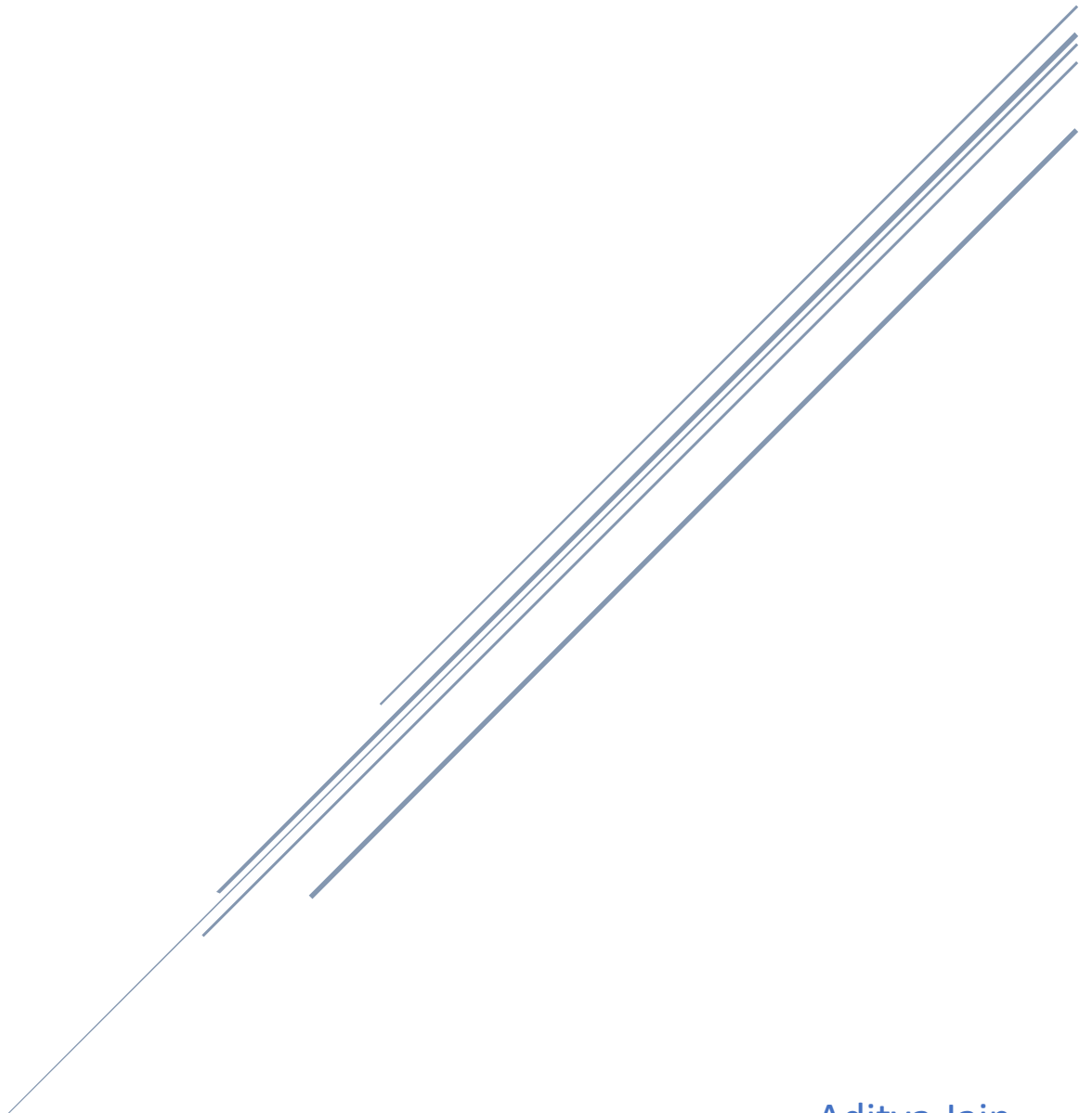# CSE-2007 ASSIGNMENT

Exercise-5

Aditya Jain
17BCE7066

Q1. Find the employee who is getting maximum salary in Research department

- select ssn,firstname,midname,lastname from employee natural join department where salary=(select max(salary) from employee natural join department where departmentname='Research' group by departmentnumber) and departmentname='Research';

```
SQL> select ssn,firstname,midname,lastname from employee natural join department where salary=(select max(salary) from employee
 natural join department where departmentname='Research' group by departmentnumber) and departmentname='Research';

SSN        FIRSTNAME       MI LASTNAME
---------  --------------- -- ---------------
333445555 Frankin          T  Wong
```

