❖EXERCISE 4:

1) Display the minimum Status in the Supplier table.

⇒ SELECT MIN(Status) AS MinimumStatus FROM S;

2) Display the maximum Weight in the Parts table.

⇒ SELECT MAX(Weight) AS MaximumWeight FROM P;

3) Display the average Weight of the Parts.

⇒ SELECT AVG(Weight) AS AverageWeight FROM P;

4) Display the total Quantity sold for part ‘P1’.

⇒ SELECT SUM(Qty) AS Total_Quantity_Sold FROM `SPJ` WHERE P# = 'P1';

5) Display the total Quantity sold for each part.

⇒ SELECT `P#`, SUM(Qty) AS Total_Quantity_Sold FROM spj GROUP BY `P#`;

6) Display the average Quantity sold for each part.

⇒ SELECT `P#`, AVG(Qty) AS Average_Quantity_Sold FROM SPJ GROUP BY `P#`;

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

⇒ SELECT `P#`, MAX(Qty) AS Max_Quantity_Sold

FROM SPJ GROUP BY `P#` HAVING MAX(Qty) > 800;

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

⇒ SELECT Status, COUNT(`S#`) AS Supplier_Count
FROM S GROUP BY Status;

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

⇒ SELECT City, COUNT(`J#`) AS Project_Count FROM J GROUP BY City;

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

⇒ The difference between COUNT(Status) and COUNT(*) in SQL lies in how they count rows:

1. **COUNT(Status)**:
   - Counts only the non-null values in the Status column.
   - If a row has a null value in the Status column, that row is not included in the count.
2. **COUNT(*)**:
   - Counts all rows in the table, regardless of whether any columns have null values.
   - This means every row, including those with nulls in any column, is counted.

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

Status	Count
1	Ten
2	Twenty
3	Thirty

⇒ SELECT
CASE

WHEN Status = 10 THEN 'Ten'

WHEN Status = 20 THEN 'Twenty'

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        WHEN Status = 30 THEN 'Thirty'
    END AS Status,
    COUNT(*) AS Count
FROM S
GROUP BY Status
ORDER BY Status;
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