
SELECTION

The process of retrieving the data from the table by using the column names and row data is known as Selection.

Syntax:

```
SELECT column_name  
FROM table_name  
WHERE condition;
```

WHERE clause

WHERE clause is used to filter the records from the table.

Characteristics of WHERE clause

- > WHERE clause executes row by row.
- > WHERE clause follows True or False condition.
- > We can pass multiple conditions inside WHERE clause by using operators.

15. WAQTD THE DETAILS OF EMP WHOSE FNAME IS

AMAN.

```
SELECT *  
FROM EMP  
WHERE FNAME='AMAN';
```

16. WAQTD THE EMP FNAME, LNAME, JOB IF THE EMP IS WORKING AS SALESMAN.

```
SELECT FNAME,LNAME,JOB  
FROM EMP  
WHERE JOB='SALESMAN';
```

17. WAQTD THE DETAILS OF EMP IF THE EMP IS WORKING IN DEPT 113.

```
SELECT *  
FROM EMP  
WHERE DNO=113;
```

18. WAQTD THE EMP FNAME, LNAME, JOB, SAL IF THE EMP IS GETTING SALARY MORE THAN 35000.

```
SELECT FNAME,LNAME,JOB,SAL  
FROM EMP  
WHERE SAL>35000;
```

19. WAQTD THE DETAILS OF EMP IF THE EMP WAS HIRED AFTER 2017.

```
SELECT *  
FROM EMP  
WHERE DOJ>'2017-12-31';
```

20. WAQTD THE EMP FNAME, DOB IF THE EMP WAS BORN BEFORE 1995.

```
SELECT FNAME, DOB  
FROM EMP  
WHERE DOB<'1995-01-01';
```

21. WAQTD THE DETAILS OF EMP IF THE EMP IS GETTING SALARY MORE THAN 40000 AND LESS THAN 50000.

```
SELECT *  
FROM EMP  
WHERE SAL>40000 AND SAL<50000;
```

OPERATORS

1. Arithmetic Operator (+, -, *, /, %)
2. Relational Operator (>, <, =, > =, < =, ! =)
3. Logical Operator (OR, AND, NOT).
4. Special Operator (IN, NOT IN, BETWEEN, NOT BETWEEN, IS, LIKE, NOT LIKE)
5. Sub Query Operator (ALL, ANY, EXISTS, NOT EXISTS)

AND Operator : The output will be true if all the conditions(input) is true.

A	B	Y
<hr/>		
0	0	0
0	1	0
1	0	0
1	1	1

OR Operator : The output will be true if any one of the condition(input) is true.

A	B	Y
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0	0	0
0	1	1
1	0	1
1	1	1

22. WAQTD THE DETAILS OF EMP IF THE EMP IS
WORKING AS SALESMAN, MANAGER.

```
SELECT *  
FROM EMP  
WHERE JOB='SALESMAN' OR JOB='MANAGER';
```


23. WAQTD THE EMP FNAME, LNAME, JOB, SAL IF THE EMP IS GETTING SALARY MORE THAN 40000 AND WORKING AS SALESMAN.

```
SELECT FNAME, LNAME, JOB, SAL  
FROM EMP  
WHERE SAL > 40000 AND JOB = 'SALESMAN';
```

24. WAQTD THE DETAILS OF EMP IF THE EMP IS BORN DURING THE YEAR 1995.

```
SELECT *  
FROM EMP  
WHERE DOB ≥ '1995-01-01' AND DOB ≤ '1995-12-31';
```

25. WAQTD THE EMP FNAME, LNAME , JOB, DNO IF THE EMP IS WORKING AS SALESMAN, MANAGER IN DNO 110 OR 111 OR 112.

```
SELECT FNAME, LNAME, JOB, DNO
FROM EMP
WHERE (JOB='SALESMAN' OR JOB='MANAGER') AND
(DNO=110 OR DNO=111 OR DNO=112);
```

OR

```
SELECT FNAME, LNAME, JOB, DNO
FROM EMP
WHERE JOB IN ('SALESMAN', 'MANAGER') AND DNO IN
```

(110,111,112);

IN/NOT IN Operator

IN operator is a multivalued operator which will take single value at LHS and multiple values at RHS.

