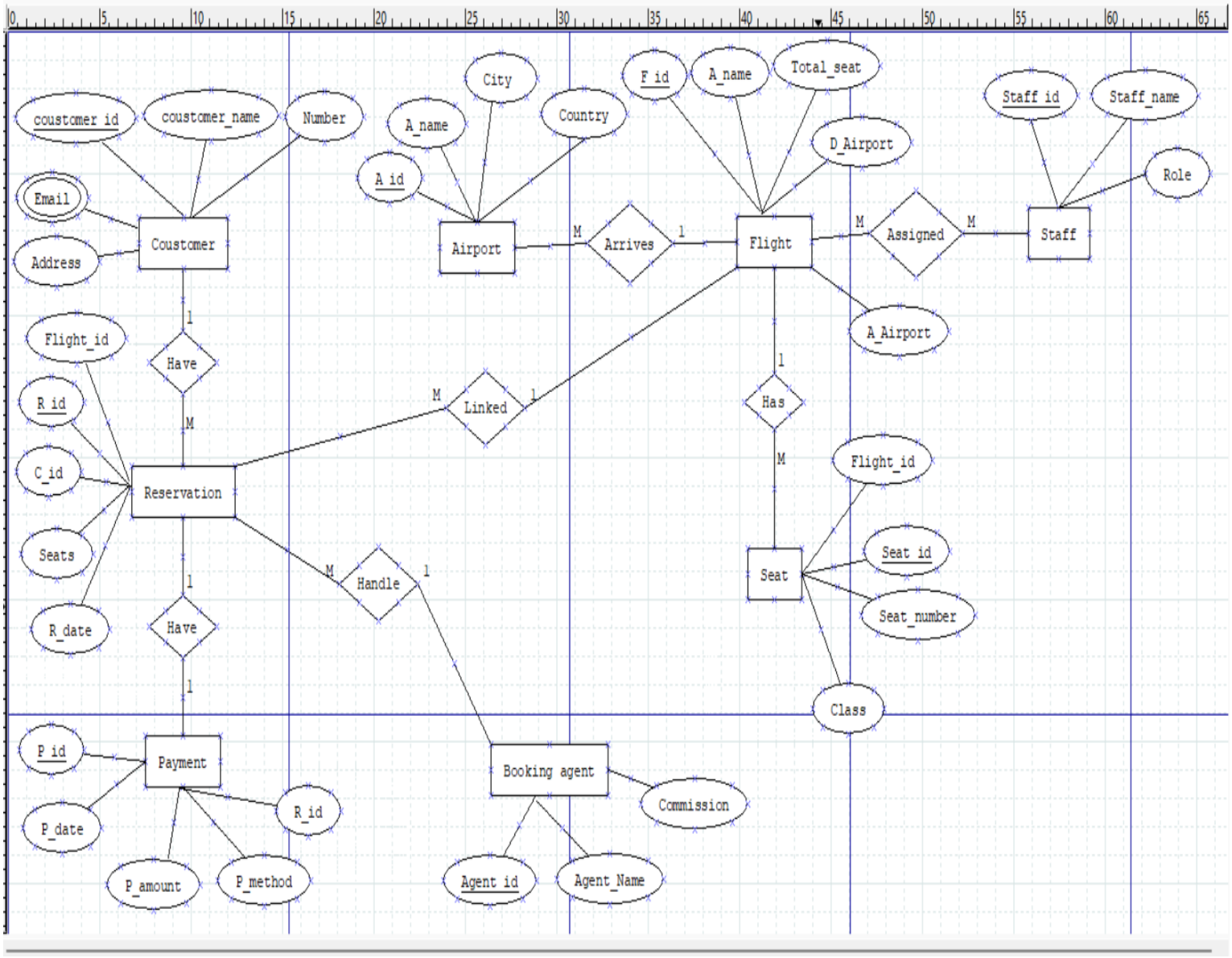
Case Study / Scenario

Student ID1: 23-50952-1 NAME : MD Saif Zaman	StudentID3: 23-50939-1 Name: MD.Mehedi Hasan Abir
StudentID2: 23-50970-1 Name: Choyon Adhikari	StudentID4: 23-51608-2 Name: MD Jubayer Ahmed Himon
CO2: Understand the fundamental concepts underlying database systems and gain hands-on experience with ER diagram Case study	
PO-c2: Develop process for complex computer science and engineering problems considering cultural and societal factors.	Marks

Case Study:

In the Airline Reservation System (ARS), a customer may make multiple reservations, but each reservation is linked to exactly one customer. A customer is identified by a Customer ID, which includes their name, phone number, email address, and address (composed of house number, street name, and city). Each customer can have multiple email addresses. A flight reservation is identified by a Reservation ID and linked to a specific flight. The reservation stores the reservation date,coustomer id, the number of seats booked, and the flight id. A flight is identified by a Flight ID and includes details such as the airline name, departure airport, arrival airport. Each reservation is linked to a payment. A payment includes the Payment ID, payment date, payment amount,reservation id and payment method (e.g., credit, debit, PayPal). A reservation may be made through a Booking Agent, where an agent can handle multiple reservations. Each agent is identified by an Agent ID, which includes their name and commission percentage. Each flight is assigned to a staff member (e.g., pilot or crew), and each staff member can manage multiple flights. Staff members are identified by Staff ID, which includes their name, role, contact number.Each ticket for a flight is linked to one specific seat, with seats categorized by Seat ID, Seat Class, and seat number. Additionally, each flight departs from a specific airport, identified by Airport ID, along with the airport name, city, and country.

ER Diagram:


coustomer id
coustomer_name
Number
Email
Address
Coustomer
1
Have
M
Flight_id
R_id
C_id
Seats
R_date
Reservation
1
Have
1
P_id
Payment
P_date
R_id
P_amount
P_method
City
A_name
Country
A_id
Airport
M
Arrives
1
F_id
A_name
Total_seat
D_Airport
Flight
M
Assigned
M
Staff
Staff_id
Staff_name
Role
A_Airport
1
Has
M
Flight_id
Seat
Seat_id
Seat_number
Class
M
Linked
1
M
Handle
1
Booking agent
Commission
Agent_id
Agent_Name