
THE HYDRUS AIRLINES

Fasten your seat belts for a journey you have never been before..!

ABOUT

Airlines Management System

- The project “Airline Management System” comprises of a large number of flights which belong to a particular airline. The system we have implemented manages different objects viz.
 - Airline
 - Customers/Traveller
 - Ticket
- It is a window ticket generator system.
- You can search, book and cancel tickets easily.

➤ Package Used

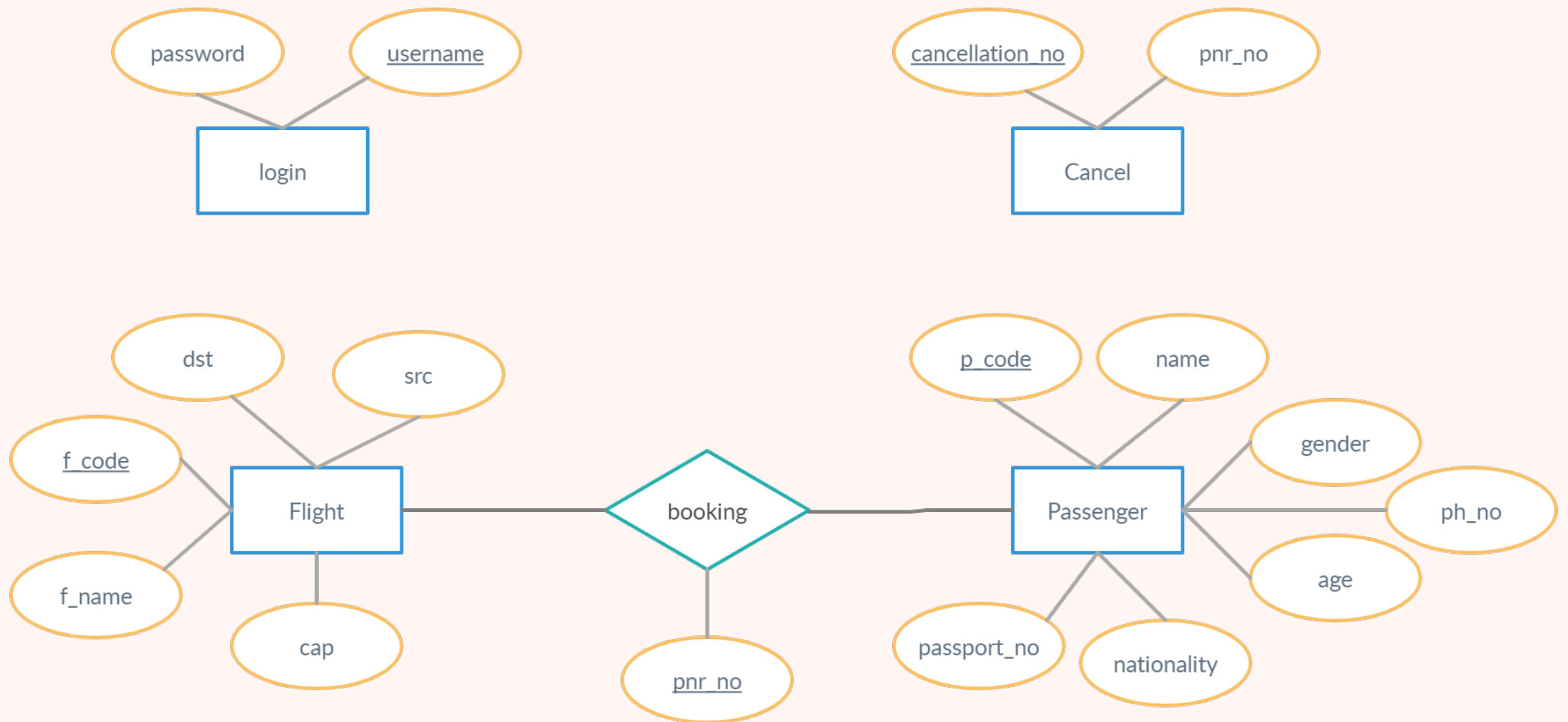
- javax.swing
- java.sql.ResultSet
- java.awt
- java.awt.event
- java.awt.image

