Window functions

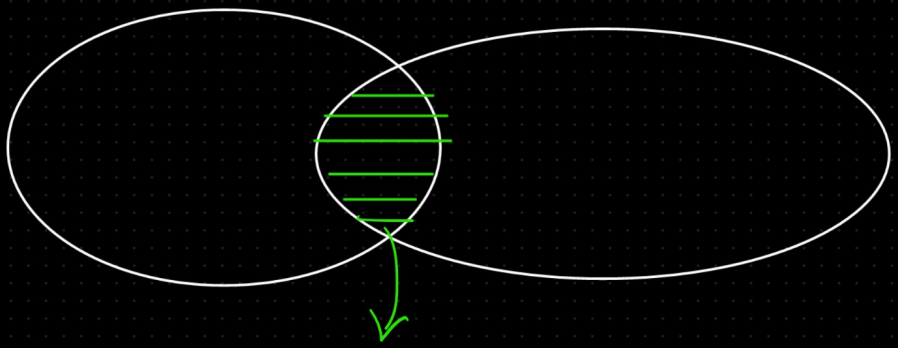
- Group by & Having clause
- Logical Operator
- Alter
- Decimal
- Aggregation functions — count, min, max, sum, avg
- Now() — Timestamp
- Delete vs Truncate
  - Delete → DML
  - Truncate → DDL

Day-4

- Inner Join
- OVER & PARTITION BY Clause and its usecase
- Row_number() vs Rank() vs Dense_rank()
  - Row_number(): different Priority even though same salary
  - Rank(): Skip same salary - Priority same
  - Dense_rank(): no skip (same salary - same Priority)
- Mandatory → ORDER BY
- Optional → Partition By

Inner Join (JOIN)

→ two table



Output

```
SELECT FirstName, LastName, Employee.Location, Total, Avg_Salary
FROM Employee
JOIN
(SELECT Location, COUNT(Location) as Total, AVG(Salary) as Avg_Salary
FROM Employee
GROUP BY Location) AS temp
ON Employee.Location = temp.Location
```

Employee

EID	FirstName	LastName	Age	Salary	Location
1	Priya	Bhatt	27	200000	Bengaluru
2	Akhil	George	26	100000	Gurugram
3	Kaneesha	Brownlee	27	300000	London
5	Naga	Sai	30	150000	Bengaluru
6	Prabhutva	Kakkar	35	70000 .	Noida
7	Yashswi	Gandhak	29	90000	Delhi

temp AS

Location	Total	Avg_Salary
Bengaluru	2	175000.0000
Gurugram	1	100000.0000
London	1	300000.0000
Noida	1	70000.0000
Delhi	1	90000.0000

JOIN (INNER JOIN)

→ Computationally expensive

firstName	LastName	Location	Total	Avg Salary
Priya	Bhatt	Bengaluru	2	175000
Akhil	George	Gurugram	1	100000
Kaneesha	Brownlee	London	1	300000
Naga	Sai	Bengl.	2	175000

Prabhutva Kakkar Noida 1 70000

Yashswi Gandhak Delhi 1 90000

PARTITION BY → Group By

(Allows non-aggregation columns to display)

(Display non-aggregated columns → Grouping

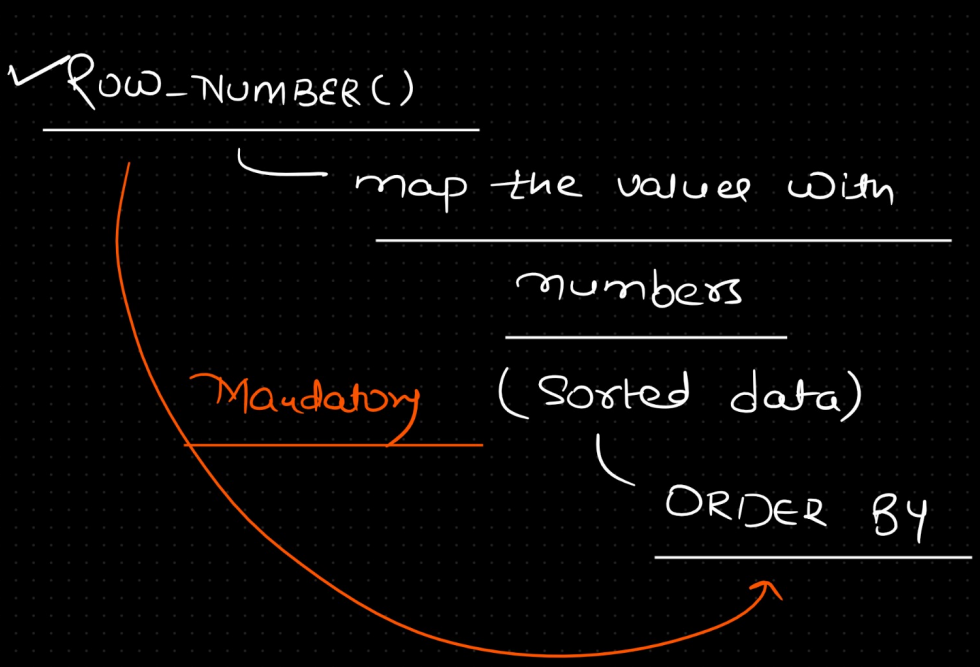
```
SELECT FirstName, LastName, Location,
COUNT(Location) OVER (PARTITION BY Location) AS Total,
AVG(Salary) OVER (PARTITION BY Location) AS AVG_Salary
FROM Employee
```

Grouping

EID	FirstName	LastName	Age	Salary	Location
1	Priya	Bhatt	27	200000	Bengaluru
2	Akhil	George	26	100000	Gurugram
3	Kaneesha	Brownlee	27	300000	London
5	Naga	Sai	30	150000	Bengaluru
6	Prabhutva	Kakkar	35	70000	Noida
7	Yashswi	Gandhak	29	90000	Delhi

Location	Total
Beng.	2
Gurugram	1
London	1
Noida	1
Delhi	1

Location	Avg Salary
Ben	175000
Gur	100000
London	300000
Noida	70000
Delhi	90000


ROW_NUMBER()
map the values with
numbers
Mandatory
(Sorted data)
ORDER BY