

ACS – 3902 - 002  
Database Systems

Assignment 1:

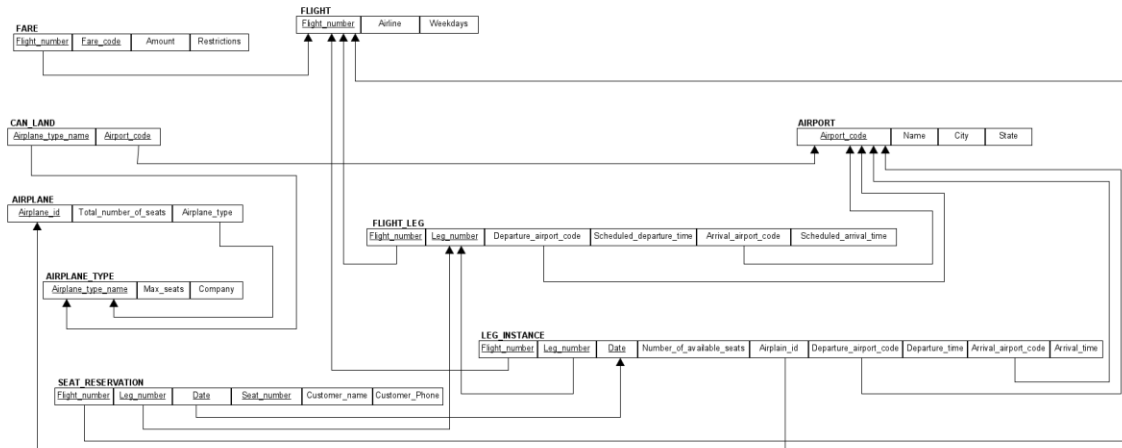
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## Part A

a)



b)

To create the reservation, we need to insert values into the SEAT\_RESERVATION table and the value will include Flight\_number, Leg\_number, Date, Seat\_number, Customer\_name, and Customer\_phone. We will need to create two rows of SEAT\_RESERVATION since the flight has two legs. Flight\_number, Leg\_number, and Date in the SEAT\_RESERVATION must reference Flight\_number, Leg\_number, and Date of the table LEG\_INSTANCE. Besides that, Seat\_number of these two SEAT\_RESERVATION rows must be different. Customer\_name and Customer\_phone can be filled without any restriction.

c)

In all the above operations, a domain constraint will be checked to avoid having a null in any of the attributes. Seat\_number will be checked for key constraint, and Flight\_number, Leg\_number, and Date will be checked for referential integrity constraint.

d/

One example of general constraint in the AIRLINE database is the semantic constraint in every attribute of each table. For each of the attributes, a datatype is given and it enforces the type of data that the attribute has in the table.