➤ JFrame Class Objects

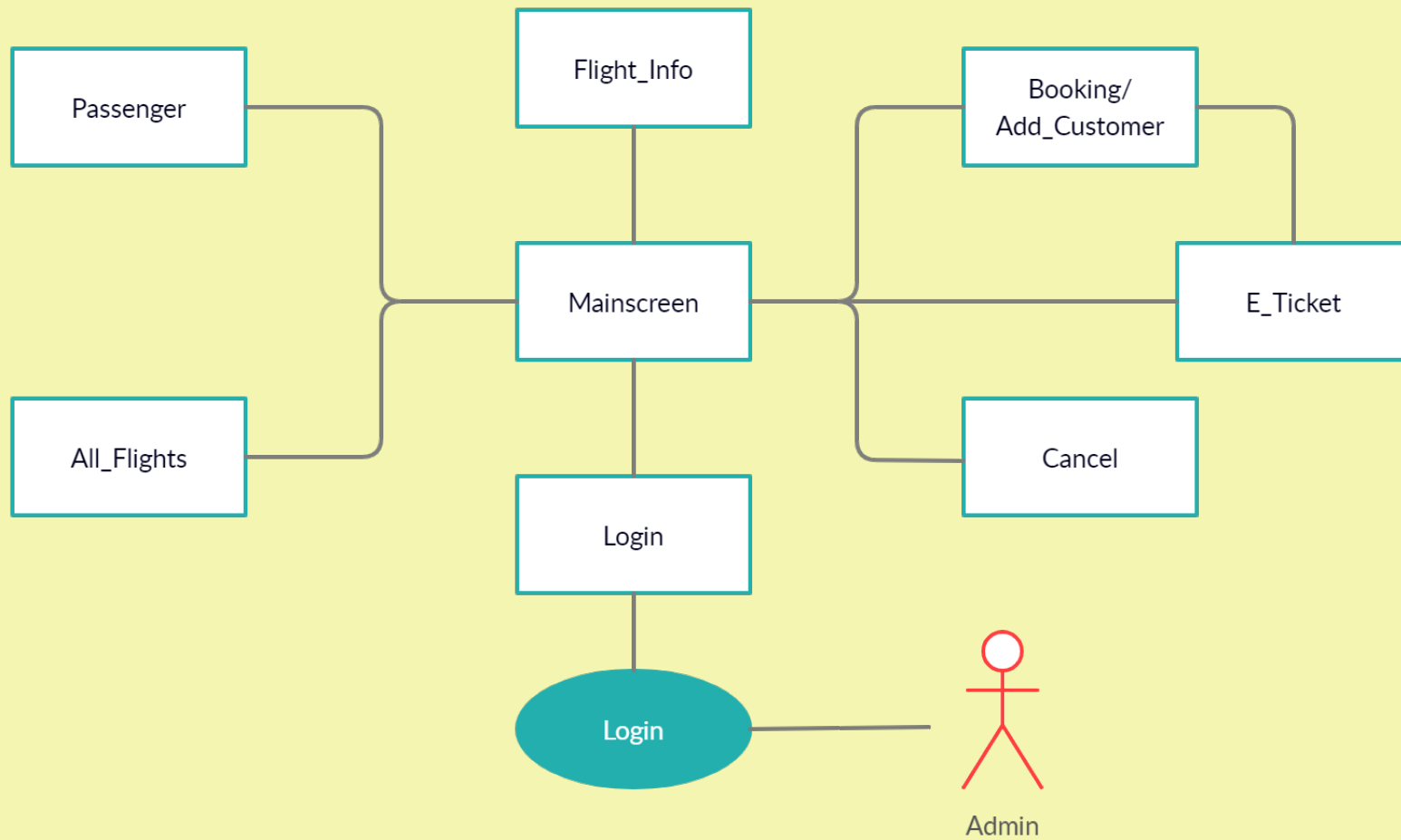
- JMenuBar
- JMenu
- JLabel
- JMenuItem
- JTextField

