Airports and Airlines Database

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GROUP NO : 5.8

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Scope of Database

Airport and Airlines database management system is a database project which primarily deals with the records of the airport, airlines, passengers, tickets, flights and employees working for an airport. The system also provides DML operations like add, update or remove records from the Database.

Description

Airports offers number of flights from different airline companies. Passengers can choose any flight according to their choice. Airport also has employees which work at given airport. Also flights have different timings and different source and destination. For database purpose we have assumed while flight airplane does not stop at intermediate airport meaning flight has no stopping point till destination.

Airport has three attributes name of airport, airport ID which is unique means world wide all airports has different IDs and city. Similarly Airlines have unique airline ID and Airline name.

Passengers have attributes like name, passport no., age, sex, address and phone no. Here passport no. unique for each passenger.

Employees of airports have their SSN, name, type of job (e.g. security, butler), address, sex, phone no. and salary. Also each employees have unique SSN.

Flight has source and destination (city), flight no., Airline company, Arrival time, Departure time, Duration, No. of kilometers travelled. Here flight no. is unique also all flights are passenger flights only.

For Ticket, we record ticket no., flight no., Date of travel, Booking date, seat no., class and price. Here flight no. and seat no. will compositely make primary key.

City entity consists of city name, state name and country name.

Sample Queries

1. List of flights in order of their price (increasing) connecting city A and B on date D ?

2. List all the flights which are departing from the particular airport after 5:00 PM.

3. Number of tickets sold of Business class on a particular day from one state.

4. List all the foreigner passengers arrived on a day, i.e. passengers who are not citizen of the country in which the airport is.

5. List all the Airport butler along with the passenger name who will be served by them (Not during flight).

6. Retrieve all airlines which flies with all seats booked.

7. List all the employees who work in airport whose age is between 25-30.

8. Count number of flights which connect city A and B via C (Passenger has to take two flights).

9. How much money each airlines made on date D.

10. How much gallons of fuel is used by airplanes on particular day.

11. List all the flights which were delayed more than 2 times in the last 2 month.

12 . List the most used terminal of the airport in terms of flight boarding in the last month.

13 . List all flights for round trip from city A to B on date X and from city B to A on date Y .

14 . Give average ticket price for traveling from city A to B.