FlyAway (An Airline Booking Portal)

Document contains:

- Project and developer details
- Sprints planned and the tasks achieved in them
- Algorithms and flowcharts of the application
- List of core concepts used
- Links to the GitHub repository to verify the project completion
- Conclusions

Project and developer details

Project objective:

As a Full Stack Developer, design and develop an airline booking portal named as FlyAway. Use the GitHub repository to manage the project artifacts.

Background of the problem statement:

FlyAway is a ticket-booking portal that lets people book flights on their website.

The website needs to have the following features:

- A search form in the homepage to allow entry of travel details, like the date of travel, source, destination, and the number of persons.
- Based on the travel details entered, it will show the available flights with their ticket prices.
- Once a person selects a flight to book, they will be taken to a register page where they must fill in their personal details. In the next page, they are shown the flight details of the flight that they are booking, and the payment is done via a dummy payment gateway. On completion of the payment, they are shown a confirmation page with the details of the booking.

For the above features to work, there will be an admin backend with the following features:

- An admin login page where the admin can change the password after login, if he wishes
- A master list of places for source and destination
- A master list of airlines
- A list of flights where each flight has a source, destination, airline, and ticket price

The goal of the company is to deliver a high-end quality product as early as possible.

<u>The flow and features of the application:</u>

- Plan more than two sprints to complete the application
- Document the flow of the application and prepare a flow chart
- List the core concepts and algorithms being used to complete this application
- Implement the appropriate concepts, such as exceptions, collections, and sorting techniques for source code optimization and increased performance

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Sprints planned and the tasks achieved in them

There are three sprints for this project

Sprint-1: Studied the Features of project and prepared the flow chart and created Git Repository.

Sprint-2: created Jsp pages and written servlet java program for booking portal and All the features are being implemented.

Sprint-3: Final testing of website using different inputs and pushing it to GitHub.

# Algorithms and flowcharts of the application

Flow chart:

Start Page — Form with From To no of Persons, Sreach button, Admin login link → Sreach → Flights for given From and To Booking option → Book → Form for Each person details → Continue → Booking Details shown for conformation → Confirm → Payment Gateway showing total price Price and booking id and card details form for payment → Pay → Booking confirmation page with Transaction → done

Admin login → Admin login page asking username and → Dashboard containing master lists and logout → Links → Master list of source and destination / Master list of airlines / Master list of flights

Logout

1. Home page is created using jsp.
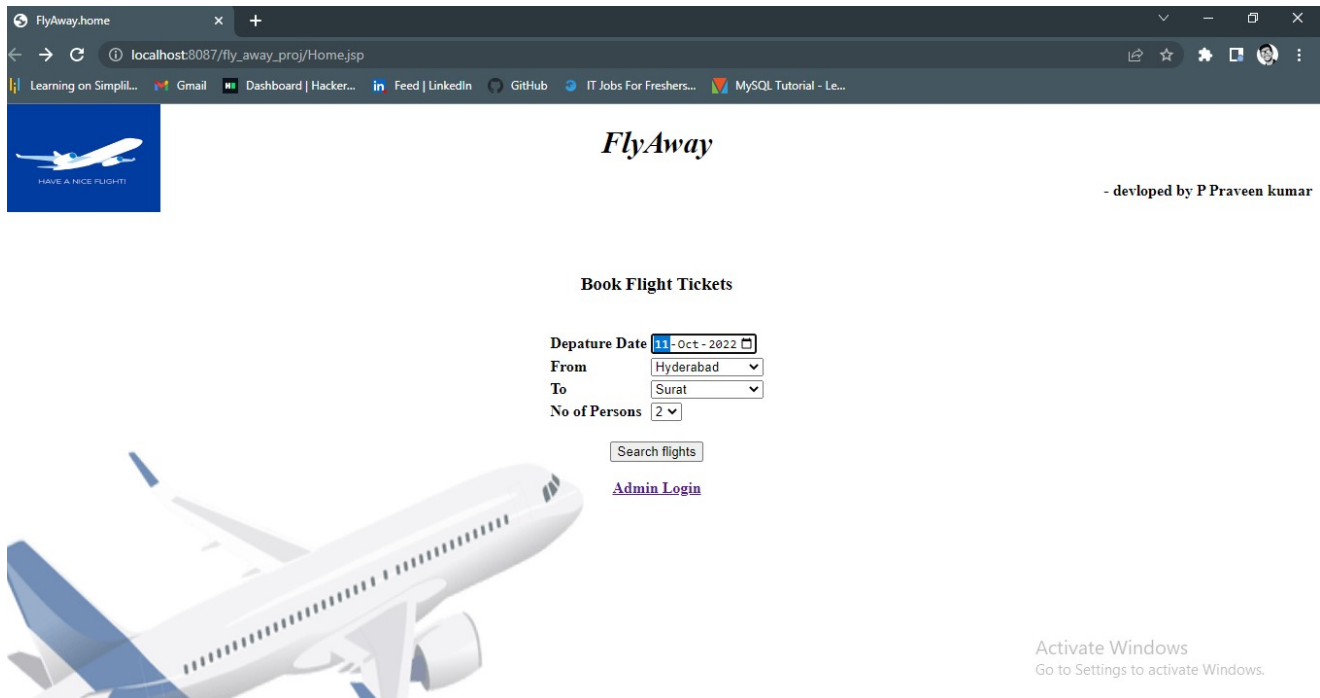
2. Given input is being verified in the servlet, if it's a wrong input it is being redirected to the same page. if its right all the flights are being shown for the given source and destination through database which is done by another servlet.
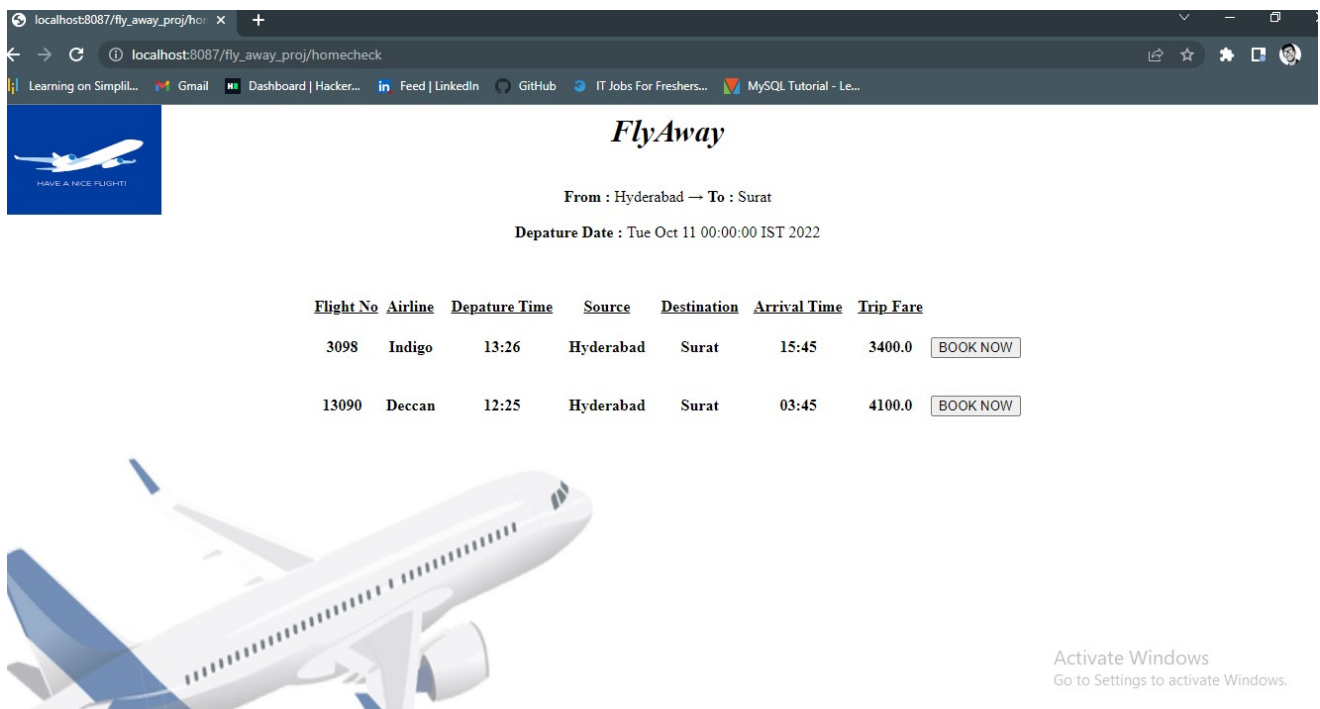
3.if flight is selected and book now button is clicked then it's being redirected to user details page form according to the no of persons given.

5.if data given is null or input is wrong it is being redirected to same page with some warning ,this things are done by servlet.

