LAB_JAVA

ÁLVARO GONZALEZ ALCÁZAR

1.

```sql
CREATE TABLE BOOKS (
    ID INT NOT NULL AUTO_INCREMENT,
    AUTHOR VARCHAR(40),
    TITLE VARCHAR(40),
    WORD_COUNT INT,
    VIEWS INT,
    PRIMARY KEY(ID)
);
```

```sql
INSERT INTO BOOKS (AUTHOR, TITLE, WORD_COUNT, VIEWS) VALUES
('Maria Charlotte', 'Best Paint Colors', 814, 14),
('Juan Perez', 'Small Space Decorating Tips', 1146, 221),
('Maria Charlotte', 'Hot Accessories', 986, 105),
('Maria Charlotte', 'Mixing Textures', 765, 22),
('Juan Perez', 'Kitchen Refresh', 1242, 307),
('Maria Charlotte', 'Homemade Art Hacks', 1002, 193),
('Gemma Alcocer', 'Refinishing Wood Floors', 1571, 7542);
```

2.

```sql
CREATE TABLE CUSTOMERS (
    ID INT NOT NULL AUTO_INCREMENT,
    CUSTOMER_NAME VARCHAR(40),
    CUSTOMER_STATUS VARCHAR(40),
    TOTAL_CUSTOMER_MILEAGE int,
    PRIMARY KEY(ID)
    );
CREATE TABLE AIRCRAFTS (
    ID INT NOT NULL AUTO_INCREMENT,
    AIRCRAFT VARCHAR(40),
    TOTAL_AIRCRAFT_SEATS INT,
    PRIMARY KEY(ID)
    );

CREATE TABLE CUSTOMER_FLIGHTS (
    ID INT NOT NULL AUTO_INCREMENT,
    FLIGHT_NUMBER VARCHAR(40),
    AIRCRAFT_ID INT,
    CUSTOMER_ID INT,
    FLIGHT_MILEAGE INT,
    PRIMARY KEY(ID),
    FOREIGN KEY(AIRCRAFT_ID) REFERENCES AIRCRAFTS(ID),
    FOREIGN KEY(CUSTOMER_ID) REFERENCES CUSTOMERS(ID)
    );
```

```
1 ● INSERT INTO CUSTOMERS (CUSTOMER_NAME, CUSTOMER_STATUS, TOTAL_CUSTOMER_MILEAGE) VALUES
2   ('Agustine Riviera', 'Silver', 115235),
3   ('Alaina Sepulvida', 'None', 6008),
4   ('Tom Jones', 'Gold', 205767),
5   ('Sam Rio', 'None', 2653),
6   ('Jessica James', 'Silver', 127656),
7   ('Ana Janco', 'Silver', 136773),
8   ('Jennifer Cortez', 'Gold', 300582),
9   ('Christian Janco', 'Silver', 14642);
0
1 ● INSERT INTO AIRCRAFTS (AIRCRAFT, TOTAL_AIRCRAFT_SEATS) VALUES
2   ('Boeing 747', 400),
3   ('Airbus A330', 236),
4   ('Boeing 777', 264);
5
6 ● INSERT INTO CUSTOMER_FLIGHTS (FLIGHT_NUMBER, AIRCRAFT_ID, CUSTOMER_ID, FLIGHT_MILEAGE) VALUES
7   ('DL143', 1, 1, 135),
8   ('DL122', 2, 1, 4370),
9   ('DL122', 2, 2, 4370),
0   ('DL122', 2, 3, 4370),
1   ('DL53', 3, 3, 2078),
2   ('DL143', 1, 4, 135),
3   ('DL222', 3, 3, 1765),
4   ('DL143', 1, 5, 135),
5   ('DL222', 3, 6, 1765),
6   ('DL222', 3, 7, 1765),
7   ('DL122', 2, 5, 4370),
8   ('DL37', 1, 4, 531),
9   ('DL222', 3, 8, 1765);
0
```

3.

```
1   SELECT COUNT(flight_number) FROM customer_flights;
```

COUNT(flight_number)
13

4.

```
1 ● SELECT AVG(FLIGHT_MILEAGE) FROM customer_flights;
```

AVG(FLIGHT_MILEAGE)
2119.5385

5.

```sql
SELECT AVG(a.TOTAL_AIRCRAFT_SEATS) AS promedio_asientos_por_vuelo
FROM aircrafts a
JOIN customer_flights cf ON a.ID = cf.AIRCRAFT_ID;
```

promedio_asientos_por_vuelo
297.2308

6.

```sql
SELECT AVG(TOTAL_CUSTOMER_MILEAGE) FROM CUSTOMERS GROUP BY CUSTOMER_STATUS;
```

AVG(TOTAL_CUSTOMER_MILEAGE)
98576.5000
4330.5000
253174.5000

7.

```sql
SELECT max(TOTAL_CUSTOMER_MILEAGE) FROM CUSTOMERS GROUP BY CUSTOMER_STATUS;
```

max(TOTAL_CUSTOMER_MILEAGE)
136773
6008
300582

8.

```sql
SELECT COUNT(*) FROM aircrafts WHERE aircrafts.AIRCRAFT LIKE '%Boeing%';
```

COUNT(*)
2

9.

```
1 ●    SELECT * FROM customer_flights WHERE FLIGHT_MILEAGE >= 200 AND FLIGHT_MILEAGE <= 2000;
```

ID	FLIGHT_NUMBER	AIRCRAFT_ID	CUSTOMER_ID	FLIGHT_MILEAGE
7	DL222	3	3	1765
9	DL222	3	6	1765
10	DL222	3	7	1765
12	DL37	1	4	531
13	DL222	3	8	1765
NULL	NULL	NULL	NULL	NULL

10.

```
1 ●    SELECT c.CUSTOMER_STATUS, AVG(cf.FLIGHT_MILEAGE) AS average_booked_distance
2      FROM customer_flights cf
3      JOIN customers c ON cf.CUSTOMER_ID = c.ID
4      GROUP BY c.CUSTOMER_STATUS;
```

CUSTOMER_STATUS	average_booked_distance
Silver	2090.0000
None	1678.6667
Gold	2494.5000

11.

```
SELECT a.AIRCRAFT, COUNT(*) AS bookings
FROM customer_flights cf
JOIN customers c ON cf.CUSTOMER_ID = c.ID
JOIN aircrafts a ON cf.AIRCRAFT_ID = a.ID
WHERE c.CUSTOMER_STATUS = 'Gold'
GROUP BY a.AIRCRAFT
ORDER BY bookings DESC
LIMIT 1;
```

AIRCRAFT	bookings
Boeing 777	3