

Advanced Programming Fall 2021

Assignment # 2

Due Date: 23rd October 2021

Individual Assignment

Marks: 100

A typical flight reservation system asks for information from the customers about the origin, destination, passengers, flight dates, and travel document identity. Some of the vital details include name, gender, age, address, passport number, the type of plane the customer would like to travel in, and the customer's destination point. The most important part of any reservation system is its search functionality can find out several direct and indirect flight options for a client according to the given parameters. During the search phase, additional information may also be presented to the customer such as the lowest fare on a particular date, number of available seats at the point of search. The system also displays the unavailability of seats meeting the desired criteria. Cancellation of a reserved seat and any permissible changes in the reservation should also be part of the reservation system. The flight reservation system is efficient enough to re-track the number of available seats as soon as a cancellation is made. The flight reservation system possesses the capacity to print tickets with all the details such as flight details, passenger data, the class, name of the plane, in addition to the destination. A price list of various tickets is also included in the system. Customers can use the search engine in the system to find a suitable flight for them. They interact with the system by filling the search. Customers can choose any ticket from the flight calendar. In the flight calendar, customers can view all available flights. Both customers and the admin can insert their details into the system. To interact with the system, customers can add their information to the system. The system supports purchasing process. Customers can make payments to book a flight. They can insert their card details and confirm the payment. Also, they receive the booking reference code after they make the payment successfully. Customers can print E-ticket. When customers finish the booking process, they receive their tickets directly. Also, they can print the ticket. Here, the system contains login feature. Customers can therefore make use of this system to make reservations, modify reservations in addition to cancel reservations.

Utility Classes

Flight, Passenger, Date and Time Etc.

Driver Class

Developed the above-mentioned classes along with a driver class and test the functionality of your classes. You should provide a console-based menu in the main method from which different functionalities can be invoked.

Note: Exception Handling is mandatory for this Assignment. You need to use and develop custom exception class where appropriate. Please use file handling to keep the records of different flights,

passengers, a complete schedule (i.e., passenger, ticketno, source, destination, flight time, day, time, seatNo, business/first/economy class), list of reservations.