All the classes are present in package **`airline.reservation.system`**

ER - DIAGRAM



CLASSES & RELATIONS



CODE SNIPPETS


```
package airline.reservation.system;

import java.sql.*;

public class Connect_to_MySql
{
    Connection C;
    Statement S;
    Connect_to_MySql()
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            C = DriverManager.getConnection("jdbc:mysql://127.0.0.1:3306/airline_database?");
            S = C.createStatement();
        }
        catch (Exception e)
        {
            System.out.println(e);
        }
    }
}
```

```

try
{
    Connect_to_MySql C1 = new Connect_to_MySql();

    String str = "INSERT INTO passenger (passport_no , name , gender , age , nationality , ph_no) VALUES (
C1.S.executeUpdate(str);

    str = "SELECT p_code FROM passenger where passport_no = '"+passport+"' and name = '"+name+"'";
    ResultSet rs = C1.S.executeQuery(str);

    rs.next();

    int p_code = rs.getInt("p_code");
    str = "INSERT INTO booking (f_code , p_code) VALUES ('"+fl_code+"', '"+p_code+"')";

    C1.S.executeUpdate(str);
    str = "SELECT pnr_no FROM booking where f_code = '"+fl_code+"' and p_code = '"+p_code+"'";
    ResultSet rs1 = C1.S.executeQuery(str);

    rs1.next();

    PNR = rs1.getInt("pnr_no");
}
catch(Exception e)
{
    System.out.println(e);
}

finally
{
    JOptionPane.showMessageDialog(null , "INSERTION DONE");
    setVisible(false);
    new E_Ticket(PNR);
}

```

```
try
{
    String pnr = tf1.getText();
    int s = Integer.parseInt(pnr);

    Connect_to_MySql C1 = new Connect_to_MySql();

    String str = "INSERT INTO cancel (pnr_no) VALUES ('" + pnr + "')";
    C1.S.executeUpdate(str);

    str = "DELETE FROM booking WHERE pnr_no = '" + pnr + "'";
    C1.S.executeUpdate(str);
}

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

DATABASE SNIPPETS

```
mysql> show tables;
+-----+
| Tables_in_airline_database |
+-----+
| booking                    |
| cancel                     |
| flight                     |
| login                       |
| passenger                   |
+-----+
5 rows in set (0.00 sec)
```

```
mysql> describe login;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| username   | varchar(20)   | NO   | PRI | NULL    |       |
| password   | varchar(20)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

```
mysql> describe passenger;
```

Field	Type	Null	Key	Default	Extra
p_code	int	NO	PRI	NULL	auto_increment
nationality	varchar(15)	YES		NULL	
name	varchar(20)	YES		NULL	
age	varchar(3)	YES		NULL	
gender	varchar(10)	YES		NULL	
ph_no	varchar(15)	YES		NULL	
passport_no	varchar(20)	YES		NULL	

```
7 rows in set (0.00 sec)
```

```
mysql> describe flight;
```

Field	Type	Null	Key	Default	Extra
f_code	varchar(10)	NO	PRI	NULL	
f_name	varchar(20)	YES		NULL	
src	varchar(30)	YES		NULL	
dst	varchar(30)	YES		NULL	
cap	int	YES		NULL	

```
5 rows in set (0.01 sec)
```

```
mysql> describe booking;
```

Field	Type	Null	Key	Default	Extra
pnr_no	int	NO	PRI	NULL	auto_increment
f_code	varchar(10)	YES	MUL	NULL	
p_code	int	YES	MUL	NULL	

```
3 rows in set (0.00 sec)
```

```
mysql> describe cancel;
```

