ASSIGNMENT

Dept Table:

DeptNo	Dname	Loc
10	Accounts	Bangalore
20	IT	Delhi
30	Production	Chennai
40	Sales	Hyd
50	Admn	London

Emp Table:

EmpNo	Ename	Sal	Hire_Date	Commission	DeptNo	Mgr
1001	Sachin	19000	1-Jan-1980	2100	20	1003
1002	Kapil	15000	1-Jan-1970	2300	10	1003
1003	Stefen	12000	1-Jan-1990	500	20	1007
1004	Williams	9000	1-Jan-2001	NULL	30	1007
1005	John	5000	1-Jan-2005	NULL	30	1006
1006	Dravid	19000	1-Jan-1985	2400	10	1007
1007	Martin	21000	1-Jan-2000	1040	NULL	NULL

–creating department table –

```
CREATE TABLE Dept_Table (
  DeptNo INTEGER PRIMARY KEY,
  dname TEXT NOT NULL,
  loc TEXT NOT NULL
);
```

—creating employee table—

```
CREATE TABLE Emp_Table (
  EmpNo INTEGER PRIMARY KEY,
  Ename TEXT NOT NULL,
  Sal INTEGER NOT NULL,
  Hire_Date date NOT NULL,
  Commission INTEGER,
  DeptNo INTEGER,
```

```
  Mgr INTEGER,
  foreign key (DeptNo) references Dept_Table(DeptNo)
);


INSERT INTO Dept_Table VALUES (10, 'Accounts', 'Bangalore');
INSERT INTO Dept_Table VALUES (20,"IT","Delhi");
INSERT INTO Dept_Table VALUES (30,"Production","Chennai");
INSERT INTO Dept_Table VALUES (40,"Sales","hyd");
INSERT INTO Dept_Table VALUES (50, "Admin","London");

insert into emp_table values (1001, "Sachin",19000,"1980-01-01",2100,20,1003);
insert into emp_table values (1002,"Kapil",15000,"1970-01-01",2300,10,1003);
insert into emp_table values (1003,"Stefen",12000,"1990-01-01",500,20,1007);
insert into emp_table values (1004,"Williams",9000,"2001-01-01",null,30,1007);
insert into emp_table values (1005,"John",5000,"2005-01-01",null,30,1007);
insert into emp_table values (1006,"Dravid",19000,"1985-01-01",2400,10,1007);
insert into emp_table values (1007,"Martin",21000,"2000-01-01",1040,null,null);

/*Select employee details  of dept number 10 or 30*/
SELECT *
FROM emp_table
WHERE DeptNo In(10,30);

 /*Write a query to fetch all the dept details with more than 1 Employee*/
```

```
select DeptNo, COUNT(empno)

FROM emp_table

GROUP BY DeptNo

HAVING COUNT(empno) > 1;
```

/*Write a query to fetch employee details whose name starts with the letter “S”*/

```
SELECT *

FROM emp_table

WHERE Ename LIKE 'S%';
```

/*Select Emp Details Whose experience is more than 2 years*/

```
SELECT *

FROM Emp_Table

WHERE timestampdiff(year, Hire_Date, GETDATE()) > 2;
```

```
SELECT EmpNo, Ename, Sal, Hire_Date, DATEDIFF(NOW(), Hire_Date) /365 AS
experience_years

FROM Emp_Table

WHERE DATEDIFF(NOW(), Hire_Date) > 730;
```

/*This query will select the "EmpNo", "Ename", "Sal", and "Hire_Date" fields from the "Emp_Table", as well as the calculated experience in years (using the DATEDIFF function and dividing by 365 to get the result in years). The WHERE clause filters the results where the experience is greater than 2 years (730 days). The result set will show the employee details for each record that meets the criteria.*/

/*Write a SELECT statement to replace the char “a” with “#” in Employee Name (Ex: Sachin as S#chin)*/

```
SELECT REPLACE(Ename, 'a', '#') AS Ename

FROM Emp_Table;


/*Write a query to fetch employee name and his/her manager name. */

SELECT e1.Ename AS EmployeeName, e2.Ename AS ManagerName

FROM Emp_Table e1

INNER JOIN Emp_Table e2 ON e1.Mgr = e2.EmpNo;



/*Fetch Dept Name , Total Salry of the Dept*/


SELECT d.dname AS DepartmentName, SUM(e.Sal) AS TotalSalary

FROM Emp_Table e

INNER JOIN Dept_Table d ON e.DeptNo = d.DeptNo

GROUP BY d.dname;


/*Write a query to fetch ALL the  employee details along with department name, department location, irrespective of employee existance in the department.*/


SELECT e.*, d.dname AS DepartmentName, d.loc AS DepartmentLocation

FROM Emp_Table e

LEFT JOIN Dept_Table d ON e.DeptNo = d.DeptNo;


/*Write an update statement to increase the employee salary by 10% */


UPDATE Emp_Table
```

```
set Sal = Sal * 1.1

where sal>5000;
```

/*Write a statement to delete employees belong to Chennai location.*/

```
DELETE FROM Emp_Table

WHERE DeptNo IN (SELECT DeptNo

FROM Dept_Table

WHERE loc = 'Chennai');
```

