FlyAway (An Airline Booking Portal).

This document contains sections for:

- Project Description
- Core concepts used in project
- Flow of the Application.
- Project Users Stories : (Agile and Scrum)
- Demonstrating the product capabilities, appearance, and user interactions.
- Conclusions

The code for this project is hosted at : https://github.com/kanika880/FlyAway

The project is developed by Kanika Gupta.

1.1 Project Description:

Project objective:

As a Full Stack Developer, design and develop an airline booking portal named as Flyaway.

Background of the problem statement:

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

In this application the users can:

- Search for the available flights detail by entering travel details like the date of travel, source, destination on the home page.
- 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.

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 flow and features of the application:

- 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

You must use the following:

- Eclipse/IntelliJ: An IDE to code for the application
- Java: A programming language to develop the web pages, databases, and others
- SQL: To create tables for admin, classes, students, and other specifics
- Git: To connect and push files from the local system to GitHub
- GitHub: To store the application code and track its versions
- Scrum: An efficient agile framework to deliver the product incrementally
- Search and Sort techniques: Data structures used for the project
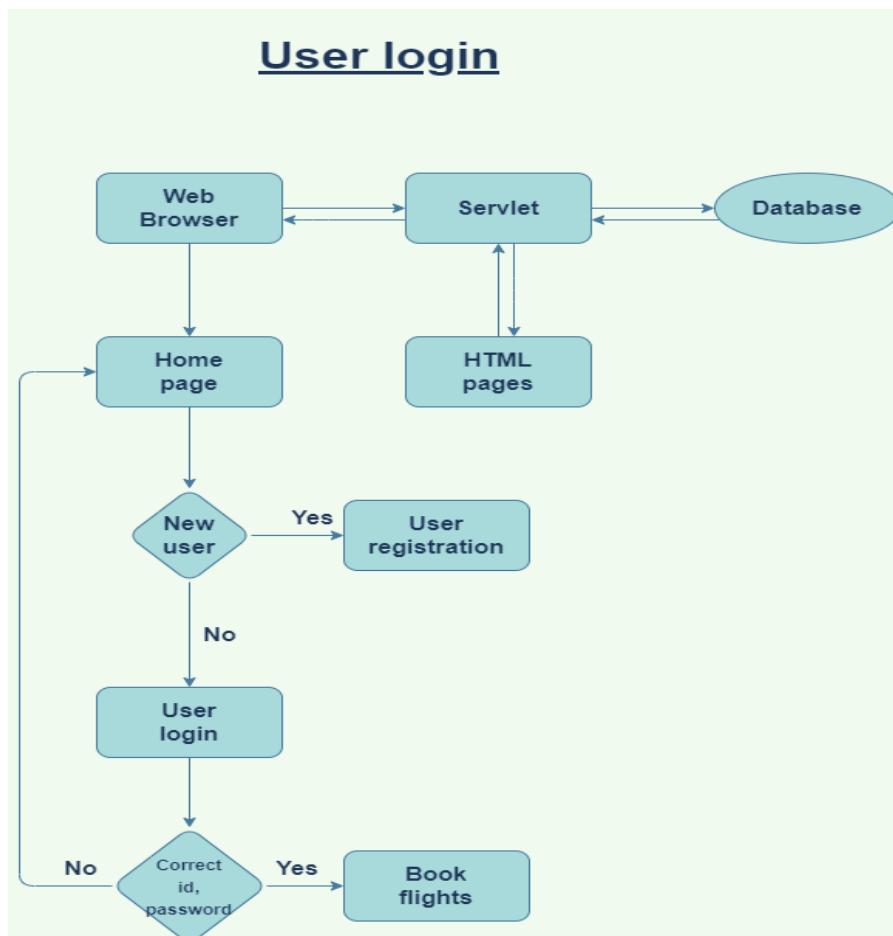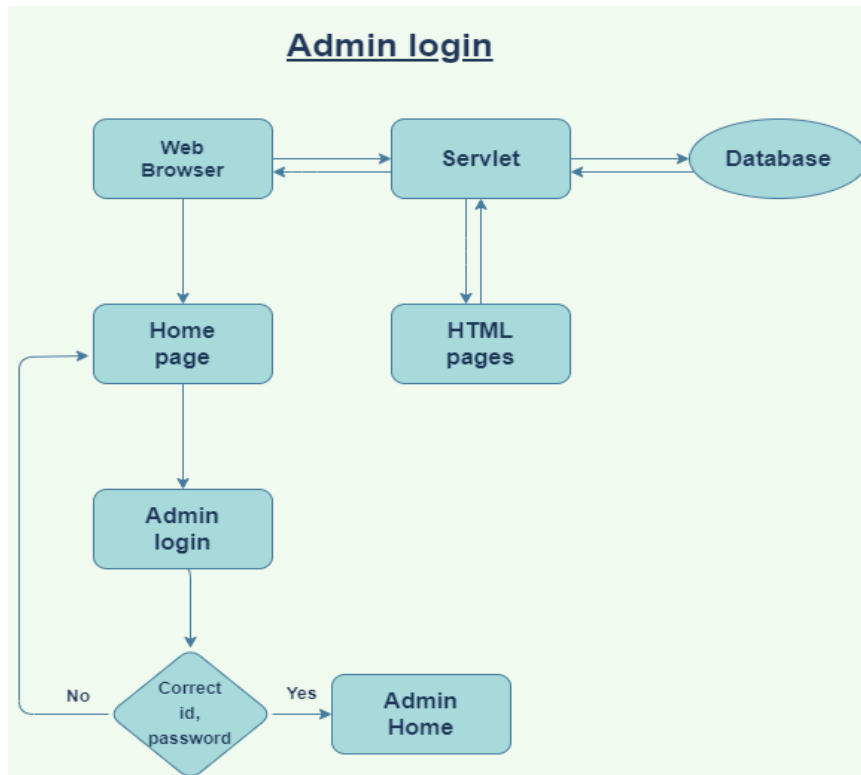- Specification document: Any open-source document or Google Docs

