SNS COLLEGE OF ENGINEERING
Kurumbapalayam (Po), Coimbatore – 641 107
An Autonomous Institution
Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

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UNIT-II

IN OPERATOR

IN operator allows you to easily test if the expression matches any value in the list of values. It is used to remove the need of multiple OR condition in SELECT, INSERT, UPDATE or DELETE. You can also use NOT IN to exclude the rows in your list. We should note that any kind of duplicate entry will be retained.

Syntax:

SELECT column_name(s)FROM table_name WHERE column_name IN (list_of_values);

Queries

Find the Fname, Lname of the Employees who have Salary equal to 30000, 40000 or 25000.

SELECT Fname, Lname FROM Employee WHERE Salary IN (30000, 40000, 25000);

Find the Fname, Lname of all the Employee who have Salary not equal to 25000 or 30000.

SELECT Fname, Lname FROM Employee WHERE Salary NOT IN (25000, 30000);

SQL Functions

SQL provides many built-in functions to perform operations on data. These functions are useful while performing mathematical calculations, string concatenations, sub-strings etc. SQL functions are divided into two categories,

- ✓ Aggregate Functions
- ✓ Scalar Functions
- ✓ Aggregate Functions

These functions return a single value after performing calculations on a group of values. Following are some of the frequently used Aggregrate functions.

AVG() Function

Average returns average value after calculating it from values in a numeric column.

Its general syntax is,

SELECT AVG(column_name) FROM table_name

Using AVG() function

Consider the following Emp table

eid	name	age	salary
401	Anu	22	9000

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402	Shane	29	8000
403	Rohan	34	6000
404	Scott	44	10000
405	Tiger	35	8000

SQL query to find average salary will be,

SELECT avg(salary) from Emp;

Result of the above query will be,

avg(salary)

8200

COUNT() Function

Count returns the number of rows present in the table either based on some condition or without condition.

Its general syntax is,

SELECT COUNT(column_name) FROM table-name

Using COUNT() function

Consider the following Emp table

eid	name	age	salary
401	Anu	22	9000
402	Shane	29	8000
403	Rohan	34	6000
404	Scott	44	10000
405	Tiger	35	8000

SQL query to count employees, satisfying specified condition is,

SELECT COUNT(name) FROM Emp WHERE salary = 8000;

Result of the above query will be,

count(name)

2

Example of COUNT(distinct)

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Consider the following Emp table

eid	name	age	salary
401	Anu	22	9000
402	Shane	29	8000
403	Rohan	34	6000
404	Scott	44	10000
405	Tiger	35	8000

SQL query is,

SELECT COUNT(DISTINCT salary) FROM emp;

Result of the above query will be,

count(distinct salary)

4

FIRST() Function

First function returns first value of a selected column

Syntax for FIRST function is,

SELECT FIRST(column_name) FROM table-name;

Using FIRST() function

Consider the following Emp table

eid	name	age	salary
401	Anu	22	9000
402	Shane	29	8000
403	Rohan	34	6000
404	Scott	44	10000
405	Tiger	35	8000

SQL query will be,

SELECT FIRST(salary) FROM Emp;

and the result will be,

first(salary)

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9000

LAST() Function

LAST function returns the return last value of the selected column.

Syntax of LAST function is,

SELECT LAST(column_name) FROM table-name;

Using LAST() function

Consider the following Emp table

eid	name	age	salary
401	Anu	22	9000
402	Shane	29	8000
403	Rohan	34	6000
404	Scott	44	10000
405	Tiger	35	8000

SQL query will be,

SELECT LAST(salary) FROM emp;

Result of the above query will be,

last(salary)

8000

MAX() Function

MAX function returns maximum value from selected column of the table.

Syntax of MAX function is,

SELECT MAX(column_name) from table-name;

Using MAX() function

Consider the following Emp table

eid	name	age	salary
401	Anu	22	9000
402	Shane	29	8000

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403	Rohan	34	6000
404	Scott	44	10000
405	Tiger	35	8000

SQL query to find the Maximum salary will be,

SELECT MAX(salary) FROM emp;

Result of the above query will be,

MAX(salary)

10000

MIN() Function

MIN function returns minimum value from a selected column of the table.

Syntax for MIN function is,

SELECT MIN(column_name) from table-name;

Using MIN() function

Consider the following Emp table,

eid	name	age	salary
401	Anu	22	9000
402	Shane	29	8000
403	Rohan	34	6000
404	Scott	44	10000
405	Tiger	35	8000

SQL query to find minimum salary is,

SELECT MIN(salary) FROM emp;

Result will be,

MIN(salary)

6000

SUM() Function

SUM function returns total sum of a selected columns numeric values.

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Syntax for SUM is,

SELECT SUM(column_name) from table-name;

Using SUM() function

Consider the following Emp table

eid	name	age	salary
401	Anu	22	9000
402	Shane	29	8000
403	Rohan	34	6000
404	Scott	44	10000
405	Tiger	35	8000

SQL query to find sum of salaries will be,

SELECT SUM(salary) FROM emp;

Result of above query is,

SUM(salary)

41000