

Assignment 1

Title : Book Your Trip – The Air Way

Problem Statement:

Focus of the Problem:

The "Book Your Trip – The Air Way" database project is an attempt to stimulate the basic concepts of trip booking system on a "distributed environment". Basically, the system enables the user to search and book flights between two cities, and to search and book cab from their location to nearest airport or vice versa and allows user to search and book hotels or any home stays for accommodation during their entire trip.

Data Flow and Control Flow:

To book a flight, user has to create an account in the system to avail the facilities by providing details such as first name, last name, Adhaar number, email ID, phone number, gender, age, permanent address. Once the account is created, then user can search the flights by providing traveling details such as departure city, arrival city, date of travel, time, number of passengers and travel class. Based on user data, system will show all the flights available, then user has to select flight based on their convenience by looking at airlines company, fare and direct flight or via some other airport. If there are no seats available, user has to select another flight and if there are any other travelers, then user needs to enter their details such as first name, last name, gender and age, after that system will redirect user to payment page where user needs to provide the payment details such as debit/credit card number, card holder name and password, then a pop-up message will appear about the payment successful or not. If payment is unsuccessful, then user needs to do payment once again.

While booking a flight, user is asked to avail the additional services provided by the system such as cab service, hotel service and home stay then user is redirected to particular page.

As user wants to book a cab, system takes user details such as first name, last name, phone number which are provided while booking the flight or hotel or home stay and user needs to enter some additional details such as pickup point and drop point and pickup time, then the system will book the cab for the user and a message is sent to user on a registered phone number with cab number, driver name and driver contact number after that user can do payment after reaching the drop point.

As user wants to book a hotel, system takes user details such as first name, last name, Adhaar number, phone number, permanent address which are provided while booking the flight and user needs to enter some additional accommodation details such as city or area where the user is going to stay, check in, checkout date and time and number of guests. Based on user data, system will show all the available hotels, then user has to select a hotel according to their convenience by

looking at nearest hotel, fare and reviews. After that user can book any hotel and can do payment at the time of check in or checkout.

As user wants to book a home stay, system takes user details such as first name, last name, Adhaar number, phone number, permanent address which are provided while booking the flight and user needs to enter some additional accommodation details such as city or area where the user is going to stay, check in, checkout date and time and number of guests and number of rooms required in a home stay. Based on user data, system will show all the available home stays, then user needs to select a home stay according to their convenience by looking at nearest home stay, fare and reviews. After that user can book a home stay and can do payment at the time of check in or checkout.

Queries:

- Retrieve the flights details between two cities.
- Book a cab from user location to some airport to board a flight to some city.
- Booking of hotel/ home stay for some user in arrival city.
- Booking of cab from some airport to user booked hotel/home stay in arrival city.
- Booking of cab for a user to airport and booking a hotel/home stay in arrival city.
- Update flight/cab/hotel/home stay details of some user.
- Cancel flight/cab/hotel/home stay of some user.

Constraints:

- To update any changes in trip/hotel/home stay details, user has to update it before 24 hours of departure time, after that no updates will be allowed.
- To cancel a cab/flight ticket/hotel/home stay, user has to cancel it before 24 hours of departure time and refund policy will be decided by airlines.
- While boarding the flight, cab should be booked such that passenger should reach the airport at least one hour before the boarding time.
- On arrival side of the flight, the cab/hotel/home stay should be booked after arrival time of the flight.

Number of sights/locations:

- Cabs

- Flights
- Hotels
- Home stays