6. If data entered is not null , right and clicked on continue then a flight details are shown for confirmation.
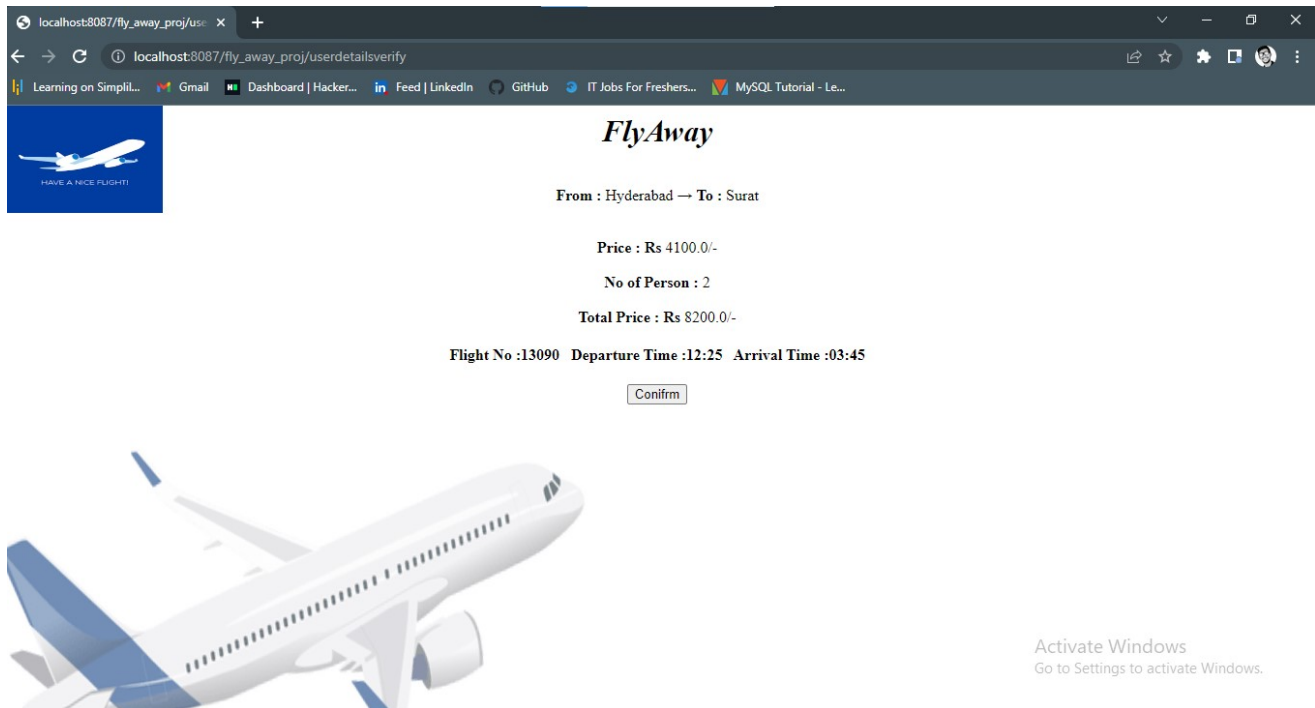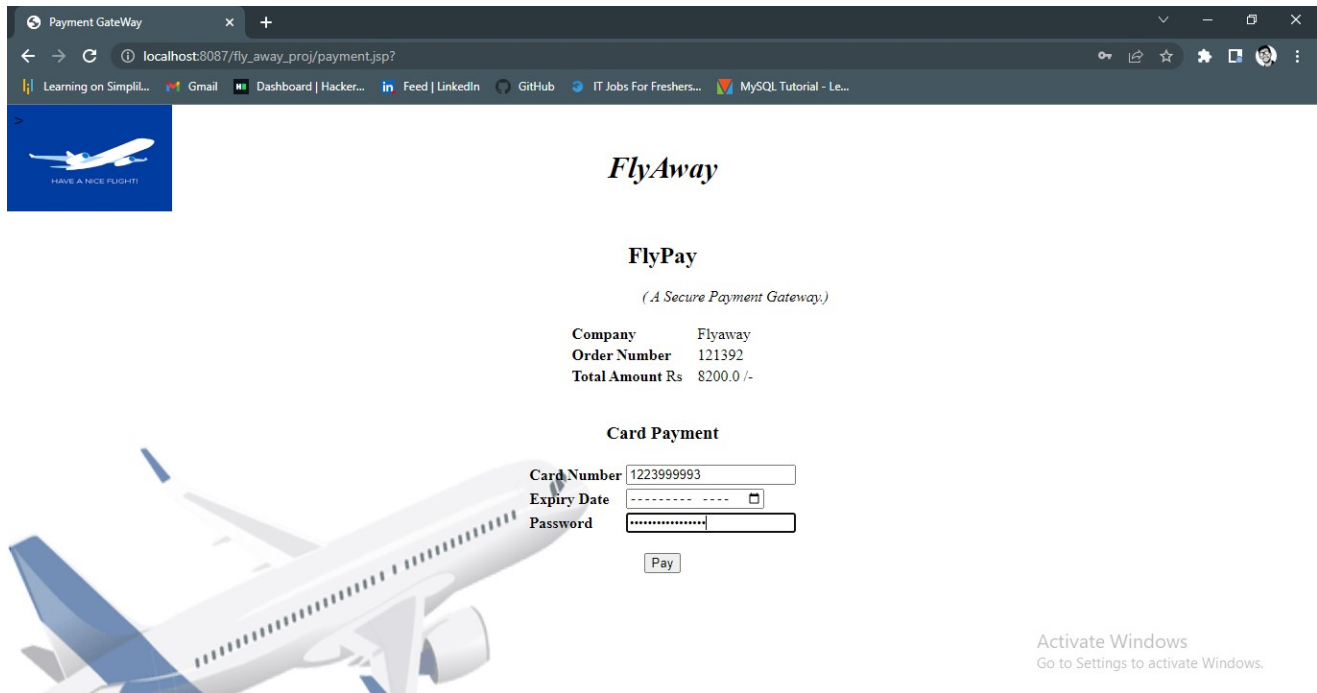
7.if confirm button is clicked and it is redirected to payment gateway page.
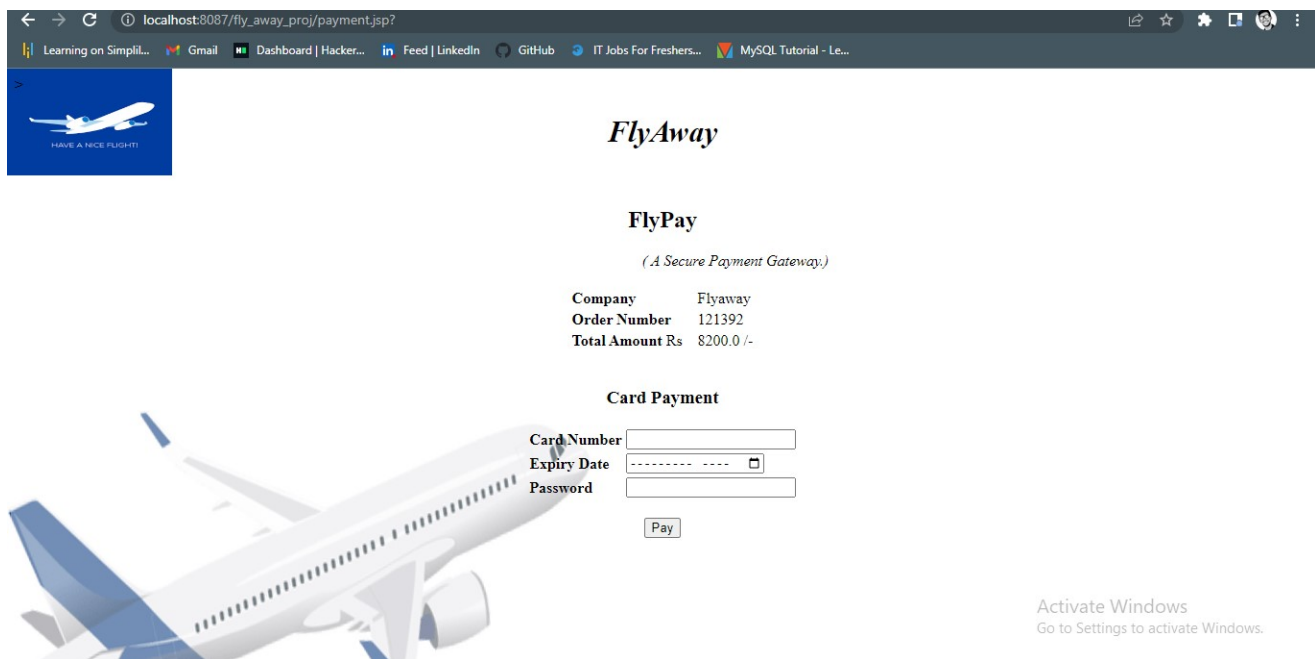
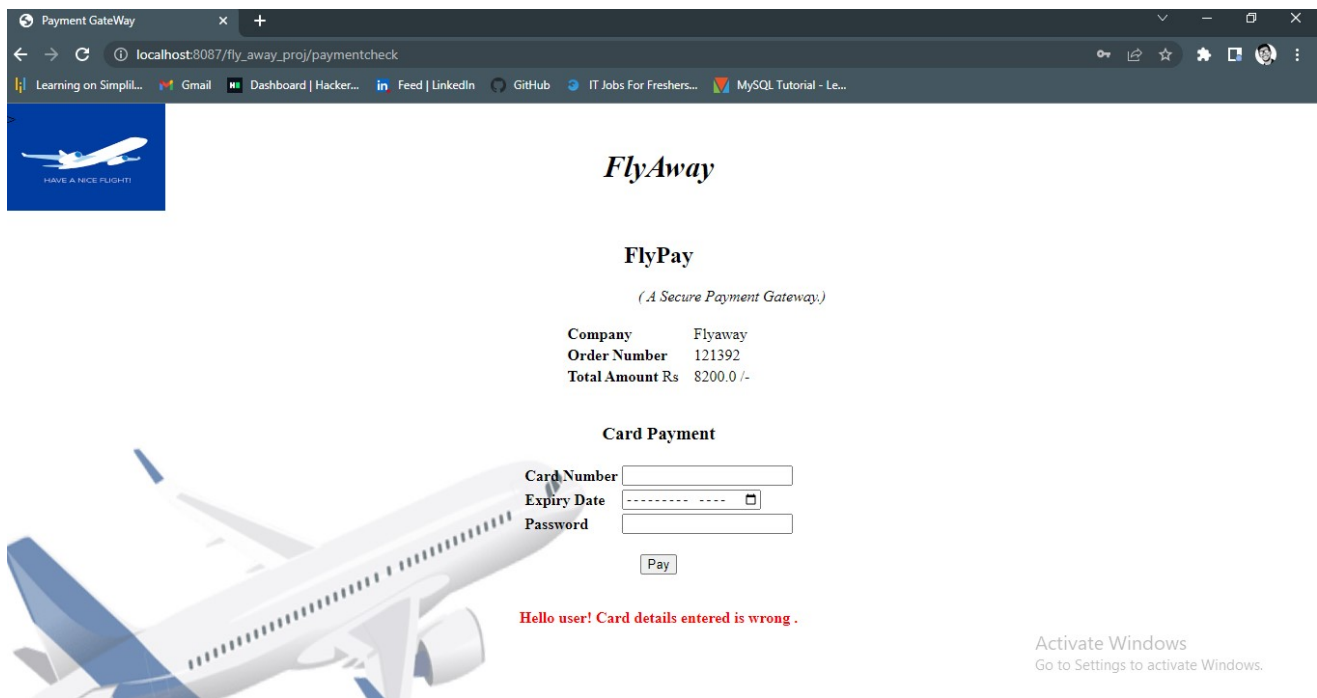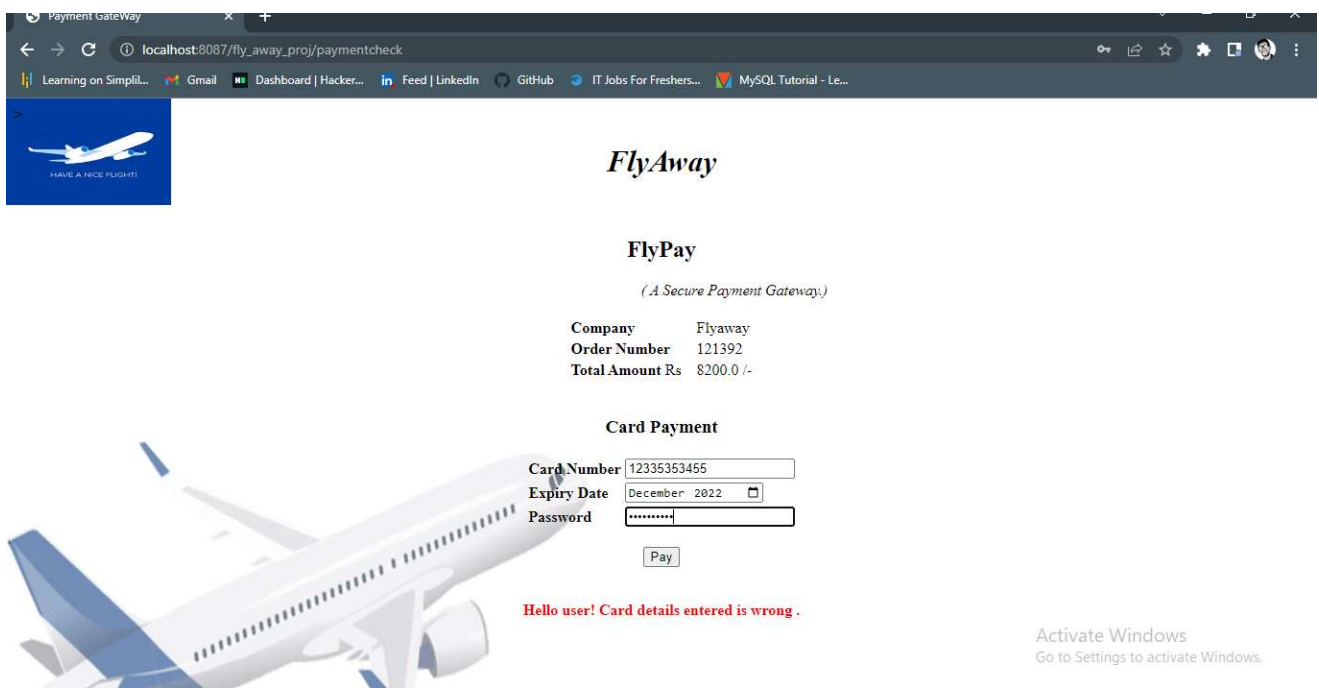8.if wrong details are entered it redirects to same page for again entering the details and when data is correctly enterd it passes it to next page this is done using servlet.

