

Operators in SQL

- i) Arithmetic operators (+, -, *, /)
- ii) Relational Operators (>, >=, <, <=)
- iii) Comparison Operators (=, !=, <>)
- iv) Concatenation Operators (||)
- v) Logical operator

- i) AND
- ii) OR
- iii) NOT

vi) Special operator

- IN
- NOT IN
- BETWEEN
- NOT BETWEEN
- IS
- IS NOT
- LIKE
- NOT LIKE

vii) Sub-Query Operators

- All
- Any
- EXISTS
- NOT EXISTS

Concatenation Operator

This operator is used to join the two ~~streams~~ strings

```
select 'Hi' || 'THAUFEEQ'  
from DUAL;
```

Result - HiThaufeeQ

Example:

Select BYE || Ename
From Emp;

Result - BYE Smith
BYE Allen

Logical Operator:

AND

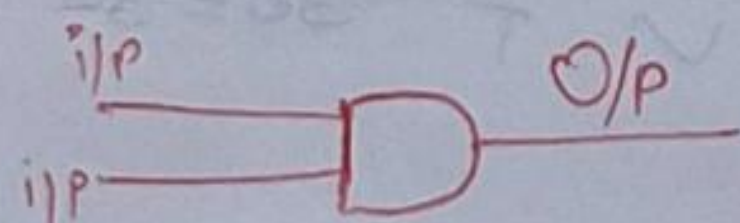
AND operator written true when both the conditions are satisfied

We use And operator whenever we need to satisfy all the condition

AND operator works as logical Multiplication

If first condition fails to satisfy then we need not check for the second condition, the result will be false

AND (logical multiplication)



C ₁	C ₂	Result
F	F	F
F	T	F
T	F	F
T	T	T

Example:

WAQTD name of the employee earning more than thousand in dept 30.

Emp

Emp no	Ename	SAL	DNO
1	Allen	2000	10
2	Smith	1800	20
3	King	1200	10
4	Miller	1000	30
5	Ward	3000	20
6	Adams	4000	30

1) WQTD Name of the Employee earning more than thousand in dept 30

ADAMS

Select Ename

From Emp

Where sal > 1000 AND DNO = 30;

2000 > 1000	X	T	X	F	10 = 30
1800 > 1000	X	T	X	F	20 = 30
1200 > 1000	X	T	X	F	10 = 30
1000 > 1000	X	F	X	T	30 = 30
3000 > 1000	X	T	X	F	20 = 30
4000 > 1000	T	✓	T	T	30 = 30

2) WQTD details of the Employee working as a Manager in dept 10

Select *

From Emp

Where JOB = 'MANAGER' And Dept no = 10;

Result	Cs	D
F	F	F
F	T	F
F	F	T
F	T	T

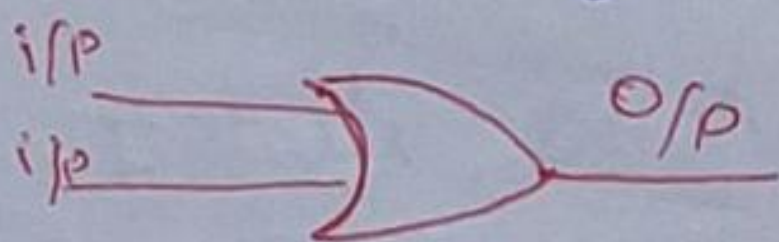
OR operator

OR operators work as logical addition.

OR operators returns true whenever any one of the condition is satisfied. We use OR operator when we need to satisfy any one of the condition.

If first condition is satisfied then no need to check for second condition. it returns True.

OR (Logical Addition)



i/p	o/p
T	T
F	T

C ₁	C ₂	Result
F	F	F
F	T	T
T	F	T
T	T	T

Example:

WAGTD names or the Employee who's working in dept 30 or earning more than 1000

Allen
Smith
King
Miller
Ward
ADAMS

Select Ename

From Emp

where sal > 1000 OR DNO = 30;

2000 > 1000	T	✓	F	10 = 30
1400 > 1000	T	✓	F	20 = 30
1200 > 1000	T	✓	F	10 = 30
1000 > 1000	F	✓	T	30 = 30
3000 > 1000	T	✓	F	20 = 30
4000 > 1000	T	✓	T	30 = 3

WQTD Details of the Employee working as manager
or working in dept 10

Select *

From Emp

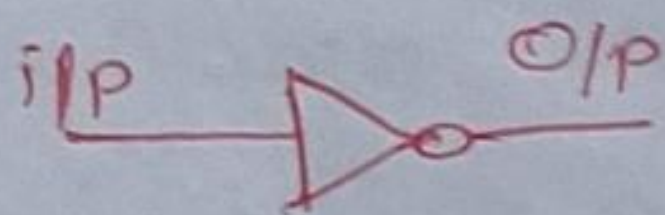
Where Job = 'MANAGER' OR DEPT NO = 10;

Not operators:

Not operator works as invenser/negation

(It will inverson result)

NOT



i/p	o/p
F	T
T	F

Example:

WQTD details of the employee except
the employee working as Manager in Dept 10

Result	CS	D
F	T	F
T	F	T
T	T	T

Select *

From Emp

Where NOT (Job = 'MANAGER' And DNO = 10);

WQTD details of the Employee earning more
than 6000 but less than 4000

Select *

From Emp

Where ~~Sal~~ Sal > 6000 And Sal < 4000