE");
     Classcode.setFont(new Font("Tahoma", Font.PLAIN, 13));
     Classcode.setBounds(322, 294, 101, 24);
     add(Classcode);

     Classname = new JLabel("CHEQUE_NO");
     Classname.setFont(new Font("Tahoma", Font.PLAIN, 13));
     Classname.setBounds(455, 298, 114, 14);
     add(Classname);

     JLabel Cardno = new JLabel("CARD_NO");
     Cardno.setFont(new Font("Tahoma", Font.PLAIN, 13));
     Cardno.setBounds(602, 299, 101, 19);
     add(Cardno);

     JLabel Phoneno = new JLabel("PHONE_NO");
     Phoneno.setFont(new Font("Tahoma", Font.PLAIN, 13));
     Phoneno.setBounds(712, 294, 86, 24);
     add(Phoneno);
 setVisible(true);
     Show.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){

        try {

            conn c = new conn();
            String str = "select pnr_no,paid_amt,pay_date,cheque_no,card_no,ph_no from payment";

            ResultSet rs = c.s.executeQuery(str);

            table.setModel(DbUtils.resultSetToTableModel(rs));

                 }catch(SQLException e) {
            e.printStackTrace();
        }
    }
     });
     setSize(860,600);
```

```
        setLocation(210,30);
             setVisible(true);
    }
}
```

Insert Reservation Details

```
public class Ticket_Reservation extends JFrame{
             JTextField textField,textField_1,textField_2,textField_3,textField_4,textField_5,textField_6;

        public Ticket_Reservation(){
            getContentPane().setForeground(Color.BLUE);
            getContentPane().setBackground(Color.WHITE);
            setTitle("Journey_Info");

            setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(778,486);
            getContentPane().setLayout(null);

            JLabel PnrNo = new JLabel("PNR NO");
            PnrNo.setFont(new Font("Tahoma", Font.PLAIN, 17));
            PnrNo.setBounds(150, 100, 150, 27);
            add(PnrNo);

            textField = new JTextField();
            textField.setBounds(300, 100, 150, 27);
            add(textField);

            JLabel TicketId = new JLabel("TICKET ID");
            TicketId.setFont(new Font("Tahoma", Font.PLAIN, 17));
            TicketId.setBounds(150, 340, 150, 27);
            add(TicketId);

            textField_1 = new JTextField();
            textField_1.setBounds(300, 340, 150, 27);
            add(textField_1);

            JLabel JnyDate = new JLabel("JORNEY DATE");
            JnyDate.setFont(new Font("Tahoma", Font.PLAIN, 17));
            JnyDate.setBounds(150, 180, 150, 27);
            add(JnyDate);

            textField_2 = new JTextField();
            textField_2.setBounds(300, 180, 150, 27);
            add(textField_2);

            JLabel JnyTime = new JLabel("JORNEY TIME");
            JnyTime.setFont(new Font("Tahoma", Font.PLAIN, 17));
            JnyTime.setBounds(150, 220, 150, 27);
            add(JnyTime);

            textField_3 = new JTextField();
            textField_3.setBounds(300, 220, 150, 27);
            add(textField_3);
```

```
JLabel src = new JLabel("SOURCE");
src.setFont(new Font("Tahoma", Font.PLAIN, 17));
src.setBounds(150, 260, 150, 27);
add(src);

textField_4 = new JTextField();
textField_4.setBounds(300, 260, 150, 27);
add(textField_4);

JLabel dst = new JLabel("DESTINATION");
dst.setFont(new Font("Tahoma", Font.PLAIN, 17));
dst.setBounds(150, 300, 150, 27);
add(dst);

textField_5 = new JTextField();
textField_5.setBounds(300, 300, 150, 27);
add(textField_5);

JLabel FlightCode = new JLabel("FLIGHT CODE");
FlightCode.setFont(new Font("Tahoma", Font.PLAIN, 17));
FlightCode.setBounds(150, 140, 150, 27);
add(FlightCode);

textField_6 = new JTextField();
textField_6.setBounds(300, 140, 150, 27);
add(textField_6);

JButton Next = new JButton("SUBMIT");
Next.setBounds(230, 400, 150, 30);
Next.setBackground(Color.BLACK);
Next.setForeground(Color.WHITE);
add(Next);
setVisible(true);

JLabel AddPassengers = new JLabel("ADD JOURNEY DETAILS");
AddPassengers.setForeground(Color.YELLOW);
AddPassengers.setFont(new Font("Tahoma", Font.PLAIN, 31));
AddPassengers.setBounds(130, 24, 442, 35);
add(AddPassengers);

Next.addActionListener(new ActionListener(){
    public void actionPerformed(ActionEvent ae){
        String pnr_code = textField.getText();
        String ticket_id = textField_1.getText();
        String f_code = textField_6.getText();
        String jny_date =  textField_2.getText();
        String jny_time = textField_3.getText();
        String src = textField_4.getText();
        String dst = textField_5.getText();
        try {
            conn c = new conn();
            String str = "INSERT INTO reservation values( '"+pnr_code+"', '"+ticket_id+"',
'"+f_code+"', '"+jny_date+"', '"+jny_time+"', '"+src+"', '"+dst+"')";
            c.s.executeUpdate(str);
```

```
                JOptionPane.showMessageDialog(null,"Details Inserted");
                setVisible(false);
            } catch (Exception e) {
                e.printStackTrace();
          }
                   }
        });
        setSize(630,510);
        setVisible(true);
        setLocation(300,70);
         }
    public static void main(String[] args){
        new Ticket_Reservation();
    }
}
```

Delete Reservation Details

```
public class Delete_Reservation extends JFrame{

    private JTextField textField;
    public static void main(String[] args){
             new Delete_Reservation().setVisible(true);
    }
    public Delete_Reservation(){

        getContentPane().setBackground(Color.WHITE);
        getContentPane().setFont(new Font("Tahoma", Font.PLAIN, 13));

             setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
             setSize(860,523);
             setLayout(null);
             setVisible(true);

             JLabel Fcode = new JLabel("PNR CODE");
             Fcode.setFont(new Font("Tahoma", Font.PLAIN, 20));
        Fcode.setBounds(80, 100, 200, 30);
             add(Fcode);

             JLabel FlightDetails = new JLabel("DELETE RESERVATION INFORMATION");
             FlightDetails.setFont(new Font("Tahoma", Font.PLAIN, 28));
             FlightDetails.setForeground(new Color(100, 149, 237));
             FlightDetails.setBounds(30, 20, 570, 35);
             add(FlightDetails);

             JButton btnShow = new JButton("DELETE");
             btnShow.setFont(new Font("Tahoma", Font.PLAIN, 20));
        btnShow.setBounds(220, 150, 120, 30);
             add(btnShow);

        btnShow.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent ae) {

                String code = textField.getText();
                try {
                    conn c = new conn();
                    String str = "delete from reservation where pnr_no = '"+code+"'";

                    ResultSet rs = c.s.executeQuery(str);

                    JOptionPane.showMessageDialog(null,"Reservation Deleted");
                    setVisible(false);

                }catch(SQLException e){
                    e.printStackTrace();
                }
            }
        });

        textField = new JTextField();
        textField.setBounds(220, 100, 200, 30);
            add(textField);

        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(550,270);
        setVisible(true);
        setLocation(400,200);
    }
}
```

Modify Reservation Details

```
public class Update_Journey_Details extends JFrame{
            JTextField textField,textField_1,textField_2,textField_3,textField_4,textField_5,textField_6;

        public Update_Journey_Details(){
            getContentPane().setForeground(Color.BLUE);
            getContentPane().setBackground(Color.WHITE);
            setTitle("Update_Journey_Info");

            setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
            setSize(778,486);
            getContentPane().setLayout(null);

            JLabel PnrNo = new JLabel("Enter PNR NO of passenger to update journey details");
            PnrNo.setFont(new Font("Tahoma", Font.PLAIN, 17));
            PnrNo.setBounds(20, 100, 500, 27);
            add(PnrNo);

            textField = new JTextField();
            textField.setBounds(440, 100, 150, 27);
            add(textField);

            JLabel TicketId = new JLabel("TICKET ID");
            TicketId.setFont(new Font("Tahoma", Font.PLAIN, 17));
            TicketId.setBounds(150, 340, 150, 27);
            add(TicketId);
```

```
textField_1 = new JTextField();
textField_1.setBounds(300, 340, 150, 27);
add(textField_1);

JLabel JnyDate = new JLabel("JORNEY DATE");
JnyDate.setFont(new Font("Tahoma", Font.PLAIN, 17));
JnyDate.setBounds(150, 180, 150, 27);
add(JnyDate);

textField_2 = new JTextField();
textField_2.setBounds(300, 180, 150, 27);
add(textField_2);

JLabel JnyTime = new JLabel("JORNEY TIME");
JnyTime.setFont(new Font("Tahoma", Font.PLAIN, 17));
JnyTime.setBounds(150, 220, 150, 27);
add(JnyTime);

textField_3 = new JTextField();
textField_3.setBounds(300, 220, 150, 27);
add(textField_3);

JLabel src = new JLabel("SOURCE");
src.setFont(new Font("Tahoma", Font.PLAIN, 17));
src.setBounds(150, 260, 150, 27);
add(src);

textField_4 = new JTextField();
textField_4.setBounds(300, 260, 150, 27);
add(textField_4);

JLabel dst = new JLabel("DESTINATION");
dst.setFont(new Font("Tahoma", Font.PLAIN, 17));
dst.setBounds(150, 300, 150, 27);
add(dst);

textField_5 = new JTextField();
textField_5.setBounds(300, 300, 150, 27);
add(textField_5);

JLabel FlightCode = new JLabel("FLIGHT CODE");
FlightCode.setFont(new Font("Tahoma", Font.PLAIN, 17));
FlightCode.setBounds(150, 140, 150, 27);
add(FlightCode);

textField_6 = new JTextField();
textField_6.setBounds(300, 140, 150, 27);
add(textField_6);

JButton Next = new JButton("UPDATE");
Next.setBounds(230, 400, 150, 30);
Next.setBackground(Color.BLACK);
Next.setForeground(Color.WHITE);
add(Next);
```

```
            setVisible(true);

            JLabel AddPassengers = new JLabel("UPDATE JOURNEY DETAILS");
            AddPassengers.setForeground(Color.RED);
            AddPassengers.setFont(new Font("Tahoma", Font.PLAIN, 31));
            AddPassengers.setBounds(130, 24, 442, 35);
            add(AddPassengers);

            Next.addActionListener(new ActionListener(){
                public void actionPerformed(ActionEvent ae){
                    String pnr_code = textField.getText();
                    String ticket_id = textField_1.getText();
                    String f_code = textField_6.getText();
                    String jny_date =  textField_2.getText();
                    String jny_time = textField_3.getText();
                    String src = textField_4.getText();
                    String dst = textField_5.getText();
                    try {
                        conn c = new conn();
                        String str = "UPDATE reservation SET ticket_id = '"+ticket_id+"',f_code =
'"+f_code+"',jny_date = '"+jny_date+"',jny_time = '"+jny_time+"',src = '"+src+"',dst = '"+dst+"'
WHERE pnr_no = '"+pnr_code+"'";
                        c.s.executeUpdate(str);
                        JOptionPane.showMessageDialog(null,"Journey Details Updated");
                        setVisible(false);

                    } catch (Exception e) {
                        e.printStackTrace();
                 }
                           }
            });
            setSize(630,510);
            setVisible(true);
            setLocation(300,70);
             }
    public static void main(String[] args){
        new Update_Journey_Details();
    }
}
```

View Journey Details