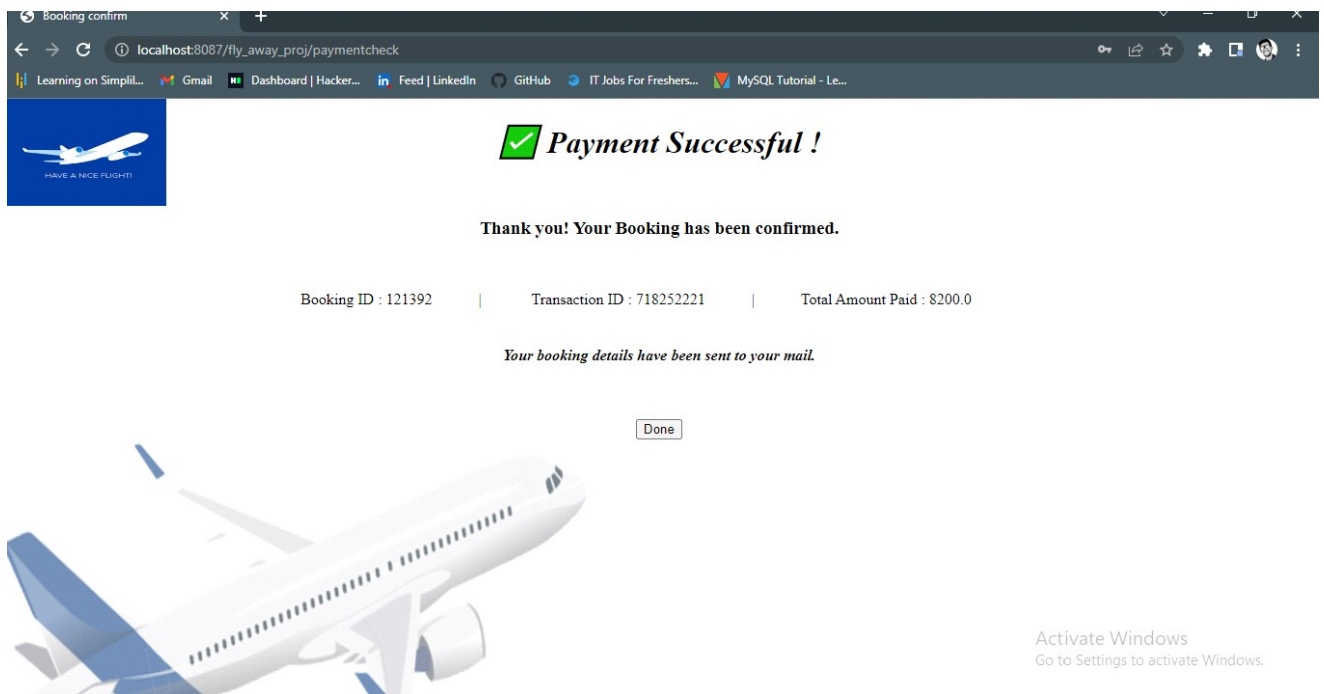9.In this date is not entered and clicked on pay.

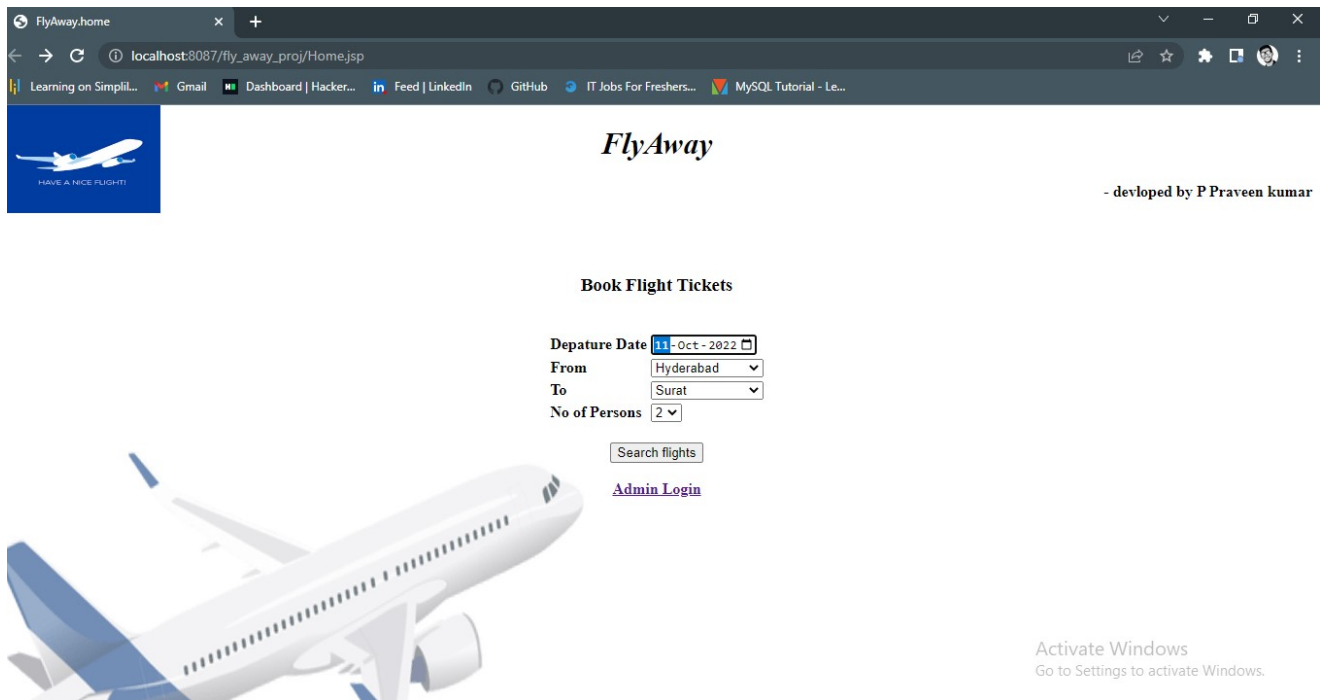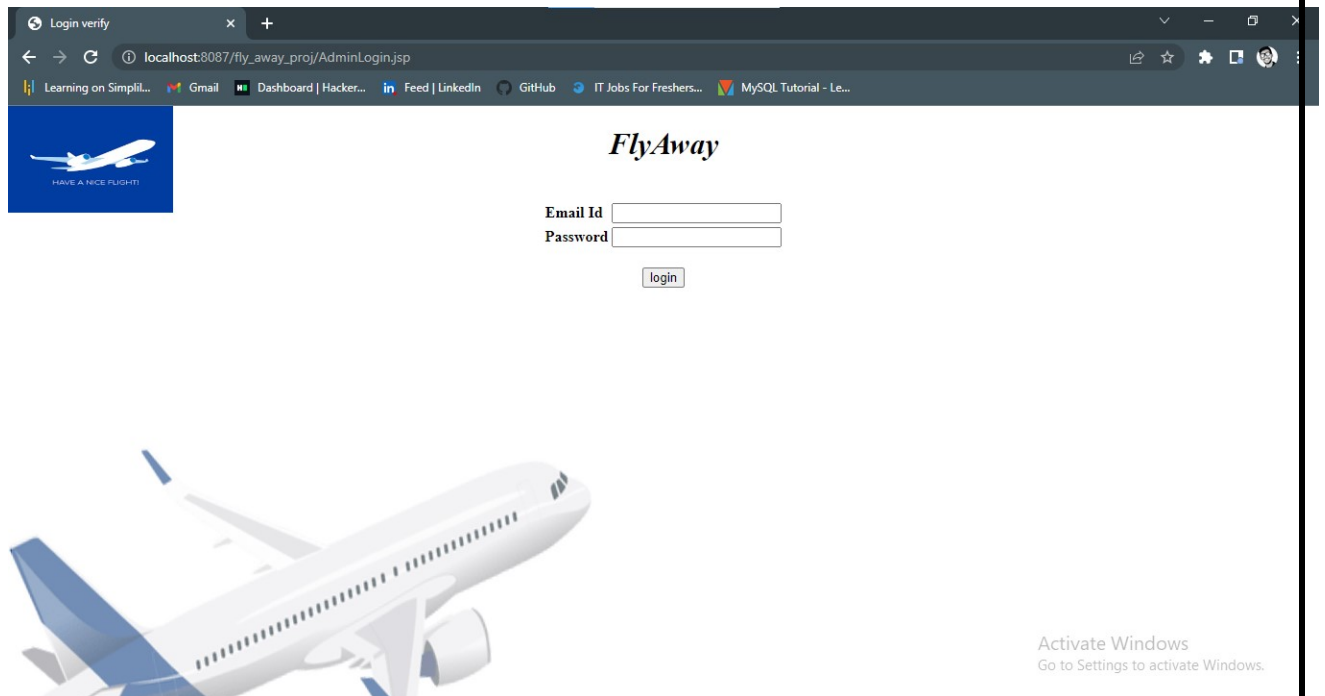10.its shows warning on same page and a data is entered again.

