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Project Deliverable 3: Group 1

IS 410 Tuesday 4:30 P.M. – 7:00 P.M.

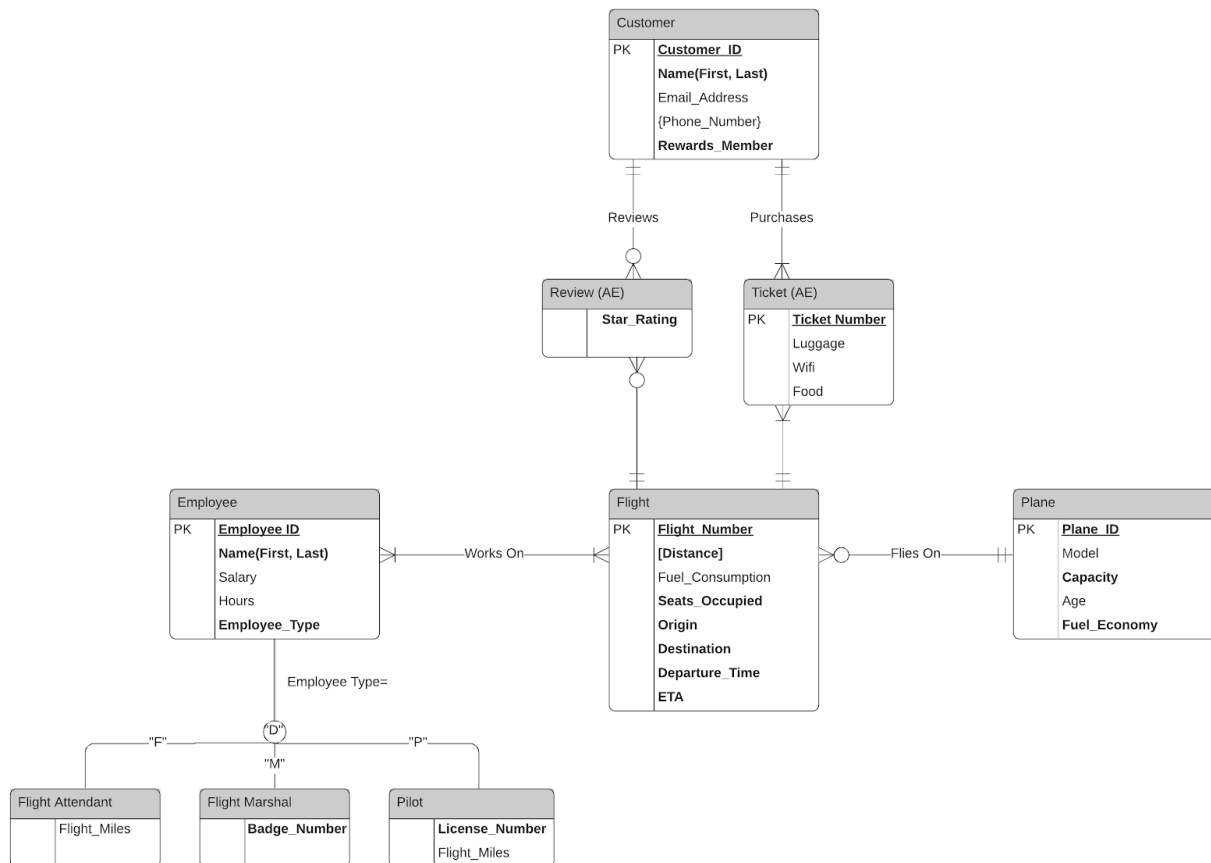
Professor Pan

Project Goals:

For this project, we created a database model for an imaginary airline company to do the following tasks:

- Track airline customers and contact information.
- Store records of each flight.
- Keep track of physical plane inventory and plane attributes.
- Store customer reviews for each flight to better gauge where to improve services.
- Keep records for each employee and what flights they have served on.
- Keep a history of tickets/boarding passes for each customer on each flight.