```
public class Journey_Details extends JFrame{

    JTable table;
    JLabel ReservationDetails,Pnrno,Ticketid,Fcode,Jnydate,Jnytime,Source,Destination,label,label1;
    JButton Show;
    private JTextField textField;
    public static void main(String[] args){
        new Journey_Details();
    }
    public Journey_Details(){

        setTitle("JOURNEY_DETAILS");
```

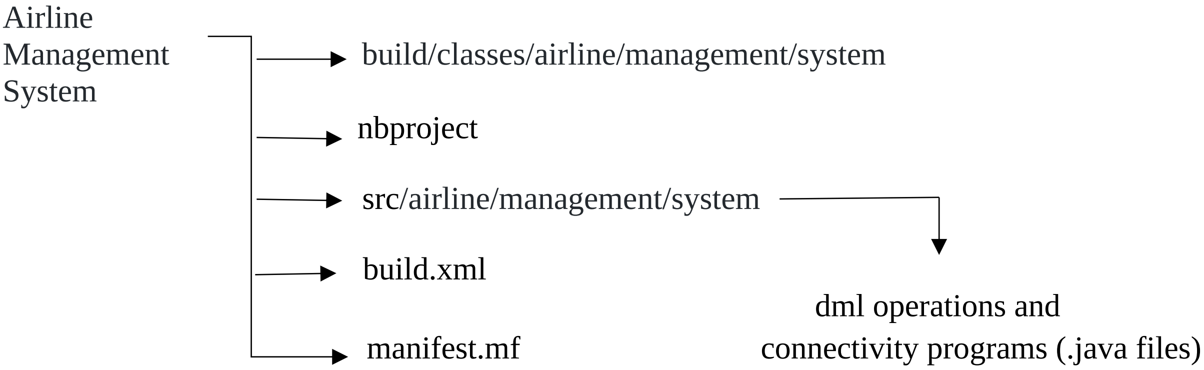
```
          getContentPane().setBackground(Color.WHITE);
          setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

          setLayout(null);

          JLabel Source = new JLabel("SOURCE");
          Source.setFont(new Font("Tahoma", Font.PLAIN, 19));
          Source.setBounds(60, 100, 150, 27);
          add(Source);

      JLabel Destination = new JLabel("DESTINATION");
          Destination.setFont(new Font("Tahoma", Font.PLAIN, 19));
          Destination.setBounds(350, 100, 150, 27);
          add(Destination);

          JButton Show = new JButton("SHOW");
          Show.setBounds(680, 100, 100, 30);
          add(Show);

          JLabel ReservationDetails = new JLabel("JOURNEY DETAILS");
          ReservationDetails.setForeground(Color.BLUE);
          ReservationDetails.setFont(new Font("Tahoma", Font.PLAIN, 31));
          ReservationDetails.setBounds(280, 27, 359, 31);
          add(ReservationDetails);

          String[] items1 =  {"BANGALORE", "MUMBAI", "CHENNAI",
"PATNA","DELHI","HYDERABAD"};
          JComboBox comboBox = new JComboBox(items1);
          comboBox.setBounds(150, 100, 150, 27);
          add(comboBox);

          String[] items2 =  {"BANGALORE", "MUMBAI", "CHENNAI",
"PATNA","DELHI","HYDERABAD"};
          JComboBox comboBox_1 = new JComboBox(items2);
          comboBox_1.setBounds(500, 100, 150, 27);
          add(comboBox_1);

          Show.addActionListener(new ActionListener(){
         public void actionPerformed(ActionEvent ae){
                    try{
               String src  = (String) comboBox.getSelectedItem();
               String dst  = (String) comboBox_1.getSelectedItem();

               conn c = new conn();

               String str = "select pnr_no,ticket_id,f_code,jny_date,jny_time,src,dst from reservation
where src = '"+src+"' and dst = '"+dst+"'";
               ResultSet rs=c.s.executeQuery(str);

               table.setModel(DbUtils.resultSetToTableModel(rs));

                    }catch(Exception e){}
         }
          });
      table = new JTable();
```

```
        table.setBackground(Color.WHITE);
             table.setBounds(23, 300, 800, 300);

        JScrollPane pane = new JScrollPane(table);
             pane.setBounds(23, 170, 800, 350);
        pane.setBackground(Color.WHITE);
        add(pane);