11.If pay button is clicked ,on successful transaction shows booking id and transaction id are shown in new page.
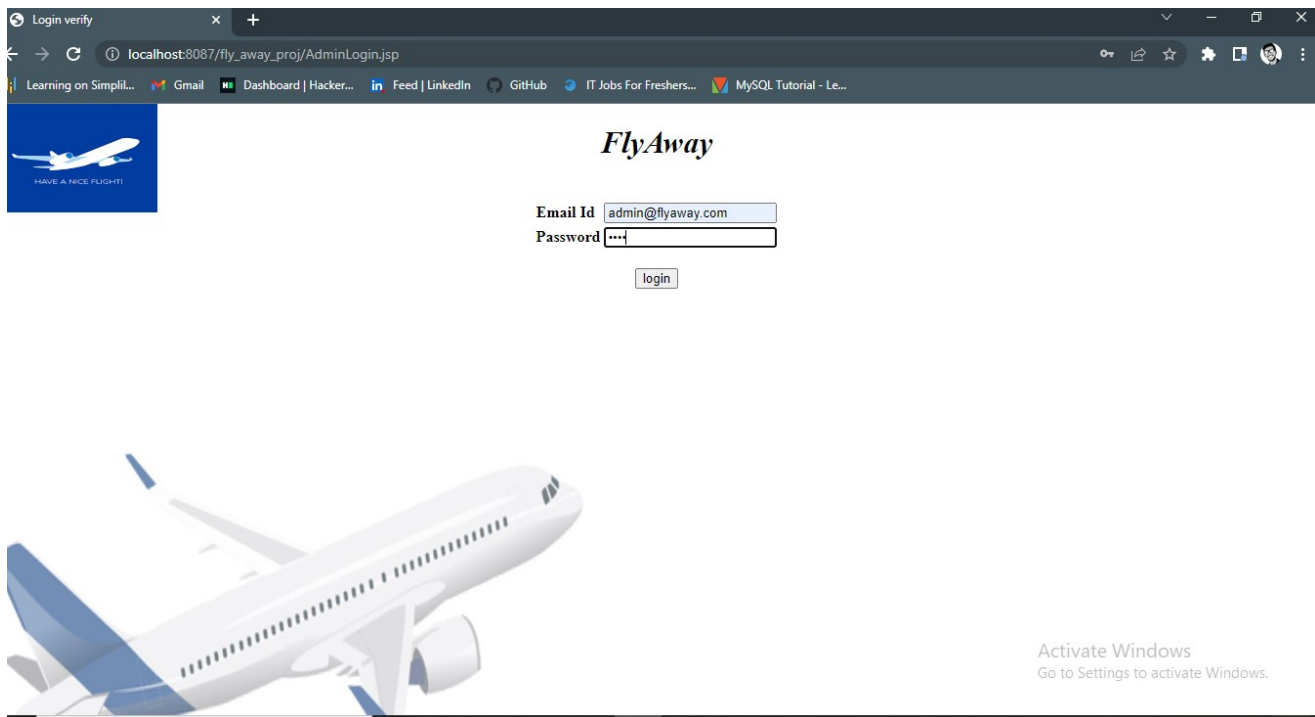
Coming to admin part

1. On clicking on admin login a login page is displayed.

2. This data of username and password entered is being verified by the servlet through connecting to the database. If details entered is wrong then it redirects to the same page showing warning.

3. if data entered is matched with the database then servlet redirect to admin dashboard.
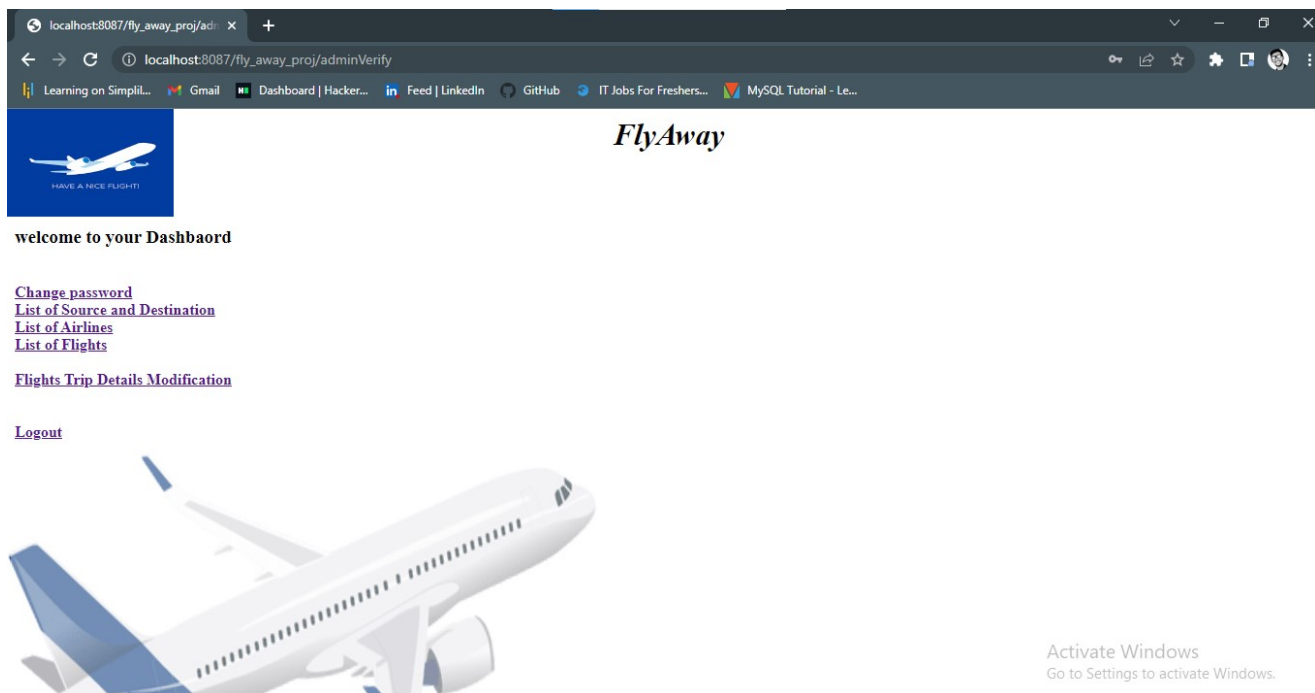
4. if password is null it shows warning if it is not null password is being updated in database

