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:
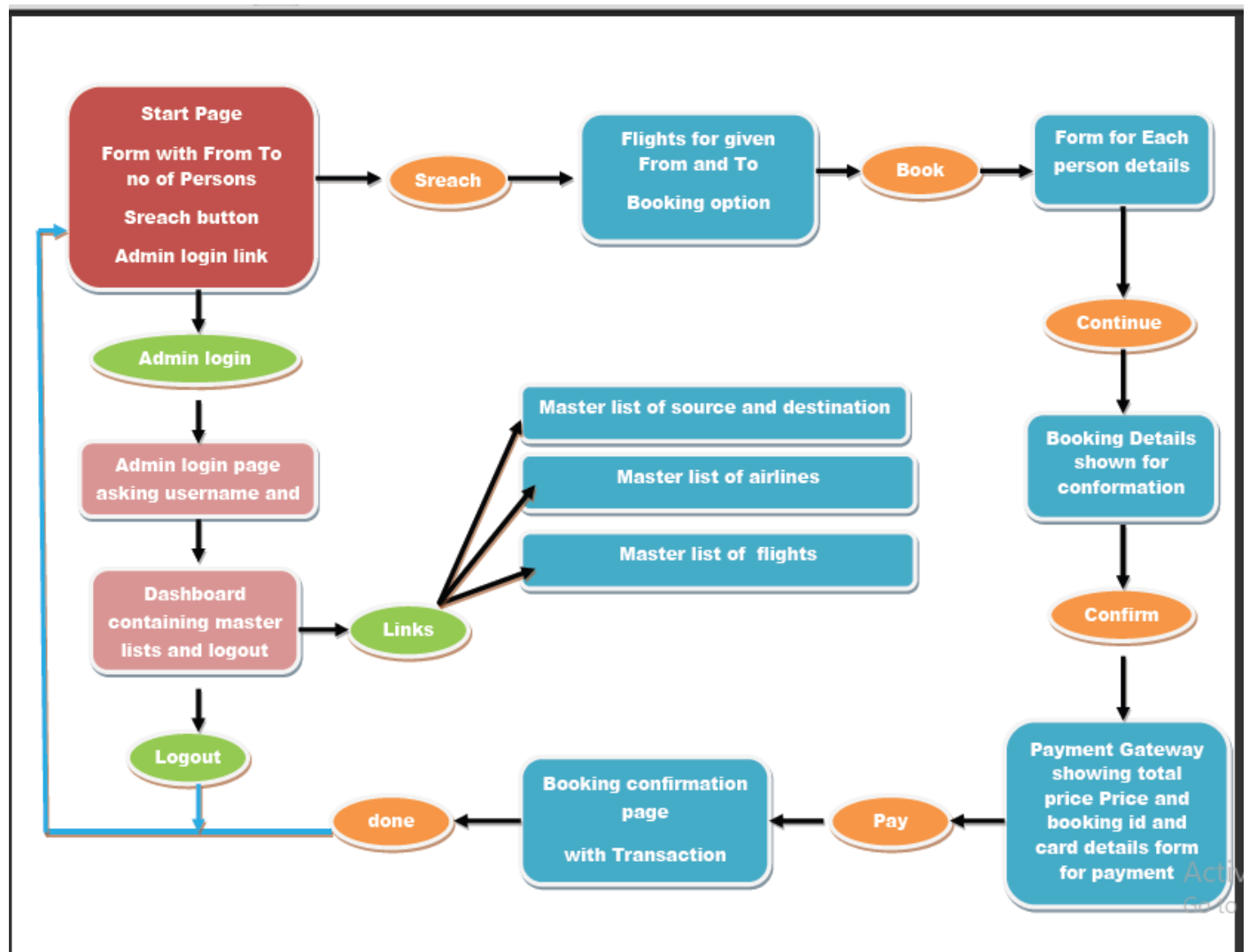
1. Home page is created using jsp.

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.

4.if confirm button is clicked and it is redirected to payment gateway page.

FlyAway

FlyPay

(A Secure Payment Gateway.)

Company	Flyaway
Order Number	121392
Total Amount Rs	8200.0 /-

Card Payment

Card Number [   ]
Expiry Date [--------- ---- 📅]
Password [   ]

[Pay]

Activate Windows
Go to Settings to activate Windows.

5.if wrong details are entered it redirects to same page for again entering the details and when data is correctly entered it passes it to next page this is done using servlets, it shows warning on same page and a data is entered again.

FlyAway

FlyPay

(A Secure Payment Gateway.)

Company	Flyaway
Order Number	121392
Total Amount Rs	8200.0 /-

Card Payment

Card Number [1223999993]
Expiry Date [--------- ---- 📅]
Password [••••••••••••••]

[Pay]

Activate Windows
Go to Settings to activate Windows.

FlyAway

FlyPay

(A Secure Payment Gateway.)

Company	Flyaway
Order Number	121392
Total Amount Rs	8200.0 /-

Card Payment

Card Number [_____]
Expiry Date [--------- ---- 📅]
Password [_____]

[Pay]

Hello user! Card details entered is wrong .

6.If pay button is clicked ,on successful transaction shows booking id and transaction id are shown in new page.

✅ ***Payment Successful !***

Thank you! Your Booking has been confirmed.