        setDefaultCloseOperation(JFrame.HIDE_ON_CLOSE);
             setSize(860,600);
        setLocation(210,30);
             setVisible(true);
    }
}
```

Github links and folder structure:

Link: https://github.com/Abignya/Airline-management-system

https://github.com/freyarachel/Airline-Management-System

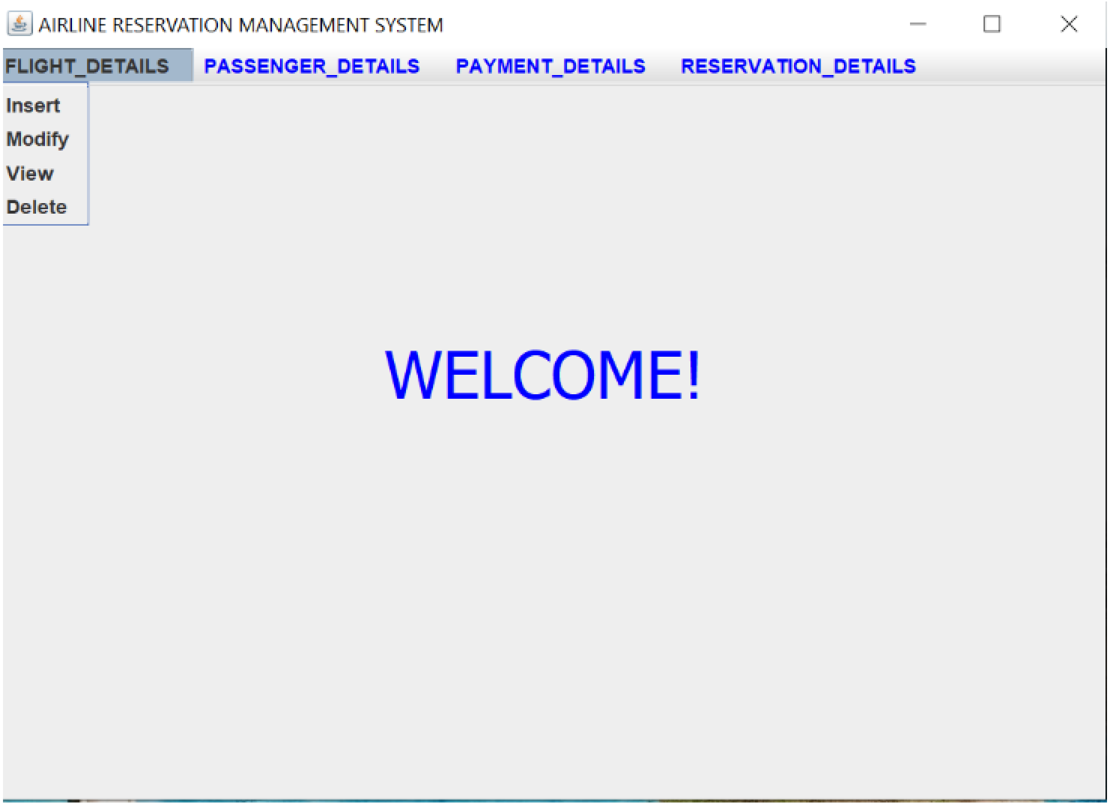

Airline Management System
build/classes/airline/management/system
nbproject
src/airline/management/system
build.xml
manifest.mf
dml operations and connectivity programs (.java files)

M. Abignya Reddy <1602-19-737-001>

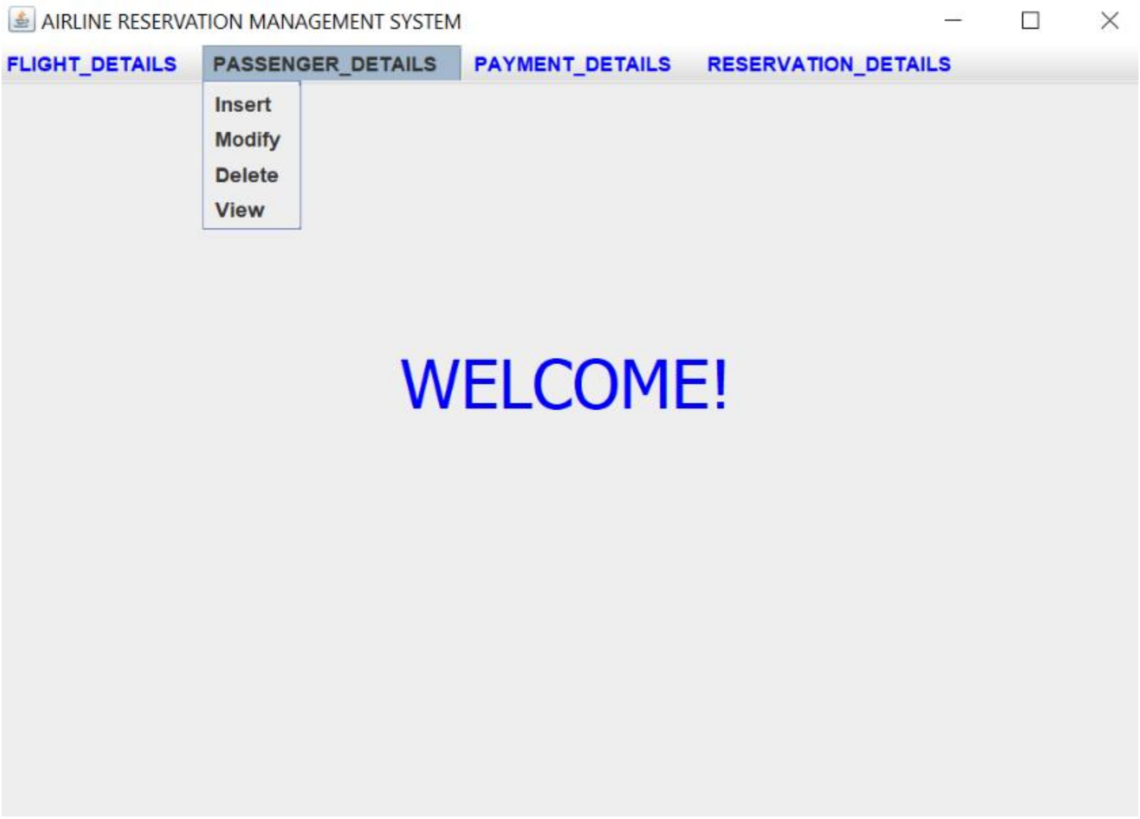
G.R. Freya <1602-19-737-032>

TESTING AND RESULT

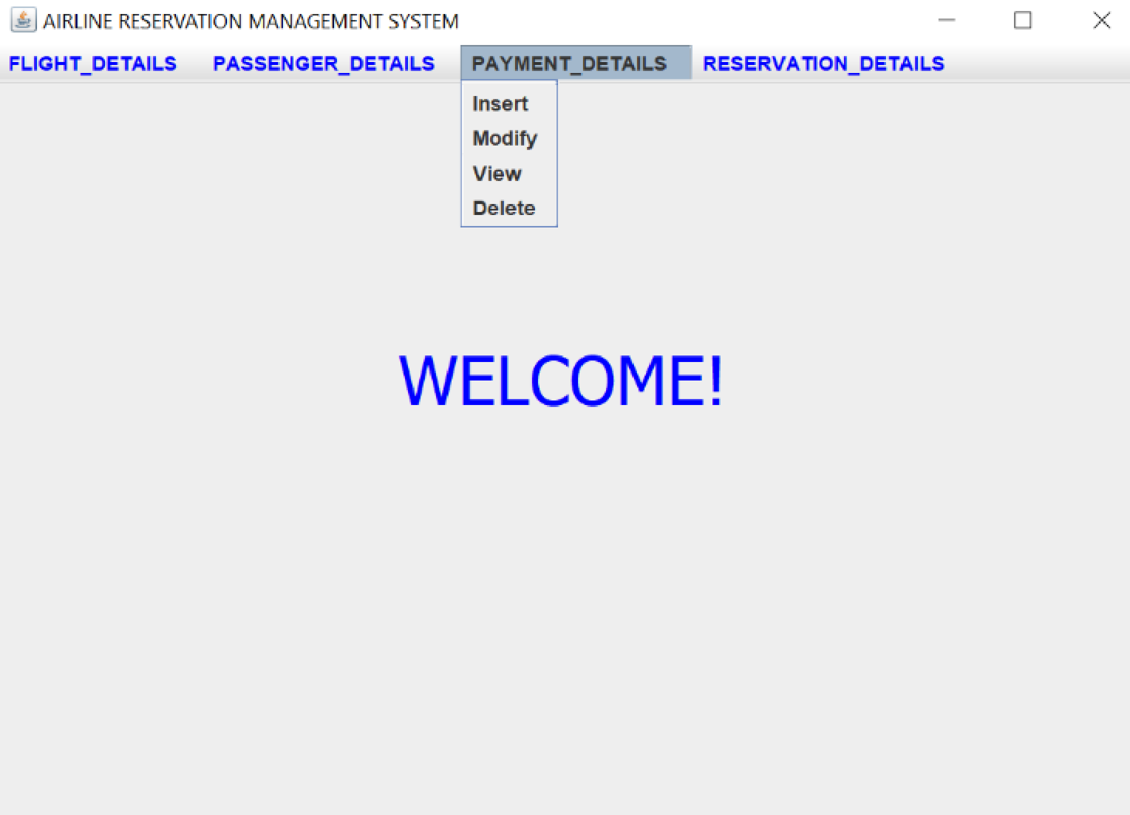
FLIGHT DETAILS MENU ITEMS



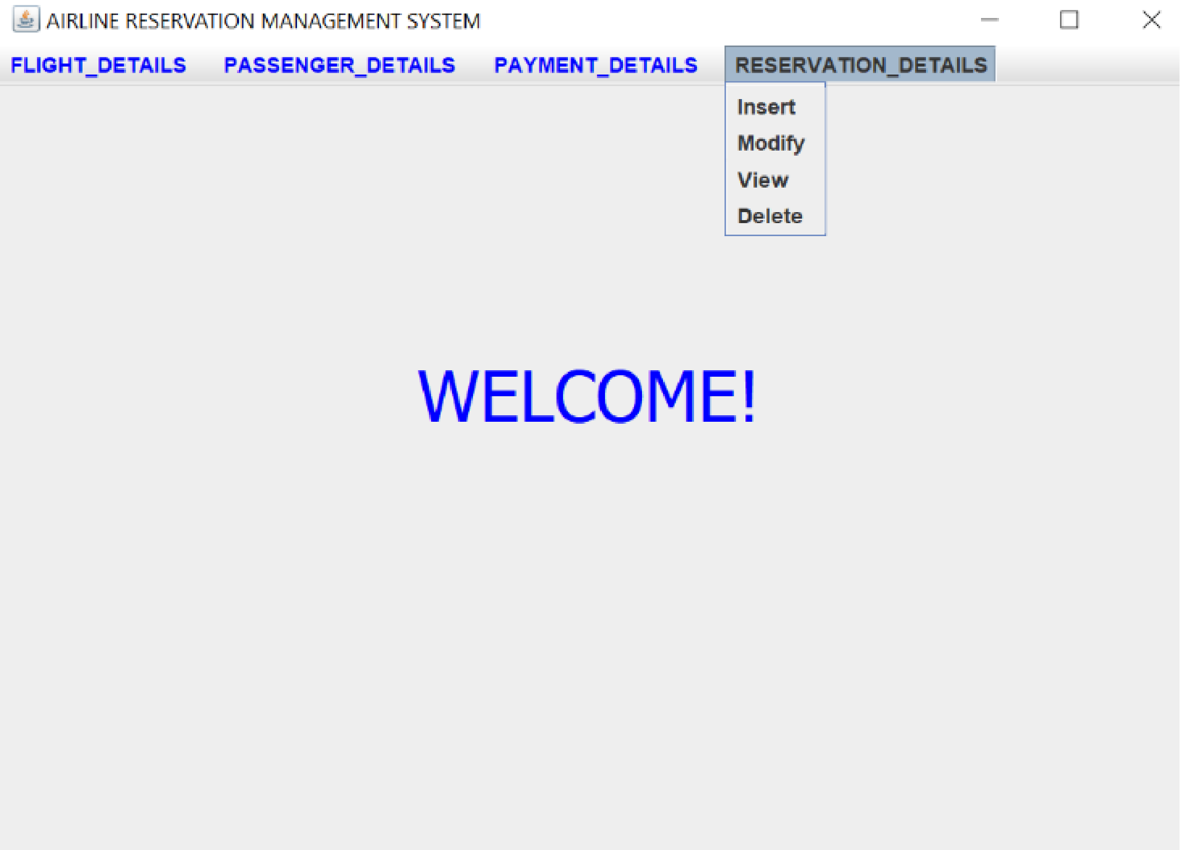
PASSENGER DETAILS MENU ITEMS



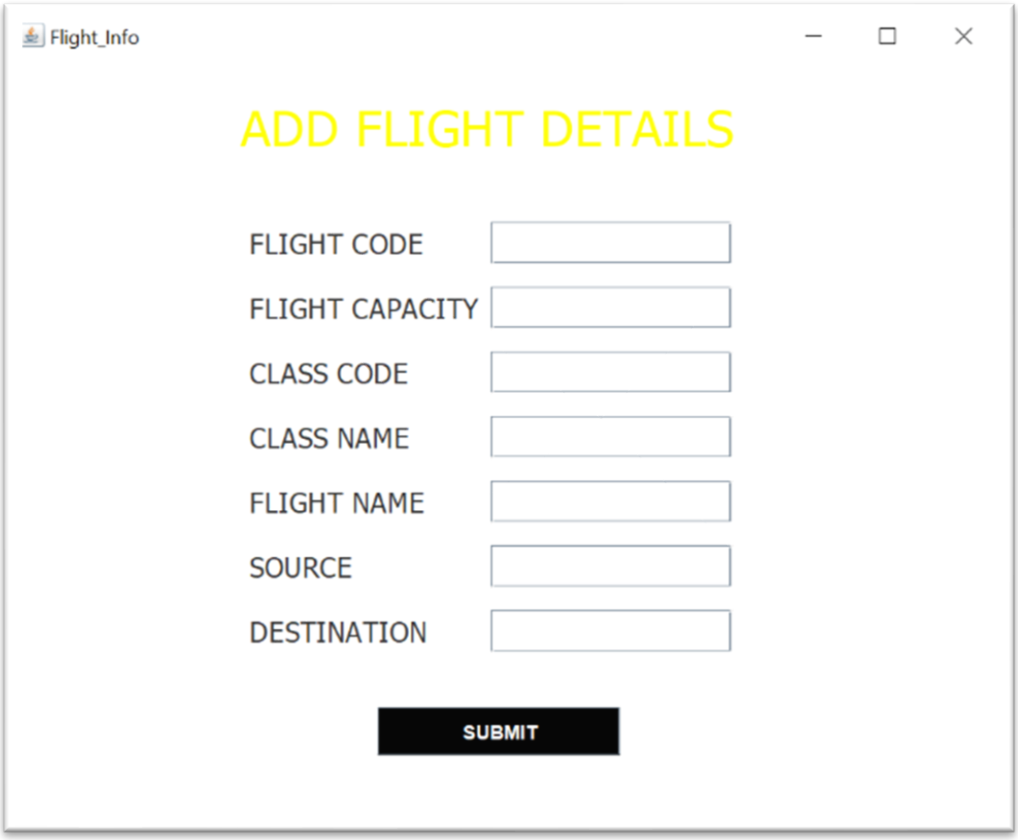
PAYMENT DETAILS MENU ITEMS

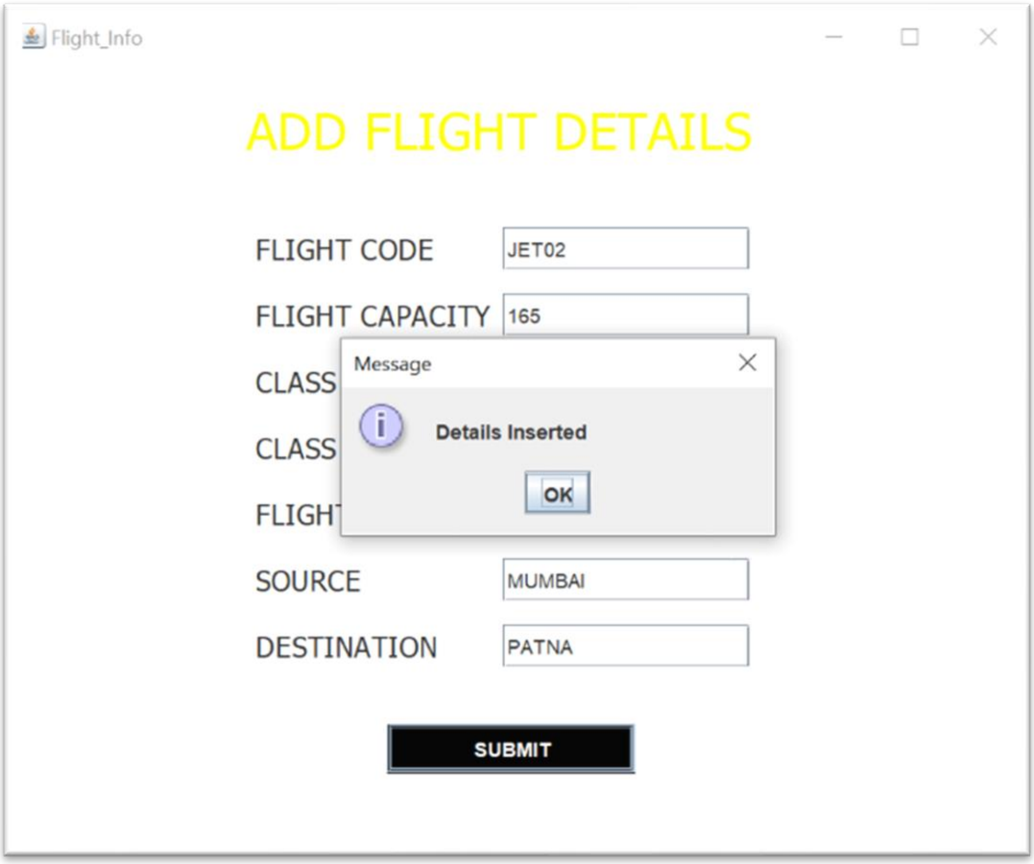


RESERVATION DETAILS MENU ITEMS



INSERTING FLIGHT DETAILS





FLIGHT CODE JET02

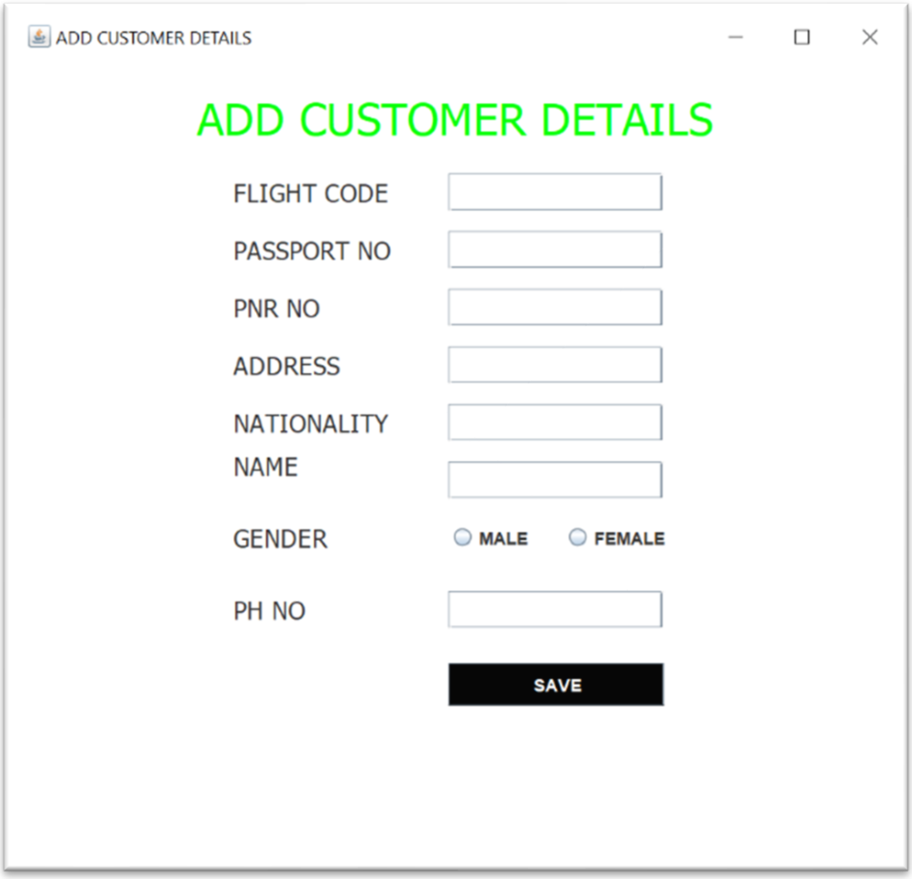
FLIGHT CAPACITY 165

SOURCE MUMBAI

DESTINATION PATNA

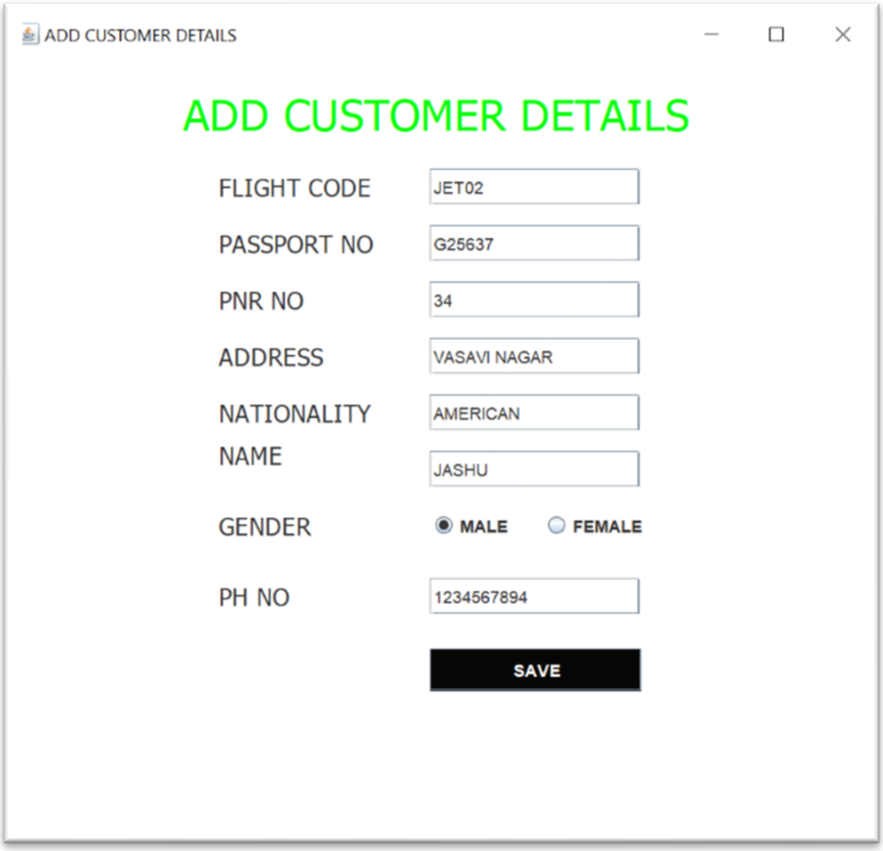
Details Inserted

INSERTING PASSENGER DETAILS



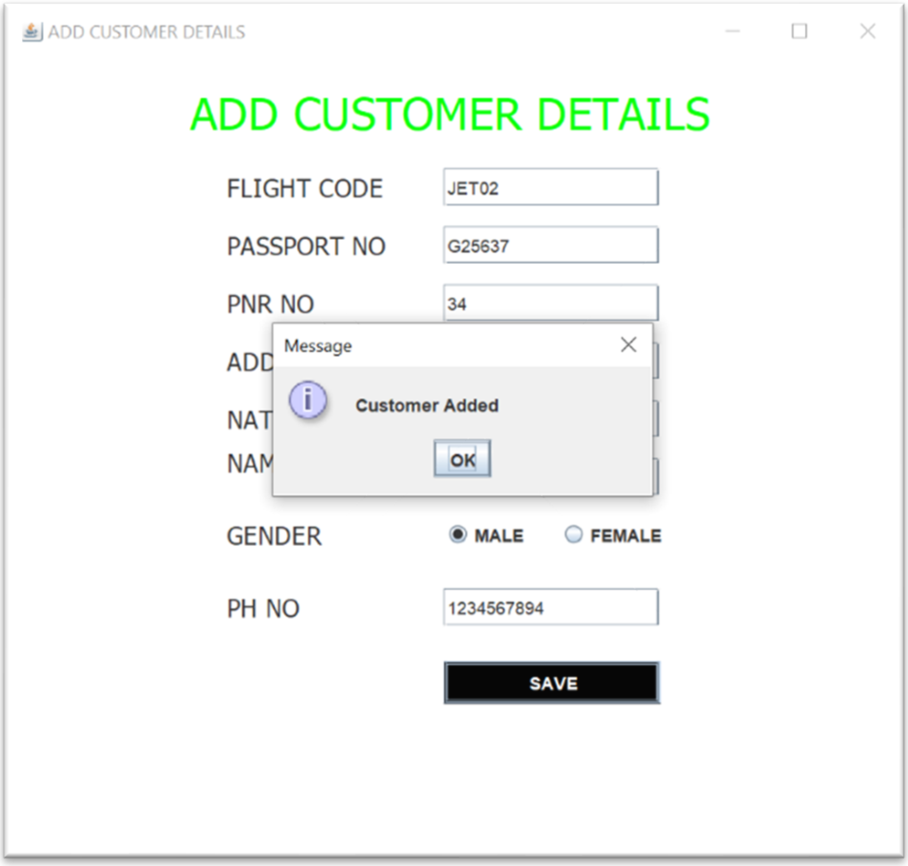
