Project :- 1 (Part_2)

Name: Pruthvik H Kakadiya

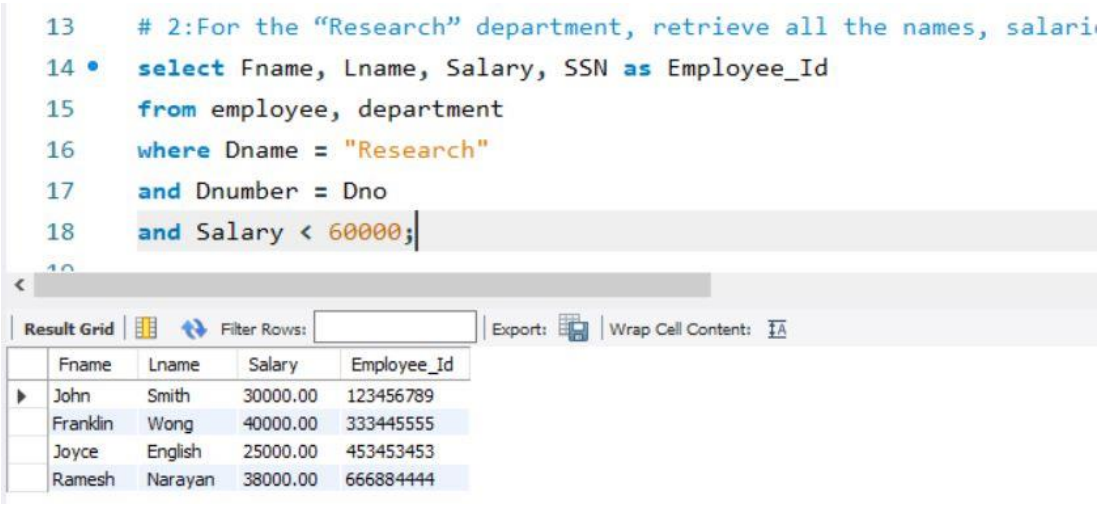
Write SQL queries OR use a simple Web interfaces to get the results of the following queries:

2. For the “Research” department, retrieve all the names, salaries and employees ID of all employees who work in that department and earn salary less than 60000.

Query:

```
select Fname, Lname, Salary, SSN as Employee_Id
from employee, department
where Dname = "Research"
and Dnumber = Dno
and Salary < 60000
```

Screenshot:



```
13    # 2:For the “Research” department, retrieve all the names, salari
14 •  select Fname, Lname, Salary, SSN as Employee_Id
15    from employee, department
16    where Dname = "Research"
17    and Dnumber = Dno
18    and Salary < 60000;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Fname	Lname	Salary	Employee_Id
John	Smith	30000.00	123456789
Franklin	Wong	40000.00	333445555
Joyce	English	25000.00	453453453
Ramesh	Narayan	38000.00	666884444

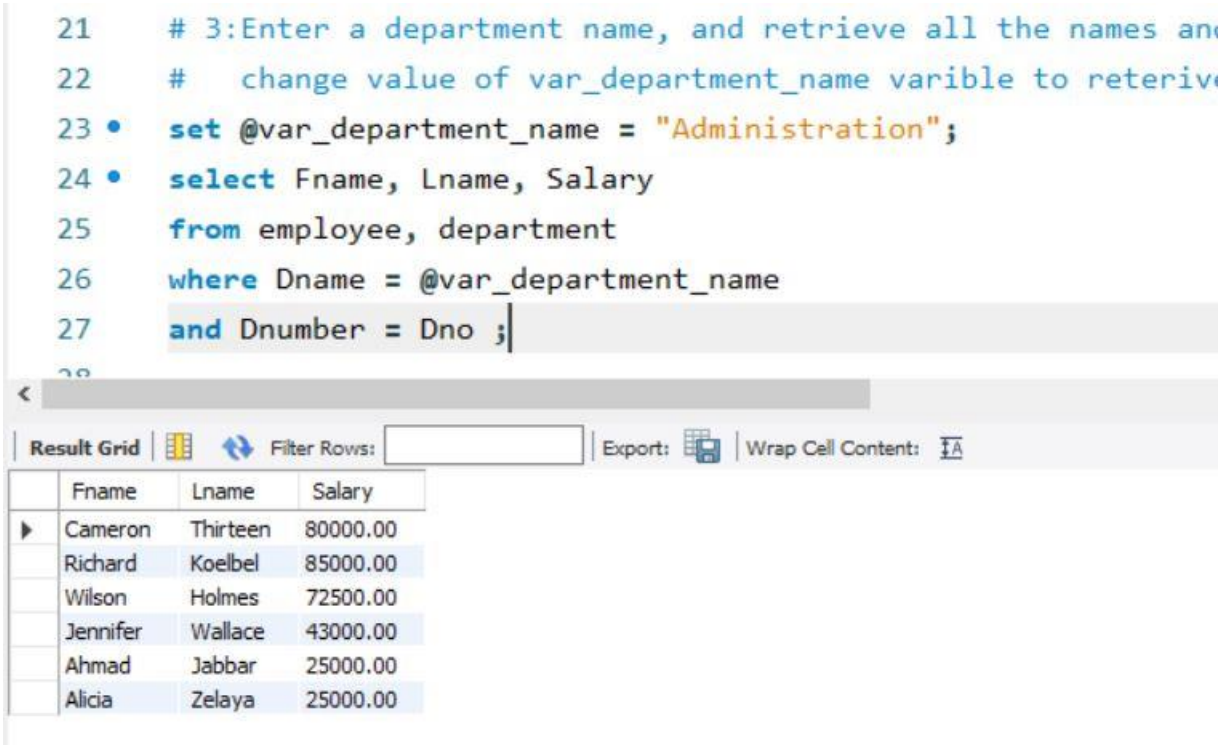
3. Enter a department name, and retrieve all the names and salaries of all employees who work in that department.

   # change value of var_department_name varible to reterive output for desired department name.

Query:

