ASSIGNMENT NO:1 **DATE:31/08/2016**

PROGRAM TITLE:Create a table in SQL with the following attributes and solve the queries that follow.

Emp(eid number, name varchar(30), mid number, designation varchar(10), salary number, dname varchar(7)) ;

Queries:
1) Find the name of the employees having 'De' as their surname and beginning with 'A'.
2) List the details of the employees who are working for the departments 'HR', 'SALES' and 'R and D'.
3) Find the designation and the names of the employees who are not managers yet are earning more than 30000.
4) List the details of the employees of HR department in the decreasing order of their salaries.
5) Display the name of the employees along with the respective manager names.
6) Display the average salary of each job designation except the president in the alphabetical order of their designation.
7) Display the salary of each manager where more than two persons work under that manager.
8) Find the maximum and minimum salary for each department where there is more than 3 employees, result is to be displayed in the order of departments.
9) Display the details of all the employees whose salary is greater than the average salary.
10) Find the employees with the lowest salary without using any aggregate function.
11) Display the no of employees working under the supervision of each managers in the descending order of manager ID.

PROGRAM CODE:

Table Creation:

```
create table emp(eid number constraint pkemp primary key, name
varchar(30), mid number, designation varchar(10), salary number,
dname varchar(7));
```

Table Insertion(example):

```
SQL> insert into emp(eid,name,mid,designation,salary,dname)
values('&eid','&name','&mid','&designation','&salary','&dname');
Enter value for eid: 14
Enter value for name: Anirban Sarkar
Enter value for mid: 2
Enter value for designation: Worker
Enter value for salary: 18000
Enter value for dname: Sales
old   1: insert into emp(eid,name,mid,designation,salary,dname)
values('&eid','&name','&mid','&designation','&salary','&dname')
new   1: insert into emp(eid,name,mid,designation,salary,dname)
values('14','Anirban Sarkar','2','Worker','18000','Sales')

1 row created.
```

Final Table Created:

EID	NAME	MID	DESIGNATIO	SALARY	DNAME
1	Abhijit De	2	Clerk	34000	Sales
2	Rohit Bose		Manager	38000	Sales
3	Ayan Sett	5	Worker	29000	HR
4	Kallol Banerjee	5	Clerk	35000	HR
5	Ananya De		Manager	25000	HR
6	Bimala De	5	Worker	28000	HR
7	Sujoy Sarkar		President	38000	
8	Sumit Ghoshal		Manager	37000	R and D
9	Subir Sarkar		Manager	36000	IT
10	Alok Nandy	9	Worker	25000	IT
11	Abhirup Chowdhury	9	Worker	24000	IT
12	Akash Maity	8	Worker	28000	R and D
13	Suman Adhikary	9	Worker	27000	IT
14	Anirban Sarkar	2	Worker	18000	Sales

Queries with output:

1)

```
SQL> select name from emp where name like 'A%De';

NAME
------------------------------
Abhijit De
Ananya De
```

2)

```
SQL> select * from emp where dname in ('HR','Sales','R and D');
```

EID	NAME	MID	DESIGNATIO	SALARY	DNAME
1	Abhijit De	2	Clerk	34000	Sales
2	Rohit Bose		Manager	38000	Sales
3	Ayan Sett	5	Worker	29000	HR
4	Kallol Banerjee	5	Clerk	35000	HR
5	Ananya De		Manager	25000	HR
6	Bimala De	5	Worker	28000	HR
8	Sumit Ghoshal		Manager	37000	R and D
12	Akash Maity	8	Worker	28000	R and D
14	Anirban Sarkar	2	Worker	18000	Sales

```
9 rows selected.
```

3)

```
SQL> select name,designation,salary from emp where
designation<>'Manager' and salary>30000;

NAME                 DESIGNATIO      SALARY
-------------------- ----------      ----------
Abhijit De           Clerk             34000
Kallol Banerjee      Clerk             35000
Sujoy Sarkar         President         38000
```

4)

```
SQL> select * from emp where dname='HR' order by salary desc;

       EID NAME                   MID DESIGNATIO   SALARY DNAME
---------- -------------------- ---- ---------- -------- -------
      4 Kallol Banerjee             5 Clerk         35000 HR
      3 Ayan Sett                   5 Worker        29000 HR
      6 Bimala De                   5 Worker        28000 HR
      5 Ananya De                     Manager       25000 HR
```

5)

```
SQL> select E.name, M.name as "Manager" from (select name,mid from
emp) E, (select eid,name from emp where designation='Manager') M
where E.mid=M.eid;

NAME                 Manager
-------------- ------------------------------
Abhijit De           Rohit Bose
Ayan Sett            Ananya De
Kallol Banerjee      Ananya De
Bimala De            Ananya De
Alok Nandy           Subir Sarkar
Abhirup Chowdhury    Subir Sarkar
Akash Maity          Sumit Ghoshal
Suman Adhikary       Subir Sarkar
Anirban Sarkar       Rohit Bose

9 rows selected.
```

6)

```
SQL> select designation, avg(salary) from emp where
designation<>'President' group by designation order by designation;

DESIGNATIO AVG(SALARY)
---------- -----------
Clerk         34500
Manager       34000
Worker       25571.4286
```

7)

```
SQL> select dname,name,salary from (select name,salary,dname from
emp where designation='Manager') natural join (select
dname,count(mid) from emp group by dname having count(mid)>2);

DNAME    NAME                  SALARY
------- -------------------- ----------
IT       Subir Sarkar           36000
HR       Ananya De              25000
```

8)

```
SQL> select dname,max(salary),min(salary),count(*) from emp group
by dname having count(*)>3 order by dname;

DNAME    MAX(SALARY) MIN(SALARY)   COUNT(*)
------- ----------- ----------- ----------
HR         35000       25000     4
IT         36000       24000     4
```

9)

```
SQL> select * from emp where salary>(select avg(salary) from emp);

       EID NAME                 MID DESIGNATIO      SALARY DNAME
---------- -------------------- ---- ---------- --------- -------
         1 Abhijit De                2 Clerk          34000 Sales
         2 Rohit Bose                  Manager        38000 Sales
         4 Kallol Banerjee           5 Clerk          35000 HR
         7 Sujoy Sarkar                President      38000
         8 Sumit Ghoshal               Manager        37000 R and D
         9 Subir Sarkar                Manager        36000 IT

6 rows selected.
```

10)

```
SQL> select name,salary from emp where salary=((select salary from
emp) minus (select R.salary from (select salary from emp) R,
(select salary from emp) S where R.salary>S.salary));

NAME                            SALARY
------------------------------ ----------
Anirban Sarkar                  18000
```

11)

```
SQL> select mid,count(mid) from emp group by mid having mid>0 order
by mid desc;

       MID COUNT(MID)
---------- ----------
         9          3
         8          1
         5          3
         2          2
```