And redirected to login page showing password change.
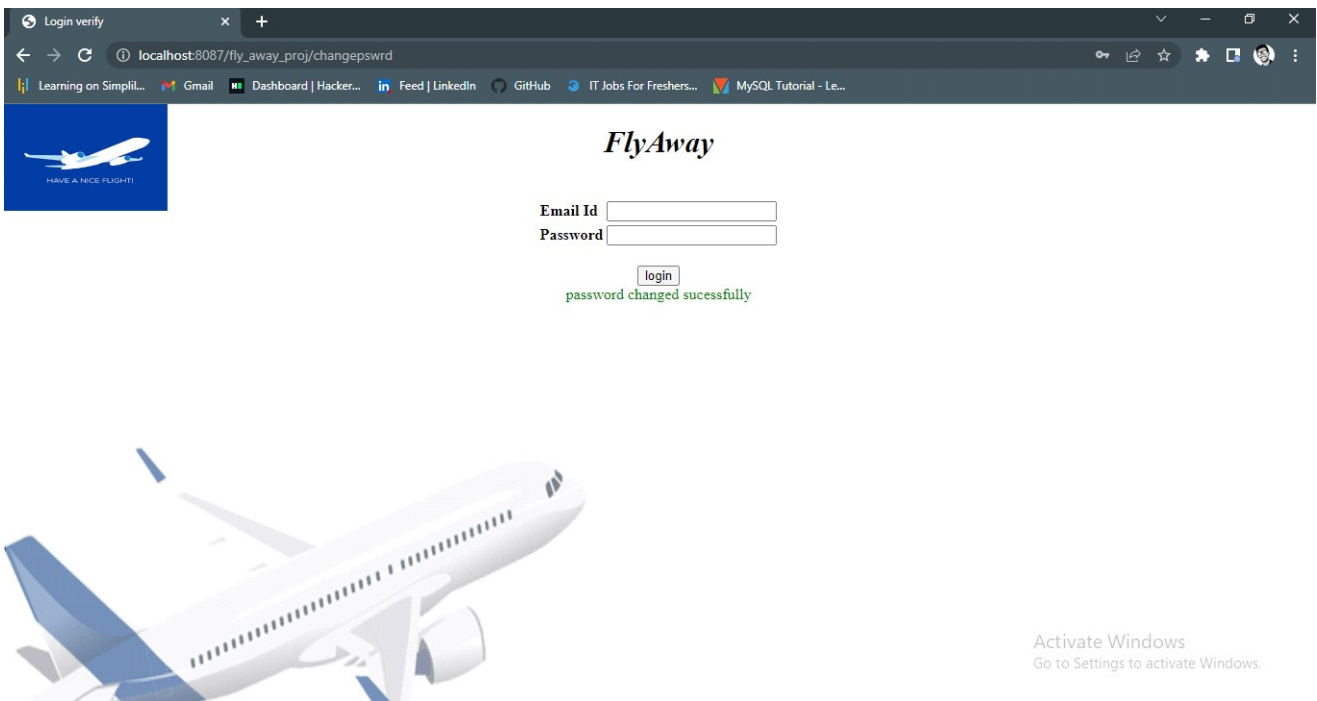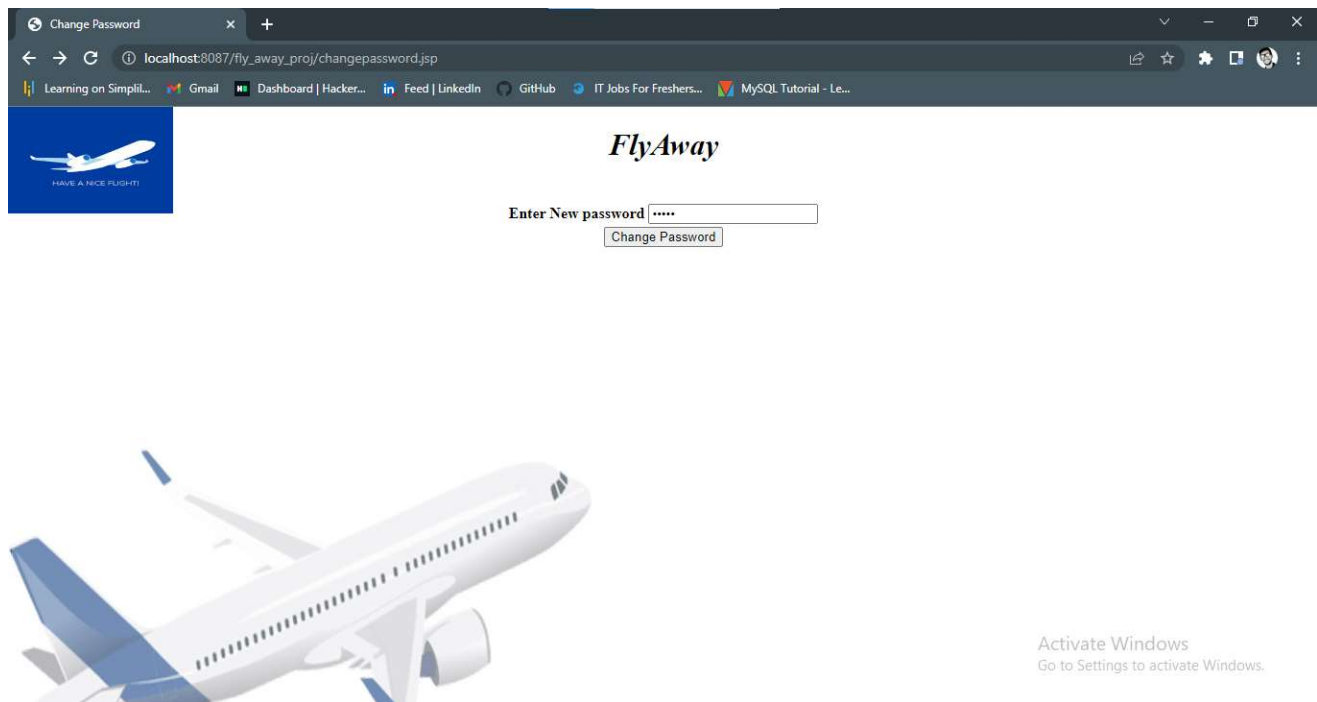
5.if list of source and destination link is clicked on dashboard the data is being fetched and shown in the page using servlet
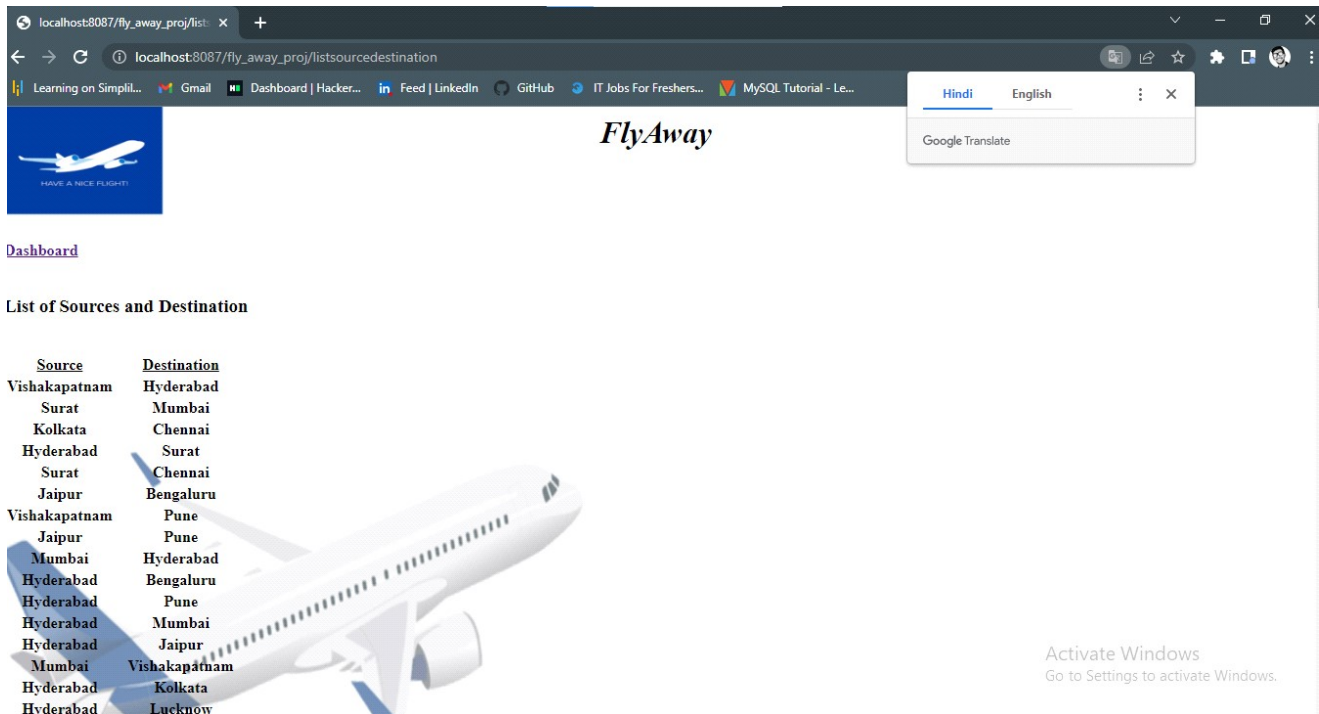
6.if list of airlines link is clicked on dashboard the data is being fetched and shown in the page using servlet

7.if list of flights link is clicked on dashboard the data is being fetched and shown in the page using servlet

