EXPERIMENT - 5

String Functions:-

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

mysql> SELECT char_length('Chainsawman');
+----------------------------+
| char_length('Chainsawman') |
+----------------------------+
|                         11 |
+----------------------------+
1 row in set (0.00 sec)

mysql> SELECT character_length('Chainsaw man');
+---------------------------------+
| character_length('Chainsaw man') |
+---------------------------------+
|                              12 |
+---------------------------------+
1 row in set (0.00 sec)

mysql> SELECT CONCAT_WS('_','laughing','out','loud');
+----------------------------------------+
| CONCAT_WS('_','laughing','out','loud') |
+----------------------------------------+
| laughing_out_loud                      |
+----------------------------------------+
1 row in set (0.07 sec)

mysql> SELECT FIND_IN_SET('E','A,B,C,D,E');
+------------------------------+
| FIND_IN_SET('E','A,B,C,D,E') |
+------------------------------+
|                            5 |
+------------------------------+
1 row in set (0.00 sec)
```

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

mysql> SELECT LOWER('GEEKSFORGEEKS.ORG');
+----------------------------+
| LOWER('GEEKSFORGEEKS.ORG') |
+----------------------------+
| geeksforgeeks.org          |
+----------------------------+
1 row in set (0.00 sec)


mysql> SELECT POSITION('e'IN'geeksforgeeks');
+------------------------------+
| POSITION('e'IN'geeksforgeeks') |
+------------------------------+
|                            2 |
+------------------------------+
1 row in set (0.01 sec)

mysql> SELECT REPEAT('geeks',2);
+-------------------+
| REPEAT('geeks',2) |
+-------------------+
| geeksgeeks        |
+-------------------+
1 row in set (0.07 sec)

mysql> SELECT SPACE(7);
+----------+
| SPACE(7) |
+----------+
|          |
+----------+
1 row in set (0.00 sec)

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


+------------------------------+
| REVERSE('GEEKSFORGEEKS.ORG') |
+------------------------------+
| GRO.SKEEGROFSKEEG            |
+------------------------------+
1 row in set (0.00 sec)
```

```
mysql> SELECT SUBSTRING('GeeksForGeeks.org',9,1);
+-----------------------------------+
| SUBSTRING('GeeksForGeeks.org',9,1) |
+-----------------------------------+
| G                                 |
+-----------------------------------+
1 row in set (0.00 sec)

mysql> SELECT SUBSTRING_INDEX('www.geeksforgeeks.org','.',1);
+------------------------------------------------+
| SUBSTRING_INDEX('www.geeksforgeeks.org','.',1) |
+------------------------------------------------+
| www                                            |
+------------------------------------------------+
1 row in set (0.00 sec)


mysql> INSERT INTO Employee(Employee_id,salary,Employee_name,Address)VALUES(2365
,90000,'Peterson','Pune');
Query OK, 1 row affected (0.00 sec)

mysql> select * from Employee;
+-------------+--------+---------------+---------+
| Employee_id | salary | Employee_name | Address |
+-------------+--------+---------------+---------+
|        2365 |  90000 | Peterson      | Pune    |
|        2465 | 900000 | Peterson      | Pune    |
|        3241 | 800000 | Davidson      | Pune    |
+-------------+--------+---------------+---------+
3 rows in set (0.00 sec)
```

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

mysql> SELECT LENGTH('GeeksForGeeks');
+-----------------------+
| LENGTH('GeeksForGeeks') |
+-----------------------+
|                    13 |
+-----------------------+
1 row in set (0.00 sec)

mysql> SELECT LCASE("GeeksFor Geeks To Learn");
+---------------------------------+
| LCASE("GeeksFor Geeks To Learn") |
+---------------------------------+
| geeksfor geeks to learn         |
+---------------------------------+
1 row in set (0.00 sec)

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

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


mysql> SELECT LTRIM('    SQL Tutorial') AS LeftTrimmedString;
+-------------------+
| LeftTrimmedString |
+-------------------+
| SQL Tutorial      |
+-------------------+
1 row in set (0.00 sec)

mysql> SELECT MID("SQL Tutorial",5,3) AS ExtractString;
+---------------+
| ExtractString |
+---------------+
| Tut           |
+---------------+
1 row in set (0.00 sec)

mysql> SELECT REPLACE('MAIN CHARACHER','H','T');
+----------------------------------+
| REPLACE('MAIN CHARACHER','H','T') |
+----------------------------------+
| MAIN CTARACTER                   |
+----------------------------------+
1 row in set (0.00 sec)
```

```
mysql> SELECT RIGHT('geeksforgeeks.org',6);
+-----------------------------+
| RIGHT('geeksforgeeks.org',6) |
+-----------------------------+
| ks.org                       |
+-----------------------------+
1 row in set (0.00 sec)

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

mysql> SELECT LTRIM('SQL Tutorial      ') AS RightTrimmedString;
+--------------------+
| RightTrimmedString |
+--------------------+
| SQL Tutorial       |
+--------------------+
1 row in set (0.00 sec)

mysql> SELECT SUBSTR('google.com','geeksforgeeks.com');
+------------------------------------------+
| SUBSTR('google.com','geeksforgeeks.com') |
+------------------------------------------+
|                                          |
+------------------------------------------+
1 row in set, 2 warnings (0.00 sec)
```

