Java FSD with Angular: Course End Project 2

1. Project Details

Project Title: FlyAway

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.

2. Developer Details

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Designation: Technical Trainee

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3. Project Background and Problem Statement

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

- 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.

4. Sprints Planned

- **Sprint 1:** Planning and Designing UI

- **Sprint 2:** Creating Frontend and Defining Entities
- **Sprint 3:** Developing Admin Portal
- **Sprint 4:** Developing User Portal
- **Sprint 5:** Testing and Documentation

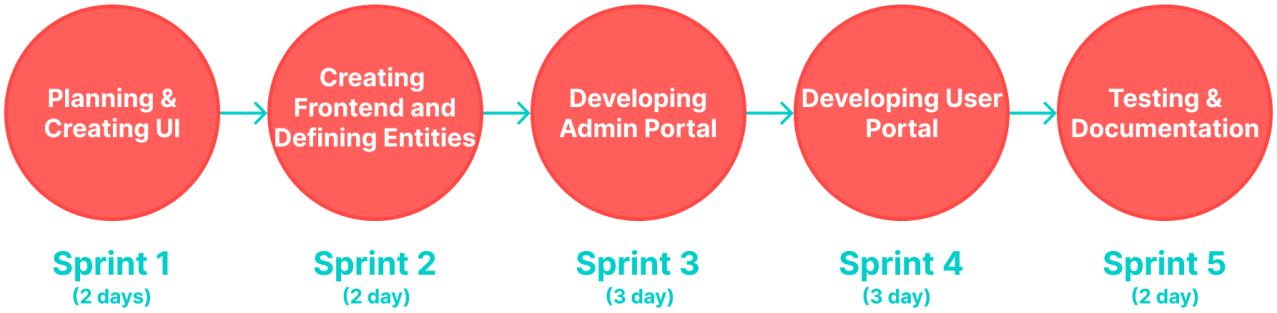

Fig: Sprints Flow diagram

- **Sprint 1: Planning and Designing UI (Duration: 2 Days):**

  Understanding the requirements and functionalities of the application, Setting up the development environment (Eclipse, Git, GitHub). Started developing welcome of the application.

- **Sprint 2: Creating Frontend and Defining Entities (Duration: 2 Day):**

  Developing frontend of all portal using JSP, HTML, CSS and also creating entities required for the project.

- **Sprint 3: Developing Admin Portal: (Duration: 3 Day):**

  Once all the database entities are developed stared developing backend for admin to add place, flights, allocating flights and also to viewing all details present in the database.

- **Sprint 4: Developing User Portal (Duration: 3 Day):**

  Developing backend for finding flights using date, source, destination and developing backing to get passenger details from users and storing it in the database.

- **Sprint 5: Testing and Documentation (Duration: 2 Days):**

  Testing an application and fixing any bugs if present and preparing the final documentation of the application.

5. Flowchart and Schema diagram

Flowchart of overall application:

