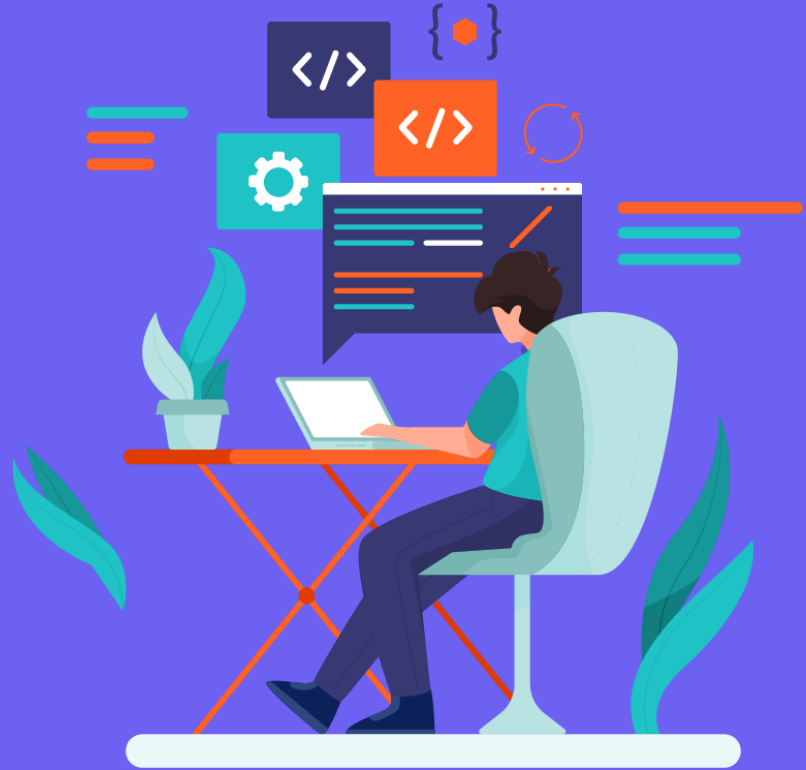


SQL

Relevel
by Unacademy



emp

Emp.id	Name	Sal	Dep.id

← where condition
Main table

↓

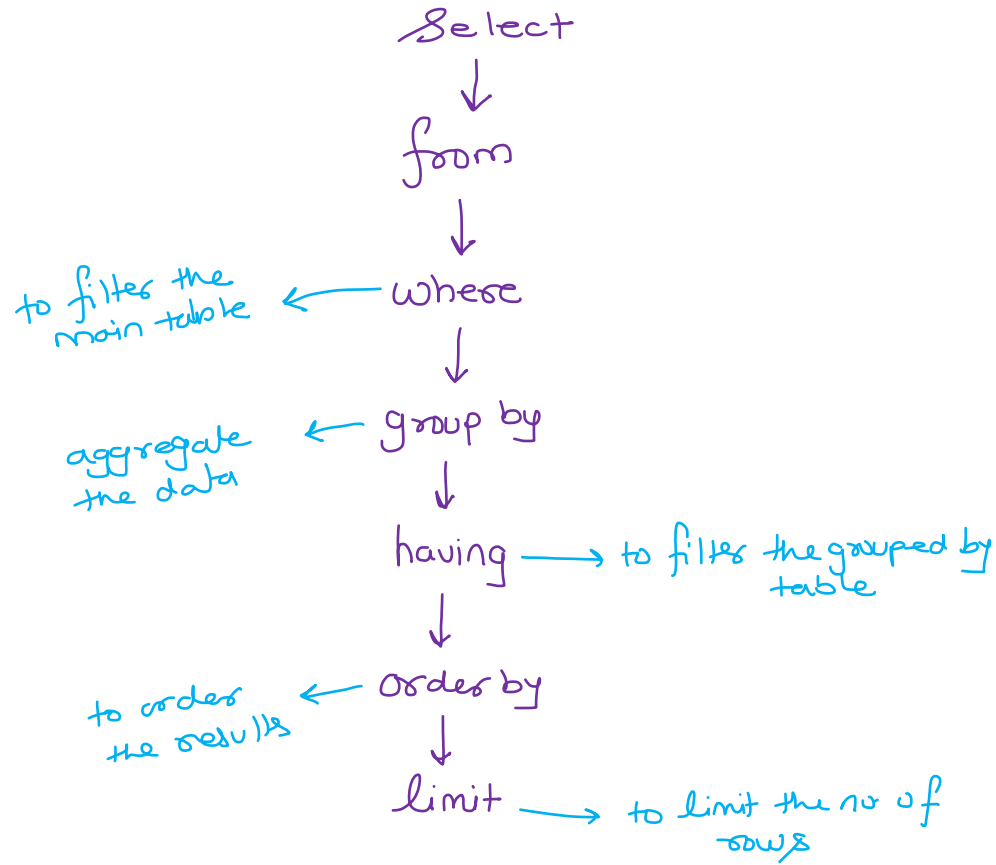
Dep.id	avg(sal)

find those departments
with $\text{avg(salary)} > 10,000$

If we have to filter table generated after applying
group by

← having (Group By table)

← {
Select dep.id, avg(salary)
from emp
group by Dep.id
having avg(salary) > 10000
}



Joins

Database $\left\{ \begin{array}{l} \text{Table-1} \\ \text{Table-2} \\ \text{Table-3} \end{array} \right\}$ (primary field + foreign field)
Dep

Emp

E.id	Name	Dep.id
		✓

Primary field



foreign field



Dep.id	Dep Name
✓	

Primary field



Joins $\left\{ \begin{array}{l} \text{inner} \\ \text{Left} \\ \text{Right} \end{array} \right\}$
=



Left ← Emp

E.id	Name	Dep.id
E1	A	D7
E2	B	D1
E3	C	D2
E4	D	D6
E5	E	D6
E6	f	D2
E7	G	D5

Dep → Right

Dep.id	Dep Name
D1	Aa
D2	Ba
D3	cd
D4	fg
D5	JK

Left Join: All rows from left table and common rows from right

E.id	Name	Dep.id	Dep.id	Dep-Name
E1	A	D7	NA	NA
E2	B	D1	D1	Aa
E3	C	D2	D2	Ba
E4	D	D6	NA	NA
E5	E	D6	NA	NA
E6	f	D2	D2	Ba
E7	G	D5	D5	JK

Inner Join: Rows which are common to both the tables are joined

E.id	Name	Dep.id	Dep.id	DepName
E2	B	D1	D1	Aa
E3	C	D2	D2	Ba
E6	f	D2	D2	Ba
E7	G	D5	D5	JK

Right Join: All rows from right table and common rows from left table.

E.id	Name	Dep.id	Dep.id	Dep Name
E2	B	D1	D1	Aa
E3	C	D2	D2	Ba
E6	f	D2	D2	Ba
NA	NA	NA	D3	cd
NA	NA	NA	D4	fg
E7	G	D5	D5	JK

<u>Emp</u>		
Emp.id	Name	Dep.id

<u>Dep</u>	
Depid	Depname

table-1 (Left)
 Select *
 from Emp a
 inner join Dep b
 on a.Dep.id = b.Dep.id ;

all rows/columns joined table
 alias used for emp table
 alias used for dep table
 table-2 (Right)
 kind of join
 combination of primary & foreign field
 common column from both tables