The following requirements should be met:

- The source code should be pushed to your GitHub repository. You need to document the steps and write the algorithms in it.
- The submission of your GitHub repository link is mandatory. In order to track your task, you need to share the link of the repository. You can add a section in your document.
- Document the process step-by-step starting from sprint planning to the product release.
- The application should not close, exit, or throw an exception if the user specifies an invalid input.
- You need to submit the final specification document which will include:
- Project and developer details
- Sprints planned and the tasks achieved in them
- Algorithms and flowcharts of the application
- Core concepts used in the project
- Links to the GitHub repository to verify the project completion

1.2 Core concepts used in the project:

➔ Used Java Language in Eclipse IDE.
➔ File Handling
➔ Collections framework
➔ Sorting
➔ Flow Control
➔ Recursion
➔ Exception Handling
➔ Streams API
➔ MYSQL
➔ Servlets
➔ JSP

2. Architecture diagram / flow chart

Admin login

```
Web                Servlet              Database
Browser

Home               HTML
page               pages

Admin
login

No    Correct    Yes    Admin
      id,                Home
      password
```

User login

```
Web                Servlet              Database
Browser

Home               HTML
page               pages

New        Yes     User
user               registration

          No

User
login

No    Correct    Yes    Book
      id,                flights
      password
```

2.1 Project Users Stories : (Agile and Scrum)

The project is planned to be completed in 3 sprints. Tasks assumed to be completed in the sprint are:

- Creating the flow of the application
- Initializing git repository to track changes as development progresses.
- Writing the Java program to fulfill the requirements of the project.
- Testing the Java program with different kinds of User input
- Pushing code to GitHub.

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

Sprint 1

1) Adding or modifying flight details by admin.

2) Observe the available flights.

3) Observe source and destination location.

4) Add/Increase ticket price.

Sprint 2

5) Options of choosing my preferable airline by user.

6) See available flights on booking date.

Sprint 3

7) Storing user data

3. Directory Structure / package:

Demonstrating the product capabilities, appearance, and user interactions

To demonstrate the product capabilities, below are the sub-sections configured to highlight appearance and user interactions for the project:

Home page:

Admin Login:

FlyAway

Admin Login

Email :- [_____]

Password :- [_____]

[submit] [Reset]

Forgot Password

Admin Home

FlyAway

Insert New Flight Details

Name :- [_____]

From :- [_____]

To :- [_____]

Departure :- [_____]

Time :- [_____]

Price :- [_____]

[submit] [Reset]

User registration:

FlyAway

Email :- [_____]

Password :- [_____]

Name :- [_____]

Phone No. :- [_____]

Aadhaar No. :- [_____]

[submit] [Reset]

User Login:

FlyAway

User Login
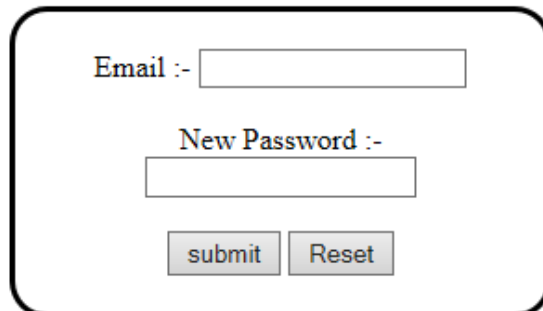
Email [_____]
Password [_____]
[submit] [Reset]

New User-Create account

Create Account

Forgot password:

FlyAway

Email :- [   ]

New Password :-

[   ]

[submit] [Reset]

Pushing the code to GitHub repository

- Open your command prompt and navigate to the folder where you have created your files.

  cd <folder path>

- Initialize repository using the following command:

  git init

- Add all the files to your git repository using the following command:

  git add .

- Commit the changes using the following command:

  git commit . -m <commit message>

- Push the files to the folder you initially created using the following command:

  git push -u origin master

Conclusions

In the program an application has been developed in three sprints. This application handle the data of the FlyAway (An Airline Booking Portal). All the data about airlines are visible to user. The admin can login through a admin id and password and can manipulate the data.