Field	Type	Null	Key	Default	Extra
pnr_no	int	YES	MUL	NULL	
cancellation_no	int	NO	PRI	NULL	auto_increment

```
2 rows in set (0.00 sec)
```

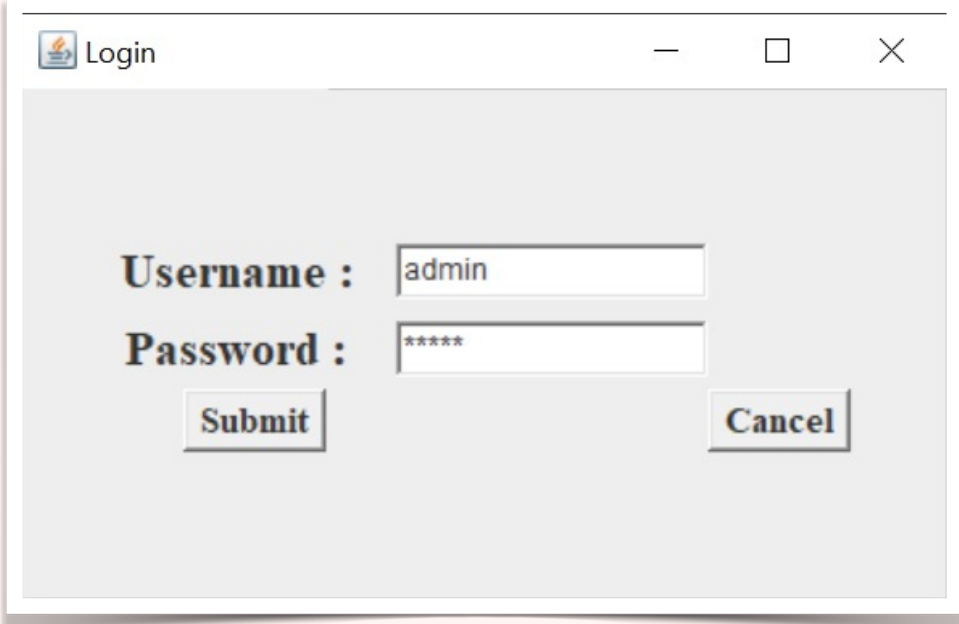
```
mysql> select * from login;
+-----+-----+
| username | password |
+-----+-----+
| admin    | hello    |
+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from flight;
+-----+-----+-----+-----+-----+
| f_code | f_name      | src      | dst      | cap |
+-----+-----+-----+-----+-----+
| JA9011 | Jet Airways | Mumbai   | Delhi     | 900 |
| JA9012 | Jet Airways | Mumbai   | Jaipur    | 600 |
| JA9013 | Jet Airways | Mumbai   | Lucknow   | 200 |
| JA9014 | Jet Airways | Delhi     | Mumbai    | 900 |
| JA9015 | Jet Airways | Delhi     | Lucknow   | 950 |
| JA9016 | Jet Airways | Delhi     | Jaipur    | 550 |
| JA9017 | Jet Airways | Jaipur    | Delhi     | 500 |
| JA9018 | Jet Airways | Jaipur    | Mumbai    | 100 |
| JA9019 | Jet Airways | Jaipur    | Lucknow   | 800 |
| JA9020 | Jet Airways | Lucknow   | Mumbai    | 550 |
| JA9021 | Jet Airways | Lucknow   | Delhi     | 900 |
| JA9022 | Jet Airways | Lucknow   | Jaipur    | 660 |
+-----+-----+-----+-----+-----+
12 rows in set (0.00 sec)
```