FlyAway

Dashboard

List of Flights

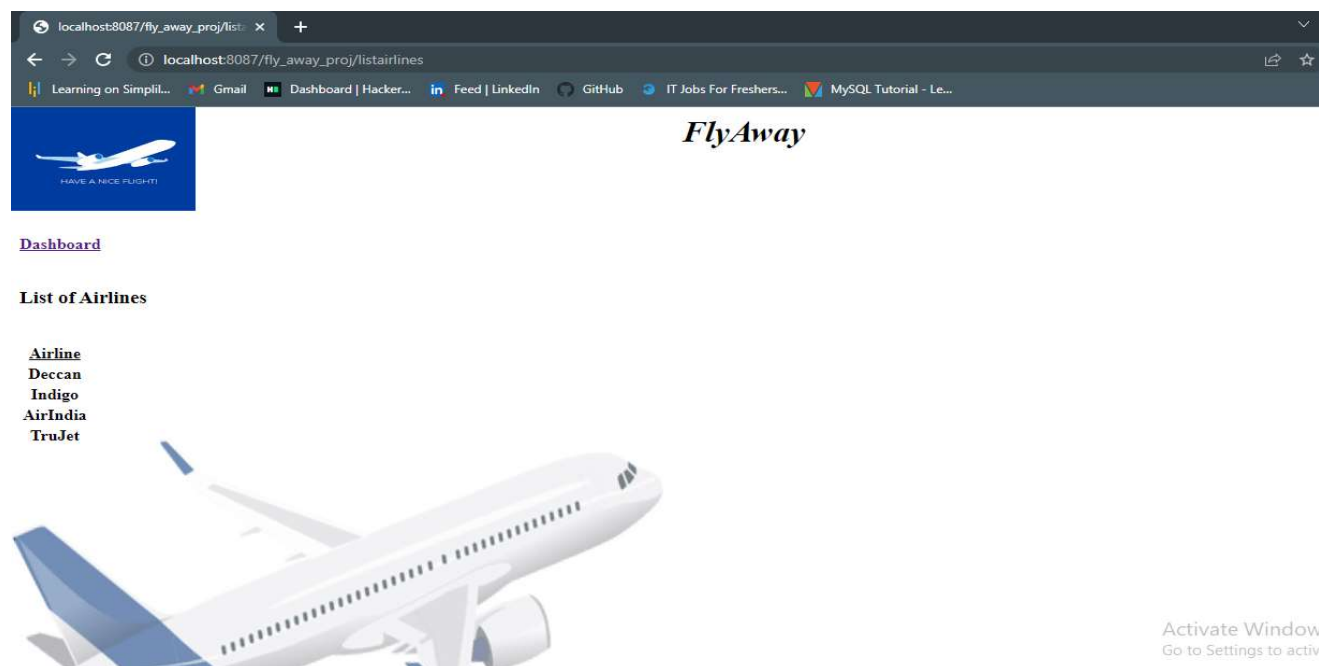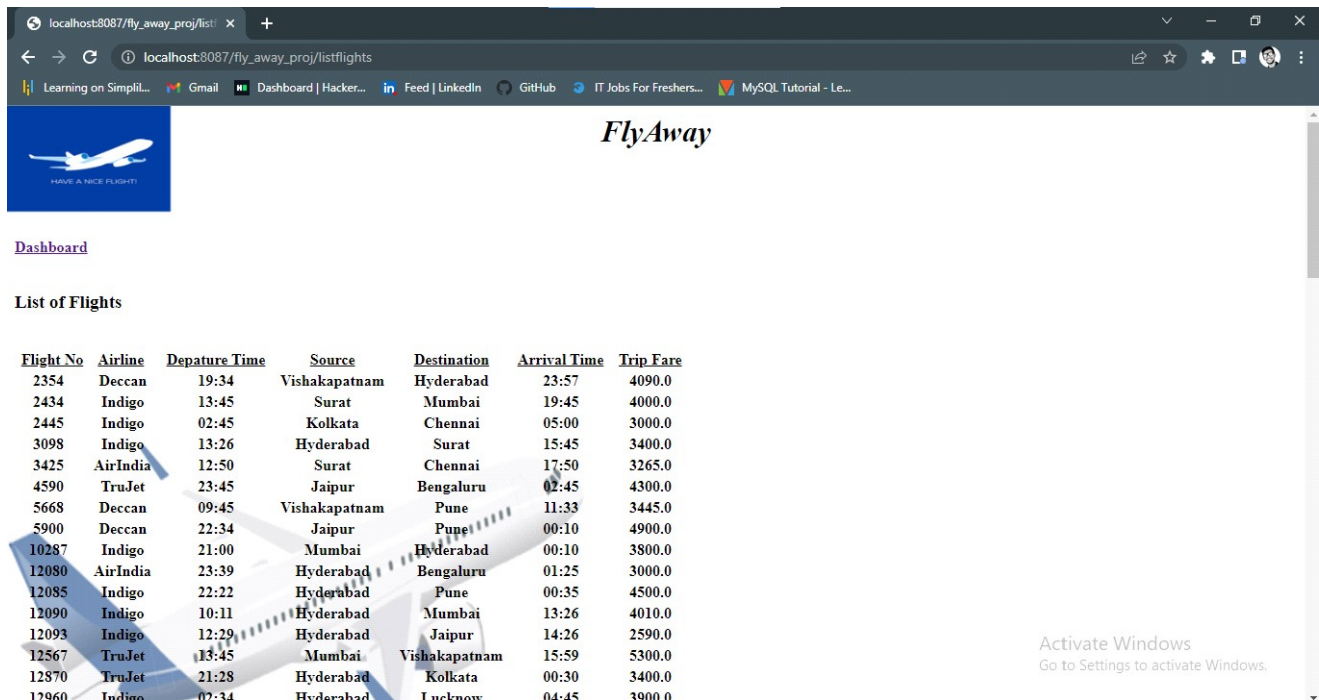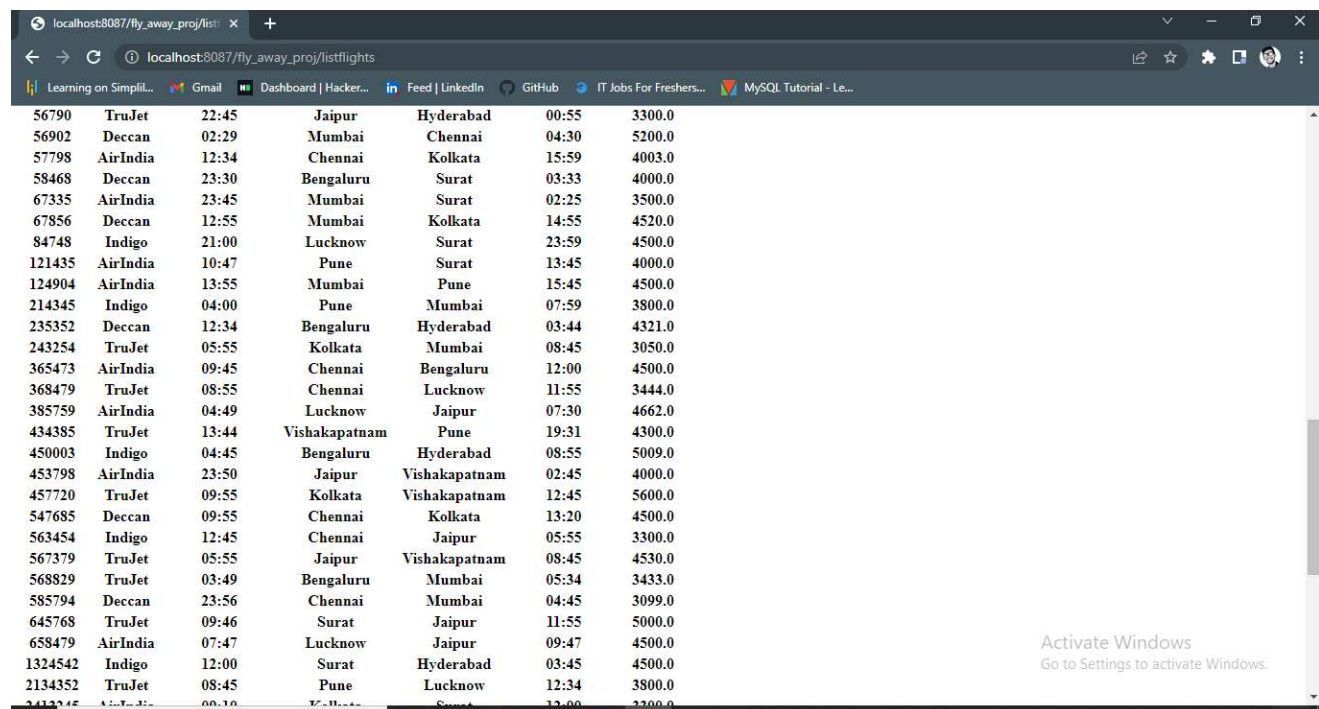| Flight No	Airline	Depature Time	Source	Destination	Arrival Time	Trip Fare
2354	Deccan	19:34	Vishakapatnam	Hyderabad	23:57	4090.0
2434	Indigo	13:45	Surat	Mumbai	19:45	4000.0
2445	Indigo	02:45	Kolkata	Chennai	05:00	3000.0
3098	Indigo	13:26	Hyderabad	Surat	15:45	3400.0
3425	AirIndia	12:50	Surat	Chennai	17:50	3265.0
4590	TruJet	23:45	Jaipur	Bengaluru	02:45	4300.0
5668	Deccan	09:45	Vishakapatnam	Pune	11:33	3445.0
5900	Deccan	22:34	Jaipur	Pune	00:10	4900.0
10287	Indigo	21:00	Mumbai	Hyderabad	00:10	3800.0
12080	AirIndia	23:39	Hyderabad	Bengaluru	01:25	3000.0
12085	Indigo	22:22	Hyderabad	Pune	00:35	4500.0
12090	Indigo	10:11	Hyderabad	Mumbai	13:26	4010.0
12093	Indigo	12:29	Hyderabad	Jaipur	14:26	2590.0
12567	TruJet	13:45	Mumbai	Vishakapatnam	15:59	5300.0
12870	TruJet	21:28	Hyderabad	Kolkata	00:30	3400.0
12960	Indigo	02:34	Hyderabad	Lucknow	04:45	3900.0
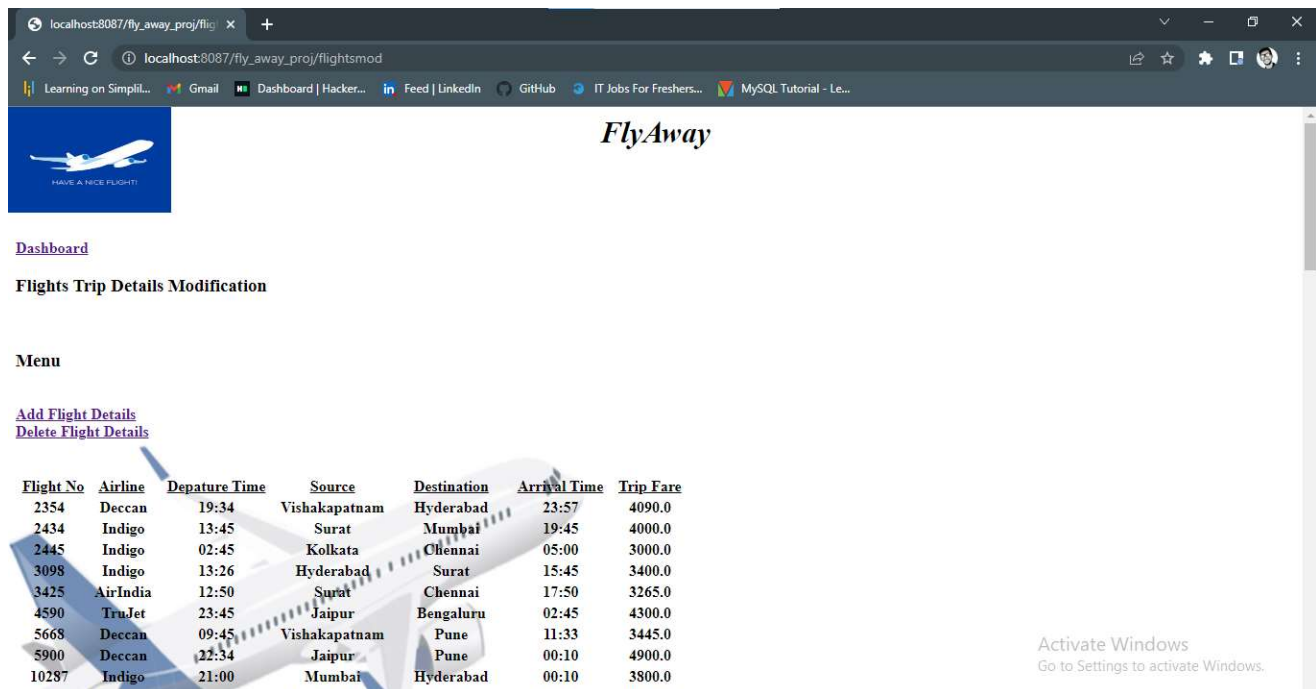
56790	TruJet	22:45	Jaipur	Hyderabad	00:55	3300.0
56902	Deccan	02:29	Mumbai	Chennai	04:30	5200.0
57798	AirIndia	12:34	Chennai	Kolkata	15:59	4003.0
58468	Deccan	23:30	Bengaluru	Surat	03:33	4000.0
67335	AirIndia	23:45	Mumbai	Surat	02:25	3500.0
67856	Deccan	12:55	Mumbai	Kolkata	14:55	4520.0
84748	Indigo	21:00	Lucknow	Surat	23:59	4500.0
121435	AirIndia	10:47	Pune	Surat	13:45	4000.0
124904	AirIndia	13:55	Mumbai	Pune	15:45	4500.0
214345	Indigo	04:00	Pune	Mumbai	07:59	3800.0
235352	Deccan	12:34	Bengaluru	Hyderabad	03:44	4321.0
243254	TruJet	05:55	Kolkata	Mumbai	08:45	3050.0
365473	AirIndia	09:45	Chennai	Bengaluru	12:00	4500.0
368479	TruJet	08:55	Chennai	Lucknow	11:55	3444.0
385759	AirIndia	04:49	Lucknow	Jaipur	07:30	4662.0
434385	TruJet	13:44	Vishakapatnam	Pune	19:31	4300.0
450003	Indigo	04:45	Bengaluru	Hyderabad	08:55	5009.0
453798	AirIndia	23:50	Jaipur	Vishakapatnam	02:45	4000.0
457720	TruJet	09:55	Kolkata	Vishakapatnam	12:45	5600.0
547685	Deccan	09:55	Chennai	Kolkata	13:20	4500.0
563454	Indigo	12:45	Chennai	Jaipur	05:55	3300.0
567379	TruJet	05:55	Jaipur	Vishakapatnam	08:45	4530.0
568829	TruJet	03:49	Bengaluru	Mumbai	05:34	3433.0
585794	Deccan	23:56	Chennai	Mumbai	04:45	3099.0
645768	TruJet	09:46	Surat	Jaipur	11:55	5000.0
658479	AirIndia	07:47	Lucknow	Jaipur	09:47	4500.0
1324542	Indigo	12:00	Surat	Hyderabad	03:45	4500.0
2134352	TruJet	08:45	Pune	Lucknow	12:34	3800.0
2412245	AirIndia	09:10	Kolkata	Surat	12:00	3200.0