ADD CUSTOMER DETAILS

FLIGHT CODE	
PASSPORT NO	
PNR NO	
ADDRESS	
NATIONALITY	
NAME	
GENDER	○ MALE ○ FEMALE
PH NO	



ADD CUSTOMER DETAILS

FLIGHT CODE	JET02
PASSPORT NO	G25637
PNR NO	34
ADDRESS	VASAVI NAGAR
NATIONALITY	AMERICAN
NAME	JASHU
GENDER	● MALE ○ FEMALE
PH NO	1234567894



ADD CUSTOMER DETAILS

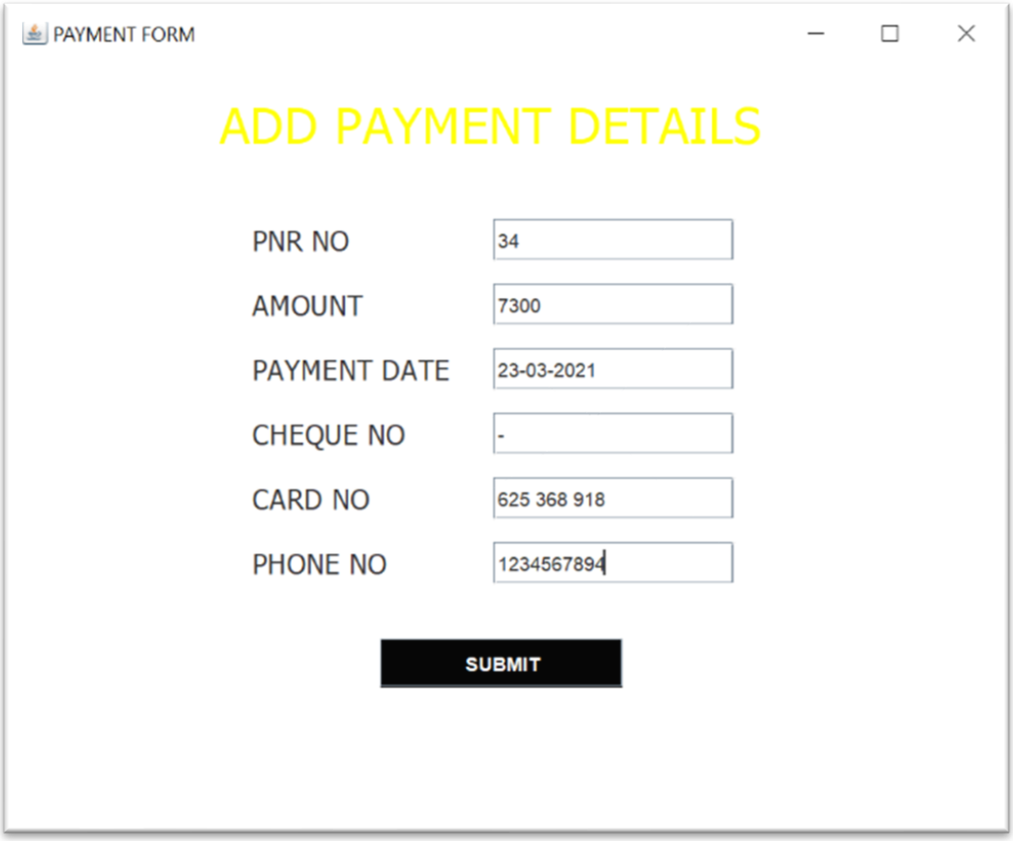
ADD CUSTOMER DETAILS

FLIGHT CODE	JET02
PASSPORT NO	G25637
PNR NO	34
ADD	
NAT	
NAM	
GENDER	● MALE ○ FEMALE
PH NO	1234567894

Message

Customer Added

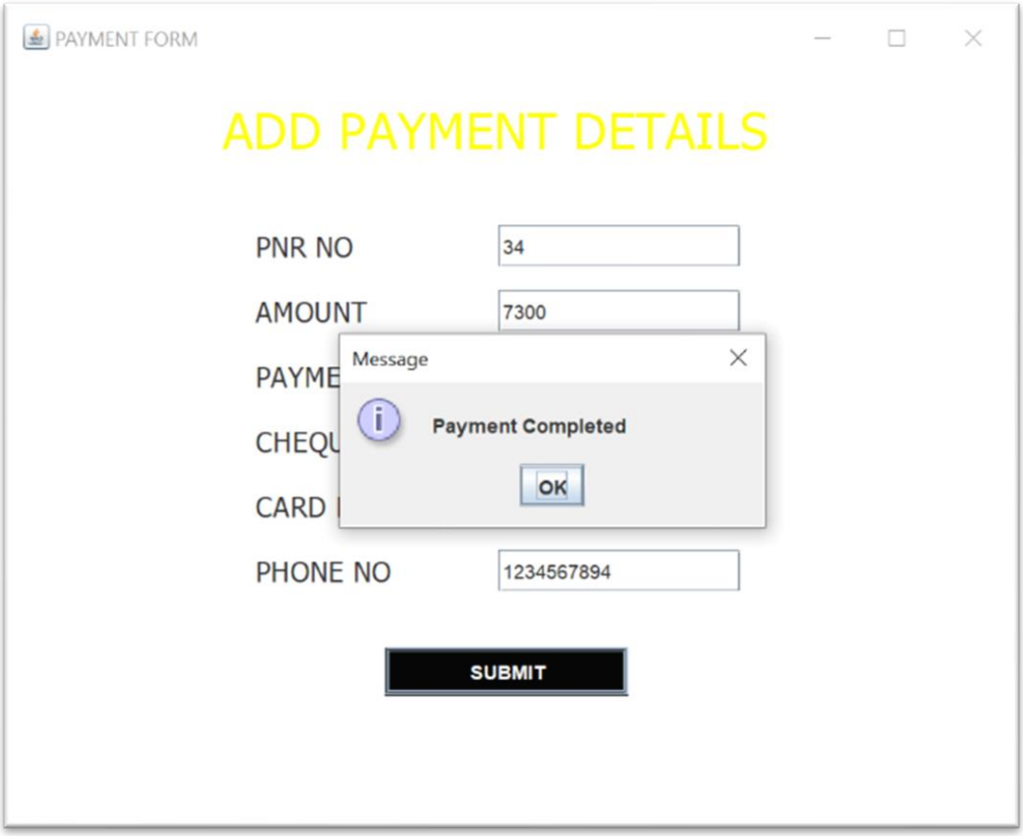
INSERTING PAYMENT DETAILS



PAYMENT FORM

ADD PAYMENT DETAILS

PNR NO	34
AMOUNT	7300
PAYMENT DATE	23-03-2021
CHEQUE NO	-
CARD NO	625 368 918
PHONE NO	1234567894



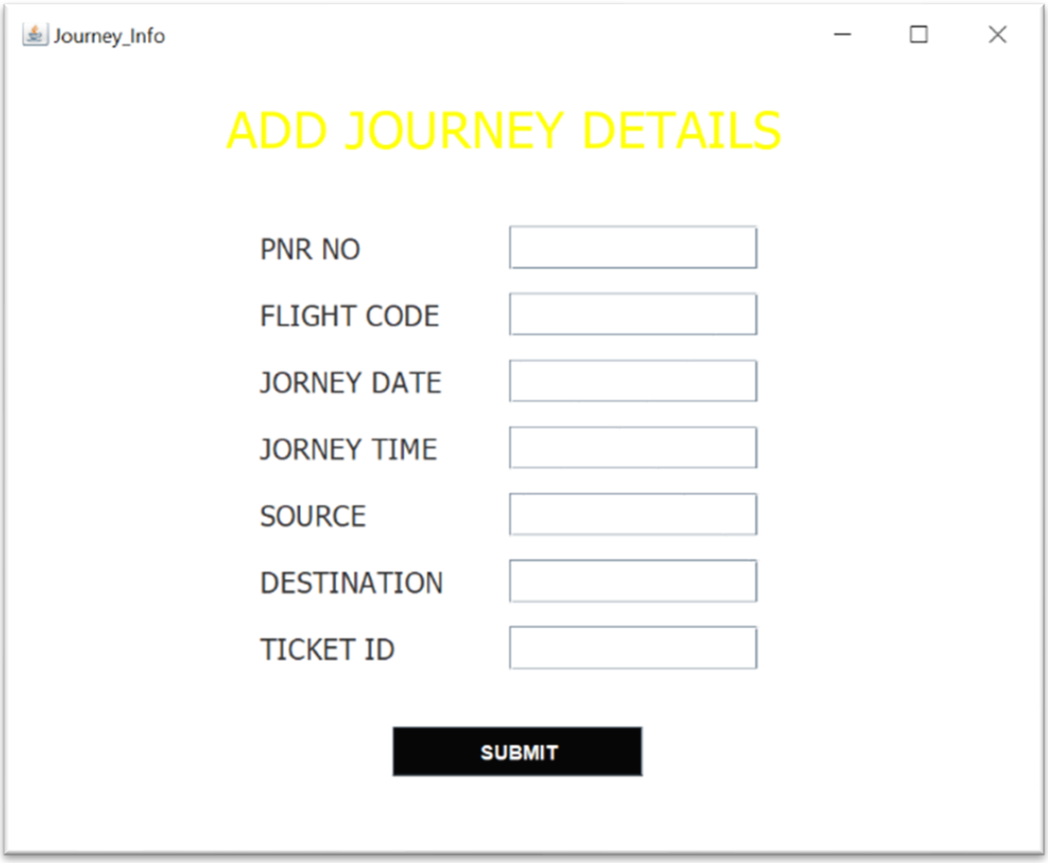
PNR NO 34

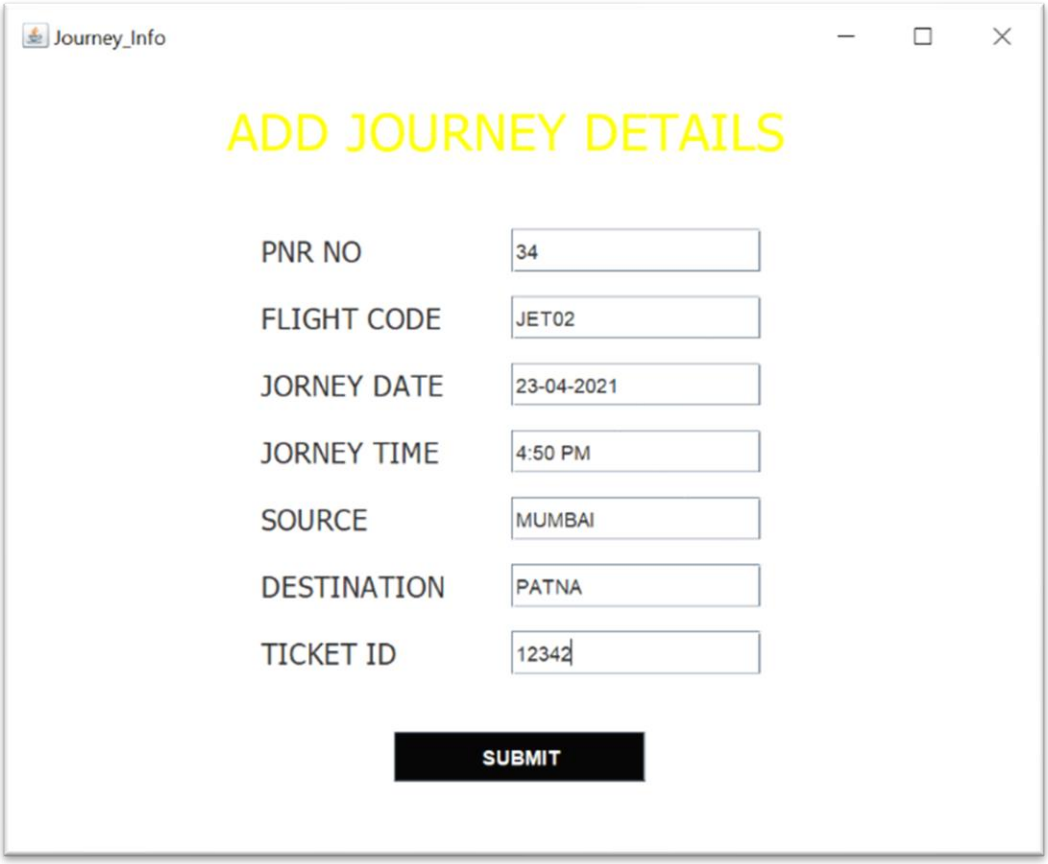
AMOUNT 7300

PHONE NO 1234567894

Payment Completed

INSERTING JOURNEY DETAILS





ADD JOURNEY DETAILS

PNR NO 34

FLIGHT CODE JET02

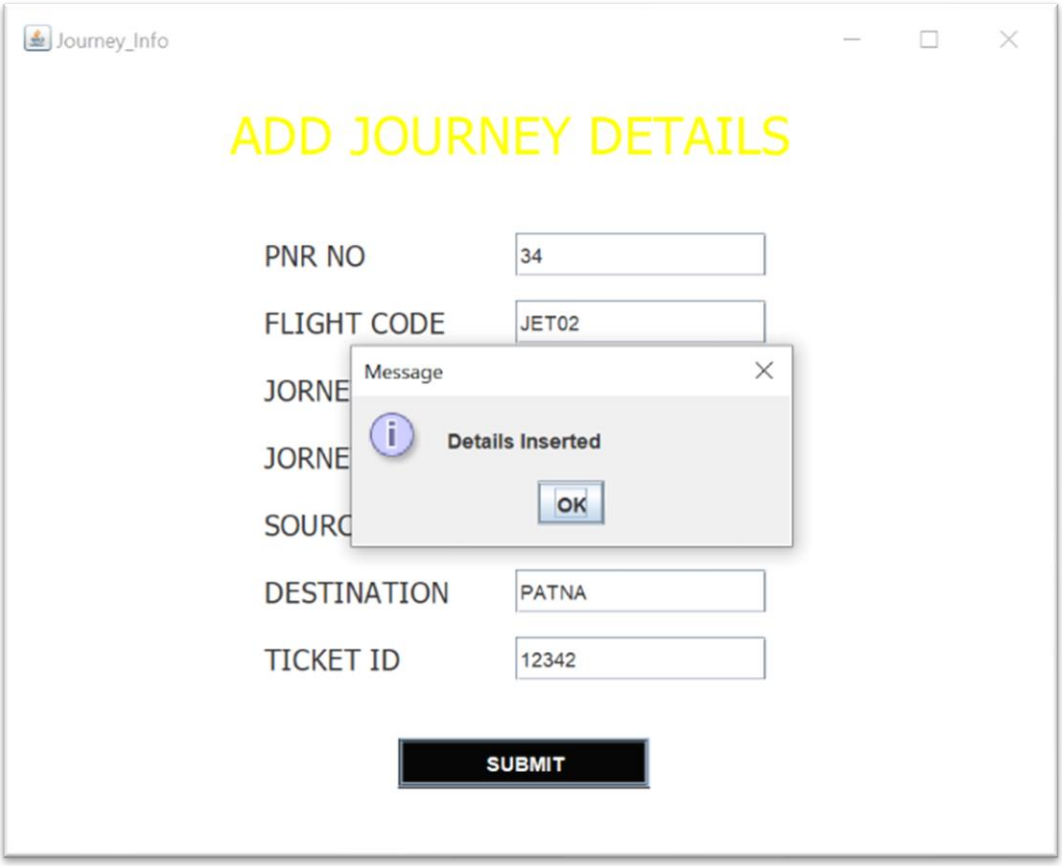
JORNEY DATE 23-04-2021

JORNEY TIME 4:50 PM

SOURCE MUMBAI

DESTINATION PATNA

TICKET ID 12342



ADD JOURNEY DETAILS

PNR NO 34

FLIGHT CODE JET02

JORNE

JORNE

SOURC

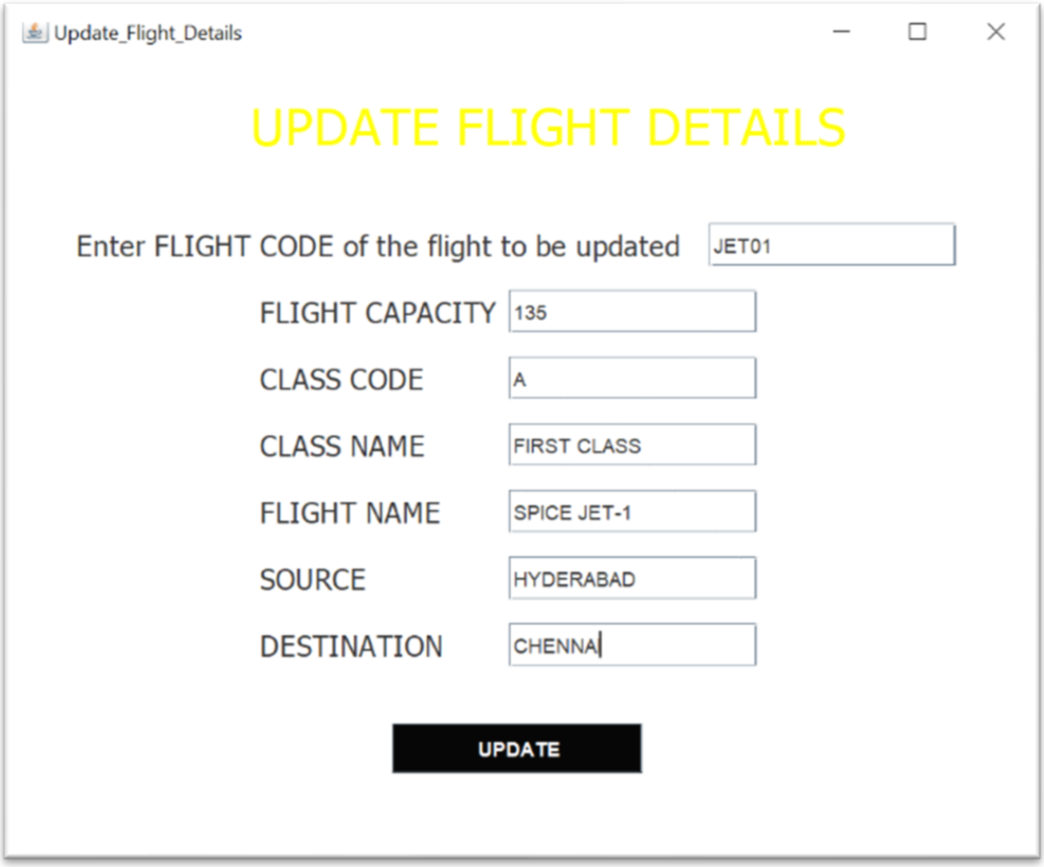
DESTINATION PATNA

TICKET ID 12342

Message

