

Lab Session-07

Object:- To write SQL query using SELECT BETWEEN - AND, SELECT-IN and aggregate function SUM/COUNT/AVG

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.

BETWEEN AND:- The BETWEEN operator selects the values within a given range. The values can be numbers, text. It is inclusive begin and end values are included.

Syntax:-

Select column_name(s) from table_name where column_name IN (value 1, value 2....);

Select column_name(s) from table_name where column_name between value 1 and value 2;

Query:-

Select In from Employee where E_ID(110,111,116,117)

Select * from Employee where E_ID IN(110,111,116,117)

Select between-and from Employee table

Select * from Employee where E_ID between 110 and 116

112	113	114	115	116	110
Alakh	Savita	Sudheer	Akash		
28	29	35	32		
65745	99845	99999	654123		
gkp	Mirzapur	Jaunpur	lko		
98345					
14476					
Patna					
Bihar					
55000	50000	90000	60000	50000	100000
Jr. Librarian	Jr. Librarian	Manager	Gd. Worker	Housekeeper	Director
Jr. Librarian					Ast. Librarian

7 rows in set (0.000 sec)

```
MariaDB [lms]> select * from employee where eid < 116 and name = "Akash";
```

eid	name	age	contactno	address	salary	designation
110	Akash	32	654123	lko	10000	Ast. Librarian

1 row in set (0.001 sec)

```
MariaDB [lms]> select * from employee where eid > 116 and salary <= 10000;
```

Empty set (0.001 sec)

```
MariaDB [lms]> select * from employee where eid > 110 and salary <= 10000;
```

eid	name	age	contactno	address	salary	designation
111	Raja	29	964476	Bihar	5000	Housekeeper
115	Savita	29	99845	Mirzapur	9000	Housekeeper

2 rows in set (0.001 sec)

```
MariaDB [lms]> select * from employee where eid > 111;
```

eid	name	age	contactno	address	salary	designation
112	Dinesh	26	544476	Patna	50000	Jr. Librarian
113	Palak	31	98345	gkp	90000	Manager
114	Alakh	28	65745	Kolkata	60000	Gd. Worker
115	Savita	29	99845	Mirzapur	9000	Housekeeper
116	Sudheer	35	99999	Jaunpur	100000	Director
117	Shubh	25	98765	Kanpur	900000	Chairman
151	Suresh	30	14576	Banglor	75000	Sr. Manager

7 rows in set (0.001 sec)

```
MariaDB [lms]> select * from employee where eid < 117;
```

eid	name	age	contactno	address	salary	designation
110	Akash	32	654123	lko	10000	Ast. Librarian
111	Raja	29	964476	Bihar	5000	Housekeeper
112	Dinesh	26	544476	Patna	50000	Jr. Librarian
113	Palak	31	98345	gkp	90000	Manager
114	Alakh	28	65745	Kolkata	60000	Gd. Worker
115	Savita	29	99845	Mirzapur	9000	Housekeeper
116	Sudheer	35	99999	Jaunpur	100000	Director

7 rows in set (0.000 sec)

Use Aggregate function -

SUM()
MAX()
MIN()
AVG()
COUNT()

Syntax :- Select function (column) from table_name;
Query :

Select * from Employee
Select MIN(salary) from Employee;
Select MAX(salary) from Employee;
Select SUM(salary) from Employee;
Select AVG(salary) from Employee;
Select COUNT(salary) from Employee;

MariaDB [lms]> select min(salary) from employee;

```
+-----+
| min(salary) |
+-----+
|          5000 |
+-----+
```

1 row in set (0.001 sec)

MariaDB [lms]> select max(salary) from employee;

```
+-----+
| max(salary) |
+-----+
|       900000 |
+-----+
```

1 row in set (0.000 sec)

MariaDB [lms]> select sum(salary) from employee;

```
+-----+
| sum(salary) |
+-----+
|       1299000 |
+-----+
```

1 row in set (0.000 sec)

MariaDB [lms]> select sum(salary) from employee;

```
+-----+
| sum(salary) |
+-----+
|       1299000 |
+-----+
```

1 row in set (0.000 sec)

MariaDB [lms]> select avg(salary) from employee;

```
+-----+
| avg(salary) |
+-----+
| 144333.3333 |
+-----+
```

1 row in set (0.000 sec)

MariaDB [lms]> select count(salary) from employee;

```
+-----+
| count(salary) |
+-----+
|              9 |
+-----+
```

1 row in set (0.000 sec)

Lab Session-08

Object :- To write SQL query using comparison operators
(> , < , > = , < =)

Syntax :-

Select column 1.....from table name where <condition>

Query :-

Select * from Employee where E.ID <= 110 and Name = "Akash";

Select * from Employee where E.ID >= 116 and salary <= 10,000;

Select * from Employee where E.ID > 111;

Select * from Employee where E.ID < 117;

Lab Session-09

Object :- To write SQL query using logical operators (AND/OR/NOT)

AND operator :- Used to continue one or more condition. It displays a records if all the conditions are TRUE

