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)

```
SEMP  at line 1
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)
```

2. Create the table SDEPT with the following structure:-
DEPTNO CHAR(2)
DEPTNAME CHAR(15)

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

mysql> _
```

3. Insert into the SDEPT table the following values:-
10, Development
20, Training

```
ERROR 1054 (42S22): Unknown column 'DETPNO' in 'field list'
mysql> insert into SDEPT(DETPTNO,DEPTNAME) values
    -> ('10','Development'),
    -> ('20','Training');
Query OK, 2 rows affected (0.32 sec)
Records: 2  Duplicates: 0  Warnings: 0
```

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(EMPNO,EMPNAME,BASIC,DEPTNO,DEPTHEAD) values
    -> ('0001','SUNIL',6000,'10',null),
    -> ('0002','HIREN',8000,'20',null),
    -> ('0003','ALI',4000,'10','0001'),
    -> ('0004','GEORGE','6000',null,'0002');
Query OK, 4 rows affected (0.08 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

Create S, P, J, SPJ tables as specified below and insert a few rows in each table:-
SUPPLIER
(S#, Sname, Status, City) - S

```
mysql> select * from supplier;
+------+-----------+--------+----------+
| S#   | Sname     | Status | City     |
+------+-----------+--------+----------+
| S1   | Supplier1 |     10 | New York |
| S2   | Supplier2 |     20 | London   |
| S3   | Supplier3 |     30 | Chicago  |
| S4   | Supplier4 |     15 | Paris    |
| S5   | Supplier5 |     25 | Athens   |
+------+-----------+--------+----------+
5 rows in set (0.00 sec)
```

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

```
mysql> select * from parts;
+------+-------+--------+--------+-------------+
| P#   | PNAME | COLOR  | Weight | CITY        |
+------+-------+--------+--------+-------------+
| P1   | Part1 | Red    |   12.5 | London      |
| P2   | Part2 | Blue   |     15 | Los Angeles |
| P3   | Part3 | Green  |     14 | Chicago     |
| P4   | Part4 | Yellow |     13 | Paris       |
| P5   | Part5 | Black  |     18 | Athens      |
+------+-------+--------+--------+-------------+
5 rows in set (0.00 sec)
```

PROJECTS
(J#, Jname, City) - J

```
mysql> select * from projects;
+------+----------+----------+
| J#   | JNAME    | CITY     |
+------+----------+----------+
| J1   | Project1 | New York |
| J2   | Project2 | London   |
| J3   | Project3 | Athens   |
| J4   | Project4 | Paris    |
+------+----------+----------+
4 rows in set (0.00 sec)
```

SUPPLIER-PARTS-PROJECT
(S#, P#, J#, Qty) - SPJ

```
mysql> select * from SPJ;
+------+------+------+------+
| S#   | P#   | J#   | Qty  |
+------+------+------+------+
| S1   | P1   | J1   |  100 |
| S2   | P2   | J2   |  200 |
| S3   | P3   | J3   |  300 |
| S4   | P4   | J4   |  150 |
| S5   | P5   | J3   |  250 |
+------+------+------+------+
5 rows in set (0.00 sec)

mysql>
```

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 supplier;
+------+-----------+--------+----------+
| S#   | Sname     | Status | City     |
+------+-----------+--------+----------+
| S1   | Supplier1 |     10 | New York |
| S2   | Supplier2 |     20 | London   |
| S3   | Supplier3 |     30 | Chicago  |
| S4   | Supplier4 |     15 | Paris    |
| S5   | Supplier5 |     25 | Athens   |
+------+-----------+--------+----------+
5 rows in set (0.00 sec)
```

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

```
mysql> select `S#`,SNAME from SUPPLIER;
+------+-----------+
| S#   | SNAME     |
+------+-----------+
| S1   | Supplier1 |
| S2   | Supplier2 |
| S3   | Supplier3 |
| S4   | Supplier4 |
| S5   | Supplier5 |
+------+-----------+
5 rows in set (0.00 sec)

mysql>
```

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

```
mysql> select pname,color from parts where city='london';
+-------+-------+
| pname | color |
+-------+-------+
| Part1 | Red   |
+-------+-------+
1 row in set (0.02 sec)

mysql>
```

8. Display all the Suppliers from London.

```
mysql> select * from supplier where city = 'london';
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S2   | Supplier2 |     20 | London |
+------+-----------+--------+--------+
1 row in set (0.00 sec)

mysql>
```

9. Display all the Suppliers from Paris or Athens.

```
mysql> select * from supplier where city ='paris' or c
+------+-----------+--------+--------+
| S#   | Sname     | Status | City   |
+------+-----------+--------+--------+
| S4   | Supplier4 |     15 | Paris  |
| S5   | Supplier5 |     25 | Athens |
+------+-----------+--------+--------+
2 rows in set (0.00 sec)

mysql>
```

10. Display all the Projects in Athens.

```
mysql> select * from projects where city ='Athens';
+------+----------+--------+
| J#   | JNAME    | CITY   |
+------+----------+--------+
| J3   | Project3 | Athens |
+------+----------+--------+
1 row in set (0.00 sec)

mysql>
```

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

```
mysql> select * from parts where weight between 12 and 14;
+------+-------+--------+--------+---------+
| P#   | PNAME | COLOR  | Weight | CITY    |
+------+-------+--------+--------+---------+
| P1   | Part1 | Red    |   12.5 | London  |
| P3   | Part3 | Green  |     14 | Chicago |
| P4   | Part4 | Yellow |     13 | Paris   |
+------+-------+--------+--------+---------+
3 rows in set (0.00 sec)

mysql>
```

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

```
mysql> select * from supplier where status>=20;
+------+-----------+--------+---------+
| S#   | Sname     | Status | City    |
+------+-----------+--------+---------+
| S2   | Supplier2 |     20 | London  |
| S3   | Supplier3 |     30 | Chicago |
| S5   | Supplier5 |     25 | Athens  |
+------+-----------+--------+---------+
3 rows in set (0.00 sec)

mysql>
```

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

```
mysql> select * from supplier where city!='london';
+------+-----------+--------+----------+
| S#   | Sname     | Status | City     |
+------+-----------+--------+----------+
| S1   | Supplier1 |     10 | New York |
| S3   | Supplier3 |     30 | Chicago  |
| S4   | Supplier4 |     15 | Paris    |
| S5   | Supplier5 |     25 | Athens   |
+------+-----------+--------+----------+
4 rows in set (0.00 sec)

mysql>
```

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

```
mysql> select city from supplier;
+----------+
| city     |
+----------+
| New York |
| London   |
| Chicago  |
| Paris    |
| Athens   |
+----------+
5 rows in set (0.00 sec)

mysql>
```

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

```
weight/1000 as kilograms from parts' at line 2
mysql> select weight as weightingrams,
    -> weight*1000 as milligrams,
    -> weight/1000 as kilograms from parts;
+---------------+------------+-----------+
| weightingrams | milligrams | kilograms |
+---------------+------------+-----------+
|          12.5 |      12500 |    0.0125 |
|            15 |      15000 |     0.015 |
|            14 |      14000 |     0.014 |
|            13 |      13000 |     0.013 |
|            18 |      18000 |     0.018 |
+---------------+------------+-----------+
5 rows in set (0.02 sec)

mysql>
```