Booking ID : 121392 | Transaction ID : 718252221 | Total Amount Paid : 8200.0

Your booking details have been sent to your mail.

[Done]

Coming to admin part

1.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.

FlyAway

Email Id admin@flyaway.com
Password ••••

login

2.if data entered is matched with the database then servlet redirect to admin dashboard.

FlyAway

welcome to your Dashbaord

Change password
List of Source and Destination
List of Airlines
List of Flights

Flights Trip Details Modification

Logout

3. 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.

FlyAway

Enter New password [•••••]

[Change Password]

FlyAway

Email Id [_____]
Password [_____]

[login]

password changed sucessfully

4.if list of source and destination link is clicked on dashboard the data is being fetched and shown in the page using servlet

Dashboard

List of Sources and Destination

Source	Destination
Vishakapatnam	Hyderabad
Surat	Mumbai
Kolkata	Chennai
Hyderabad	Surat
Surat	Chennai
Jaipur	Bengaluru
Vishakapatnam	Pune
Jaipur	Pune
Mumbai	Hyderabad
Hyderabad	Bengaluru
Hyderabad	Pune
Hyderabad	Mumbai
Hyderabad	Jaipur
Mumbai	Vishakapatnam
Hyderabad	Kolkata
Hyderabad	Lucknow

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

Dashboard

List of Airlines

Airline
Deccan
Indigo
AirIndia
TruJet

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

6.for adding flight details in database ,this data are being filled an clicked on add flight bbutton, for deleting flight details from database ,flight no is entered.

FlyAway

Add Flight Details

Flight No	
Airline Name	
Source	Hyderabad ▾
Destination	Surat ▾
Departure Time	hh:mm
Arrival Time	hh:mm
Trip Fare	

Add flight

back

FlyAway

Delete Flight Details

Flight No [   ]

[Delete flight]

back

Flight No [   ]

[Delete flight]

back

Database

```
MySQL 8.0 Command Line Client                                                          -  □  X

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
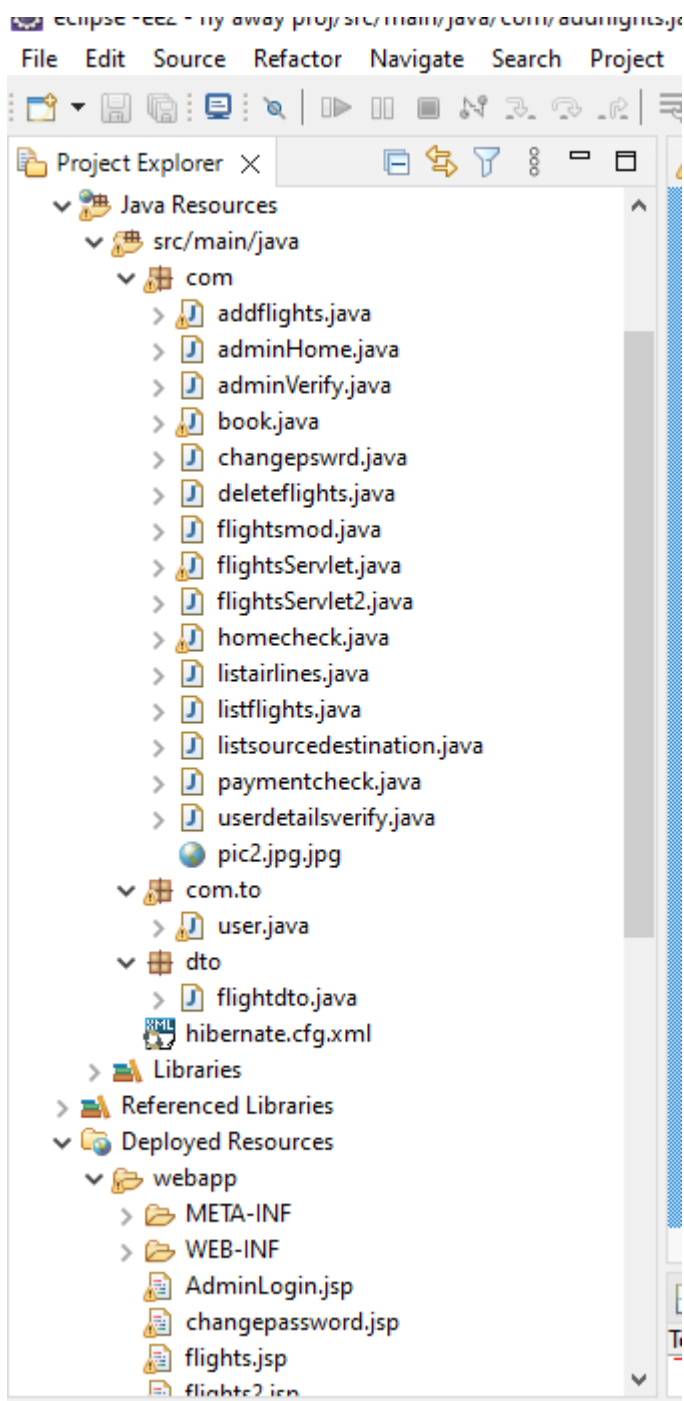
List of core concept used:

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

Links to the GitHub repository to verify the project completion

https://github.com/Svsai97/FlyAway_Project2.git

Conclusion:

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

https://github.com/Svsai97/FlyAway_Project2.git