Revised Extended Entity Relationship Diagram:



Revised Normalized Relational Model:



Table Creation:

(Drop statements are included to get correct order of deletion when testing)

```

DROP TABLE Pilot_Table;
DROP TABLE Flight_Marshal_Table;
DROP TABLE Flight_Attendant_Table;
DROP TABLE Employee_Schedule_Table;
DROP TABLE Employee_Table;
DROP TABLE Ticket_Table;
DROP TABLE Review_Table;
DROP TABLE Flight_Table;
DROP TABLE Plane_Table;
DROP TABLE Phone_Number_Table;
DROP TABLE Customer_Table;

CREATE TABLE Customer_Table (
    Customer_ID INT NOT NULL,
    First_Name VARCHAR(20) NOT NULL,
    Last_Name VARCHAR(20) NOT NULL,
    Email_Address VARCHAR(30),
    Rewards_Member CHAR(1) NOT NULL
        CHECK (Rewards_Member IN ('T','F')),
    CONSTRAINT Customer_PK PRIMARY KEY (Customer_ID)
);
  
```

```

CREATE TABLE Phone_Number_Table (
    Customer_ID INT NOT NULL,
    Telephone_Number VARCHAR(20) NOT NULL,
  
```

```

CONSTRAINT Phone_Number_PK PRIMARY KEY (Customer_ID, Telephone_Number),
CONSTRAINT Phone_Number_FK FOREIGN KEY (Customer_ID)
    REFERENCES Customer_Table(Customer_ID)
);

CREATE TABLE Plane_Table (
    Plane_ID INT NOT NULL,
    Plane_Model VARCHAR(20),
    Plane_Capacity INT,
    Age INT,
    --max digits in number (precision) is 10, we want 2 decimal places (scale)
    Fuel_Economy NUMBER(10, 2),
    CONSTRAINT Plane_PK PRIMARY KEY (Plane_ID)
);

CREATE TABLE Flight_Table (
    Flight_Number INT NOT NULL,
    Plane_ID INT NOT NULL,
    Seats_Occupied INT,
    Origin VARCHAR(20) NOT NULL,
    Destination VARCHAR(20) NOT NULL,
    --Determined Distance should NOT go in separate table, non-key attributes
    --Origin and Destination not unique or primary keys.
    Distance NUMBER(10, 2),
    Departure_Time TIMESTAMP, -- format is 'YYYY-MM-DD HH(24):MI:SS.FF'
    ETA TIMESTAMP,
    Fuel_Consumption NUMBER(10, 2),
    CONSTRAINT Flight_PK PRIMARY KEY (Flight_Number),
    CONSTRAINT Flight_FK FOREIGN KEY (Plane_ID) REFERENCES Plane_Table(Plane_ID)
);

CREATE TABLE Review_Table (
    Flight_Number INT NOT NULL,
    Customer_ID INT NOT NULL,
    Star_Review INT NOT NULL,
    CONSTRAINT Review_PK PRIMARY KEY (Flight_Number, Customer_ID),
    CONSTRAINT Review_FK2 FOREIGN KEY (Flight_Number)
        REFERENCES Flight_Table(Flight_Number),
    CONSTRAINT Review_FK1 FOREIGN KEY (Customer_ID)
        REFERENCES Customer_Table(Customer_ID)
);

CREATE TABLE Ticket_Table (
    Ticket_Number INT NOT NULL,
    Customer_ID INT NOT NULL,
    Flight_Number INT NOT NULL,
    Luggage CHAR(1) CHECK (Luggage IN ('T', 'F')),
    Wifi CHAR(1) CHECK (Wifi IN ('T', 'F')),
    Food CHAR(1) CHECK (Food IN ('T', 'F')),
    CONSTRAINT Ticket_PK PRIMARY KEY (Ticket_Number),
    CONSTRAINT Ticket_FK1 FOREIGN KEY (Customer_ID)
        REFERENCES Customer_Table(Customer_ID),
    CONSTRAINT Ticket_FK2 FOREIGN KEY (Flight_Number)
        REFERENCES Flight_Table(Flight_Number)
);

CREATE TABLE Employee_Table (
    Employee_ID INT NOT NULL,
    First_Name VARCHAR(20) NOT NULL,
    Last_Name VARCHAR(20) NOT NULL,
    Salary NUMBER(10, 2),