WORKING SNIPPETS

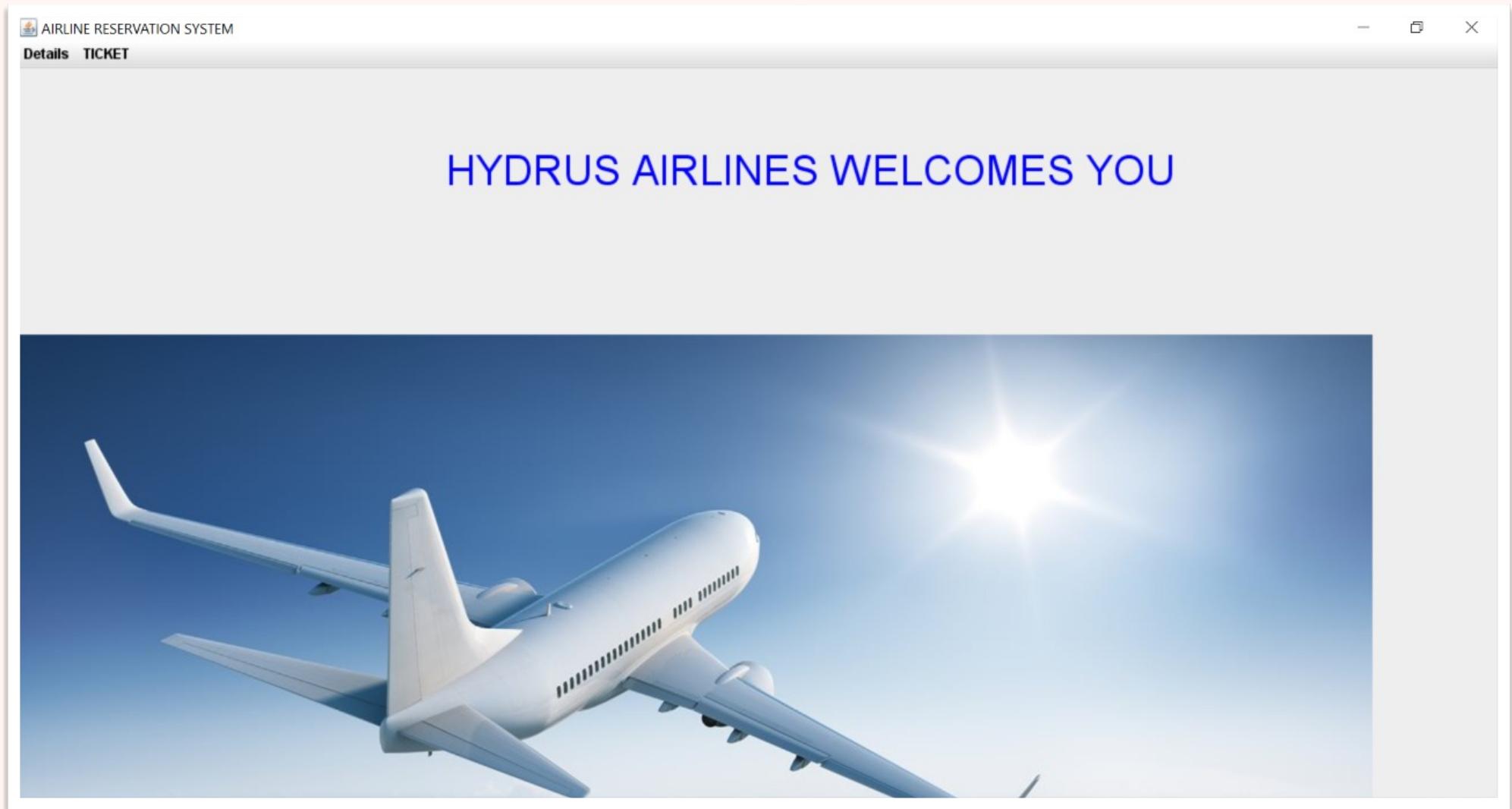
LOGIN

- This page authenticates the user using the details entered by him/her and also checks with database.

