GROUP & FILTERING

GROUPING : **GROUP BY Clause**

Group by clause is used to *group the records* .

SYNTAX:

SELECT group_by_expression / group_functionFROM table_name

[WHERE <filter_condition>]

ORDER OF EXECUTION:

1-FROM
2-WHERE(if used) [ROW-BY-ROW]
3-GROUP BY   [ROW-BY-ROW]
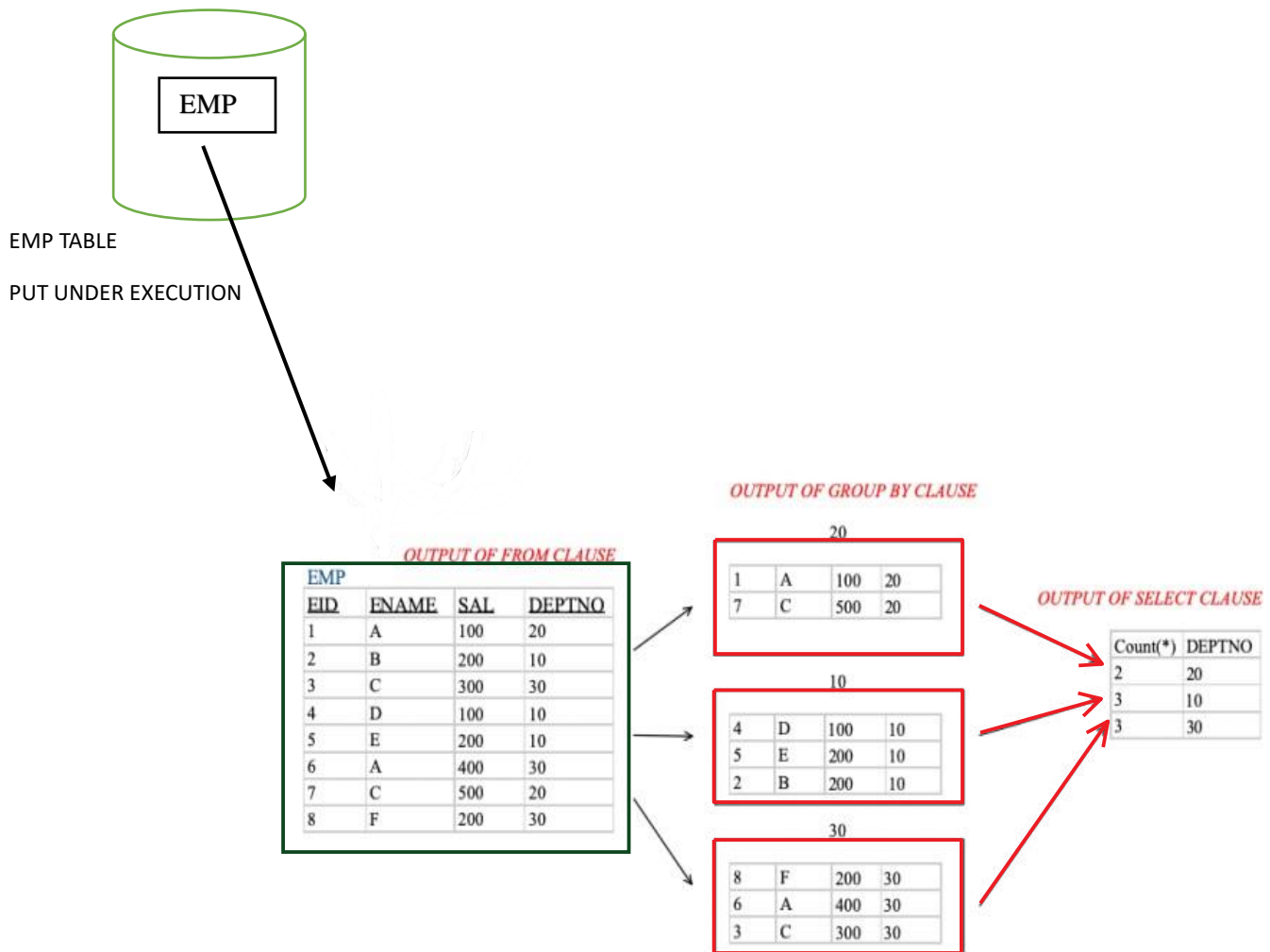4-SELECT   [GROUP-BY-GROUP]

Example :

EMP

EID	ENAME	SAL	DEPTNO
1	A	100	20
2	B	200	10
3	C	300	30
4	D	100	10
5	E	200	10
6	A	400	30
7	C	500	20
8	F	200	30

> WAQTD number of employees working in each dept .

SELECT COUNT(*)
FROM EMP
GROUP BY DEPTNO ;

EMP TABLE

PUT UNDER EXECUTION

OUTPUT OF FROM CLAUSE

EMP

EID	ENAME	SAL	DEPTNO
1	A	100	20
2	B	200	10
3	C	300	30
4	D	100	10
5	E	200	10
6	A	400	30
7	C	500	20
8	F	200	30

OUTPUT OF GROUP BY CLAUSE

20

1	A	100	20
7	C	500	20

10

4	D	100	10
5	E	200	10
2	B	200	10

30

8	F	200	30
6	A	400	30
3	C	300	30

OUTPUT OF SELECT CLAUSE

Count(*)	DEPTNO
2	20
3	10
3	30

NOTE :

- ➢ Group By clause is used to group the records .
- ➢ Group By clause executes row by row .
- ➢ After the execution of Group By clause we get Groups .
- ➢ Therefore any clause that executes after group by must executeGroup By Group .
- ➢ The Column_Name or expression used for grouping can be used In select clause .
- ➢ Group By clause can be used without using Where clause .

Questions :

1. WAQTD number of employees working in each dept except the Employee working as analyst .

   SELECT DEPTNO , COUNT(*)
   FROM EMP
   WHERE JOB NOT IN 'ANALYST'
   GROUP BY DEPTNO ;

2. WAQTD maximum salary given to each job .

   SELECT JOB , MAX(SAL)
   FROM EMP
   GROUP BY JOB ;

3. WAQTD number of employees working in each job if the employees Have character 'A' in their names .

   SELECT JOB , COUNT(*)
   FROM EMP
   WHERE ENAME LIKE '%A%'
   GROUP BY JOB ;

4. WAQTD number of employees getting commission in each dept .

   SELECT DEPTNO , COUNT(COMM)
   FROM EMP
   GROUP BY DEPTNO ;