Excercise 1

Q1) Create the table SEMP with the following structure:-

```
mysql> CREATE TABLE SEMP (
    ->     EMPNO CHAR(4),
    ->     EMPNAME CHAR(20),
    ->     BASIC FLOAT,
    ->     DEPTNO CHAR(2),
    ->     DEPTHEAD CHAR(4)
    -> );
Query OK, 0 rows affected (0.09 sec)
```

Q2)Create the table SDEPT with the following structure:-

```
mysql> CREATE TABLE SDEPT (
    ->     DEPTNO CHAR(2),
    ->     DEPTNAME CHAR(15)
    -> );
Query OK, 0 rows affected (0.01 sec)
```

Q3)Insert into the SDEPT table the following values:-

```
mysql> INSERT INTO SEMP  VALUES
    -> ('0001', 'SUNIL', 6000, '10', NULL),
    -> ('0002', 'HIREN', 8000, '20', NULL),
    -> ('0003', 'ALI', 4000, '10', '0001'),
    -> INSERT INTO SDEPT VALUE^C
mysql> select * from SEMP;
Empty set (0.01 sec)
```

Q4)Insert into the SEMP table the following values:-

```
mysql> INSERT INTO SDEPT VALUES
    -> ('10', 'Development'),
    -> ('20', 'Training');
Query OK, 2 rows affected (0.02 sec)
Records: 2  Duplicates: 0  Warnings: 0
```

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

```
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 | NULL   | 0002     |
+-------+---------+-------+--------+----------+
4 rows in set (0.00 sec)
```

```
CREATE TABLE SPJ (
   `S#` CHAR(2),
   `P#` CHAR(2),
   `J#` CHAR(2),
   Qty INT,
   PRIMARY KEY (`S#`, `P#`, `J#`),
   FOREIGN KEY (`S#`) REFERENCES S(`S#`),
   FOREIGN KEY (`P#`) REFERENCES P(`P#`),
   FOREIGN KEY (`J#`) REFERENCES J(`J#`)
);

INSERT INTO SPJ VALUES ('S1', 'P1', 'J1', 300);
INSERT INTO SPJ VALUES ('S1', 'P2', 'J2', 200);
INSERT INTO SPJ VALUES ('S2', 'P3', 'J1', 150);
INSERT INTO SPJ VALUES ('S3', 'P1', 'J3', 400);
```

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 | New York |
+------+-------+--------+----------+
3 rows in set (0.00 sec)
```

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

```
mysql> SELECT `S#`, Sname FROM S;
+------+-------+
| S#   | Sname |
+------+-------+
| S1   | Smith |
| S2   | Jones |
| S3   | Blake |
+------+-------+
3 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   |
+-------+-------+
1 row in set (0.00 sec)
```

8. Display all the Suppliers from London.

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

9. Display all the Suppliers from Paris or Athens.

```
mysql> SELECT * FROM S WHERE City = 'Paris' OR City = 'Athens';
+------+-------+--------+-------+
| S#   | Sname | Status | City  |
+------+-------+--------+-------+
| S2   | Jones |     10 | Paris |
+------+-------+--------+-------+
1 row in set (0.01 sec)
```

10 Display all the Projects in Athens

```
mysql> SELECT * FROM J WHERE City = 'Athens';
Empty set (0.00 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  |
+-------+
1 row 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 | New York |
+------+-------+--------+----------+
2 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 | New York |
+------+-------+--------+----------+
2 rows in set (0.01 sec)
```

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

```
mysql> SELECT DISTINCT City FROM S;
+----------+
| City     |
+----------+
| London   |
| Paris    |
| New York |
+----------+
3 rows in set (0.02 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  |  12.5 |      12500 |    0.0125 |
| Nut   |   5.5 |       5500 |    0.0055 |
| Screw |     8 |       8000 |     0.008 |
+-------+-------+------------+-----------+
3 rows in set (0.00 sec)
```