# Exercise 01

**1) Create the table SEMP with the following structure:**

```
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:**

```
CREATE TABLE SDEPT (
    DEPTNO CHAR(2),
    DEPTNAME CHAR(15)
);
```

**3) Insert values into the SDEPT table:**

```
INSERT INTO SDEPT (DEPTNO, DEPTNAME)
VALUES ('10', 'Development'),
       ('20', 'Training');
```

**4) Insert values into the SEMP table:**

```
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');
```

**5) Create the SUPPLIER (S), PARTS (P), PROJECTS (J), and SUPPLIER-PARTS-PROJECT (SPJ) tables:**

**SUPPLIER Table:**

```
CREATE TABLE S (
    S# CHAR(2),
    Sname CHAR(20),
    Status INT,
    City CHAR(15)
);
```

**PARTS Table:**

```
CREATE TABLE P (
    P# CHAR(2),
    Pname CHAR(20),
    Color CHAR(10),
    Weight FLOAT,
    City CHAR(15)
);
```

**PROJECTS Table:**

```
CREATE TABLE J (
    J# CHAR(2),
    Jname CHAR(20),
    City CHAR(15)
);
```

**SUPPLIER-PARTS-PROJECT Table:**

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

**Insert sample data:**

**Insert into SUPPLIER (S):**

```
INSERT INTO S (S#, Sname, Status, City)
VALUES ('S1', 'Supplier1', 30, 'London'),
       ('S2', 'Supplier2', 20, 'Paris'),
       ('S3', 'Supplier3', 10, 'Athens');
```

**Insert into PARTS (P):**

```
INSERT INTO P (P#, Pname, Color, Weight, City)
VALUES ('P1', 'Part1', 'Red', 12, 'London'),
       ('P2', 'Part2', 'Blue', 13, 'Paris'),
       ('P3', 'Part3', 'Green', 14, 'Athens');
```

**Insert into PROJECTS (J):**

```
INSERT INTO J (J#, Jname, City)
VALUES ('J1', 'Project1', 'Athens'),
       ('J2', 'Project2', 'London'),
       ('J3', 'Project3', 'Paris');
```

**Insert into SUPPLIER-PARTS-PROJECT (SPJ):**

```
INSERT INTO SPJ (S#, P#, J#, Qty)
VALUES ('S1', 'P1', 'J1', 100),
       ('S2', 'P2', 'J2', 200),
       ('S3', 'P3', 'J3', 300);
```

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**SELECT Queries:**

**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 IN ('Paris', 'Athens');
```

**10) Display all the Projects in Athens:**

```
SELECT *
FROM J
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 ones from London:**

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

**14) Display only the Cities from where the Suppliers come from:**

```
SELECT DISTINCT City
FROM S;
```

**15) Assuming that the Part Weight is in GRAMS, display the same in MILLIGRAMS and KILOGRAMS:**

```
SELECT Pname,
       Weight AS Grams,
```

```
       (Weight * 1000) AS Milligrams,
       (Weight / 1000) AS Kilograms
FROM P;
```