

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));

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));

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

10, Development
20, Training

➔ mysql> insert into SDEPT (DEPTNO, DEPTNAME) values ('10', 'Development'), ('20', 'Training');

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);
mysql> insert into SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHEAD) values ('0002', 'HIREN', 8000, '20', NULL);
mysql> insert into SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHEAD) values ('0003', 'ALI', 4000, '10', '0001');
mysql> insert into SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHEAD) values ('0004', 'GEORGE', 6000, '00', '0002');

```

mysql> CREATE TABLE `S` (`S#` CHAR(2), `Sname` CHAR(20), `Status` INT, `City`
CHAR(15) );
mysql> CREATE TABLE `P` (`P#` CHAR(2), `Pname` CHAR(20), `Color` CHAR(15),
`Weight` FLOAT, `City` CHAR(15));
mysql> CREATE TABLE `J` (`J#` CHAR(2), `Jname` CHAR(20), `City` CHAR(15));
mysql> CREATE TABLE `SPJ` (`S#` CHAR(2), `P#` CHAR(2), `J#` CHAR(2), `Qty` INT);
mysql> INSERT INTO `S` (`S#`, `Sname`, `Status`, `City`) VALUES('S1', 'Supplier A', 10,
'Pairs');
mysql> INSERT INTO `S` (`S#`, `Sname`, `Status`, `City`) VALUES ('S2', 'Supplier B', 20,
'London');
mysql> INSERT INTO `S` (`S#`, `Sname`, `Status`, `City`) VALUES ('S3', 'Supplier C', 30,
'Athens');
mysql> INSERT INTO `P` (`P#`, `Pname`, `Color`, `Weight`, `City`) VALUES('P1', 'Part
A', 'Red', 14, 'Pairs');
mysql> INSERT INTO `P` (`P#`, `Pname`, `Color`, `Weight`, `City`) VALUES ('P2', 'Part
B', 'Blue', 15.0, 'Athens');
mysql> INSERT INTO `P` (`P#`, `Pname`, `Color`, `Weight`, `City`) VALUES ('P3', 'Part
C', 'Green', 20.0, 'London');
mysql> INSERT INTO `J` (`J#`, `Jname`, `City`) VALUES ('J1', 'Project A', 'Pairs');
mysql> INSERT INTO `J` (`J#`, `Jname`, `City`) VALUES ('J2', 'Project B', 'London');
mysql> INSERT INTO `J` (`J#`, `Jname`, `City`) VALUES ('J3', 'Project C', 'Athens');

```

Write the SELECT queries to do the following:-

5. Display all the data from the S table.

➔ mysql> SELECT * FROM S;

```

mysql> select * from S;
+-----+-----+-----+-----+
| S#   | Sname      | Status | City   |
+-----+-----+-----+-----+
| S1   | Supplier A | 10     | Pairs  |
| S2   | Supplier B | 20     | London |
| S3   | Supplier C | 30     | Athens |
+-----+-----+-----+-----+
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`;

```
mysql> SELECT `S#`, `Sname` FROM `S`;
+-----+-----+
| S#    | Sname    |
+-----+-----+
| S1    | Supplier A |
| S2    | Supplier B |
| S3    | Supplier C |
+-----+-----+
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';

```
mysql> SELECT `Pname`, `Color` FROM `P` WHERE `City` = 'London';
+-----+-----+
| Pname | Color |
+-----+-----+
| Part C | Green |
+-----+-----+
1 row in set (0.00 sec)
```

8. Display all the Suppliers from London.

➔ mysql> SELECT * FROM `S` WHERE `City` = 'London';

```
mysql> SELECT * FROM `S` WHERE `City` = 'London';
+-----+-----+-----+-----+
| S#    | Sname    | Status | City    |
+-----+-----+-----+-----+
| S2    | Supplier B | 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';

```
mysql> SELECT * FROM `S` WHERE `City` = 'Paris' OR `City` = 'Athens';
+-----+-----+-----+-----+
| S#    | Sname    | Status | City    |
+-----+-----+-----+-----+
| S3    | Supplier C | 30     | Athens  |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

10. Display all the Projects in Athens.

➔ mysql> SELECT * FROM `J` WHERE `City` = 'Athens';

```
mysql> SELECT * FROM `J` WHERE `City` = 'Athens';
+-----+-----+-----+
| J#    | Jname    | City    |
+-----+-----+-----+
| J3    | Project C | Athens  |
+-----+-----+-----+
1 row in 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;

```
mysql> SELECT `Pname` FROM `P` WHERE `Weight` BETWEEN 12 AND 14;
+-----+
| Pname |
+-----+
| Part A |
+-----+
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;

```
mysql> SELECT * FROM `S` WHERE `Status` >= 20;
+-----+-----+-----+-----+
| S#    | Sname    | Status | City    |
+-----+-----+-----+-----+
| S2    | Supplier B | 20     | London  |
| S3    | Supplier C | 30     | Athens  |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

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

➔ mysql> SELECT * FROM `S` WHERE `City` <> 'London';

```
mysql> SELECT * FROM `S` WHERE `City` <> 'London';
+-----+-----+-----+-----+
| S#    | Sname    | Status | City    |
+-----+-----+-----+-----+
| S1    | Supplier A | 10     | Pairs   |
| S3    | Supplier C | 30     | Athens  |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

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

➔ mysql> SELECT DISTINCT `City` FROM `S`;

```
mysql> SELECT DISTINCT `City` FROM `S`;
+-----+
| City |
+-----+
| Pairs |
| London |
| Athens |
+-----+
3 rows in set (0.00 sec)
```

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

➔ mysql> SELECT `Pname`, `Weight` AS `Weight_in_Grams`, (`Weight` * 1000) AS `Weight_in_Milligrams`, (`Weight` / 1000) AS `Weight_in_Kilograms` FROM `P`;

```
mysql> SELECT `Pname`, `Weight` AS `Weight_in_Grams`, (`Weight` * 1000) AS `Weight_in_Milligrams`, (`Weight` / 1000) AS `Weight_in_Kilograms` FROM `P`;
+-----+-----+-----+-----+
| Pname | Weight_in_Grams | Weight_in_Milligrams | Weight_in_Kilograms |
+-----+-----+-----+-----+
| Part A | 14 | 14000 | 0.014 |
| Part B | 15 | 15000 | 0.015 |
| Part C | 20 | 20000 | 0.02 |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```