```

```

Hours_Week INT,
Employee_Type VARCHAR(10)
    CHECK (Employee_Type IN ('Attendant','Marshal', 'Pilot')),
CONSTRAINT Employee_PK PRIMARY KEY (Employee_ID)
);

CREATE TABLE Employee_Schedule_Table (
    Flight_Number INT NOT NULL,
    Employee_ID INT NOT NULL,
    CONSTRAINT Employee_Schedule_PK PRIMARY KEY (Flight_Number, Employee_ID),
    CONSTRAINT Employee_Schedule_FK1 FOREIGN KEY (Flight_Number)
        REFERENCES Flight_Table(Flight_Number),
    CONSTRAINT Employee_Schedule_FK2 FOREIGN KEY (Employee_ID)
        REFERENCES Employee_Table(Employee_ID)
);

CREATE TABLE Flight_Attendant_Table (
    Employee_ID INT NOT NULL,
    Flight_Miles INT,
    CONSTRAINT Flight_Attendant_PK PRIMARY KEY (Employee_ID),
    CONSTRAINT Flight_Attendant_FK FOREIGN KEY (Employee_ID)
        REFERENCES Employee_Table(Employee_ID)
);

CREATE TABLE Flight_Marshal_Table (
    Employee_ID INT NOT NULL,
    Badge_Number INT NOT NULL,
    CONSTRAINT Flight_Marshal_PK PRIMARY KEY (Employee_ID),
    CONSTRAINT Flight_Marshal_FK FOREIGN KEY (Employee_ID)
        REFERENCES Employee_Table(Employee_ID)
);

CREATE TABLE Pilot_Table (
    Employee_ID INT NOT NULL,
    License_Number INT NOT NULL,
    Flight_Miles INT,
    CONSTRAINT Pilot_PK PRIMARY KEY (Employee_ID),
    CONSTRAINT Pilot_FK FOREIGN KEY (Employee_ID)
        REFERENCES Employee_Table(Employee_ID)
);

```

Data Input:

(Delete statements are included for adding data anew when script is run.)

```

DELETE FROM Pilot_Table;
DELETE FROM Flight_Marshal_Table;
DELETE FROM Flight_Attendant_Table;
DELETE FROM Employee_Schedule_Table;
DELETE FROM Employee_Table;
DELETE FROM Ticket_Table;
DELETE FROM Review_Table;
DELETE FROM Flight_Table;
DELETE FROM Plane_Table;
DELETE FROM Phone_Number_Table;
DELETE FROM Customer_Table;

--Insert Customer entries into Customer_Table
--Format: Customer_ID, First_Name, Last_Name, Email_Address, Rewards_Member

```

```

INSERT INTO Customer_Table VALUES(1, 'Laurence', 'Slater', 'lslater@gmail.com', 'T');
INSERT INTO Customer_Table VALUES(2, 'Leigh', 'Curry', 'lcurry@yahoo.com', 'F');
INSERT INTO Customer_Table VALUES(3, 'Elena', 'Freeman', 'efreeman@outlook.com', 'T');
INSERT INTO Customer_Table VALUES(4, 'Tracy', 'Nelson', 'tnelson@aol.com', 'F');
INSERT INTO Customer_Table VALUES(5, 'Megan', 'Estrada', 'mestrada@gmail.com', 'F');
INSERT INTO Customer_Table VALUES(6, 'Alex', 'Cole', 'acole@yahoo.com', 'T');
INSERT INTO Customer_Table VALUES(7, 'Frank', 'Obrien', 'fobrien@outlook.com', 'F');
INSERT INTO Customer_Table VALUES(8, 'Serena', 'Terry', 'sterry@aol.com', 'T');
INSERT INTO Customer_Table VALUES(9, 'Judy', 'Blair', 'jblair@gmail.com', 'T');
INSERT INTO Customer_Table VALUES(10, 'Fred', 'Robertson', 'frobertson@yahoo.com', 'F');
INSERT INTO Customer_Table VALUES(11, 'James', 'Miller', 'fmiller@yahoo.com', 'F');

