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Report on Project of CSE 215

Section: 7

Group: 9

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Topic: Online Flight Booking System.

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1. Abstract

We have made a project that will present the flight booking application that will allow users to search for flights, book tickets and manage reservations. The application utilizes Java swing for the graphical user interface (GUI) and employee's multithreading to handle concurrent booking request efficiently. We have used method, inheritance, loops and array also. We have tried to make it user friendly.

2. Introduction

Menu page will be starting with search flight, see booking and also log out options. This project aims to create a flight booking application that facilitates users in searching, booking and managing their reservations seamlessly. The application is designed with a focus on performance, utilising multithreading to handle multiple user requests concurrently. [multithreading works is ongoing, not completed].

3. Functional Requirements

1. Users can search for available flights based on departure and arrival locations, date and time.
2. Users can book tickets and received confirmation.
3. Users can view, modify and cancel their reservations.

4. Multithreading

We used to manage multiple threads ensuring that the booking request do not block by the user interface. Each booking operation is managed in a separate thread. It will go to confirm booking where users will put details individually for number of people they choose.

5. Data Storage

Flight data and booking information are stored in text files. There will be 5 X 20 array of seats, which will be next to one another. User will open the program, login and find then will be able to book. Even it will show if whether seats are available or not.

6. GUI Design

By the help of GUI design, we have ensured some issues, which will handle user requirements more frequently.

- Facilitates ticket booking and display booking confirmation.
- Enable users to view and manage reservations.
- Display available flights.
- Allow user to input flight search criteria.
- After one confirmation they can go back to menu and search for another one.

7. Conclusion

The flight booking applications successfully demonstrates the ability to handle multiple concurrent users why providing an easy to use interface. Future enhancements could include integration we the database for more robust data management and the addition of online payment functionality. This will save time of user and in near future we will update it more.