OR operator :- The OR operator displays a record if any of the condition is TRUE

NOT operator :- The NOT operator displays a record if the condition is not TRUE

Syntax :-

Select column 1 from table name where condition 1 AND Condition 2;

Select column 1 from table name where condition 1 OR Condition 2;

Select column 1 from table name where NOT condition;

Query :-

Select * from Employee where E-ID < 110 AND NAME = "AMBER";

Select * from Employee where E-ID > 111 OR Salary <= 15,000;

Select * from Employee where not E-ID = 116;

```

MariaDB [lms]> select * from employee where eid < 116 and name = "Amber";
+----+-----+-----+-----+-----+-----+-----+
| eid | name  | age  | contactno | address | salary | designation |
+----+-----+-----+-----+-----+-----+-----+
| 114 | Amber | 28   | 65745    | Kolkata | 60000  | Gd. Worker  |
+----+-----+-----+-----+-----+-----+-----+
1 row in set (0.001 sec)

```

```

MariaDB [lms]> select * from employee where eid > 110 and salary <= 15000;
+----+-----+-----+-----+-----+-----+-----+
| eid | name  | age  | contactno | address | salary | designation |
+----+-----+-----+-----+-----+-----+-----+
| 111 | Raja  | 29   | 964476    | Bihar  | 5000   | Housekeeper |
| 115 | Savita | 29   | 99845     | Mirzapur | 9000   | Housekeeper |
+----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.000 sec)

```

```

MariaDB [lms]> select * from employee where eid > 111 or salary <= 15000;
+----+-----+-----+-----+-----+-----+-----+
| eid | name  | age  | contactno | address | salary | designation |
+----+-----+-----+-----+-----+-----+-----+
| 110 | Akash | 32   | 654123    | lko     | 10000  | Ast. Librarian |
| 111 | Raja  | 29   | 964476    | Bihar  | 5000   | Housekeeper |
| 112 | Dinesh | 26   | 544476    | Patna  | 50000  | Jr. Librarian |
| 113 | Palak | 31   | 98345     | gkp     | 90000  | Manager |
| 114 | Amber | 28   | 65745     | Kolkata | 60000  | Gd. Worker |
| 115 | Savita | 29   | 99845     | Mirzapur | 9000   | Housekeeper |
| 116 | Sudheer | 35   | 99999     | Jaunpur | 100000 | Director |
| 117 | Shubh | 25   | 98765     | Kanpur | 900000 | Chairman |
| 151 | Suresh | 30   | 14576     | Banglor | 75000  | Sr. Manager |
+----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.000 sec)

```

```

MariaDB [lms]> select * from employee where not eid = 116;
+----+-----+-----+-----+-----+-----+-----+
| eid | name  | age  | contactno | address | salary | designation |
+----+-----+-----+-----+-----+-----+-----+
| 110 | Akash | 32   | 654123    | lko     | 10000  | Ast. Librarian |
| 111 | Raja  | 29   | 964476    | Bihar  | 5000   | Housekeeper |
| 112 | Dinesh | 26   | 544476    | Patna  | 50000  | Jr. Librarian |
| 113 | Palak | 31   | 98345     | gkp     | 90000  | Manager |
| 114 | Amber | 28   | 65745     | Kolkata | 60000  | Gd. Worker |
| 115 | Savita | 29   | 99845     | Mirzapur | 9000   | Housekeeper |
| 117 | Shubh | 25   | 98765     | Kanpur | 900000 | Chairman |
| 151 | Suresh | 30   | 14576     | Banglor | 75000  | Sr. Manager |
+----+-----+-----+-----+-----+-----+-----+
8 rows in set (0.001 sec)

```


Lab Session - 10

Query :- To write SQL query using LIKE operator.

Example :- Select column from table-name like ("operator");

Query :-

Select * from Employee where name like 'a%';

Select * from Employee where name like '%a';

Select * from Employee where name like 'a...';

Select * from Employee where name like '...a';

Command Prompt - mysql -u <user> + <password>

MariaDB [lms]> select * from employee where name like "a%";

eid	name	age	contactno	address	salary	designation
110	Akash	32	654123	lko	10000	Ast. Librarian
114	Amber	28	65745	Kolkata	60000	Gd. Worker
116	Ada	35	99999	Jaunpur	100000	Director

3 rows in set (0.001 sec)

MariaDB [lms]> select * from employee where name like "%a";

eid	name	age	contactno	address	salary	designation
111	Raja	29	964476	Bihar	5000	Housekeeper
115	Savita	29	99845	Mirzapur	9000	Housekeeper
116	Ada	35	99999	Jaunpur	100000	Director

3 rows in set (0.000 sec)

MariaDB [lms]> select * from employee where name like "a_";

eid	name	age	contactno	address	salary	designation
116	Ada	35	99999	Jaunpur	100000	Director

1 row in set (0.000 sec)

MariaDB [lms]> select * from employee where name like "a_";

eid	name	age	contactno	address	salary	designation
116	Ada	35	99999	Jaunpur	100000	Director