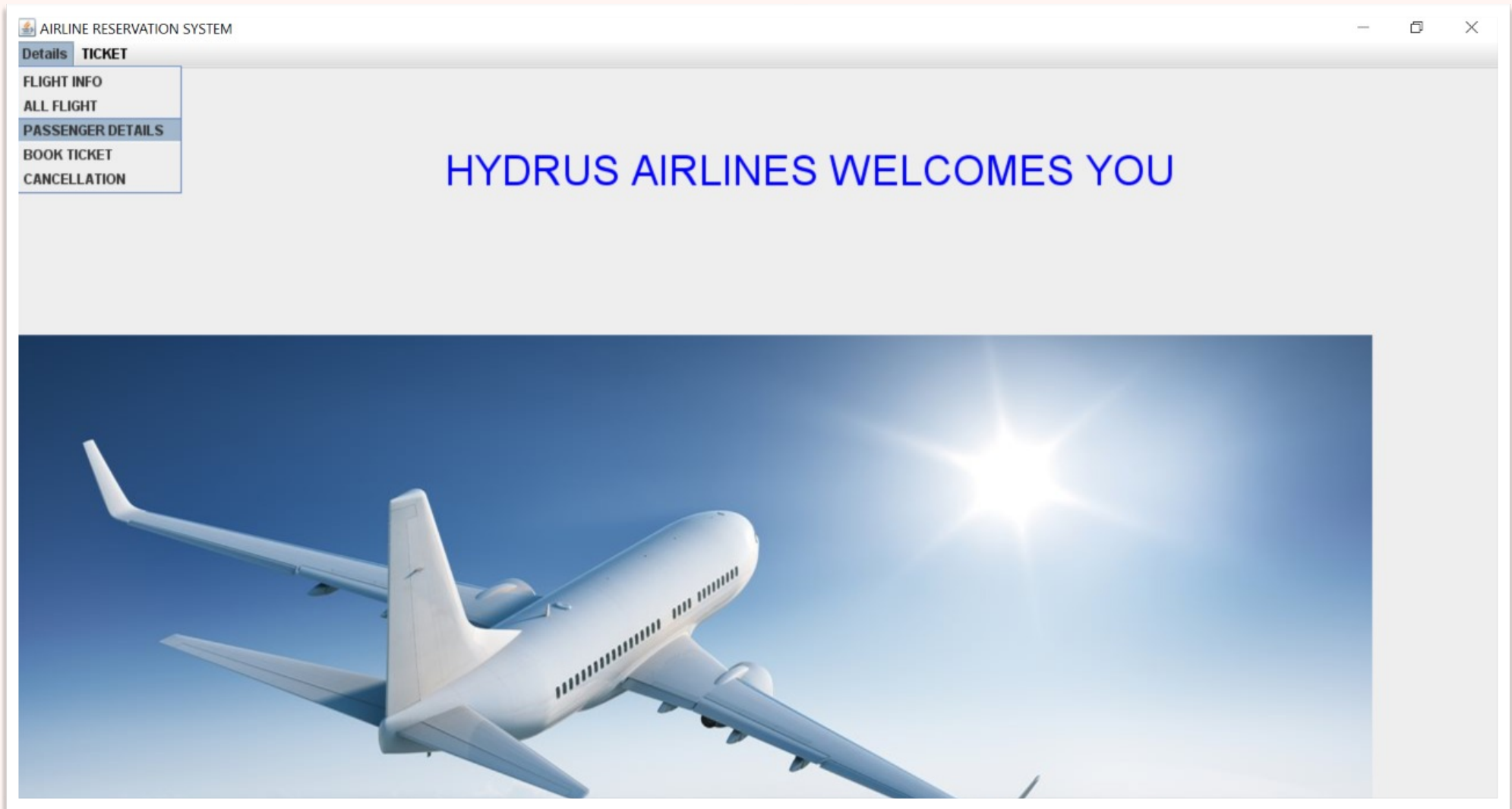


The image shows a web browser window titled "Login". Inside the window, there is a login form. The form has two input fields: "Username" and "Password". The "Username" field contains the text "admin". The "Password" field contains masked characters "*****". Below the "Username" field is a "Submit" button, and below the "Password" field is a "Cancel" button. The window has standard window controls (minimize, maximize, close) in the top right corner.

