SQL Exercise 1

1. Create the table SEMP with the following structure:-

EMPNO CHAR(4)

EMPNAME CHAR(20)

BASIC FLOAT

DEPTNO CHAR(2)

DEPTHEAD CHAR(4)

```
mysql> create table SEMP(
    -> EMPNO CHAR(4),
    ->     EMPNAME CHAR(20),
    ->     BASIC FLOAT,
    ->     DEPTNO CHAR(2),
    ->     DEPTHEAD CHAR(4)
    -> );
Query OK, 0 rows affected (0.07 sec)

mysql>
```

2. Create the table SDEPT with the following structure:-

DEPTNO CHAR(2)

DEPTNAME CHAR(15)

```
mysql> create table SDEPT(DEPTNO CHAR(2), DEPTNAME CHAR(15));
Query OK, 0 rows affected (0.07 sec)

mysql> SELECT *FROM  SDEPT;
Empty set (0.00 sec)
```

3. Insert into the SDEPT table the following values:-

10, Development

20, Training

```
mysql> INSERT INTO  SDEPT VALUES ('10', 'Development');
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO  SDEPT VALUES('20', 'Training');
Query OK, 1 row affected (0.00 sec)

mysql> SELECT *FROM  SDEPT;
+--------+-------------+
| DEPTNO | DEPTNAME    |
+--------+-------------+
| 10     | Development |
| 20     | Training    |
+--------+-------------+
2 rows in set (0.00 sec)
```

4. Insert into the SEMP table the following values:-

0001, SUNIL, 6000, 10

0002, HIREN, 8000, 20

0003, ALI, 4000, 10, 0001

0004, GEORGE, 6000, 0002

```
mysql> insert into SEMP values
    -> ('0001', 'SUNIL', 6000, '10', NULL),
    -> ('0002', 'HIREN', 8000, '20', NULL),
    -> ('0003', 'ALI', 4000, '10', '0001'),
    -> ('0004', 'GEORGE', 6000, '20', '0002');
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql> select *from semp;
+-------+---------+-------+--------+----------+
| EMPNO | EMPNAME | BASIC | DEPTNO | DEPTHEAD |
+-------+---------+-------+--------+----------+
| 0001  | SUNIL   |  6000 | 10     | NULL     |
| 0002  | HIREN   |  8000 | 20     | NULL     |
| 0003  | ALI     |  4000 | 10     | 0001     |
| 0004  | GEORGE  |  6000 | 20     | 0002     |
+-------+---------+-------+--------+----------+
4 rows in set (0.00 sec)
```

SUPPLIER - S

(S#, Sname, Status, City)

PARTS - P

(P#, Pname, Color, Weight, City)

PROJECTS - J

(J#, Jname, City)

SUPPLIER-PARTS-PROJECT - SPJ

(S#, P#, J#, Qty)

Sample data for S# column:- 'S1', 'S2', 'S3', etc.

Sample data for P# column:- 'P1', 'P2', 'P3', etc.

Sample data for J# column:- 'J1', 'J2', 'J3', etc.

Sample data for Status column:- 10, 20, 30, etc.

Write the SELECT queries to do the following:-

5. Display all the data from the S table.

```
mysql> SELECT * FROM S;
+----+-------+--------+--------+
| S# | Sname | Status | City   |
+----+-------+--------+--------+
| S1 | Smith |     20 | London |
| S2 | Jones |     10 | Paris  |
| S3 | Blake |     30 | Athens |
| S4 | Clark |     20 | London |
| S5 | Adams |     10 | Rome   |
+----+-------+--------+--------+
5 rows in set (0.00 sec)
```

6. Display only the S# and SNAME fields from the S table.

```
mysql> use classwork;
Database changed
mysql> SELECT 'S#', Sname FROM S;
+----+-------+
| S# | Sname |
+----+-------+
| S# | Smith |
| S# | Jones |
| S# | Blake |
| S# | Clark |
| S# | Adams |
+----+-------+
5 rows in set (0.00 sec)
```

7. Display the PNAME and COLOR from the P table for the CITY=”London”.

```
mysql> SELECT Pname, Color FROM P WHERE City = 'London';
+-------+-------+
| Pname | Color |
+-------+-------+
| Bolt  | Red   |
| Screw | Black |
+-------+-------+
2 rows in set (0.01 sec)
```

8. Display all the Suppliers from London.

```
mysql> SELECT * FROM S WHERE City = 'London';
+----+-------+--------+--------+
| S# | Sname | Status | City   |
+----+-------+--------+--------+
| S1 | Smith |     20 | London |
| S4 | Clark |     20 | London |
+----+-------+--------+--------+
2 rows in set (0.00 sec)
```

9. Display all the Suppliers from Paris or Athens.

```
mysql> SELECT * FROM S WHERE City IN ('Paris', 'Athens');
+----+-------+--------+--------+
| S# | Sname | Status | City   |
+----+-------+--------+--------+
| S2 | Jones |     10 | Paris  |
| S3 | Blake |     30 | Athens |
+----+-------+--------+--------+
2 rows in set (0.01 sec)
```

10. Display all the Projects in Athens.

```
mysql> SELECT * FROM J WHERE City = 'Athens';
+----+----------+--------+
| J# | Jname    | City   |
+----+----------+--------+
| J3 | Retractor | Athens |
+----+----------+--------+
1 row in set (0.01 sec)
```

11. Display all the Partnames with the weight between 12 and 14 (inclusive of both).

```
mysql> SELECT Pname FROM P WHERE Weight BETWEEN 12 AND 14;
+-------+
| Pname |
+-------+
| Bolt  |
| Nut   |
| Screw |
+-------+
3 rows in set (0.00 sec)
```

12. Display all the Suppliers with a Status greater than or equal to 20.

```
mysql> SELECT * FROM S WHERE Status >= 20;
+----+-------+--------+--------+
| S# | Sname | Status | City   |
+----+-------+--------+--------+
| S1 | Smith |     20 | London |
| S3 | Blake |     30 | Athens |
| S4 | Clark |     20 | London |
+----+-------+--------+--------+
3 rows in set (0.00 sec)
```

13. Display all the Suppliers except the Suppliers from London.

```
mysql> SELECT * FROM S WHERE City <> 'London';
+----+-------+--------+--------+
| S# | Sname | Status | City   |
+----+-------+--------+--------+
| S2 | Jones |     10 | Paris  |
| S3 | Blake |     30 | Athens |
| S5 | Adams |     10 | Rome   |
+----+-------+--------+--------+
3 rows in set (0.00 sec)
```

14. Display only the Cities from where the Suppliers come from.

```
mysql> SELECT DISTINCT City FROM S;
+--------+
| City   |
+--------+
| London |
| Paris  |
| Athens |
| Rome   |
+--------+
4 rows in set (0.01 sec)
```

15. Assuming that the Part Weight is in GRAMS, display the same in MILLIGRAMS and KILOGRAMS.

```
mysql> SELECT
    ->   Pname,
    ->   Weight AS Grams,
    ->   Weight * 1000 AS Milligrams,
    ->   Weight / 1000 AS Kilograms
    -> FROM P;
+-------+-------+------------+-----------+
| Pname | Grams | Milligrams | Kilograms |
+-------+-------+------------+-----------+
| Bolt  |    12 |      12000 |     0.012 |
| Nut   |    14 |      14000 |     0.014 |
| Screw |    13 |      13000 |     0.013 |
| Cam   |    10 |      10000 |      0.01 |
+-------+-------+------------+-----------+
4 rows in set (0.01 sec)

mysql>
```