Details Inserted

UPDATING PAYMENT DETAILS


Update_Flight_Details

UPDATE FLIGHT DETAILS

Enter FLIGHT CODE of the flight to be updated: JET01

FLIGHT CAPACITY: 135

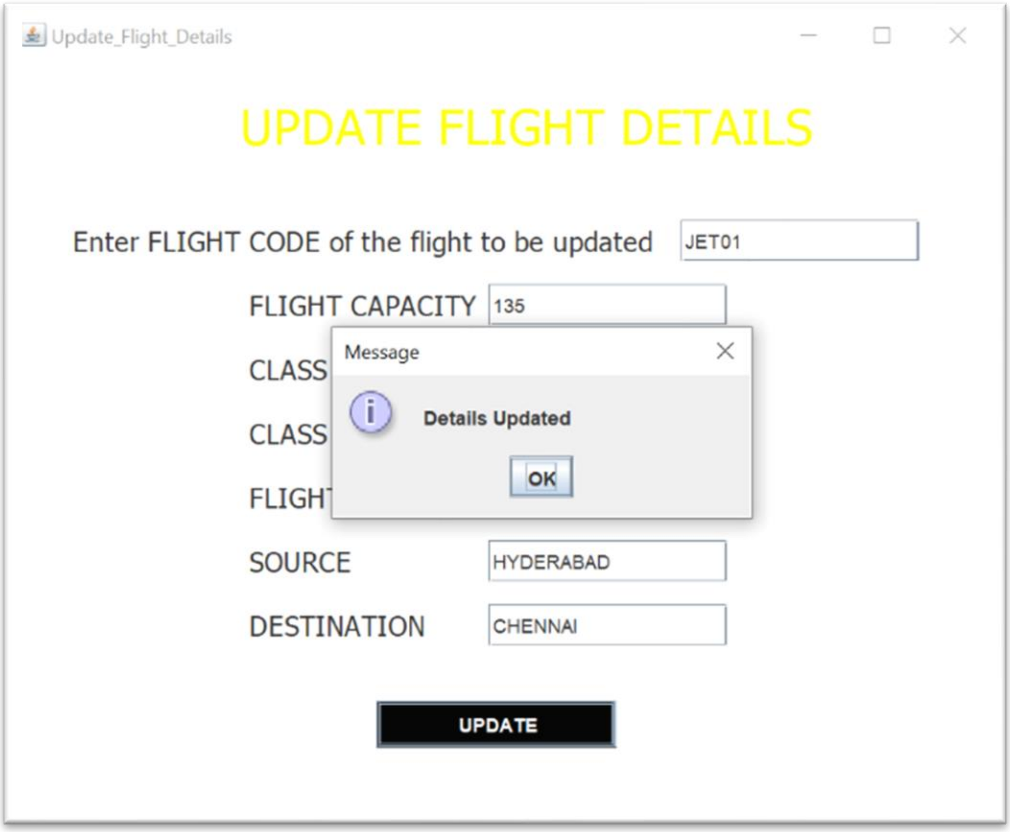
CLASS CODE: A

CLASS NAME: FIRST CLASS

FLIGHT NAME: SPICE JET-1

SOURCE: HYDERABAD

DESTINATION: CHENNAI


Update_Flight_Details

UPDATE FLIGHT DETAILS

Enter FLIGHT CODE of the flight to be updated: JET01

FLIGHT CAPACITY: 135

CLASS

CLASS

FLIGHT

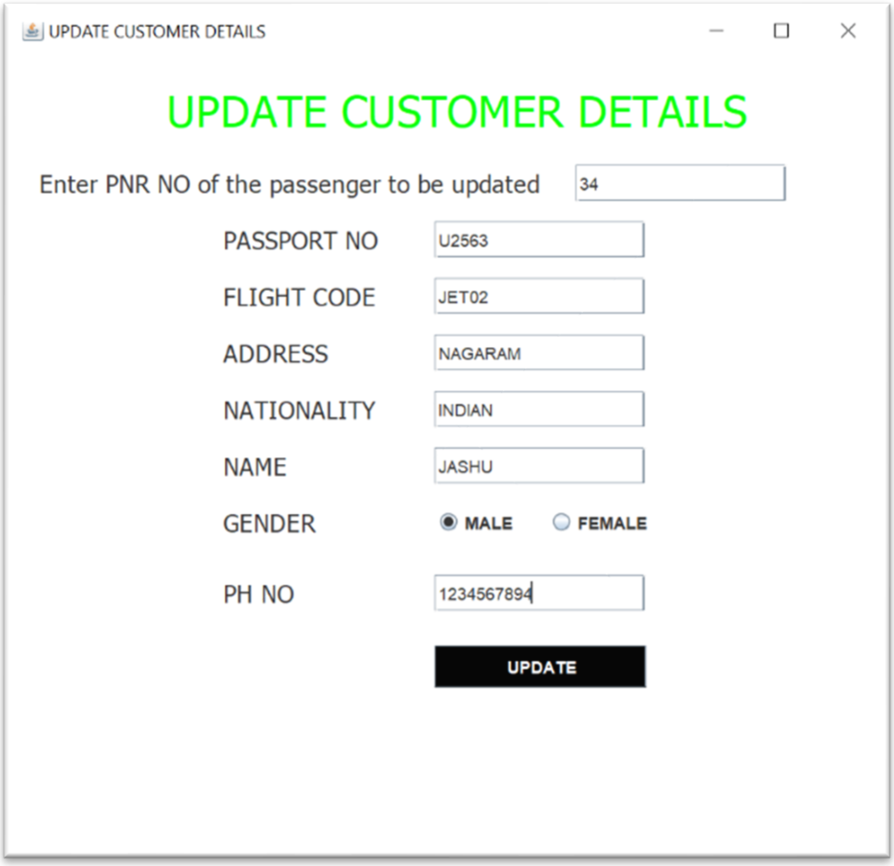
SOURCE: HYDERABAD

DESTINATION: CHENNAI

Message

Details Updated

UPDATING PASSENGER DETAILS



UPDATE CUSTOMER DETAILS

Enter PNR NO of the passenger to be updated: 34

PASSPORT NO: U2563

FLIGHT CODE: JET02

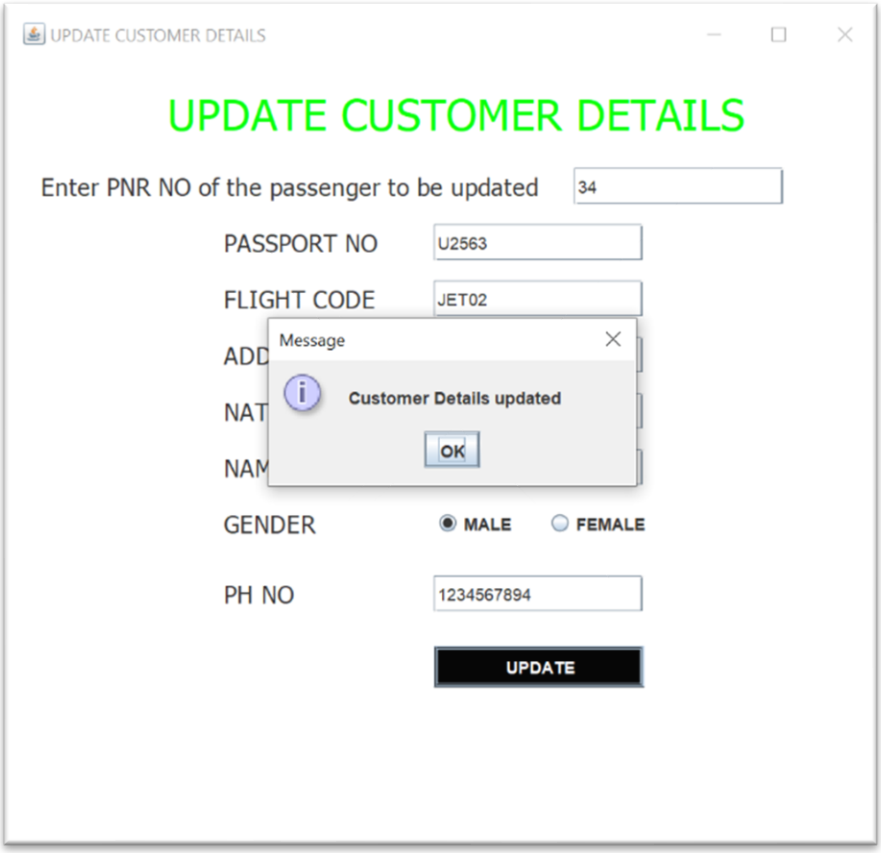
ADDRESS: NAGARAM

NATIONALITY: INDIAN

NAME: JASHU

GENDER: ● MALE ○ FEMALE

PH NO: 1234567894



UPDATE CUSTOMER DETAILS

Enter PNR NO of the passenger to be updated: 34

PASSPORT NO: U2563

FLIGHT CODE: JET02

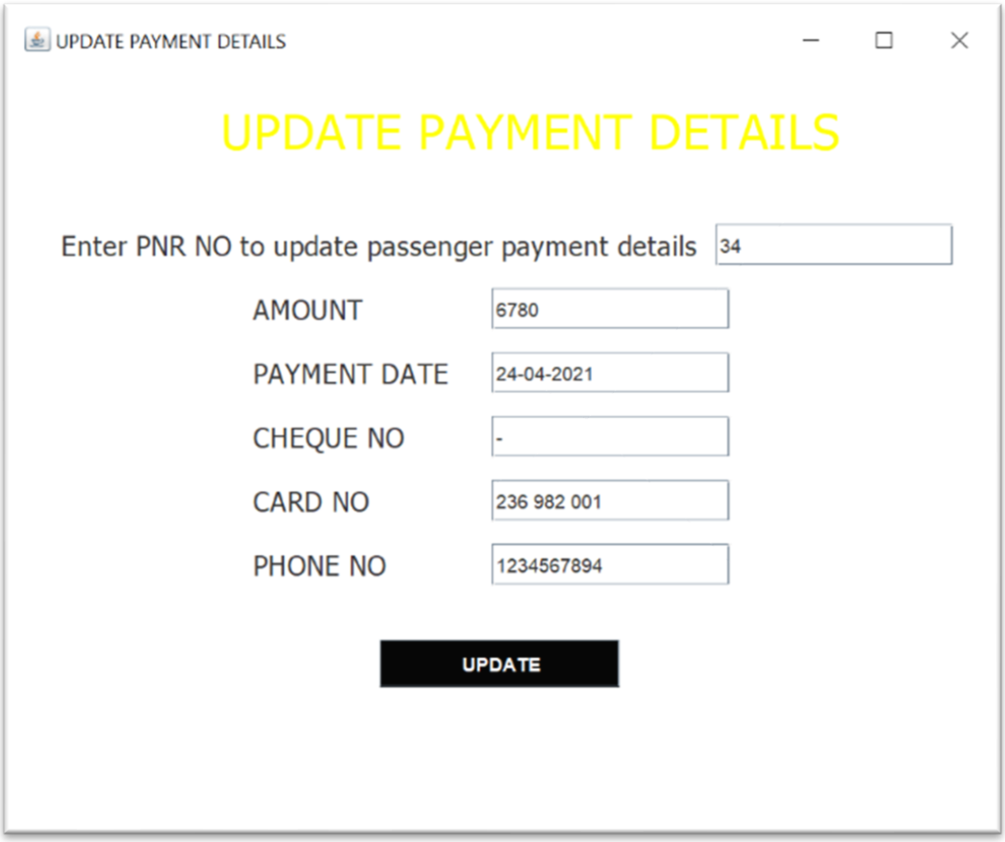
Message

Customer Details updated

GENDER: ● MALE ○ FEMALE

PH NO: 1234567894

UPDATING PAYMENT DETAILS



UPDATE PAYMENT DETAILS

UPDATE PAYMENT DETAILS

Enter PNR NO to update passenger payment details: 34