```

--Insert Phone Number entries into Phone_Number_Table

--Format: Customer_ID, Phone_Number

```

INSERT INTO Phone_Number_Table VALUES(1, '314-373-8763');
INSERT INTO Phone_Number_Table VALUES(1, '262-833-3277');
INSERT INTO Phone_Number_Table VALUES(2, '316-352-2197');
INSERT INTO Phone_Number_Table VALUES(3, '419-956-3252');
INSERT INTO Phone_Number_Table VALUES(3, '762-245-1884');
INSERT INTO Phone_Number_Table VALUES(4, '774-414-5184');
INSERT INTO Phone_Number_Table VALUES(5, '509-773-8365');
INSERT INTO Phone_Number_Table VALUES(5, '515-893-1045');
INSERT INTO Phone_Number_Table VALUES(6, '253-948-6021');
INSERT INTO Phone_Number_Table VALUES(7, '727-860-2460');
INSERT INTO Phone_Number_Table VALUES(7, '254-624-6078');
INSERT INTO Phone_Number_Table VALUES(8, '434-308-1694');
INSERT INTO Phone_Number_Table VALUES(9, '412-849-6895');
INSERT INTO Phone_Number_Table VALUES(9, '570-865-1217');
INSERT INTO Phone_Number_Table VALUES(10, '207-373-1953');

```

--Insert Plane entries into Plane_Table

--Data from https://en.wikipedia.org/wiki/Fuel_economy_in_aircraft

--Format: Plane_ID, Plane_Model, Plane_Capacity, Age, Fuel_Economy (in mpg per seat)

```

INSERT INTO Plane_Table VALUES(1, 'Airbus A319', 124, 8, 80);
INSERT INTO Plane_Table VALUES(2, 'Airbus A319', 124, 10, 80);
INSERT INTO Plane_Table VALUES(3, 'Boeing 737 Max-7', 140, 5, 121);
INSERT INTO Plane_Table VALUES(4, 'Boeing 737 Max-7', 140, 6, 121);
INSERT INTO Plane_Table VALUES(5, 'Boeing 737 Max-7', 140, 4, 121);
INSERT INTO Plane_Table VALUES(6, 'Airbus A220-300', 135, 7, 127);
INSERT INTO Plane_Table VALUES(7, 'Airbus A220-300', 135, 9, 127);
INSERT INTO Plane_Table VALUES(8, 'Airbus A340-300', 262, 15, 79);
INSERT INTO Plane_Table VALUES(9, 'Boeing 787-8', 238, 10, 88);
INSERT INTO Plane_Table VALUES(10, 'Boeing 787-8', 238, 11, 88);

```

--Insert Flight entries into Flight_Table

--Data from <https://www.airfarewatchdog.com/blog/44259160/these-are-the-10-busiest-air-routes-in-the-u-s/>

--Format: Flight_Number, Plane_ID, Seats_Occupied, Origin, Destination, Distance,

--Departure_Time, ETA, Fuel_Consumption

```

INSERT INTO Flight_Table VALUES(1, 2, 120, 'Atlanta', 'New York City', 866.20,
    TIMESTAMP '2021-4-3 11:30:00.00 EST', TIMESTAMP '2021-4-3 13:45:00.00 EST', 8100);
INSERT INTO Flight_Table VALUES(2, 10, 234, 'Los Angeles', 'New York City', 2789.4,
    TIMESTAMP '2021-4-2 8:00:00.00 EST', TIMESTAMP '2021-4-2 13:11:00.00 EST', 18660);
INSERT INTO Flight_Table VALUES(3, 7, 127, 'Atlanta', 'Miami', 639.8,
    TIMESTAMP '2021-4-4 14:30:00.00 EST', TIMESTAMP '2021-4-4 16:20:00.00 EST', 6600);
INSERT INTO Flight_Table VALUES(4, 5, 139, 'Denver', 'Los Angeles', 1016.7,
    TIMESTAMP '2021-4-3 7:00:00.00 EST', TIMESTAMP '2021-4-3 9:33:00.00 EST', 9180);

