Flight Booking System

Using Java programming language

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# Executive Summary

This report aims to present an

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# Introduction

The Flight Booking System is an interactive application developed to automate flight booking management operations. This report presents the design, implementation, and evaluation of the Flight Booking System, which was developed applying object-oriented programming principles.

# Objectives

The primary objective of this project was to apply object-oriented programming principles to develop a command-line and GUI-based application for managing flight bookings. The key functionalities included adding new flights and customers, issuing and canceling bookings, displaying flight and customer details, and persisting data in text files.

# Implementation

The Flight Booking System was implemented using Java programming language. Object-oriented design principles were applied to create classes such as Flight, Customer, Booking, and FlightBookingSystem, encapsulating various functionalities and data.

The system utilized text files (flights.txt, customers.txt, bookings.txt) as backend storage to store information about flights, customers, and bookings. Each entity's properties were stored in a single line in the text files, separated by double colon delimiters.

# Functionality Overview:

The implemented functionalities include:

### ***Adding new flights and customers to the system***

### *Listing all flights and customers stored in the system.*

### *Issuing bookings for customers and canceling bookings.*

### *Displaying details for a particular customer or flight.*

### *Saving the system's status to backend storage upon closure and loading it upon startup.*

### *GUI extension for basic functionalities such as displaying customer lists, customer details, booking details, and adding new customers.*

### *Error handling for file storage failures.*

# Conclusion

The Flight Booking System successfully achieved its objectives by applying object-oriented programming principles to develop an interactive application for managing flight bookings. The system demonstrated robust functionality, error handling, and extensibility, making it a valuable tool for airline booking operations.

# Acknowledgement of Equal Contribution

This Flight Booking System project was a collaborative effort between two team members, Sudeep Fullel and Abhash Rai. Both team members contributed equally to the design, implementation, and testing phases of the project. The distribution of tasks was fair and balanced, ensuring that each member had an opportunity to contribute their skills and expertise effectively.

Proof of equal contribution by both team members is provided through the GitHub repository for the project. The commit history, pull requests, and contributions graph on the repository demonstrate consistent and balanced participation from both Mr. Fullel and Mr. Rai throughout the development process.

GitHub Repository Link:

Both team members actively engaged in discussions, shared ideas, reviewed each other's code, and addressed issues collaboratively to ensure the successful completion of the project. The equal distribution of work and mutual support between [Name1] and [Name2] underscored their commitment to teamwork and shared responsibility for the project's success.

# References