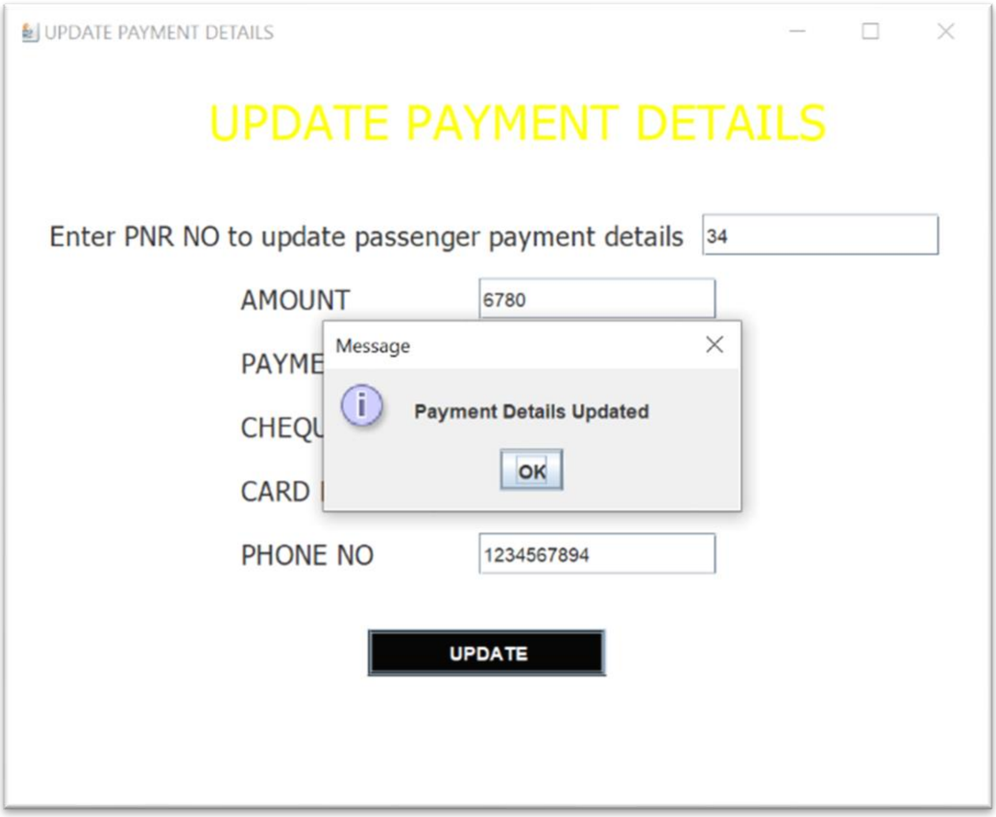
AMOUNT: 6780

PAYMENT DATE: 24-04-2021

CHEQUE NO: -

CARD NO: 236 982 001

PHONE NO: 1234567894



UPDATE PAYMENT DETAILS

UPDATE PAYMENT DETAILS

Enter PNR NO to update passenger payment details: 34

AMOUNT: 6780

PAYME

CHEQU

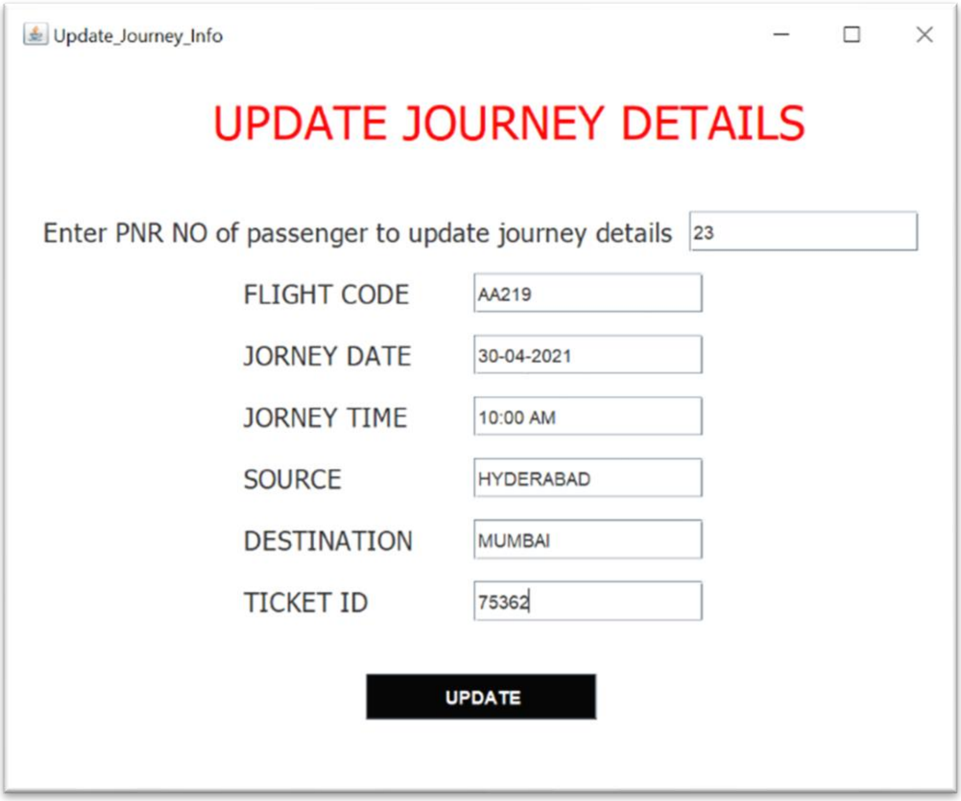
CARD

PHONE NO: 1234567894

Message

Payment Details Updated

UPDATING JOURNEY DETAILS



UPDATE JOURNEY DETAILS

Enter PNR NO of passenger to update journey details: 23

FLIGHT CODE: AA219

JORNEY DATE: 30-04-2021

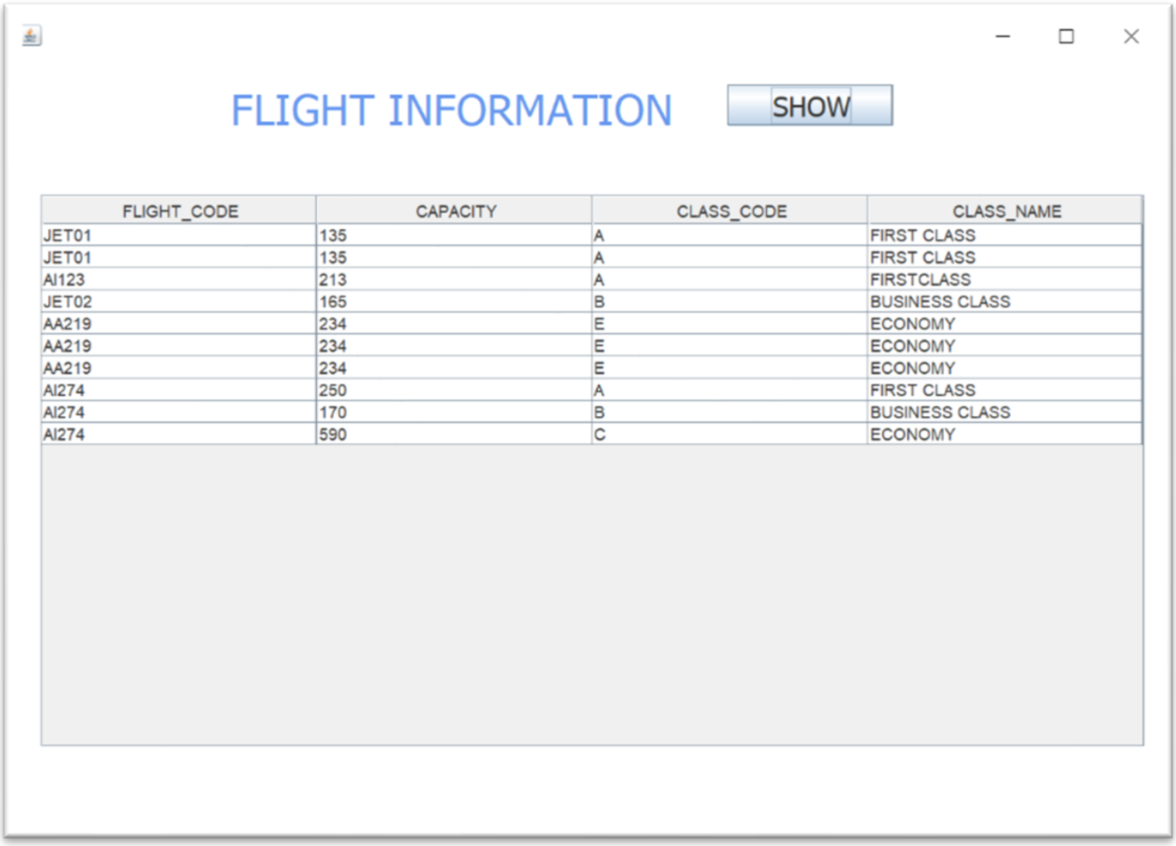
JORNEY TIME: 10:00 AM

SOURCE: HYDERABAD

DESTINATION: MUMBAI

TICKET ID: 75362

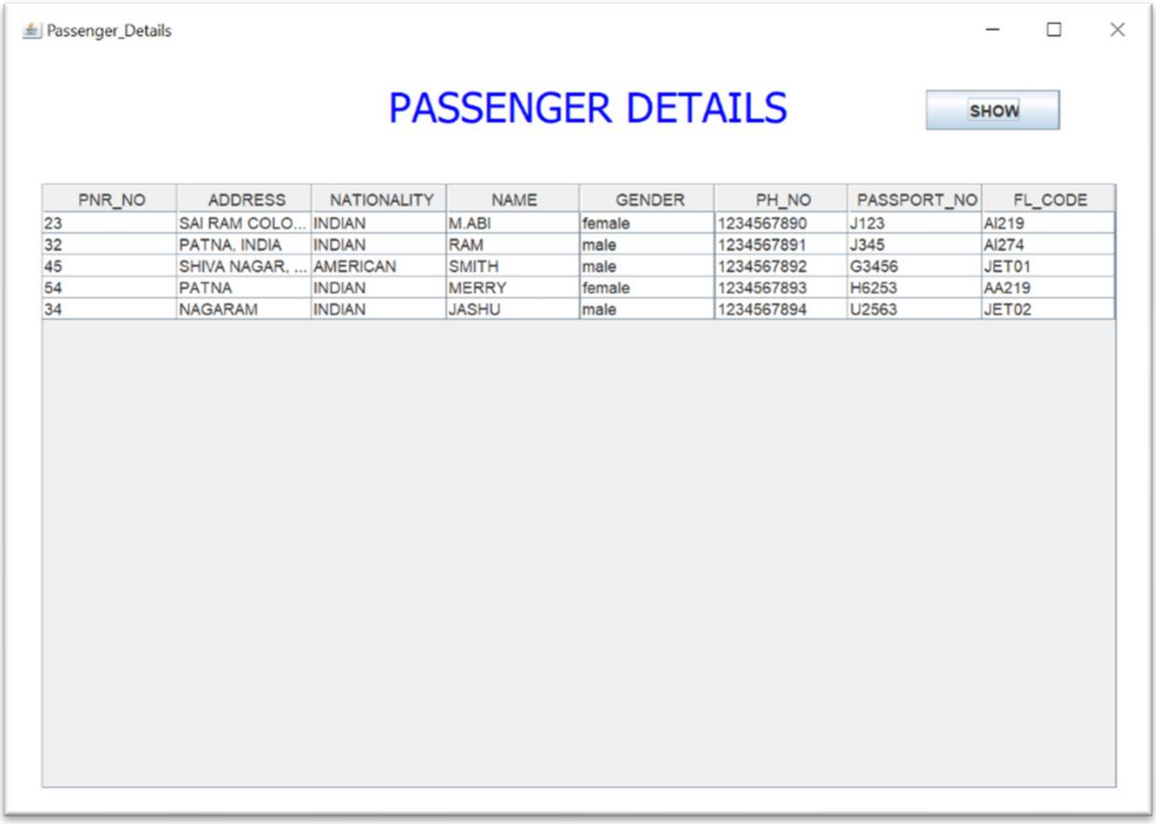
VIEW FLIGHT DETAILS



FLIGHT INFORMATION

FLIGHT_CODE	CAPACITY	CLASS_CODE	CLASS_NAME
JET01	135	A	FIRST CLASS
JET01	135	A	FIRST CLASS
AI123	213	A	FIRSTCLASS
JET02	165	B	BUSINESS CLASS
AA219	234	E	ECONOMY
AA219	234	E	ECONOMY
AA219	234	E	ECONOMY
AI274	250	A	FIRST CLASS
AI274	170	B	BUSINESS CLASS
AI274	590	C	ECONOMY

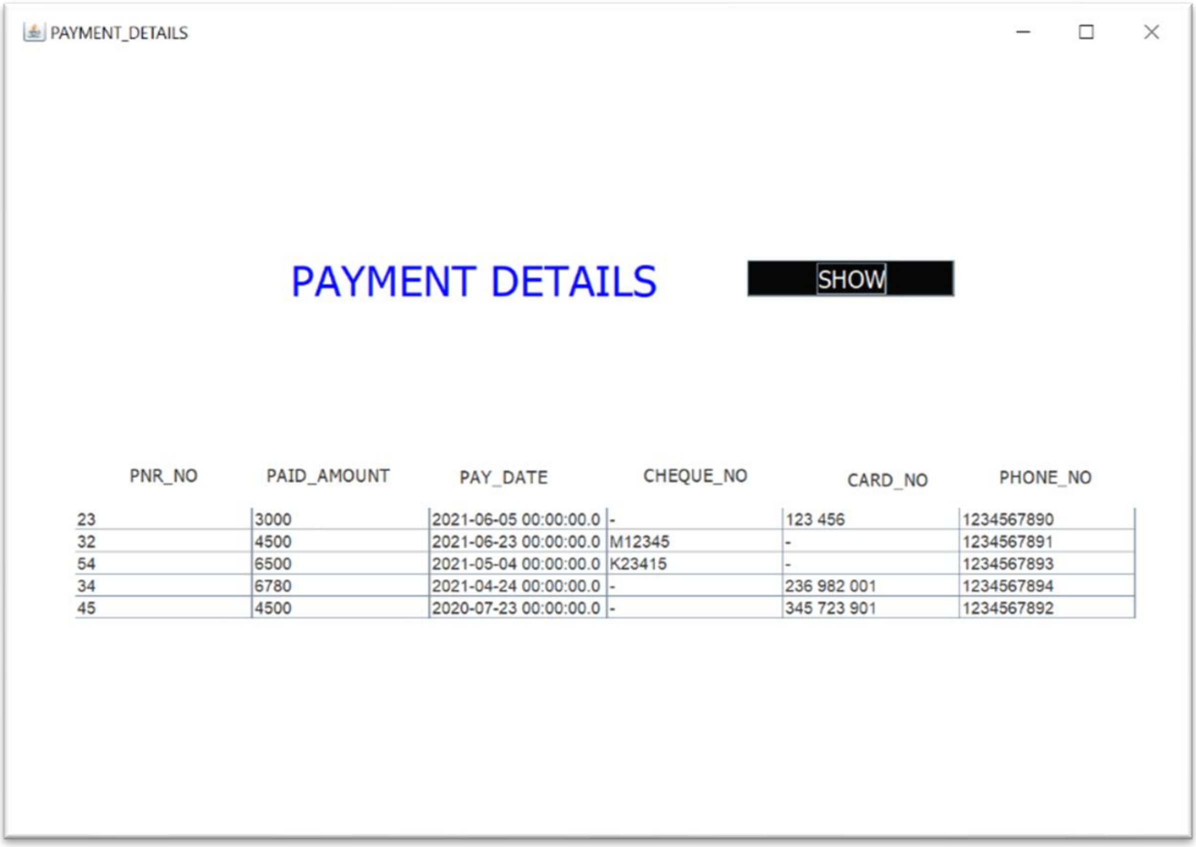
VIEW PASSENGER DETAILS



PASSENGER DETAILS

PNR_NO	ADDRESS	NATIONALITY	NAME	GENDER	PH_NO	PASSPORT_NO	FL_CODE
23	SAI RAM COLO...	INDIAN	M.ABI	female	1234567890	J123	AI219
32	PATNA, INDIA	INDIAN	RAM	male	1234567891	J345	AI274