```

```

INSERT INTO Flight_Table VALUES(5, 3, 122, 'Los Angeles', 'Seattle', 1135.1,
    TIMESTAMP '2021-4-2 14:30:00.00 EST', TIMESTAMP '2021-4-2 17:22:00.00 EST', 10320);
INSERT INTO Flight_Table VALUES(6, 9, 231, 'Atlanta', 'Orlando', 441.6,
    TIMESTAMP '2021-4-4 9:00:00.00 EST', TIMESTAMP '2021-4-4 10:25:00.00 EST', 5100);
INSERT INTO Flight_Table VALUES(7, 8, 228, 'New York', 'Chicago', 790.5,
    TIMESTAMP '2021-4-3 10:30:00.00 EST', TIMESTAMP '2021-4-3 12:59:00.00 EST', 8940);
INSERT INTO Flight_Table VALUES(8, 4, 137, 'Los Angeles', 'San Francisco', 381.9,
    TIMESTAMP '2021-4-4 7:00:00.00 EST', TIMESTAMP '2021-4-4 8:17:00.00 EST', 4620);
INSERT INTO Flight_Table VALUES(9, 6, 126, 'Las Vegas', 'Los Angeles', 270.3,
    TIMESTAMP '2021-4-2 14:30:00.00 EST', TIMESTAMP '2021-4-2 15:43:00.00 EST', 4380);
INSERT INTO Flight_Table VALUES(10, 1, 124, 'Los Angeles', 'Seattle', 1135.1,
    TIMESTAMP '2021-4-2 15:00:00.00 EST', TIMESTAMP '2021-4-2 17:52:00.00 EST', 10320);

--Insert Review entries into Review_Table
--Data from https://www.kaggle.com/crowdflower/twitter-airline-sentiment?select=Tweets.csv
--Format: Flight_Number, Customer_ID, Star_Review
INSERT INTO Review_Table VALUES(1, 8, 3);
INSERT INTO Review_Table VALUES(2, 2, 3);
INSERT INTO Review_Table VALUES(3, 10, 2);
INSERT INTO Review_Table VALUES(4, 6, 1);
INSERT INTO Review_Table VALUES(5, 4, 5);
INSERT INTO Review_Table VALUES(6, 1, 3);
INSERT INTO Review_Table VALUES(7, 3, 5);
INSERT INTO Review_Table VALUES(8, 5, 2);
INSERT INTO Review_Table VALUES(9, 7, 3);
INSERT INTO Review_Table VALUES(10, 9, 2);

--Insert Ticket entries into Ticket_Table
--Format: Ticket_Number, Customer_ID, Flight_Number, Luggage, Wifi, Food
INSERT INTO Ticket_Table VALUES(1, 8, 1, 'T', 'F', 'F');
INSERT INTO Ticket_Table VALUES(2, 2, 2, 'T', 'T', 'F');
INSERT INTO Ticket_Table VALUES(3, 10, 3, 'T', 'T', 'T');
INSERT INTO Ticket_Table VALUES(4, 6, 4, 'F', 'T', 'F');
INSERT INTO Ticket_Table VALUES(5, 4, 5, 'F', 'T', 'T');
INSERT INTO Ticket_Table VALUES(6, 1, 6, 'T', 'T', 'T');
INSERT INTO Ticket_Table VALUES(7, 3, 7, 'F', 'F', 'T');
INSERT INTO Ticket_Table VALUES(8, 5, 8, 'T', 'F', 'T');
INSERT INTO Ticket_Table VALUES(9, 7, 9, 'T', 'T', 'T');
INSERT INTO Ticket_Table VALUES(10, 9, 10, 'F', 'F', 'F');
INSERT INTO Ticket_Table VALUES(11, 10, 8, 'T', 'F', 'F');

--Insert Employee entries into Employee_Table
--Data from https://www.salary.com/research/salary/alternate/airline-pilot-salary
--Format: Employee_ID, First_Name, Last_Name, Salary, Hours_week, Employee_Type
INSERT INTO Employee_Table VALUES(1, 'Osman', 'Thorne', 80230, 34, 'Attendant');
INSERT INTO Employee_Table VALUES(2, 'Krystian', 'Ruiz', 157258, 20, 'Pilot');
INSERT INTO Employee_Table VALUES(3, 'Arandeep', 'Mcconnell', 89147, 39, 'Attendant');
INSERT INTO Employee_Table VALUES(4, 'Earl', 'Huerta', 93886, 33, 'Attendant');
INSERT INTO Employee_Table VALUES(5, 'Tomos', 'Braun', 127901, 25, 'Marshal');
INSERT INTO Employee_Table VALUES(6, 'Tilly-Mae', 'Wilder', 81408, 21, 'Marshal');
INSERT INTO Employee_Table VALUES(7, 'Ridwan', 'Alcock', 155440, 9, 'Pilot');
INSERT INTO Employee_Table VALUES(8, 'Tobias', 'Goodman', 132241, 13, 'Pilot');
INSERT INTO Employee_Table VALUES(9, 'Eleanor', 'Thorpe', 82340, 26, 'Marshal');
INSERT INTO Employee_Table VALUES(10, 'Doug', 'Miller', 34768, 35, 'Attendant');

--Insert Flight and Employee entries into Employee_Schedule_Table
--Format: Flight_Number, Employee_ID