8.if list of flight trip modification link is clicked on dashboard then menu is shown for add flight deatails and delete flight details .
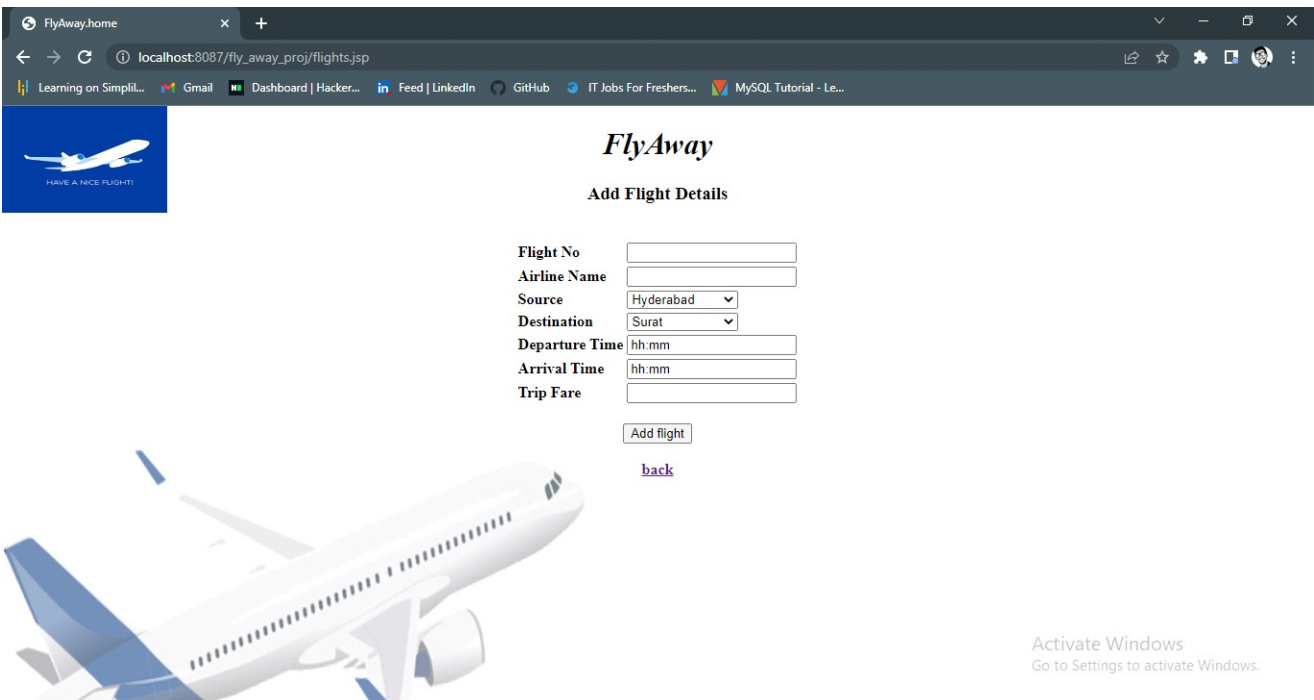
If this links are clicked.

9.for adding flight details in database ,this data are being filled an clicked on add flight bbutton .

