



Bangladesh Army University of Engineering & Technology
Department of CSE
2nd Year 1st Semester (Summer-2024) Group: A
Course Code & Title: CSE-2106 & Database Systems Laboratory

Lab Test: 01

Full Marks: 15

Time: 1 hour 30 Minutes

Aviation Industry Database System

The system should keep track of the company's flights, aircraft, passengers, and bookings. You will create four tables: **Flights**, **Aircraft**, **Passengers**, and **Bookings**, with appropriate primary keys, foreign keys, and default values where necessary.

Table: Flights

FlightID	AircraftID	DepartureCity	ArrivalCity	DepartureTime	ArrivalTime
1	101	New York	Los Angeles	2024-10-25 08:00:00	2024-10-25 11:30:00
2	102	London	Paris	2024-10-25 09:00:00	2024-10-25 10:30:00
3	103	Tokyo	Seoul	2024-10-25 07:00:00	2024-10-25 09:00:00

Table: Aircraft

AircraftID	Model	Capacity	Status
101	Boeing 737	180	Active
102	Airbus A320	180	Active
103	Boeing 777	350	Inactive

Table: Passengers

PassengerID	FirstName	LastName	Email
201	John	Doe	john.doe@example.com
202	Jane	Smith	jane.smith@example.com
203	Alice	Johnson	alice.johnson@example.com

Table: Bookings

BookingID	FlightID	PassengerID	SeatNumber
301	1	201	12A
302	2	202	15B
303	3	203	10C

Questions: [CO2, PO5, C2, C3]

1. Show all flights that are not using aircraft models "Boeing 737" or "Airbus A320". 2
2. Show all flights departing between '2024-10-25 06:00:00' and '2024-10-25 10:00:00'. 2

3. Develop a SQL query to find passengers who have bookings for flights where the aircraft status is 'Active'. 2
4. Construct a SQL query to combine the results of all active flights and all inactive flights into one list. 2
5. Perform the following operations: 2
 - Add a column FlightStatus (VARCHAR(20)) to the **Flights** table with the default value 'Scheduled'.
 - Delete all bookings where the SeatNumber is '15B'.
6. Develop a SQL query to retrieve the details (PassengerID, FirstName, LastName, and Email) of passengers who have booked at least one flight with an arrival city of "Los Angeles." 2.5
7. Develop a SQL query to list the details (AircraftID, Model, Capacity, and Status) of all aircraft that have never been associated with any flight that has bookings. 2.5