Special Operators

- IN, NOT IN
- BETWEEN, NOT BETWEEN
- IS NULL, IS NOT NULL
- LIKE, NOT LIKE

IN Operator

- It is used to pick the values one by one from list of values.
- We can use in operator in place of OR operator when we are extracting multiple values from same column.
- We can use this with any column irrespective of data types.

Syntax

```
SELECT * FROM <table_name> WHERE <column_name> in (list of values);
```

Example#1

Write a query to display the employees who are belong to IT, HR departments.

```
SELECT * FROM employee WHERE department IN ('IT','HR');
```

Example#2

Write a query to display the employees who are not belong to IT, HR departments.

```
SELECT * FROM employee WHERE department NOT IN ('IT','HR');
```

Example#3

Write a query to display the employees who joined on 2023 or 2024.

```
SELECT * FROM employee WHERE date_format(hire_date,'%Y') IN (2023,2024);
```

```
SELECT * FROM employee WHERE YEAR(hire_date) IN (2023,2024);
```

BETWEEN AND operator

- It is used to select range of values including lower bound and upper bound value.

Syntax

```
SELECT * FROM <table_name> WHERE <column_name> BETWEEN <lowvalue> AND
<highvalue>;
```

Example#1

Write a query to display employees who are getting salary between 10000 to 30000.

```
SELECT * FROM employee WHERE salary BETWEEN 30000 AND 40000;
```

Example#2

Write a query to display employees who are joined between 2021 to 2023.

```
SELECT * FROM employee WHERE date_format(hire_date,'%Y') BETWEEN 2021 AND 2023;
```

Example#3

Write a query to display employees whose are name between ‘D’ and ‘T’.

```
SELECT * FROM employee WHERE name BETWEEN 'D' AND 'T';
```

Example#4

Write a query to display employees who are getting salary between 10000 to 30000.

```
SELECT * FROM employee WHERE salary NOT BETWEEN 30000 AND 40000;
```

IS NULL / IS NOT NULL

- It is used to test whether a column having null value or not.

Syntax

```
SELECT * FROM table_name WHERE column_name IS NULL;
```

```
SELECT * FROM table_name WHERE column_name IS NOT NULL;
```

Example#1

Write a query to display record where commission is null.

```
SELECT * FROM employee WHERE comm IS NULL;
```

Example#2

Write a query to display record where commission is not null.

```
SELECT * FROM employee WHERE comm IS NOT NULL;
```

Update records based on a NULL condition

Syntax

```
UPDATE table_name SET column_name = new_value WHERE column_name IS NULL;
```

Example

```
UPDATE employee set comm=0 WHERE comm IS NULL;
```

LIKE Operator

- It is used to retrieve data based on specified pattern in where clause.
- There are 2 special character/ wild card character
    - % - Zero Character/ Multiple Character
    - _ (underscore) / exactly one character

Syntax

```
SELECT * FROM tablename WHERE columnname LIKE 'character pattern'
```

Example#1

Write a query to display all employees whose names starting with 'R'.

```
SELECT  * FROM employee where name LIKE 'R%'
```

Example#2

Write a query to display all employees whose names ends with 'l'.

```
SELECT  * FROM employee where name LIKE '%l'
```

Example#3

Write a query to display all employees whose names contains 'j' in any positions.

```
SELECT  * FROM employee where name LIKE '%j%'
```

Example#4

Write a query to display all employees whose name contains ‘a’ in second place.

```
SELECT  * FROM employee where name LIKE '_a%'
```

Example#5

Write a query to display all employees whose names contains 'aj' or ‘ul’ in any positions.

```
SELECT  * FROM employee where name LIKE '%aj%' OR name LIKE '%ul%';
```

Example#6

Write a query to display the employee who is joining in January using like operator.

```
SELECT  * FROM employee WHERE hire_date LIKE '_____01___';
```