Q2.Find the employees who earn the same salary as the minimum salary for each Department.

- select ssn,firstname,midname,lastname from employee natural join department where (departmentnumber,salary) in (select departmentnumber,min(salary) from employee group by departmentnumber);

```
SQL> select ssn,firstname,midname,lastname from employee natural join department where (departmentnumber,salary) in (select
departmentnumber,min(salary) from employee group by departmentnumber);

SSN        FIRSTNAME       MI LASTNAME
---------  --------------- -- ---------------
888665555 James            E  Borg
543216789 Joyce               PAN
453453453 Joyce            A  English
987987987 Ahmad            V  Jabbar
999887777 Alicia           J  Zelaya
554433221 Doug             E  Gilbert

6 rows selected.
```

Q3. Find the employee whose salary is greater than average salary of department 2

- select ssn,firstname,midname,lastname from employee where salary >(select avg(salary) from employee where departmentnumber=2 group by departmentnumber);

```
SQL> select ssn,firstname,midname,lastname from employee where salary >(select avg(salary) from employee where departmentnumber=2 group
 by departmentnumber);

SSN        FIRSTNAME       MI LASTNAME
---------  --------------- -- ---------------
554433221 Doug             E  Gilbert
```

Q4. List out all the department names with their individual employees strength

- select departmentname,count(ssn) as STRENGTH from employee natural join department group by departmentnumber,departmentname;

```
SQL> select departmentname,count(ssn) as STRENGTH from employee natural join department group by departmentnumber,departmentname;

DEPARTMENTNAME    STRENGTH
--------------- ----------
Research               4
Manufacture            2
Headquarter            1
Administration         1
Finance                3
```

Q5. List out the department name having highest employee strength

- select departmentname from employee natural join department group by departmentnumber,departmentname having count(ssn)=(select max(cnt) from (select count(ssn)as cnt from employee natural join department group by departmentnumber));

```
SQL> select departmentname from employee natural join department group by departmentnumber,departmentname having count(ssn)=(select max(cnt)
 from (select count(ssn)as cnt from employee natural join department group by departmentnumber));

DEPARTMENTNAME
--------------
Research
```

Q6. List out all the departments and average salary drawn by their employees

- select departmentname,avg(salary) from employee natural join department group by departmentnumber,departmentname;

```
SQL> select departmentname,avg(salary) from employee natural join department group by departmentnumber,departmentname;

DEPARTMENTNAME  AVG(SALARY)
--------------- -----------
Research              33250
Manufacture           56500
Headquarter           80000
Administration        70000
Finance               31000
```

Q7. Find the maximum average salary for each department

- select max(AVG) from (select avg(salary) as AVG from employee group by departmentnumber);

```
SQL> select max(AVG) from (select avg(salary) as AVG from employee group by departmentnumber);

  MAX(AVG)
----------
     80000
```

Note: Here I am finding the maximum out of all the average salaries for each departments.

- select departmentname,max(salary) as MAX,avg(salary) as AVG from employee natural join department group by departmentnumber,departmentname;

```
SQL> select departmentname,max(salary) as MAX,avg(salary) as AVG from employee natural join department group by departmentnumber,departmentname;

DEPARTMENTNAME         MAX        AVG
---------------- ---------- ----------
Research              40000      33250
Manufacture           58000      56500
Headquarter           80000      80000
Administration        70000      70000
Finance               43000      31000
```

Note: Here I am finding the maximum and average salaries for each department.