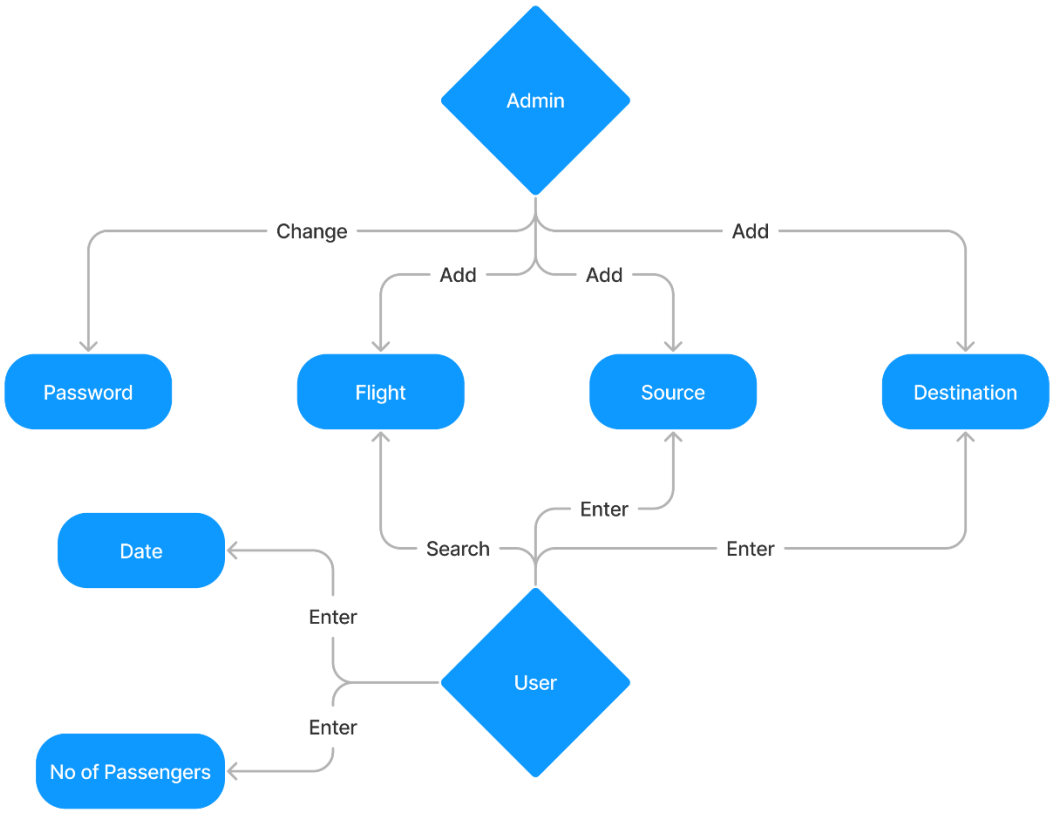

Fig: Flowchart

Schema diagram of database:

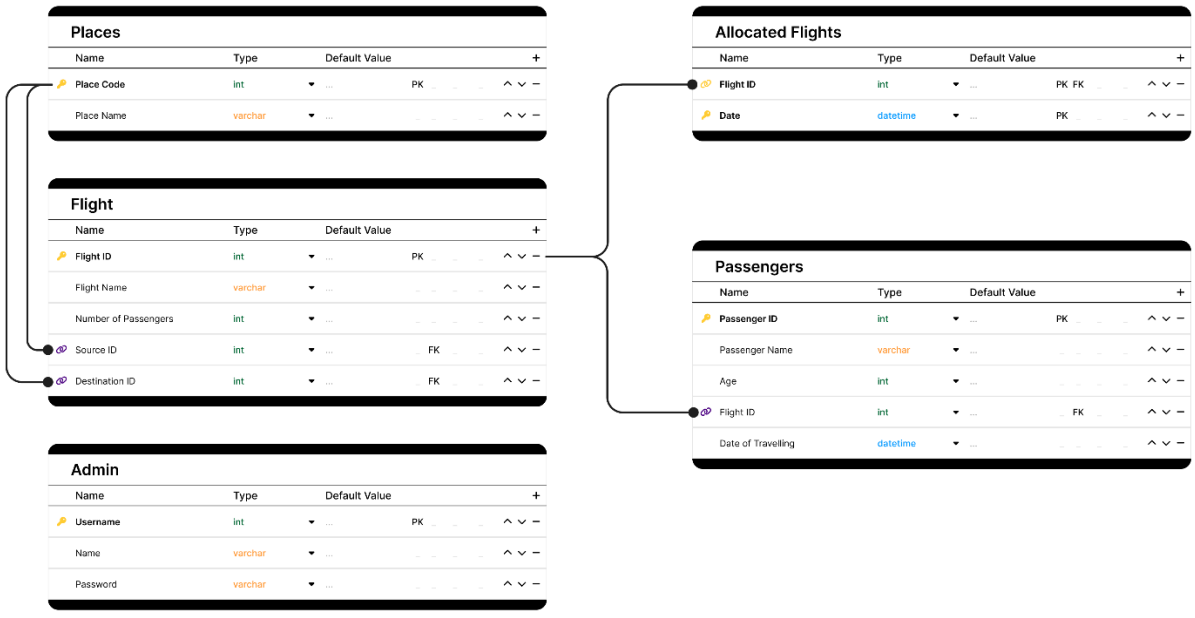

Fig: Schema Diagram

6. Core technologies used in the project

- **Java**
- **Hibernate**
- **JSP**
- **HTML and CSS**

7. GitHub Repository

The source code for the FlyAway prototype can be found in the following GitHub repository: https://github.com/Manoj-14/Airline-Booking-Portal

8. Admin Credentials:

Username: admin@gmail.com

Password: Admin

9. Conclusion

FlyAway project is to design and develop a fully functional airline booking portal named FlyAway using Java programming language, Hibernate, JSP, SQL for database management, and GitHub for version control. The portal will allow users to search for available flights, select a flight, provide personal details, and make payments via a dummy payment gateway. The project will be implemented using the Scrum agile framework with more than two sprints planned to complete the application. The core concepts and algorithms that will be used in this project include search and sort techniques, collections, and exceptions for source code optimization and increased performance. The final product will be accompanied by a specification document that includes project and developer details, sprints planned, algorithms and flowcharts, core concepts used, and links to the GitHub repository for verification of project completion..