```
set @var_department_name = "Administration";

select Fname, Lname, Salary

from employee, department

where Dname = @var_department_name

and Dnumber = Dno ;
```

Screenshot:



```
21    # 3:Enter a department name, and retrieve all the names an
22    #   change value of var_department_name varible to reteriv
23    set @var_department_name = "Administration";
24    select Fname, Lname, Salary
25    from employee, department
26    where Dname = @var_department_name
27    and Dnumber = Dno ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

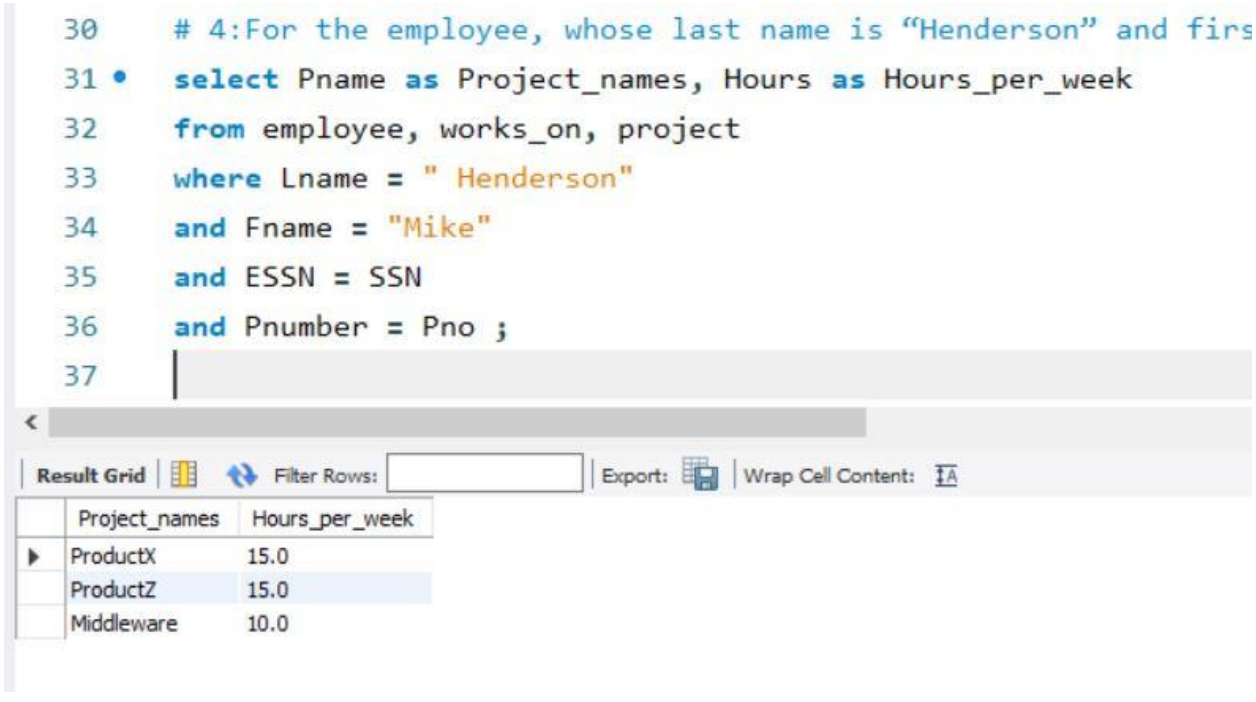
Fname	Lname	Salary
Cameron	Thirteen	80000.00
Richard	Koelbel	85000.00
Wilson	Holmes	72500.00
Jennifer	Wallace	43000.00
Ahmad	Jabbar	25000.00
Alicia	Zelaya	25000.00

4. For the employee, whose last name is “Henderson” and first name is “Mike”, retrieve a list of projects names/hours per week that the employee works on.