45	SHIVA NAGAR, ...	AMERICAN	SMITH	male	1234567892	G3456	JET01
54	PATNA	INDIAN	MERRY	female	1234567893	H6253	AA219
34	NAGARAM	INDIAN	JASHU	male	1234567894	U2563	JET02

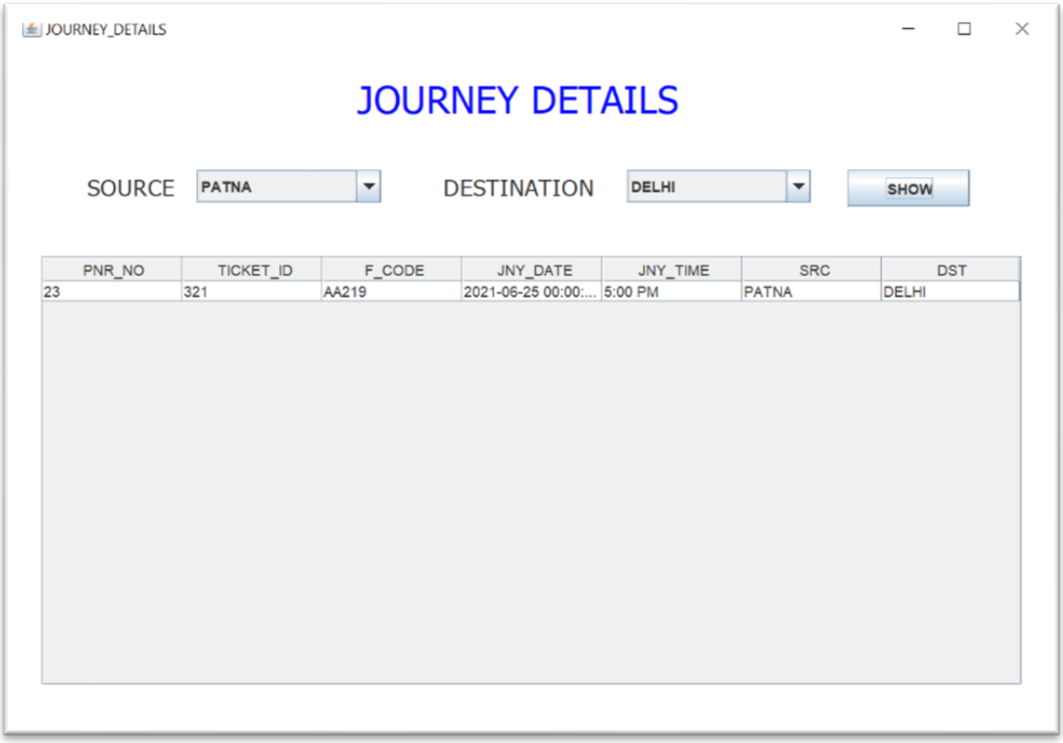
VIEW PAYMENT DETAILS



PAYMENT DETAILS

PNR_NO	PAID_AMOUNT	PAY_DATE	CHEQUE_NO	CARD_NO	PHONE_NO
23	3000	2021-06-05 00:00:00.0	-	123 456	1234567890
32	4500	2021-06-23 00:00:00.0	M12345	-	1234567891
54	6500	2021-05-04 00:00:00.0	K23415	-	1234567893
34	6780	2021-04-24 00:00:00.0	-	236 982 001	1234567894
45	4500	2020-07-23 00:00:00.0	-	345 723 901	1234567892

VIEW JOURNEY DETAILS



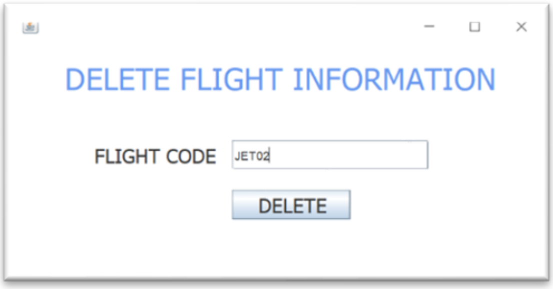
JOURNEY DETAILS

SOURCE: PATNA

DESTINATION: DELHI

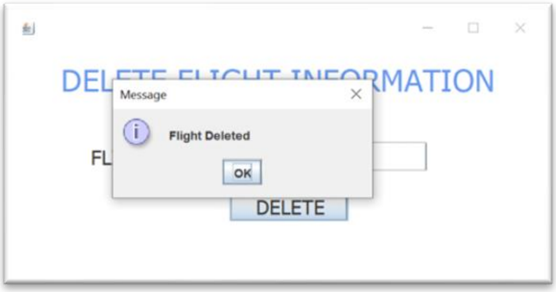
PNR_NO	TICKET_ID	F_CODE	JNY_DATE	JNY_TIME	SRC	DST
23	321	AA219	2021-06-25 00:00:...	5:00 PM	PATNA	DELHI

DELETE OPERATION

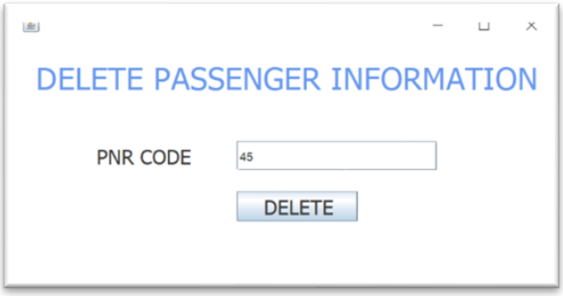


DELETE FLIGHT INFORMATION

FLIGHT CODE: JET02

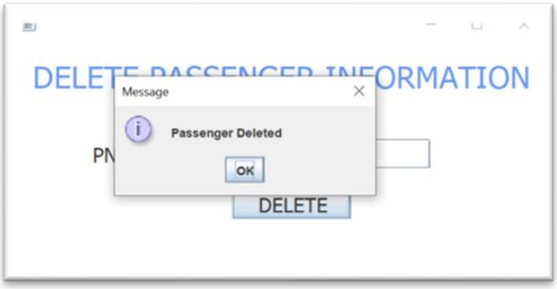


Flight Deleted

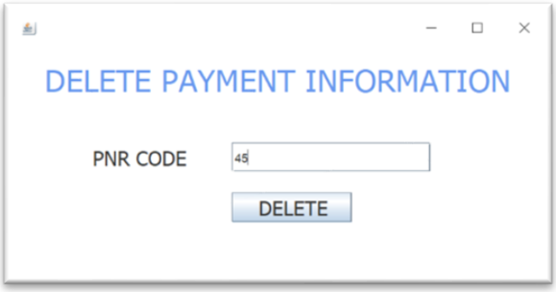


DELETE PASSENGER INFORMATION

PNR CODE: 45

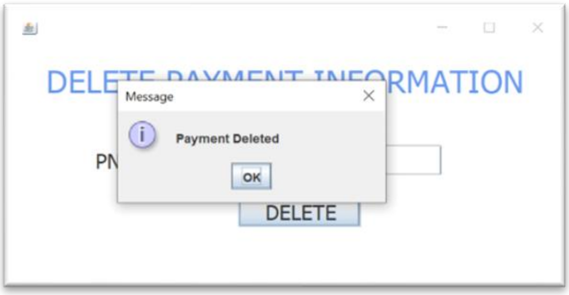


Passenger Deleted



DELETE PAYMENT INFORMATION

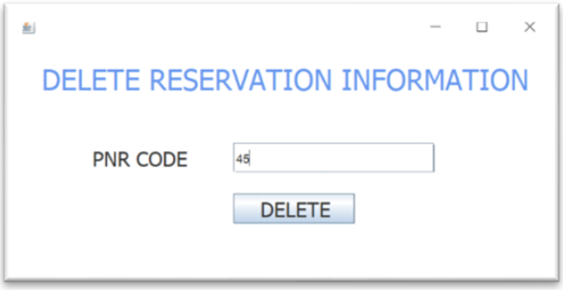