Syntax:

column_name IN/NOT IN (v1,v2,..,vn);

Note:

> IN operator works in the form of OR

operator.

> NOT IN operator works in the form of AND operator.

26. WAQTD THE DETAILS OF EMP IF THE EMP IS WORKING AS SALESMAN, DISPATCHER OR ACCOUNTANT IN DEPT 110, 111 OR 112.

```
SELECT *  
FROM EMP  
WHERE JOB IN  
( 'SALESMAN', 'DISPATCHER', 'ACCOUNTANT' ) AND DNO  
IN (110,111,112);
```

27. WAQTD THE EMP FNAME, JOB EXCEPT CEO.

```
SELECT FNAME, JOB  
FROM EMP  
WHERE JOB  $\neq$  'CEO' ;
```

28. WAQTD THE DETAILS OF EMP WHO ARE WORKING AS MANAGER OR DEVELOPER OR TESTER BUT NOT IN DEPT 111 OR 112.(without using IN/NOT IN operator)

```
SELECT *  
FROM EMP  
WHERE (JOB='MANAGER' OR JOB='DEVELOPER' OR
```

```
JOB='TESTER') AND (DNO≠111 AND DNO≠112);
```

OR

```
SELECT *  
FROM EMP  
WHERE JOB IN ('MANAGER', 'DEVELOPER', 'TESTER')  
AND DNO NOT IN (111,112);
```

29. WAQTD THE DETAILS ALONG WITH ANNUAL SALARY(alias has to be given) IF THE EMP IS GETTING ANNUAL SALARY MORE THAN 650000.

```
SELECT *,SAL*12 ANNUAL_SAL  
FROM EMP
```

WHERE SAL*12>650000;

30. WAQTD THE EMP FNAME, SAL, DNO IF THE EMP IS GETTING SALARY MORE THAN OR EQUAL TO 40000 AND LESS THAN OR EQUAL TO 60000.

```
SELECT FNAME,SAL,DNO
FROM EMP
WHERE SAL ≥ 40000 AND SAL ≤ 60000;
```

or

```
SELECT FNAME,SAL,DNO
FROM EMP
WHERE SAL BETWEEN 40000 AND 50000;
```

BETWEEN Operator

- > Whenever we come across range of values, we go for BETWEEN operator.
- > BETWEEN operator includes the range value.

Syntax: column_name BETWEEN lower_range AND higher_range;

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31. WAQTD THE DETAILS OF EMP IF THE EMP WAS HIRED DURING 2021.

```
SELECT *  
FROM EMP  
WHERE DOJ BETWEEN '2021-01-01' AND  
'2021-12-31';
```

32. WAQTD THE EMP FNAME, SAL IF THE EMP IS GETTING SALARY MORE THAN 35000 AND LES THAN 50000.

```
SELECT FNAME,SAL  
FROM EMP  
WHERE SAL>35000 AND SAL<50000;
```

33. WAQTD THE DETAILS OF EMP EXCEPT WHO ARE GETTING SALARY IN THE RANGE OF 35000 TO 45000.

```
SELECT *  
FROM EMP  
WHERE SAL NOT BETWEEN 35000 AND 45000;
```

34. WAQTD THE DETAILS OF EMP IF THE EMP IS NOT A CUSTOMER IN THE COMPANY.

```
SELECT *  
FROM EMP  
WHERE CID IS NULL;
```

35. WAQTD THE EMP FNAME,COMM IF THE EMP IS GETTING COMM.

```
SELECT FNAME,COMM  
FROM EMP  
WHERE COMM IS NOT NULL;
```

36. WAQTD THE DETAILS OF EMP WHO DOESNOT HAVE ANY REPORTING MANAGER.

```
SELECT *  
FROM EMP  
WHERE MGR IS NULL;
```

IS OPERATOR

This operator is used to check whether the given condition is NULL or NOT NULL.

Syntax:

column_name IS NULL/NOT NULL;
