

Experiment 5:

String Functions:

1) ASCII():

```
mysql> select ascii('t');
+-----+
| ascii('t') |
+-----+
|          116 |
+-----+
1 row in set (0.00 sec)
```

2) CHAR_LENGTH():

```
mysql> SELECT char_length('Hello!');
+-----+
| char_length('Hello!') |
+-----+
|                      6 |
+-----+
1 row in set (0.00 sec)
```

3) CHARACTER_LENGTH():

```
mysql> SELECT CHARACTER_LENGTH('geeks for geeks')
-> ;
+-----+
| CHARACTER_LENGTH('geeks for geeks') |
+-----+
|                      15 |
+-----+
1 row in set (0.00 sec)
```

4) CONCAT():

```
mysql> SELECT 'Geeks' || ' ' || 'forGeeks' FROM dual;
+-----+
| 'Geeks' || ' ' || 'forGeeks' |
+-----+
|                      0 |
+-----+
1 row in set, 2 warnings (0.00 sec)
```

5) CONCAT_WS():

```
mysql> SELECT CONCAT_WS('_', 'geeks', 'for', 'geeks');
+-----+
| CONCAT_WS('_', 'geeks', 'for', 'geeks') |
+-----+
| geeks_for_geeks                        |
+-----+
1 row in set (0.00 sec)

mysql> █
```

6) FIND_IN_SET():

```
mysql> SELECT FIND_IN_SET('b', 'a,b,c,d,e,f');
+-----+
| FIND_IN_SET('b', 'a,b,c,d,e,f') |
+-----+
| 2 |
+-----+
1 row in set (0.00 sec)

mysql> █
```

7) INSTR():

```
mysql> select instr('geeks for geeks', 'e');
+-----+
| instr('geeks for geeks', 'e') |
+-----+
| 2 |
+-----+
1 row in set (0.00 sec)

mysql> █
```

8) LCASE():

```
mysql> select lcase ("GeeksFor geeks to learn");
+-----+
| lcase ("GeeksFor geeks to learn") |
+-----+
| geeksfor geeks to learn          |
+-----+
1 row in set (0.00 sec)

mysql> █
```

9) Left():

```
mysql> select length('GeeksForGeeks');
+-----+
| length('GeeksForGeeks') |
+-----+
|                13      |
+-----+
1 row in set (0.00 sec)

mysql> █
```

10) locate():

```
mysql> select locate('for','geeksforgeeks',1);
+-----+
| locate('for','geeksforgeeks',1) |
+-----+
|                6                |
+-----+
1 row in set (0.00 sec)

mysql> █
```

11) lower():

```
mysql> select lower('geeksforgeeks.org');
+-----+
| lower('geeksforgeeks.org') |
+-----+
| geeksforgeeks.org          |
+-----+
1 row in set (0.00 sec)

mysql> █
```

12) lpad():

```
mysql> select lpad('geeks',8,'0');
+-----+
| lpad('geeks',8,'0') |
+-----+
| 000geeks            |
+-----+
1 row in set (0.00 sec)

mysql> █
```

13) ltrim():

```
mysql> select ltrim('sql tutorial') as lefttrimmedstring;
+-----+
| lefttrimmedstring |
+-----+
| sql tutorial      |
+-----+
1 row in set (0.00 sec)

mysql> █
```

14) mid():

```
mysql> select mid("SQL tutorial",5,3) AS ExtractString;
+-----+
| ExtractString |
+-----+
| tut          |
+-----+
1 row in set (0.00 sec)

mysql> █
```

15) position():

```
mysql> select position('e' IN 'customer');
+-----+
| position('e' IN 'customer') |
+-----+
| 7 |
+-----+
1 row in set (0.01 sec)

mysql> █
```

15) repeat():

```
mysql> select repeat('geeks',2);
+-----+
| repeat('geeks',2) |
+-----+
| geeksgEEKS        |
+-----+
1 row in set (0.00 sec)

mysql> █
```

16) replace():

```
mysql> select replace('vivek mohite', 't','m');
+-----+
| replace('vivek mohite', 't','m') |
+-----+
| vivek mohime                      |
+-----+
1 row in set (0.00 sec)

mysql> █
```

17) reverse():

```
mysql> select reverse('geeksforgeeks.org');
+-----+
| reverse('geeksforgeeks.org') |
+-----+
| gro.skeegrofskeeg           |
+-----+
1 row in set (0.00 sec)

mysql> █
```

18) right():

```
mysql> select right('geeksforgeeks.org',4);
+-----+
| right('geeksforgeeks.org',4) |
+-----+
| .org                         |
+-----+
1 row in set (0.00 sec)

mysql> █
```

19) rpad():

```
mysql> select rpad('geeks',8,'0');
+-----+
| rpad('geeks',8,'0') |
+-----+
| geeks000            |
+-----+
1 row in set (0.00 sec)

mysql> █
```


20) rtrim():

```
mysql> select rtrim('SQL Tutorial') as righttrimmedstring;
+-----+
| righttrimmedstring |
+-----+
| SQL Tutorial      |
+-----+
1 row in set (0.00 sec)

mysql> █
```

21) space():

```
mysql> select space(7);
+-----+
| space(7) |
+-----+
|          |
+-----+
1 row in set (0.00 sec)

mysql> █
```

