The goal of this project is to design and build a system to maintain the records of airport and  aviation companies associated with it along with the details of passengers who took the flights for  the same. This system will provide facilitation to both the staff and the passengers of the airport along with management of the same.

The major goal is to design a highly optimized database management system that is well  normalized and fulfills the necessary integrity constraints required for the same.

**CEP Statement:**

An aviation company requires a database to store details about an airline’s fleet, flights, and seat bookings.  The entities for the required database can be identified via the requirements below: - The airline has one or  more airplanes.

- An airplane has a model number, a unique registration number, and the capacity to take one or more  passengers.

- An airplane flight has a unique flight number, a departure airport, a destination airport, a departure date  and time, and an arrival date and time.

- Each flight is carried out by a single airplane.

- A passenger has given names, a surname, and a unique email address.

- A passenger can book a seat on a flight.

You are required to create a logical entity relationship diagram (ERD) fulfilling the above requirements  followed by the physical database implementation in any RDBMS of your choice. Perform the following  actions on the created database.

1. Use meaningful names and datatypes during the database design.

2. Design and execute queries to create the tables. Assign keys and create the relationships between  the tables.

3. Design the relation tables where necessary.

4. Populate the database with that must follow the following criteria:

• There must be the details of at least 10 Airlines.

• Every airline must provide at least one flight.

• Every flight must have at least 20 passengers.

• There should be details of pilots for every flight.

• There should be the details of at least 20 staff members including hostess, guards,  administrator, booking officer or any other of your own choice excluding the details of the  pilot.

• There should be the passenger details against every passenger who took flight. • One Passenger may take more than one flight on different times from different locations.

5. Retrieve the booking details for all passengers flying on 24-03-2023 and delete the booking details  for the date 20-03-2023. (Hint: a booking table must be created in the database).  6. Create a view on the flights table displaying only the flight number, source, and destination of the  flight. Update the view such that the flight on 24-03-2023 departs from Dubai and arrives in  Pakistan.