Assignment 1

Name: Soumitri Chattopadhyay
Roll: 001911001083
Subject: DBMS Lab. Assignment
Dept: Information Technology (UG 2)

1. Show the details of all employees.

```
SELECT * FROM EMP;
```

2. Show the department no. and name of all departments.

```
SELECT deptno,dname FROM dept;
```

3. Display the employee id, name and department no of all employees whose department no is 20.

```
SELECT EMPNO,ENAME,DEPTNO FROM EMP WHERE DEPTNO=20;
```

4. Display the details of all employees where department no should be in descending order.

```
SELECT * FROM EMP ORDER BY DEPTNO DESC;
```

5. Show all available jobs in the employee table.

```
SELECT DISTINCT JOB FROM EMP;
```

6. Show the name, Annual Salary and department no of employees who works as a clerk in department 20. Annual Salary = 12xSalary.

```
SELECT ENAME, SAL*12, DEPTNO FROM EMP WHERE JOB =
'CLERK' AND DEPTNO = 20;
```

7. Show the name and HIRED date of those employee whose name start with ‘S’ or second character is ‘J’.

```
SELECT ENAME, HIREDATE FROM EMP WHERE ENAME LIKE
'S%' OR ENAME LIKE '_J%';
```

8. Show the name, hire date and salary of those employee who are not a manager.

```
SELECT ENAME, HIREDATE, SAL FROM EMP WHERE JOB <>
'MANAGER';
```

9. Display all employee names in title case and length of the name.

```
SELECT INITCAP(ENAME) AS NAME, LENGTH(ENAME) AS LENGTH
FROM EMP;
```

10. Display the name of employee(s) who get the salary between 4000 and 6000.

```
SELECT ENAME FROM EMP WHERE SAL BETWEEN 4000 AND
6000;
```

11.Display the department that has no employees.

```
SELECT dname FROM dept WHERE deptno NOT IN (SELECT
UNIQUE DEPTNO FROM EMP);
```

12.List all employees who have no manager by their name and number.

```
SELECT * FROM EMP WHERE ENAME NOT IN (SELECT ENAME
FROM EMP WHERE JOB = 'MANAGER');
```

13.Find all employees who joined the company before their manager.

```
SELECT E.* FROM EMP E, EMP M WHERE E.MGR = M.EMPNO AND
M.HIREDATE > E.HIREDATE ;
```

14.Display employees who earn more than the lowest salary in department 20.

```
SELECT * FROM EMP WHERE DEPTNO = 20 AND SAL > (SELECT
MIN(SAL) FROM EMP WHERE DEPTNO = 20);
```

15.Display employees who earn more than the every employee.

```
SELECT * FROM EMP WHERE SAL = (SELECT MAX(SAL) FROM
EMP);
```

16.To display the department(s) which have an average salary bill greater than department no. 30.

```
SELECT dept.dname FROM dept WHERE deptno IN (SELECT
UNIQUE DEPTNO FROM EMP GROUP BY DEPTNO HAVING AVG(SAL)
> (SELECT AVG(SAL) FROM EMP WHERE DEPTNO = 30));
```

17.Find the job with the highest average salary.

```
SELECT JOB FROM EMP GROUP BY JOB HAVING AVG(SAL) =
(SELECT MAX(AVG(SAL)) FROM EMP GROUP BY JOB);
```

18.Display the name, job, and hire date for employees whose salary is greater than the highest salary in SALES department.

```
SELECT ENAME, JOB, HIREDATE FROM EMP WHERE SAL >
(SELECT MAX(SAL) FROM EMP GROUP BY DEPTNO HAVING
DEPTNO = (SELECT DEPTNO FROM DEPT WHERE DNAME =
'SALES'));
```

19.Find the employees who earn a salary greater than the average salary for their department. Sort in department number.

```
SELECT E.* FROM EMP E, (SELECT DEPTNO, AVG(SAL) AS
AVERAGE FROM EMP GROUP BY DEPTNO) A WHERE E.DEPTNO =
A.DEPTNO AND E.SAL > A.AVERAGE ORDER BY E.DEPTNO;
```

20.Find all employees whose department is not in the DEPT table.

```
SELECT * FROM EMP WHERE DEPTNO NOT IN (SELECT UNIQUE
deptno FROM dept);
```

21.Find the employees who do not manage any one.

```
SELECT A.* FROM EMP A WHERE A.EMPNO NOT IN (SELECT
M.EMPNO FROM EMP E, EMP M WHERE M.EMPNO=E.MGR GROUP BY
M.EMPNO);
```

22.Find the employees who earn the highest salary in each job type sort in descending salary order.

```
SELECT E.* FROM EMP E WHERE (E.SAL,E.JOB) IN (SELECT
MAX(SAL),JOB FROM EMP GROUP BY JOB) ORDER BY E.SAL
DESC;
```

23.Find the employees who earn the minimum salary for their job. Display the result in ascending order of salary.

```
SELECT E.* FROM EMP E WHERE (E.SAL,E.JOB) IN (SELECT
MIN(SAL),JOB FROM EMP GROUP BY JOB) ORDER BY E.SAL;
```

24.Find the most recently hired employees in each department. Order by hire date.

```
SELECT E.* FROM EMP E WHERE (E.HIREDATE,JOB) IN
(SELECT MAX(HIREDATE),JOB FROM EMP GROUP BY JOB);
```

25.Display the department that has no employees (Using set operators).

```
SELECT dname FROM dept WHERE deptno IN (SELECT deptno
FROM dept MINUS SELECT DEPTNO FROM EMP);
```