22) strcmp():

```
mysql> select strcmp('google.com','geeksforgeeks.com');
+-----+
| strcmp('google.com','geeksforgeeks.com') |
+-----+
|                                           1 |
+-----+
1 row in set (0.00 sec)

mysql> █
```

23) substr():

```
mysql> SELECT SUBSTR('geeksforgeeks', 1,5);
+-----+
| SUBSTR('geeksforgeeks', 1,5) |
+-----+
| geeks                        |
+-----+
1 row in set (0.00 sec)

mysql> █
```

24) substring():

```
mysql> select substring('geeksforgeeks.org',9,1);
+-----+
| substring('geeksforgeeks.org',9,1) |
+-----+
| g                                     |
+-----+
1 row in set (0.00 sec)

mysql> █
```

25) substring_index():

```
mysql> select substring_index('www.w3schools.com','.',1);
+-----+
| substring_index('www.w3schools.com','.',1) |
+-----+
| www                                         |
+-----+
1 row in set (0.00 sec)

mysql> █
```

26) trim():

```
mysql> select trim(leading '0' from '000123');
+-----+
| trim(leading '0' from '000123') |
+-----+
| 123                               |
+-----+
1 row in set (0.00 sec)

mysql> █
```

27) upcase():

```
mysql> select ucase("geeksforgeeks");
+-----+
| ucase("geeksforgeeks") |
+-----+
| GEEKSFORGEEEKS         |
+-----+
1 row in set (0.00 sec)

mysql> █
```

Aggregate functions:

```
mysql> DESC KC;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| E_ID  | int(5)         | YES  |     | NULL    |       |
| NAME  | varchar(40)    | YES  |     | NULL    |       |
| WORK  | varchar(50)    | YES  |     | NULL    |       |
| SALARY | int(10)        | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> INSERT INTO KC(E_ID,NAME,WORK,SALARY) VALUES (01,"A","DEV",1000);
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO KC(E_ID,NAME,WORK,SALARY) VALUES (02,"B","DEV",2000);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO KC(E_ID,NAME,WORK,SALARY) VALUES (03,"C","DEV",3000);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO KC(E_ID,NAME,WORK,SALARY) VALUES (04,"D","DEV",4000);
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM KC;
+-----+-----+-----+-----+
| E_ID | NAME | WORK | SALARY |
+-----+-----+-----+-----+
| 1    | A    | DEV  | 1000   |
| 2    | B    | DEV  | 2000   |
| 3    | C    | DEV  | 3000   |
| 4    | D    | DEV  | 4000   |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> SELECT COUNT(*) FROM KC WHERE E_ID=01;
+-----+
| COUNT(*) |
+-----+
| 1        |
+-----+
1 row in set (0.00 sec)

mysql> SELECT MIN(SALARY) FROM KC;
+-----+
| MIN(SALARY) |
+-----+
| 1000        |
+-----+
1 row in set (0.00 sec)

mysql> SELECT MAX(SALARY) FROM KC;
+-----+
| MAX(SALARY) |
+-----+
| 4000        |
+-----+
1 row in set (0.00 sec)

mysql> SELECT AVG(SALARY) FROM KC;
+-----+
| AVG(SALARY) |
+-----+
| 2500.0000   |
+-----+
1 row in set (0.00 sec)

mysql> SELECT SUM(SALARY) FROM KC;
```



```
mysql> SELECT SUM(SALARY) FROM KC;
+-----+
| SUM(SALARY) |
+-----+
|      10000 |
+-----+
1 row in set (0.00 sec)

mysql> SELECT NAME FROM KC GROUP BY NAME;
+-----+
| NAME |
+-----+
| A    |
| B    |
| C    |
| D    |
+-----+
4 rows in set (0.00 sec)

mysql> SELECT NAME FROM KC WHERE NAME="A" GROUP BY NAME;
+-----+
| NAME |
+-----+
| A    |
+-----+
1 row in set (0.00 sec)
```

```

+-----+
| NAME |
+-----+
| A    |
+-----+
1 row in set (0.00 sec)

mysql> SELECT NAME,SALARY FROM KC WHERE NAME="A" GROUP BY NAME;
ERROR 1055 (42000): Expression #2 of SELECT list is not in GROUP BY clause and contains nonaggregated column 'mysql.KC.SALARY' which is not functionally dependent on columns in GROUP BY clause; this is incompatible with sql_mode=only_full_group_by
mysql> SELECT NAME,SALARY FROM KC GROUP BY NAME;
ERROR 1055 (42000): Expression #2 of SELECT list is not in GROUP BY clause and contains nonaggregated column 'mysql.KC.SALARY' which is not functionally dependent on columns in GROUP BY clause; this is incompatible with sql_mode=only_full_group_by
mysql> SELECT NAME,SALARY FROM KC ORDER BY NAME;
+-----+-----+
| NAME | SALARY |
+-----+-----+
| A    | 1000   |
| B    | 2000   |
| C    | 3000   |
| D    | 4000   |
+-----+-----+
4 rows in set (0.00 sec)

mysql> SELECT NAME,SALARY FROM KC WHERE NAME="A" ORDER BY NAME;
+-----+-----+
| NAME | SALARY |
+-----+-----+
| A    | 1000   |
+-----+-----+
1 row in set (0.00 sec)

mysql>
```