MAIN SCREEN



MAIN SCREEN



ALL FLIGHTS

AIRLINE RESERVATION SYSTEM

Details TICKET

FLIGHT INFORMATION

SHOW

f_code	f_name	src	dst	cap
JA9011	Jet Airways	Mumbai	Delhi	900
JA9012	Jet Airways	Mumbai	Jaipur	600
JA9013	Jet Airways	Mumbai	Lucknow	200
JA9014	Jet Airways	Delhi	Mumbai	900
JA9015	Jet Airways	Delhi	Lucknow	950
JA9016	Jet Airways	Delhi	Jaipur	550
JA9017	Jet Airways	Jaipur	Delhi	500
JA9018	Jet Airways	Jaipur	Mumbai	100
JA9019	Jet Airways	Jaipur	Lucknow	800
JA9020	Jet Airways	Lucknow	Mumbai	550
JA9021	Jet Airways	Lucknow	Delhi	900
JA9022	Jet Airways	Lucknow	Jaipur	660

BETWEEN CITIES

AIRLINE RESERVATION SYSTEM

DetailsTICKET

FLIGHT INFORMATION

Departure

Jaipur

Arrival

Lucknow

SHOW

f_code	f_name	src	dst
JA9019	Jet Airways	Jaipur	Lucknow

BOOK TICKET

AIRLINE RESERVATION SYSTEM

Details TICKET

BOOK TICKET

CUSTOMER DETAILS

Passport no.	<input type="text" value="70234-IND"/>	Name	<input type="text" value="Raj Chordia"/>
Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female	Age	<input type="text" value="19"/>
Nationality	<input type="text" value="INDIAN"/>	Phone no	<input type="text" value="7727840153"/>
Flight Code	<input type="text" value="JA9011"/>		

Submit

Hydrus Airlines

Source -: Mumbai

Destination -: Delhi

Pnr no. -: 2

Flight no. -: JA9011

Name -: Raj Chordia

Age -: 19

Gender -: Male

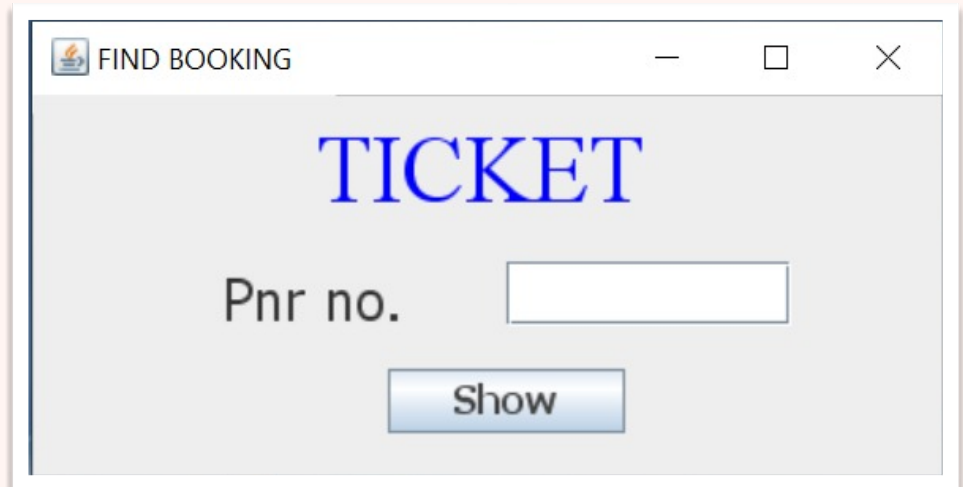
Nationality -: INDIAN

Thanks For Choosing Us !!