```
mysql> SELECT TRIM(LEADING '0' FROM '000069');
+---------------------------------+
| TRIM(LEADING '0' FROM '000069') |
+---------------------------------+
| 69                              |
+---------------------------------+
1 row in set (0.00 sec)

mysql> SELECT UCASE("GeeksForGeeks");
+-----------------------+
| UCASE("GeeksForGeeks") |
+-----------------------+
| GEEKSFORGEEKS          |
+-----------------------+
1 row in set (0.00 sec)

mysql> SELECT 'Geeks' || ' '|| 'forGeeks' FROM dual;
+-----------------------------+
| 'Geeks' || ' '|| 'forGeeks' |
+-----------------------------+
|                           0 |
+-----------------------------+
1 row in set, 4 warnings (0.00 sec)

mysql> SELECT CONCAT(FORMAT(0.981 * 100,2),'%');
+----------------------------------+
| CONCAT(FORMAT(0.981 * 100,2),'%') |
+----------------------------------+
| 98.10%                            |
+----------------------------------+
1 row in set (0.00 sec)
```

Aggregate Functions:-

```
mysql> SELECT COUNT(*)FROM Employee where Employee_name='Davidson';
+----------+
| COUNT(*) |
+----------+
|        1 |
+----------+
1 row in set (0.00 sec)


mysql> SELECT MIN(salary)FROM Employee;
+-------------+
| MIN(salary) |
+-------------+
|       90000 |
+-------------+
1 row in set (0.00 sec)


mysql> SELECT Max(salary)FROM Employee;
+-------------+
| Max(salary) |
+-------------+
|      900000 |
+-------------+
1 row in set (0.00 sec)


mysql> SELECT AVG(salary)FROM Employee;
+-------------+
| AVG(salary) |
+-------------+
| 596666.6667 |
+-------------+
1 row in set (0.00 sec)


mysql> SELECT SUM(salary)FROM Employee;
+-------------+
| SUM(salary) |
+-------------+
|     1790000 |
+-------------+
1 row in set (0.00 sec)
```

GROUP BY:-

```
mysql> SELECT Employee_id,SUM(salary)FROM Employee GROUP BY Employee_id;
+-------------+-------------+
| Employee_id | SUM(salary) |
+-------------+-------------+
|        2365 |       90000 |
|        2465 |      900000 |
|        3241 |      800000 |
+-------------+-------------+
3 rows in set (0.00 sec)
```

GROUP BY-HAVING:-

```
mysql> select * from Employee;
+-------------+--------+---------------+---------+
| Employee_id | salary | Employee_name | Address |
+-------------+--------+---------------+---------+
|        2365 |  90000 | Peterson      | Pune    |
|        2465 | 900000 | Peterson      | Pune    |
|        3241 | 800000 | Davidson      | Pune    |
+-------------+--------+---------------+---------+
3 rows in set (0.00 sec)

mysql> SELECT address, COUNT(*) AS employee_count FROM Employee WHERE
 salary >= 500000 AND salary <= 1000000 GROUP BY address HAVING COUNT
(*) >= 2;
+---------+----------------+
| address | employee_count |
+---------+----------------+
| Pune    |              2 |
+---------+----------------+
1 row in set (0.00 sec)
```

JOIN using GROUP BY:-

```
mysql> SELECT Employee_id, SUM(salary)
    -> FROM Employee
    -> WHERE Employee_id = 3241
    -> GROUP BY Employee_id
    -> ORDER BY Employee_name;
+-------------+-------------+
| Employee_id | SUM(salary) |
+-------------+-------------+
|        3241 |      800000 |
+-------------+-------------+
1 row in set (0.00 sec)
```

ORDER BY:-

```
mysql> SELECT Employee_id,Employee_name from Employee ORDER BY Employ
ee_name;
+-------------+---------------+
| Employee_id | Employee_name |
+-------------+---------------+
|        3241 | Davidson      |
|        2365 | Peterson      |
|        2465 | Peterson      |
+-------------+---------------+
3 rows in set (0.00 sec)
```

JOIN using ORDER BY:-

```
mysql> SELECT Employee_id,Employee_name from Employee WHERE Employee_
id=3241 ORDER BY Employee_name;
+-------------+---------------+
| Employee_id | Employee_name |
+-------------+---------------+
|        3241 | Davidson      |
+-------------+---------------+
1 row in set (0.00 sec)
```

INDEXING :-

```
mysql> CREATE INDEX id3 on Employee(Employee_id,Employee_name);
Query OK, 0 rows affected, 1 warning (0.12 sec)
Records: 0  Duplicates: 0  Warnings: 1

mysql> show INDEX from Employee;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
Employee	0	PRIMARY	1	Employee_id	A	2	NULL	NULL		BTREE			YES	NULL
Employee	1	id1	1	Employee_id	A	2	NULL	NULL		BTREE			YES	NULL
Employee	1	id1	2	Employee_name	A	2	NULL	NULL		BTREE			YES	NULL
Employee	1	id3	1	Employee_id	A	2	NULL	NULL		BTREE			YES	NULL
Employee	1	id3	2	Employee_name	A	2	NULL	NULL		BTREE			YES	NULL

```
5 rows in set (0.00 sec)

mysql>
```