### DAY ☀️: \*\*Task – Grouping Data in SQL (`GROUP BY`)\*\*

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### ⚡ Task 1: Count Students by City

\*\*Question:\*\* Show how many students are there in each city.

\*\*Requirements:\*\*

- Use `GROUP BY city`

- Use `COUNT(\*)`

**Query : SELECT city,COUNT(\*)as Student\_by\_city FROM students**

**GROUP BY city**

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### ⚡ Task 2: Average Marks per City

\*\*Question:\*\* Display the average marks of students grouped by their city.

\*\*Requirements:\*\*

- Use `AVG(marks)`

- Group by `city`

**Query : SELECT city,AVG(marks)as Average\_marks\_by\_city FROM students**

**GROUP BY city**

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### ⚡ Task 3: Sum of Marks by Age

\*\*Question:\*\* Find the total marks of students grouped by age.

\*\*Requirements:\*\*

- Use `SUM(marks)`

- Group by `age`

**Query : SELECT age as Age\_group,SUM(marks)as Total\_Marks\_by\_Age\_group FROM students**

**GROUP BY age**

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### ⚡ Task 4: Max Marks by City

\*\*Question:\*\* Show the highest marks scored by students in each city.

\*\*Requirements:\*\*

- Use `MAX(marks)`

- Group by `city`

**Query : SELECT city,MAX(marks)as Max\_Marks\_by\_City FROM students**

**GROUP BY city**

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### ⚡ Task 5: Group and Order

\*\*Question:\*\* Count students in each city and sort results by city name.

\*\*Requirements:\*\*

- Use `GROUP BY` and `ORDER BY`

**Query : SELECT city,COUNT(\*)as Count\_by\_city FROM students**

**GROUP BY city**

**ORDER BY city**

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### ⚡ Task 6: Use Aliases with Grouping

\*\*Question:\*\* Show city and average marks as `City\_Name` and `Average\_Score`.

\*\*Requirements:\*\*

- Use `AS` to rename output columns

**Query : SELECT city as City\_Name,AVG(marks)as Avgerage\_score FROM students**

**GROUP BY city**

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### ⚡ Task 7: Group by Multiple Columns

\*\*Question:\*\* Group students by both `city` and `age`, and count how many in each group.

\*\*Requirements:\*\*

- Use `GROUP BY city, age`

**Query : SELECT city as City\_Name,age as Age\_group,COUNT(\*) as Student\_by\_City FROM students**

**GROUP BY city,age**

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### ⚡ Task 8: Filter Before Grouping

\*\*Question:\*\* Show number of students per city where age > 18.

\*\*Requirements:\*\*

- Use `WHERE` with `GROUP BY`

**Query : SELECT city as City\_Name,COUNT(\*) as Student\_by\_City FROM students**

**WHERE age >18**

**GROUP BY city**

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### ⚡ Task 9: Group and Use MIN

\*\*Question:\*\* Show the minimum marks in each city.

\*\*Requirements:\*\*

- Use `MIN(marks)` with `GROUP BY city`

**SELECT city as City\_Name,MIN(marks) as MinMarks\_by\_City FROM students**

**GROUP BY city**

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### ⚡ Task 10: Insert & Group

\*\*Question:\*\* Insert a student `'Zoya'` from `'Chennai'` with marks `91` and then show updated average marks per city.

\*\*Requirements:\*\*

- Perform `INSERT`, then use `GROUP BY`

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