

## Database Management Systems – Lab Assessment

Date: 11.05.2022

Duration : 1 h 30 Minutes

Develop a database for a flight plan management system where the passenger maintains a profile containing the profile id, password, Name, date of birth, address, mobile number & email. Each passenger pays for the ticket using the credit card details that is maintained separately. Credit Card details include the card number, issuer and the expiry period of the card. A passenger may book tickets for a flight containing the unique ticket no, departure date and class. A flight is identified by its ID and includes info like the arrival and departure date time as well as the total seats and booked seats. A flight schedule is created using the flight details and denotes if there is any delay.

1. Develop an ER Diagram for Airport Authority using above scenarios and attributes. Include additional attributes based on the need.
2. Create required tables using the ER Diagram and enforce necessary constraints. List down all primary keys, unique keys and foreign keys enforced in the system. Also write insert statements to populate at least 2 rows in each table.
3. Write and Execute sql queries for below scenarios.
  - a. List the passenger details grouped by the city in which they live and order by their age in descending manner.
  - b. List of all customer profile id and first name who has Maestro or Visa card along with the amount spent in buying tickets.
  - c. Find the total number of passengers registered in the system. Also find total number of flights available for the Airport authority.
  - d. Generate a monthly report for the Airport Management depicting the details of the flights, their arrival & departure dates, delay time, total seats and seats booked.
  - e. Write a query to provide details to the cabin crew containing Passenger Name, Mobile no, Unique ticket no, seat no, departure date, class, Flight ID, Departure Date Time and flight delay.

ERD	Table Creation	Table Population	Queries	Total
5	5	5	15 (5*3)	30