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Flight Reservation Portal(PROTOTYPE)

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OVERVIEW

Flight reservation system is a **Spring boot** application and **REST API** that can be used as a microservice by **CHECK-IN Application**(spring boot project) Which allows users to Register, Login, Find Flights and book Flight with static data in the MySQL Database Through **OBJECT RELATIONAL MAPPING**.

GOALS

The Goal is to build a booking service application that is easy to use and can be used by Client applications either using Spring boot or Angular or in any framework which supports it.

Software Requirements.

1. Windows
2. Eclipse with Spring Configured
3. MySQL Workbench
4. Apache tomcat
5. Postman to test API Service
6. VS Code to build Angular client(if needed)

User stories

User story 1

As a user, I want to register myself on a portal.

Acceptance Criteria:-

- 1) Display user registration form to users with basic details needed.
- 2) Validate all the fields that the user enters.
- 3) Ask the user to login after registration is completed.

User story 2

As a registered user, I should be able to log in on the portal.

Acceptance Criteria:-

- 1) On click of login button user should be authenticated with password stored in database.
- 2) After successful login, the user should land on find flights page.

User story 3

As a User, I should be able to search and select flights to book.

Acceptance Criteria:-

- 1) On click of find flight button user should land on flight details page.
- 2) Users should see the select button to select flight to book.
- 3) After selecting the flight he should land on page to book flight by entering details.

User story 4

As a user, I want to book the flight and receive the ticket attached in an email provided in passenger details.

Acceptance Criteria:-

- 1) Users should be able to enter details to book the flight.
- 2) Users should get confirmation with a booking id as well as a ticket in the email configured.

User story 5

As an ADMIN, I want to add flights into the system.

Acceptance Criteria:-

- 1) One should be authenticated as an ADMIN role.
- 2) As an admin he should be able to access the add flights page on the system to add flights.

FUNCTIONALITIES

Below are the listed functionality of the system.

- 1) **Register** the user and store the details in the database(*user table*).
- 2) **Authenticate** with username and password stored in the database.
- 3) **Find the flights** by entering *FROM, TO* and *DATE* fields Mapped with *Departure city, Arrival City* and *Date of Departure* in Flight Table.
- 4) **Retrieve** the flight details(*from Flight table*) and populate the passenger & payment information(*Dummy not implemented*) and book the selected Flight.
- 5) Passengers Information will be stored in the *Passenger table* and after booking a reservation table will be updated with one record and the user will receive a reservation ID that can be used while CHECK-IN.
- 6) Admin can **Access** the ADD FLIGHTS Portal(*work in progress*).

Endpoint URL:

<http://localhost:9090/flightReservation/> (Source code/demo will be provided on-demand).

API Implementation:-

Feature Exposed as API:

- 1) Check-In Application will use this API to access our Flight reservation application.
- 2) In check-In Application user will enter the reservation ID and the Check-In Application will use our **BACKEND Service** to show the details and ticket booked by the user.
- 3) **Check-In Application** will show a form to the user to enter no. of bags before Check In.

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- 4) Once a user enters the No. of bags and clicks on the submit button, then Our Flight reservation Application will be updated with the information provided by the user.
 - 5) For these features to be used by CHECK-IN Application we need our software as an API service.

API ENDPOINTS:

- 1) To fetch the reservation based on reservation-Id from Flight Reservation Application.
<http://localhost:9090/flightReservation/reservation/{id}>
- 2) To update the details after successful check-In.
<http://localhost:9090/flightReservation/reservation/>

Flight Check-In Application_(PROTOTYPE)

OVERVIEW

Flight Check In application is a **spring boot Application** that implements flight reservation application using **API Endpoints**. This can be used for Check-In with **reservationId** and Update the Reservation Table after successful Check In.

Functionalities:

- 1) Allows user to enter reservationid to Start Check-In
- 2) Validate the id with the backend service and show the reservation details.
- 3) Allows users to enter the number of bags to Proceed Check In.
- 4) Show the user to check In Confirmation details.

ENDPOINT URL:

<http://localhost:8080/flightCheckIn>

SUMMARY:

This documentation contains the process and specification about Flight reservation Application As well as flight check In Application.

Note: Source code and demo and demo of both the projects can be provided on request.