

## **PRACTICAL: 06 & 07**

### **OBJECT:**

- Insert 7 records (minimum).
- Use distinct.
- Order by asc with desc.
- Use Count, sum, avg.

### **PURPOSE OF “INSERT INTO TABLE:**

Inserting a record in the context of a databases through the command line, it usually involves entering a new entry or row of data into a table.

### **COMMAND FOR “INSERT INTO TABLE”:**

The specific command or syntax depends on the database management system using, such as SQL commands like “INSERT INTO” for databases.

```

MariaDB [urooj]> create Table yumna(emp_id int,emp_name char(16),emp_dept char(16),emp_design varchar(16),emp_age int,emp_salary int,dofjoin date);
Query OK, 0 rows affected (0.326 sec)

MariaDB [urooj]> insert into yumna Values(111,"anas khan","stone","volunteer",19,20000,"2005-05-16");
Query OK, 1 row affected (2.049 sec)
```

```
MariaDB [urooj]> insert into yumna Values(211,"azlan","store","head of department",20,12000,"2009-01-12");
Query OK, 1 row affected, 1 warning (0.169 sec)

MariaDB [urooj]> insert into yumna Values(311,"wajhee","purchase","co-ordinator",30,35000,"2000-08-124");
Query OK, 1 row affected, 1 warning (0.076 sec)

MariaDB [urooj]> insert into yumna Values(312,"shahmir","purchase","checker",34,19000,"2012-05-23");
Query OK, 1 row affected (0.079 sec)

MariaDB [urooj]> insert into yumna Values(313,"hashim","store","security",31,20000,"2010-07-12");
Query OK, 1 row affected (0.052 sec)

MariaDB [urooj]> insert into yumna Values(314,"talha","store","sales",45,"2003-12-28");
ERROR 1136 (21501): Column count doesn't match value count at row 1
MariaDB [urooj]> insert into yumna Values(314,"talha","store","sales",45,15000,"2003-12-28");
Query OK, 1 row affected (0.080 sec)

MariaDB [urooj]> insert into yumna Values(315,"junaid","store","manager",35,25000,"2018-05-19");
Query OK, 1 row affected (0.076 sec)

MariaDB [urooj]> insert into yumna Values(316,"ali","purchase","assistant",26,20000,"2019-03-28");
Query OK, 1 row affected (0.122 sec)

MariaDB [urooj]> select DISTINCT emp_design,emp_id from yumna;
```

## **PURPOSE OF USE “DISTINCT”:**

The MySQL **DISTINCT** keyword in the SELECT clause is used to eliminate duplicate rows and display a unique list of values.

## **COMMAND FOR USE “DISTINCT”:**

For Example: SELECT COUNT (DISTINCT Column1) FROM Table;

```
MariaDB [urooj]> select DISTINCT emp_design,emp_id from yumna;
+-----+-----+
| emp_design | emp_id |
+-----+-----+
| volunteer  | 111    |
| head of departme | 211    |
| co-ordinator | 311    |
| checker    | 312    |
| security   | 313    |
| sales      | 314    |
| manager    | 315    |
| assistant  | 316    |
+-----+-----+
8 rows in set (0.258 sec)
```

```
MariaDB [urooj]> select * from yumna where emp_salary=20000;
+-----+-----+-----+-----+-----+-----+-----+
| emp_id | emp_name | emp_dept | emp_design | emp_age | emp_salary | dofjoin |
+-----+-----+-----+-----+-----+-----+-----+
| 111    | anas khan | store    | volunteer  | 19      | 20000      | 2005-05-16 |
| 313    | hashim    | store    | security   | 31      | 20000      | 2010-07-12 |
| 316    | ali       | purchase | assistant  | 26      | 20000      | 2019-03-28 |
+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.056 sec)
```

```
MariaDB [urooj]> select * from yumna where emp_salary=20000 and emp_name="hashim";
+-----+-----+-----+-----+-----+-----+-----+
| emp_id | emp_name | emp_dept | emp_design | emp_age | emp_salary | dofjoin |
+-----+-----+-----+-----+-----+-----+-----+
| 313    | hashim    | store    | security   | 31      | 20000      | 2010-07-12 |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.055 sec)
```

```
MariaDB [urooj]> select * from yumna where emp_salary=15000 and emp_name="junaaid";
Empty set (0.001 sec)
```

```
MariaDB [urooj]> select * from yumna where emp_salary=10000 and emp_name="ali";
Empty set (0.001 sec)
```

```
MariaDB [urooj]> select * from yumna order by emp_design;
```

## **PURPOSE OF “ORDER BY ASC WITH DESC”:**

The **ORDER BY** keyword sorts the records in ascending order by default. To sort the records in descending order, use the DESC keyword.

## **COMMAND FOR “ORDER BY ASC WITH DESC”:**

For Example: SELECT \* FROM table ORDER BY column1 ASC, column2 DESC;

```
MariaDB [urooj]> select * from yumna order by emp_design desc,emp_name asc;
```

| emp_id | emp_name  | emp_dept | emp_design       | emp_age | emp_salary | dofjoin    |
|--------|-----------|----------|------------------|---------|------------|------------|
| 111    | anas khan | store    | volunteer        | 19      | 20000      | 2005-05-16 |
| 313    | hashim    | store    | security         | 31      | 20000      | 2010-07-12 |
| 314    | talha     | store    | sales            | 45      | 15000      | 2003-12-28 |
| 315    | junaaid   | store    | manager          | 35      | 25000      | 2018-05-19 |
| 211    | azlan     | store    | head of departme | 20      | 12000      | 2009-01-12 |
| 311    | wajhee    | purchase | co-ordinator     | 30      | 35000      | 0000-00-00 |
| 312    | shahmir   | purchase | checker          | 34      | 19000      | 2012-05-23 |
| 316    | ali       | purchase | assistant        | 26      | 20000      | 2019-03-28 |

```
8 rows in set (0.003 sec)
```

```
MariaDB [urooj]>
```

## **PURPOSE OF “USE COUNT, SUM, AVG”:**

The **COUNT** function returns the number of rows in a table. With this function, you can count all the rows that fulfill a specified condition. The **AVG** function computes the average of values in a column or an expression. **SUM** computes the sum.

## **COMMAND FOR USE “COUNT, SUM, AVG”:**

For Example: `SELECT COUNT (column_name) FROM table_name. WHERE condition;`

`SELECT AVG (column_name) FROM table_name. WHERE condition;`

`SELECT SUM (column_name) FROM table_name. WHERE condition;`

```
MariaDB [urooj]> select count(*)as emp_name from yumna where emp_design= "manager";
+-----+
| emp_name |
+-----+
|          1 |
+-----+
1 row in set (0.084 sec)

MariaDB [urooj]> select count(*)as emp_name from yumna where emp_design= "talha";
+-----+
| emp_name |
+-----+
|          0 |
+-----+
1 row in set (0.001 sec)

MariaDB [urooj]> select sum(emp_age) as emp_dept from yumna;
+-----+
| emp_dept |
+-----+
|        240 |
+-----+
1 row in set (0.024 sec)

MariaDB [urooj]> select sum(emp_salary) as emp_dept from yumna;
+-----+
| emp_dept |
+-----+
|    166000 |
+-----+
1 row in set (0.001 sec)

MariaDB [urooj]> select avg(emp_salary) as emp_dept from yumna where emp_design="checker";
+-----+
| emp_dept |
+-----+
| 19000.0000 |
+-----+
1 row in set (0.001 sec)

MariaDB [urooj]>
```

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