```

```

INSERT INTO Employee_Schedule_Table VALUES(1, 7);
INSERT INTO Employee_Schedule_Table VALUES(2, 3);
INSERT INTO Employee_Schedule_Table VALUES(3, 9);
INSERT INTO Employee_Schedule_Table VALUES(4, 10);
INSERT INTO Employee_Schedule_Table VALUES(5, 8);
INSERT INTO Employee_Schedule_Table VALUES(6, 4);
INSERT INTO Employee_Schedule_Table VALUES(7, 6);
INSERT INTO Employee_Schedule_Table VALUES(8, 5);
INSERT INTO Employee_Schedule_Table VALUES(9, 1);
INSERT INTO Employee_Schedule_Table VALUES(10, 2);

```

```

--Insert Flight Attendant entries into Flight_Attendant_Table
--Data from https://www.flyertalk.com/forum/united-airlines-mileageplus/1447393-there-chance-i-fly-more-year-than-ux-flight-attendant.html
--Format: Employee_ID, Flight_Miles

```

```

INSERT INTO Flight_Attendant_Table VALUES(1, 176262);
INSERT INTO Flight_Attendant_Table VALUES(3, 122402);
INSERT INTO Flight_Attendant_Table VALUES(4, 182312);

```

```

--Insert Flight Marshal entries into Flight_Marshal_Table

```

```

--Format: Employee_ID, Badge_Number

```

```

INSERT INTO Flight_Marshal_Table VALUES(5, 1);
INSERT INTO Flight_Marshal_Table VALUES(6, 2);
INSERT INTO Flight_Marshal_Table VALUES(9, 3);

```

```

--Insert Pilot entries into Pilot_Table

```

```

--Data from

```

```

https://www.airliners.net/forum/viewtopic.php?t=162863#:~:text=A%20more%20realistic%20figure%20is,miles%20per%20year%20in%20flight.

```

```

--Format: Employee_ID, License_Number, Flight_Miles

```

```

INSERT INTO Pilot_Table VALUES(2, 1, 243061);
INSERT INTO Pilot_Table VALUES(7, 2, 275247);
INSERT INTO Pilot_Table VALUES(8, 3, 365271);

```

Queries:

Update Queries:

```

--Increase Employee 7's salary by $10,000 (entry before and after shown)

```

```

UPDATE Employee_Table SET Salary = Salary + 10000 WHERE Employee_ID = 7;

```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	SALARY	HOURS_WEEK	EMPLOYEE_T
7	Ridwan	Alcock	155440	9	Pilot

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	SALARY	HOURS_WEEK	EMPLOYEE_T
7	Ridwan	Alcock	165440	9	Pilot

```

--Change Customer 4's status as a Rewards Member to True. (entry before and after shown)

```

```

UPDATE Customer_Table SET Rewards_Member = 'T' WHERE Customer_ID = 4;

```

CUSTOMER_ID	FIRST_NAME	LAST_NAME	EMAIL_ADDRESS	R
4	Tracy	Nelson	tnelson@aol.com	F

CUSTOMER_ID	FIRST_NAME	LAST_NAME	EMAIL_ADDRESS	R
4	Tracy	Nelson	tnelson@aol.com	T

Group By Queries:

```
--Identify the minimum hours per week worked by an employee in each employee type in descending
--order. (Group By, Order By)
SELECT Employee_Type, MIN(Hours_Week)
FROM Employee_Table
GROUP BY Employee_Type
ORDER BY MIN(Hours_Week) DESC;
```

EMPLOYEE_T	MIN(HOURS_WEEK)
Attendant	33
Marshal	21
Pilot	9

```
--Identify the names of Boeing plane models that consist of more than two units
--in the airline fleet's operation. (Group By, Having, Like)
SELECT Plane_Model, COUNT(*)
FROM Plane_Table
WHERE Plane_Model LIKE '%Boeing%'
GROUP BY Plane_Model
HAVING COUNT(*) >= 2;
```

PLANE_MODEL	COUNT(*)
Boeing 737 Max-7	3
Boeing 787-8	2

Join Queries:

