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)

→CREATE TABLE SEMP
(EMPNO CHAR(4) PRIMARY
KEY,
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)

→ CREATE TABLE SDEPT (DEPTNO CHAR(2) PRIMARY KEY,
DEPTNAME CHAR(15)
);

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

10, Development
20, Training

→ 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

Sameer Dehadrai

0003, ALI, 4000, 10, 0001
0004, GEORGE, 6000, 0002

→ 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);

Create S, P, J, SPJ tables as specified below and insert a few rows in each table:-

SUPPLIER - S
(S#, Sname, Status, City)

→
CREATE TABLE S (`S#`
VARCHAR(2) PRIMARY KEY,
SNAME VARCHAR(10),
STATUS INT, CITY
VARCHAR(10)
);

→
INSERT INTO S (`S#`, SNAME,
STATUS, CITY)
VALUES
('S1', 'SMITH', 20, 'LONDON'),
('S2', 'JONES', 10, 'PARIS'),
('S3', 'BLAKE', 30, 'ATHENS');

PARTS - P
(P#, Pname, Color, Weight, City)
→
CREATE TABLE P (`P#`
VARCHAR(2) PRIMARY KEY,
PNAME VARCHAR(10), COLOR
VARCHAR(10),
WEIGHT FLOAT, CITY
VARCHAR(10)
);

→

```
INSERT INTO P (`P#`, PNAME,
COLOR, WEIGHT, CITY)
 VALUES
('P1', 'BOLT', 'RED', 12.0,
'LONDON'),
('P2', 'NUT', 'BLUE', 14.0, 'PARIS'),
('P3', 'SCREW', 'GREEN', 13.5,
'ATHENS');
```

PROJECTS - J
(J#, Jname, City)

→

```
CREATE TABLE J ( `J#`
VARCHAR(2) PRIMARY KEY,
JNAME VARCHAR(10),
 CITY VARCHAR(10));
```

→

```
INSERT INTO J (`J#`, JNAME,
CITY)
 VALUES
        ('J1', 'ALPHA', 'LONDON'),
        ('J2', 'BETA', 'ATHENS'),
        ('J3', 'GAMMA', 'PARIS');
```

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

→

```
    CREATE TABLE SPJ (`S#` VARCHAR(2) , `P#` VARCHAR(2),
     `J#` VARCHAR(2), QTY FLOAT);
```

→

```
INSERT INTO SPJ (`S#`, `P#`, `J#`, QTY)
  VALUES
            ('S1', 'P1', 'J1', 200.10),
            ('S2', 'P2', 'J2', 500.50),
            ('S3', 'P3', 'J3', 400.47);
```

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.

→ SELECT * FROM S;

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

→ SELECT `S#`, SNAME FROM S;

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

→ SELECT PNAME, COLOR FROM P WHERE CITY = 'LONDON';

8. Display all the Suppliers from London.

→ SELECT * FROM S WHERE CITY = 'LONDON';

9. Display all the Suppliers from Paris or Athens.

→ SELECT * FROM S WHERE CITY = 'PARIS' OR CITY = 'ATHENS';

10. Display all the Projects in Athens.

→ SELECT * FROM P WHERE CITY = 'ATHENS';

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

→ SELECT PNAME FROM P WHERE WEIGHT BETWEEN 12 AND 14;

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

→ SELECT * FROM S WHERE STATUS >= 20;

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

→ SELECT * FROM S WHERE STATUS >= 20;

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

→ SELECT * FROM S WHERE CITY != 'LONDON';
OR SELECT * FROM S WHERE CITY <> 'LONDON';

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

→ SELECT
`P#`,
PNAME,
WEIGHT AS GRAMS,
WEIGHT * 1000 AS MILLIGRAMS,
WEIGHT / 1000 AS KILOGRAM
FROM P;