/*Get Employee Name and gross salary (sal + comission)*/

```
SELECT Ename, (Sal + Commission) AS gross_salary

FROM Emp_Table;
```

/*Increase the data length of the column Ename of Emp table from 100 to 250 using ALTER statement*/

```
ALTER TABLE Emp_Table

MODIFY Ename VARCHAR(250);
```

/*This will modify the "Ename" column in the "Emp_Table" to have a new data type of VARCHAR(250), allowing up to 250 characters for the "Ename" field. Note that this may result in data loss if any existing values are longer than 250 characters, so you should make sure to back up your data before making any changes*/

/*Write query to get current datetime*/

```
SELECT NOW();
```

/*This will return the current date and time in the format of "YYYY-MM-DD HH:MM:SS". If you need to format the result differently, you can use the DATE_FORMAT function to customize the output. For example, to get the current date and time in a more readable format, you can use the following query:*/

```
SELECT DATE_FORMAT(NOW(), '%Y-%m-%d %H:%i:%s') AS current_datetime;
```

/*Write a statement to create STUDENT table, with related 5 columns*/

```
CREATE TABLE STUDENT (
  ID INT PRIMARY KEY,
  Name VARCHAR(50) NOT NULL,
  Age INT,
  Gender VARCHAR(10),
  City VARCHAR(50)
);
```

/*Write a query to fetch number of employees in who is getting salary more than 10000*/

```
SELECT COUNT(ename)
FROM Emp_Table
WHERE Sal > 10000;
```

/*Write a query to fetch minimum salary, maximum salary and average salary from emp table.*/

```
SELECT MIN(Sal) AS min_salary, MAX(Sal) AS max_salary, AVG(Sal) AS avg_salary
FROM Emp_Table;

/*Write a query to fetch number of employees in each location*/
 SELECT loc, COUNT(*) AS Number_of_Employees
FROM Dept_Table
INNER JOIN Emp_Table ON Dept_Table.DeptNo = Emp_Table.DeptNo
GROUP BY loc;

/*Write a query to display emplyee names in descending order*/
SELECT Ename
 FROM Emp_Table
ORDER BY Ename DESC;

/*Write a statement to create a new table(EMP_BKP) from the existing EMP table */
CREATE TABLE Emp_BKP AS SELECT * FROM Emp_Table;

/*Write a query to fetch first 3 characters from employee name appended with salary.*/
SELECT SUBSTR(Ename, 1, 3) || ' ' || Sal AS Name_and_Salary
FROM Emp_Table;

/*Get the details of the employees whose name starts with S*/
SELECT *
FROM Emp_Table
 WHERE Ename LIKE 'S%';
```

```
/*Get the details of the employees who works in Bangalore location*/

SELECT *

FROM Emp_Table

INNER JOIN Dept_Table ON Emp_Table.DeptNo = Dept_Table.DeptNo

WHERE loc = 'Bangalore';


/*Write the query to get the employee details whose name started within any letter between A and K*/

SELECT *

FROM Emp_Table

WHERE Ename BETWEEN 'A' AND 'K'


/*Write a query in SQL to display the employees whose manager name is Stefen*/

 SELECT *

FROM Emp_Table

WHERE Mgr IN (SELECT EmpNo FROM Emp_Table WHERE Ename = 'Stefen');


/*Write a query in SQL to list the name of the managers who is having maximum number of employees working under him*/

SELECT Ename

FROM Emp_Table

WHERE EmpNo IN (SELECT Mgr FROM Emp_Table GROUP BY Mgr

ORDER BY COUNT(*)

 DESC LIMIT 1);
```

/*Write a query to display the employee details, department details and the manager details of the employee who has second highest salary*/

```
 SELECT *

FROM Emp_Table e1

INNER JOIN Dept_Table d ON e1.DeptNo = d.DeptNo

INNER JOIN Emp_Table e2 ON e1.Mgr = e2.EmpNo

WHERE e1.Sal = (SELECT MAX(Sal)

FROM Emp_Table

WHERE Sal < (SELECT MAX(Sal)

FROM Emp_Table));
```

/*Write a query to list all details of all the managers*/

```
SELECT *

FROM Emp_Table

WHERE EmpNo IN (SELECT Mgr FROM Emp_Table);
```

/*Write a query to list the details and total experience of all the managers*/

```
 SELECT Ename, (YEAR(CURRENT_DATE) - YEAR(Hire_Date)) AS Total_Experience
FROM Emp_Table

WHERE EmpNo IN (SELECT Mgr FROM Emp_Table);
```

/*Write a query to list the employees who is manager and takes commission less than 1000 and works in Delhi*/

```
SELECT *

FROM Emp_Table e

INNER JOIN Dept_Table d ON e.DeptNo = d.DeptNo

WHERE Mgr IS NOT NULL AND Commission < 1000 AND loc = 'Delhi';
```

/*Write a query to display the details of employees who are senior to Martin */

```
SELECT *
FROM Emp_Table
WHERE Hire_Date < (SELECT Hire_Date FROM Emp_Table WHERE Ename = 'Martin')
```