PNR CODE 45



DELETE PAYMENT INFORMATION

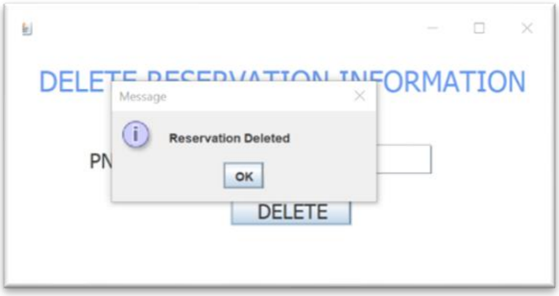
Message

Payment Deleted



DELETE RESERVATION INFORMATION

PNR CODE 45



DELETE RESERVATION INFORMATION

Message

Reservation Deleted

DISCUSSION AND FUTURE WORK

This project on Airline Management System is the automation of registration process of airline system. The system is able to provide much information like passenger's details, flight details and the booking details. The system allows us to add records when a passenger reserves a ticket. It also allows to delete and update the records based on passenger's requirements. This project has guided our path through various aspects of computer science where developing online application plays a major role.

In future the most probable aspects would be including more tables like the airlines expenditure, employee details etc. Lastly, there could be a room for including advanced software and other technologies that could make the project more purposeful and better for future use.

REFERENCES

https://www.oracle.com/in/database/technologies/jdbc-migration.html

https://www.youtube.com/watch?v=ea0HhETxOIs&t=1359s

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