Print

JOURNEY DETAILS

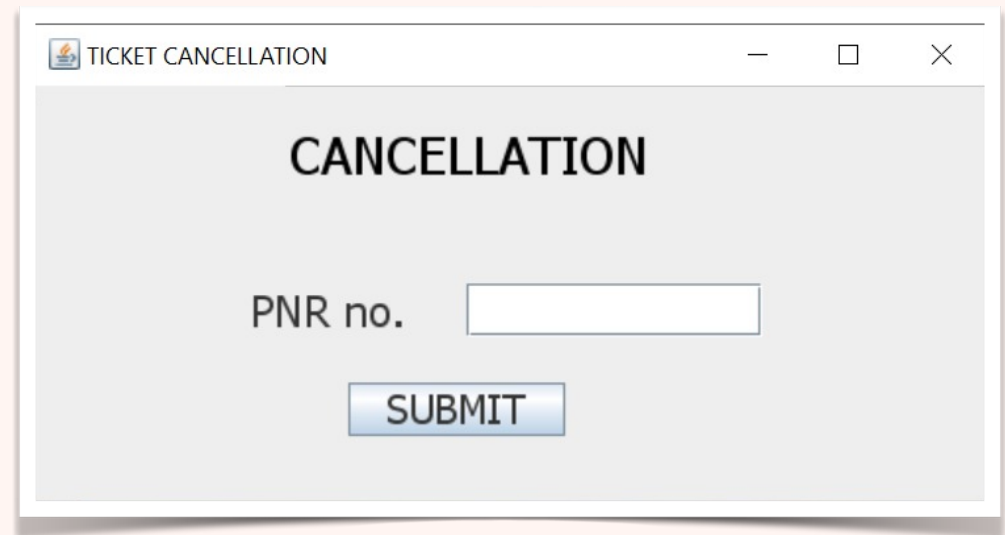
- Lost your ticket : (no worries bring the **P**assenger **N**ame **R**ecord **N**umber (*PNR No.*) and we will give you the ticket :)
- *PNR No. is a unique identifier for your journey with us.*



A screenshot of a web application window titled "FIND BOOKING". The window has a light gray background and a white border. At the top, there is a title bar with the text "FIND BOOKING" and standard window control buttons (minimize, maximize, close). Below the title bar, the word "TICKET" is displayed in a large, blue, serif font. Underneath "TICKET", the text "Pnr no." is followed by a white rectangular input field. Below the input field, there is a blue button with the text "Show" in white.

CANCEL TICKET

- Changed your mind no worries you can cancel your ticket anytime you want.
- Come to us with the **P**assenger **N**ame **R**ecord **N**umber (*PNR No.*) which is a unique identifier for your journey with us.



A screenshot of a web browser window titled "TICKET CANCELLATION". The window has standard minimize, maximize, and close buttons in the top right corner. The main content area has a light gray background and features the word "CANCELLATION" in bold black text at the top. Below this, the text "PNR no." is followed by a white rectangular input field. At the bottom of the form is a blue button with the word "SUBMIT" in white capital letters.

-
- It is important to *finalise* the *database design* well in advance. Though we managed to discuss the design, we ended up making changes in the way of adding or deleting fields and figuring out referential integrity issues which consumed quite a lot of time.
 - *Communication* between people is a *key* aspect of creation of any project. It becomes more important when they all are working to achieve a common goal.
 - It is very essential to choose correct group members as this may cause harm during the process of project creation.
 - Code must be typed patiently as a single comma can crash the complete Frame. Even try catch can't handle these types of errors.

Lessons Learned

GROUP MEMBERS

- **19UCS230** **Divyansh Goyal**
- **19UCS246** **Gaurav Singh Chauhan**
- **19UCS257** **Priyansh Bordia**
- **19UCS205** **Nishant Dixit**

THANK YOU...!

(-: THE END :-)