Self Join:

```
--Return flight numbers and departure times for flights that depart after --Flight 7. (Self Join)
--Flight 7 and the results of the query are shown.
SELECT F2.Flight_Number, F2.Departure_Time
FROM Flight_Table F1, Flight_Table F2
WHERE F1.Flight_Number = 7 AND F2.Departure_Time > F1.Departure_Time;
```

FLIGHT_NUMBER	PLANE_ID	SEATS_OCCUPIED	ORIGIN	DESTINATION	DISTANCE	DEPARTURE_TIME	ETA	FUEL_CONSUMPTION
7	8	228	New York	Chicago	790.5	03-APR-21 10.30.00.000000 AM	03-APR-21 12.59.00.000000 PM	8940

FLIGHT_NUMBER	DEPARTURE_TIME
1	03-APR-21 11.30.00.000000 AM
3	04-APR-21 02.30.00.000000 PM
6	04-APR-21 09.00.00.000000 AM
8	04-APR-21 07.00.00.000000 AM

Multi-Table Join:

```
--Identify customers who have tickets to flights departing from Los Angeles.
--(Natural Join, Multitable Join)
SELECT C.Customer_ID, C.First_Name, C.Last_Name
```



```

FROM Customer_Table C, Ticket_Table T, Flight_Table F
WHERE T.Customer_ID = C.Customer_ID
AND T.Flight_Number = F.Flight_Number
AND Origin = 'Los Angeles';

```

CUSTOMER_ID	FIRST_NAME	LAST_NAME
2	Leigh	Curry
4	Tracy	Nelson
5	Megan	Estrada
9	Judy	Blair
10	Fred	Robertson

Outer Join:

```

--Identify the names of customers for each ticket, and those who do not have
--a ticket. Returns rows in the customer table even if they have no ticket.
--(Left Outer Join) Notice James Miller has no ticket entry associated with him.
SELECT First_Name, Last_Name, Ticket_Number
FROM Customer_Table, Ticket_Table
WHERE Ticket_Table.Customer_ID (+) = Customer_Table.Customer_ID
ORDER BY Ticket_Number;

```

FIRST_NAME	LAST_NAME	TICKET_NUMBER
Serena	Terry	1
Leigh	Curry	2
Fred	Robertson	3
Alex	Cole	4
Tracy	Nelson	5
Laurence	Slater	6
Elena	Freeman	7
Megan	Estrada	8
Frank	Obrien	9
Judy	Blair	10
Fred	Robertson	11
James	Miller	

Natural Join:

```

--Identify email addresses of customers that left a review of less than 3 stars
--to contact them about their negative experience. (Natural Join)
SELECT Star_Review, Flight_Number, Email_Address
FROM Customer_Table C, Review_Table R
WHERE R.Customer_ID = C.Customer_ID AND Star_Review < 3;

```

STAR_REVIEW	FLIGHT_NUMBER	EMAIL_ADDRESS
2	8	mestrada@gmail.com
1	4	acole@yahoo.com
2	10	jblair@gmail.com
2	3	frobertson@yahoo.com

Additional Queries Used in Code Demonstration:

```
--Count the number of rewards and non-rewards member customers. (Group By)
SELECT Rewards_Member, COUNT(*)
FROM Customer_Table
GROUP BY Rewards_Member;
```

R	COUNT(*)
T	6
F	5

```
--Find the minimum salary for an employee of the airline. (Sub-query)
SELECT Employee_ID, First_Name, Last_Name, Salary
FROM Employee_Table
WHERE Salary = (SELECT MIN(Salary) FROM Employee_Table);
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	SALARY
10	Doug	Miller	34768

```
--Find plane IDs and models of planes that departed from Los Angeles (Natural Join)
SELECT P.Plane_ID, Plane_Model
FROM Plane_Table P, Flight_Table F
WHERE F.Plane_ID = P.Plane_ID
AND Origin = 'Los Angeles';
```

PLANE_ID	PLANE_MODEL
1	Airbus A319
3	Boeing 737 Max-7
4	Boeing 737 Max-7
10	Boeing 787-8

```
--Find the badge number of every Flight Marshal
SELECT E.Employee_ID, E.First_Name, E.Last_Name, Badge_Number
from Employee_Table E, Flight_Marshal_Table M
where M.Employee_ID = E.Employee_ID;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	BADGE_NUMBER
5	Tomos	Braun	1
6	Tilly-Mae	Wilder	2
9	Eleanor	Thorpe	3