SQL Exercise 4

1. Display the minimum Status in the Supplier table. **Ans:**

SELECT MIN(Status) FROM Supplier;

2. Display the maximum Weight in the Parts table.

Ans:

SELECT MAX(Weight) FROM Part;

```
mysql> SELECT MAX(Weight) FROM Part;

+-----+

| MAX(Weight) |

+-----+

| 14.00 |

+-----+

1 row in set (0.00 sec)
```

3. Display the average Weight of the Parts.

Ans:

SELECT AVG(Weight) FROM Part;

```
mysql> SELECT AVG(Weight) FROM Part ;
+----+
| AVG(Weight) |
+----+
| 8.150000 |
+----+
1 row in set (0.00 sec)
```

4. Display the total Quantity sold for part 'P1'.

Ans:

```
SELECT SUM(Quantity) AS Total Quantity FROM Sales
WHERE PartID = 'P1';
```

5. Display the total Quantity sold for each part.

Ans:

SELECT PartID, SUM(Quantity) FROM Sales GROUP BY PartID;

6. Display the average Quantity sold for each part.

Ans:

SELECT PartID AVG(Quantity) AS AvgQuantity FROM Sales GROUP BY PartID;

```
mysql> SELECT PartID, AVG(Quantity) AS AvgQuantity
      FROM Sales
    -> GROUP BY PartID;
           AvgQuantity
       1
              483.3333
       2
             1050.0000
       3
              925.0000
       4
              750.0000
       5
              650.0000
             2000.0000
6 rows in set (0.00 sec)
```

7. Display the maximum Quantity sold for each part, provided the maximum Quantity is greater than 800.

Ans:

SELECT PartID, MAX(Quantity) AS MaxQuantity FROM Sales GROUP BY PartID HAVING MAX(Quantity) > 800;

```
mysql> SELECT PartID, MAX(Quantity) AS MaxQuantity
    -> FROM Sales
    -> GROUP BY PartID
    -> HAVING MAX(Quantity) > 800;
+-----+
| PartID | MaxQuantity |
+-----+
| 2 | 1200 |
| 3 | 1000 |
| 6 | 2000 |
+-----+
3 rows in set (0.00 sec)
```

8. Display the Status and the count of Suppliers with that Status.

Ans:

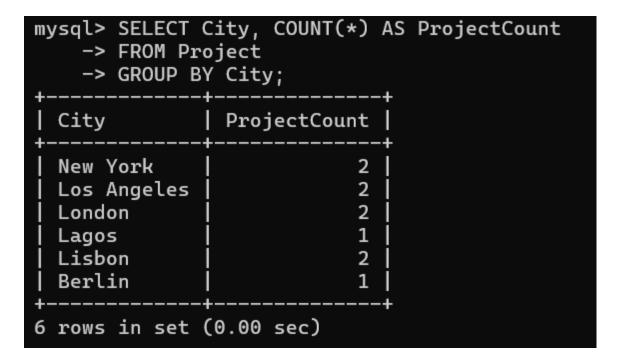
SELECT Status, count(*) AS SupplierCount FROM Supplier GROUP BY Status;

```
mysql> SELECT Status, count(*) AS SupplierCount FROM Supplier GROUP BY Status;
+-----+
| Status | SupplierCount |
+-----+
| 15 | 1 |
| 18 | 1 |
| 12 | 1 |
| 22 | 1 |
| 8 | 1 |
| 20 | 1 |
| 13 | 1 |
| 17 | 1 |
| 19 | 1 |
| 9 | 1 |
| -----+
10 rows in set (0.00 sec)
```

9. Display the count of Projects going on in different cities.

Ans:

SELECT City COUNT(*) AS ProjectCount FROM Project GROUP BY City;



10. What is the difference between COUNT(Status) and COUNT(*)?

Ans:

COUNT(Status) only counts rows where the status is NOT NULL. COUNT(*) counts rows where including the NULL status.

11. Display the Status and the Count of Suppliers with that Status in the following format as shown below:-

Status	Count
Ten	1
Twenty	2
Thirty	3

Ans:

SELECT

CASE

WHEN Status = 10 THEN 'Ten

WHEN Status = 20 THEN 'Twenty'

WHEN Status = 30 THEN 'Thirty

ELSE CAST(Status AS VARCHAR) -- For other status values, display the number

END AS StatusWord,

COUNT(*) AS Count

FROM Supplier

GROUP BY Status;

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