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)

Ans:

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)

Ans:

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

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

   10, Development
   20, Training

Ans:

   INSERT INTO SDEPT (DEPTNO, DEPTNAME) VALUE (10, 'Development');

   INSERT INTO SDEPT (DEPTNO, DEPTNAME) VALUE (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

Ans:

INSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTNO) VALUE (0001, 'SUNIL', 6000, 10);

INSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTNO) VALUE (0002, 'HIREN', 8000, 20);

INSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTNO, DEPTHEAD) VALUE (0003, 'ALI', 4000, 10, 0001);

INSERT INTO SEMP (EMPNO, EMPNAME, BASIC, DEPTHEAD) VALUE (0004, 'GEORGE', 6000, 0001);

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

    SUPPLIER   -   S
    (S#, Sname, Status, City)
    PARTS   -   P
    (P#, Pname, Color, Weight, City)
    PROJECTS   -   J
    (J#, Jname, City)
    SUPPLIER-PARTS-PROJECT   -   SPJ
    (S#, P#, J#, Qty)

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.
   Ans:

   SELECT * FROM SUPPLIER;

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

   SELECT S, SNAME FROM SUPPLIER;

7. Display the PNAME and COLOR from the P table for the CITY="London".
   Ans:

   SELECT PNAME, COLOR FROM SPARTS WHERE CITY = "LONDON";

8. Display all the Suppliers from London.
   Ans:

   SELECT * FROM SUPPLIER WHERE CITY = "LONDON";

9. Display all the Suppliers from Paris or Athens.
   Ans:

   SELECT * FROM SUPPLIER WHERE CITY = "LONDON" OR "ATHENS";

10. Display all the Projects in Athens.
   Ans:

   SELECT * FROM PROJECTS WHERE CITY = "ATHENS";

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

    SELECT * FROM SUPPLIER WHERE STATUS > 20;

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

    SELECT*FROM SUPPLIER WHERE STATUS >= 20;

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

    SELECT * FROM SUPPLIER WHERE CITY != "LONDON";

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

    SELECT DISTINCT CITY FROM SUPPLIER;

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

    SELECT P#, Pname, Weight AS Weight_in_Grams,
    ->   Weight * 1000 AS Weight_in_Milligrams,
    ->   Weight / 1000 AS Weight_in_Kilograms
    -> FROM SPARTS;

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