10.for deleting flight details from database ,flight no is entered.
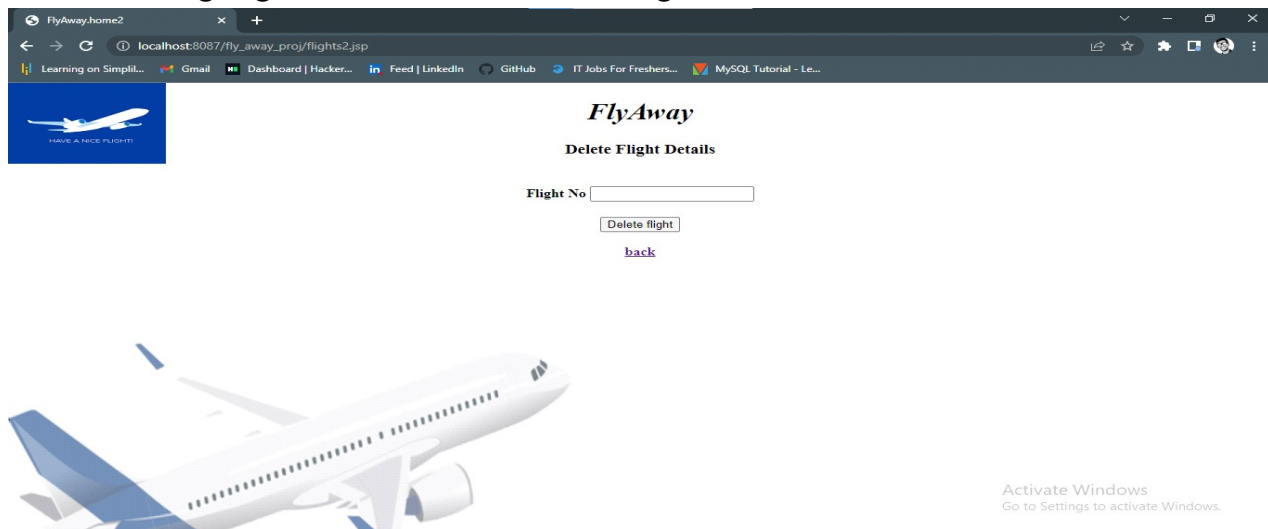
11.if logout link is clicked on dashboard it is redirected to home page.
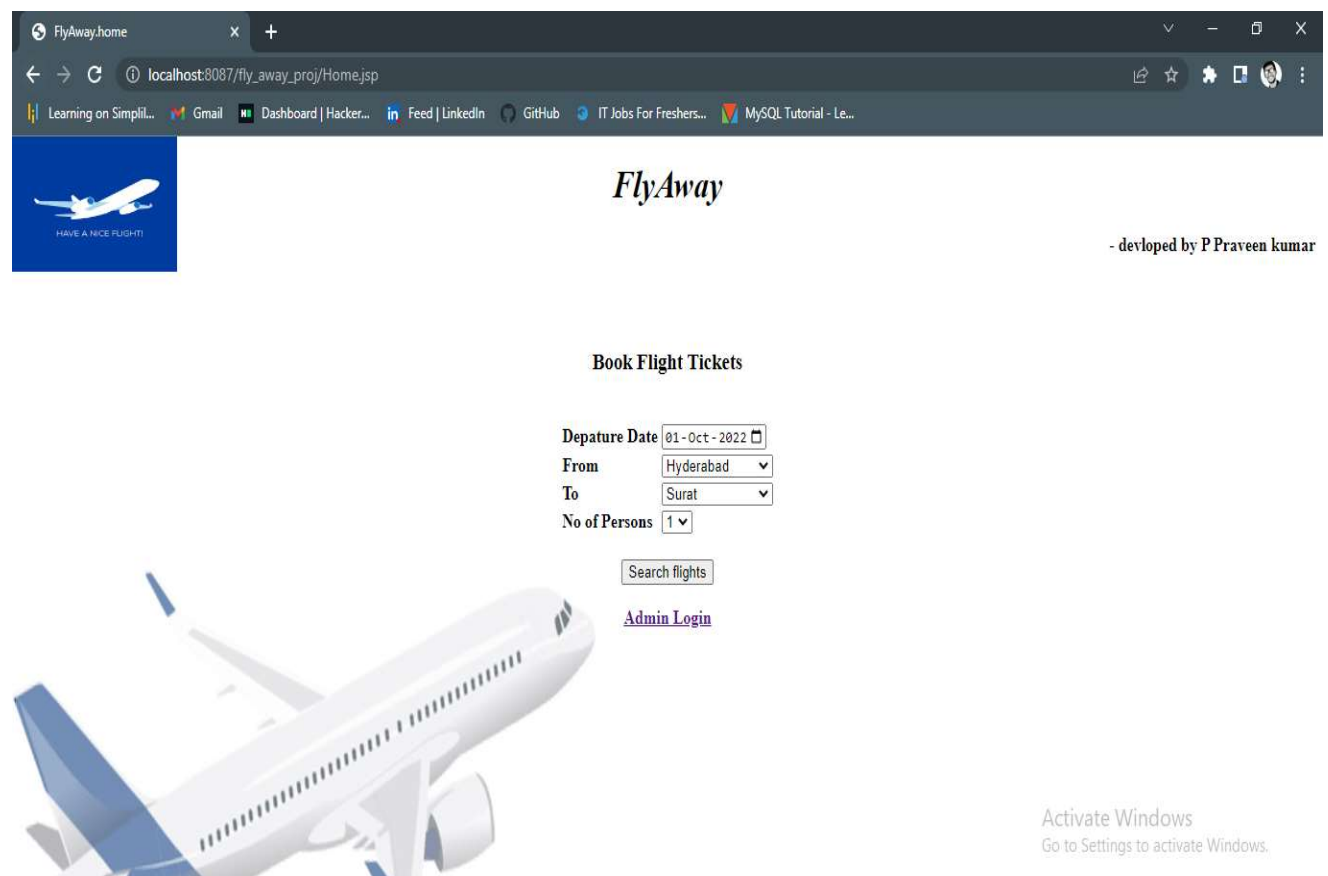
Database

```
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use flyaway;
Database changed
mysql> show tables;
+------------------+
| Tables_in_flyaway |
+------------------+
| admin            |
| flightdto        |
| sordes           |
+------------------+
3 rows in set (0.14 sec)

mysql> select * from admin;
+------------------+----------+
| EmailId          | Password |
+------------------+----------+
| admin@flyaway.com | 12345    |
+------------------+----------+
1 row in set (0.00 sec)

mysql> select * from flightdto;
+----------+----------+-------------+---------------+---------------+---------------+----------+
| flightno | airline  | arrivaltime | departuretime | destination   | source        | tripfare |
+----------+----------+-------------+---------------+---------------+---------------+----------+
|     2354 | Deccan   | 23:57       | 19:34         | Hyderabad     | Vishakapatnam |     4090 |
|     2434 | Indigo   | 19:45       | 13:45         | Mumbai        | Surat         |     4000 |
|     2445 | Indigo   | 05:00       | 02:45         | Chennai       | Kolkata       |     3000 |
|     3098 | Indigo   | 15:45       | 13:26         | Surat         | Hyderabad     |     3400 |
|     3425 | AirIndia | 17:50       | 12:50         | Chennai       | Surat         |     3265 |
|     4590 | TruJet   | 02:45       | 23:45         | Bengaluru     | Jaipur        |     4300 |
|     5668 | Deccan   | 11:33       | 09:45         | Pune          | Vishakapatnam |     3445 |
|     5900 | Deccan   | 00:10       | 22:34         | Pune          | Jaipur        |     4900 |
|    10287 | Indigo   | 00:10       | 21:00         | Hyderabad     | Mumbai        |     3800 |
|    12080 | AirIndia | 01:25       | 23:39         | Bengaluru     | Hyderabad     |     3000 |
|    12085 | Indigo   | 00:35       | 22:22         | Pune          | Hyderabad     |     4500 |
|    12090 | Indigo   | 13:26       | 10:11         | Mumbai        | Hyderabad     |     4010 |
|    12093 | Indigo   | 14:26       | 12:29         | Jaipur        | Hyderabad     |     2590 |
|    12567 | TruJet   | 15:59       | 13:45         | Vishakapatnam | Mumbai        |     5300 |
|    12870 | TruJet   | 00:30       | 21:28         | Kolkata       | Hyderabad     |     3400 |
|    12960 | Indigo   | 04:45       | 02:34         | Lucknow       | Hyderabad     |     3900 |
```

Files
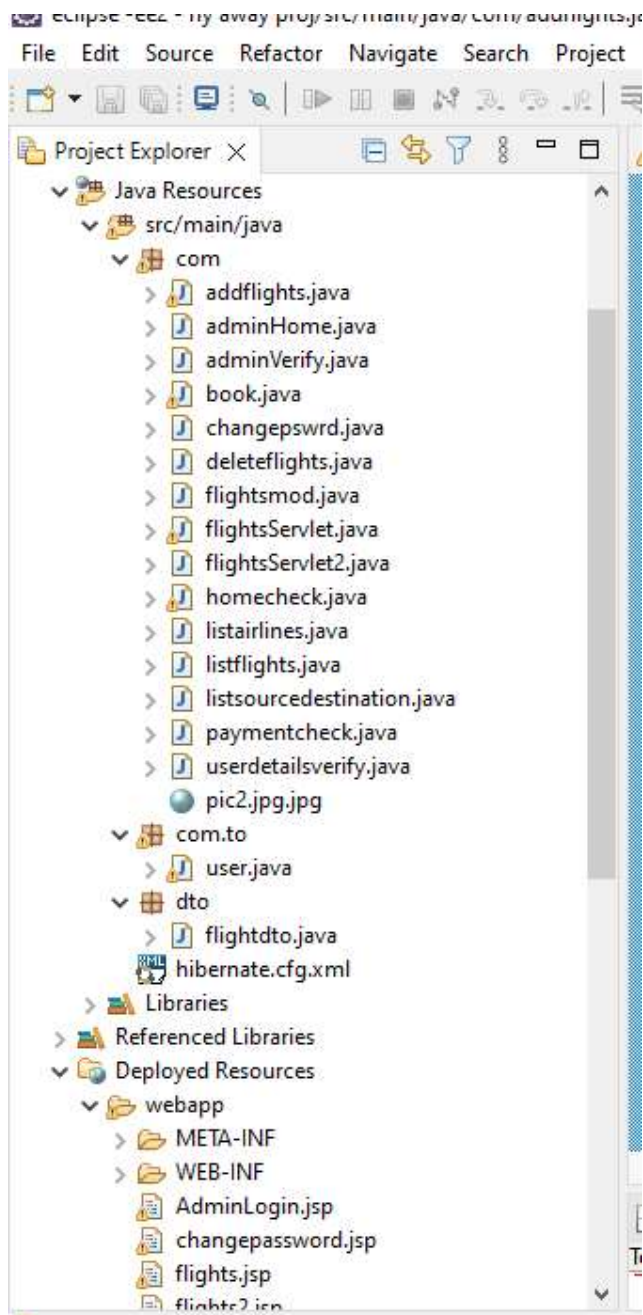
List of core concept used:

Java , Servlet, Jsp, Jdbc, Hibernate, MySQL database, Collections, and sorting techniques .

Pushing to GitHub

```
BALA@PPK MINGW64 /e/simplilearn/github/phase 2/FlyAway Proj
$ git init
Initialized empty Git repository in E:/simplilearn/github/phase 2/FlyAway Proj/.
git/
git add .

BALA@PPK MINGW64 /e/simplilearn/github/phase 2/FlyAway Proj (master)
$ git add .
warning: in the working copy of 'fly away project/target/maven-status/maven-comp
iler-plugin/compile/default-compile/inputFiles.lst', LF will be replaced by CRLF
 the next time Git touches it

BALA@PPK MINGW64 /e/simplilearn/github/phase 2/FlyAway Proj (master)
$ git commit -m "files are added"
[master (root-commit) 6d356ef] files are added
 118 files changed, 2544 insertions(+)
 create mode 100644 Screenshots/1.png
 create mode 100644 Screenshots/10.png
 create mode 100644 Screenshots/11.png
 create mode 100644 Screenshots/12.png
 create mode 100644 Screenshots/13.png
 create mode 100644 Screenshots/14.png
 create mode 100644 Screenshots/15.png
 create mode 100644 Screenshots/16.png
 create mode 100644 Screenshots/17.png
 create mode 100644 Screenshots/18.png
 create mode 100644 Screenshots/19.png
 create mode 100644 Screenshots/2.png
 create mode 100644 Screenshots/20.png
 create mode 100644 Screenshots/21.png
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 create mode 100644 Screenshots/29.png
 create mode 100644 Screenshots/3.png
 create mode 100644 Screenshots/4.png
 create mode 100644 Screenshots/5.png
 create mode 100644 Screenshots/6.png
 create mode 100644 Screenshots/7.png
 create mode 100644 Screenshots/8.png
 create mode 100644 Screenshots/9.png
 create mode 100644 flow chart.docx
 create mode 100644 flowchart.pdf
 create mode 100644 flowchart.png
 create mode 100644 fly away project/.classpath
 create mode 100644 fly away project/.project
 create mode 100644 fly away project/.settings/.jsdtscope
```

Links to the GitHub repository to verify the project completion

https://github.com/ppraveen62/FlyAway-finalproj--javaEE.git

Conclusion:

The Web application is prepared according to the provided flow and features of the application and everything followed according to the instructions.