Query:

```
select Pname as Project_names, Hours as Hours_per_week
from employee, works_on, project
where Lname = " Henderson"
and Fname = "Mike"
and ESSN = SSN
and Pnumber = Pno ;
```

Screenshot:

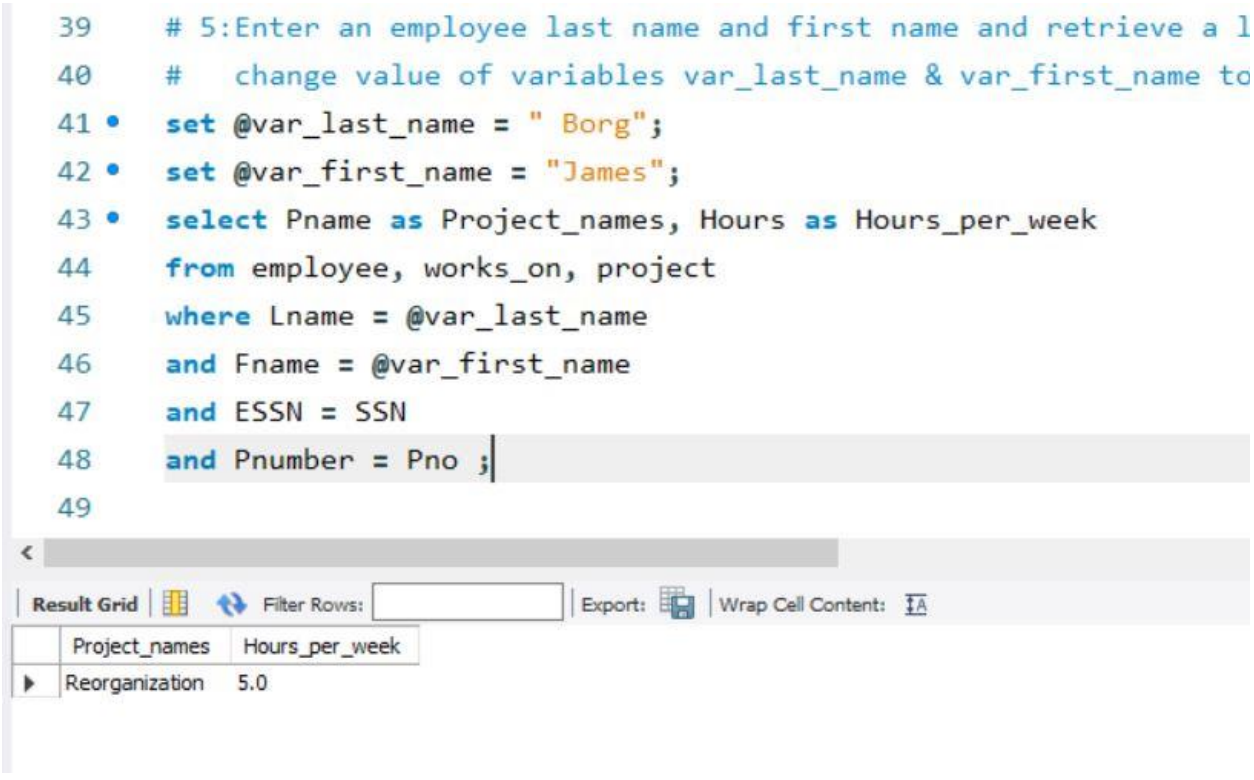


5. Enter an employee last name and first name and retrieve a list of projects names/hours per week that the employee works on.
   # change value of variables var_last_name & var_first_name to get output for a pertivular employee

Query:

```
set @var_last_name = " Borg";

set @var_first_name = "James";

select Pname as Project_names, Hours as Hours_per_week

from employee, works_on, project

where Lname = @var_last_name

and Fname = @var_first_name

and ESSN = SSN

and Pnumber = Pno ;
```

Screenshot:



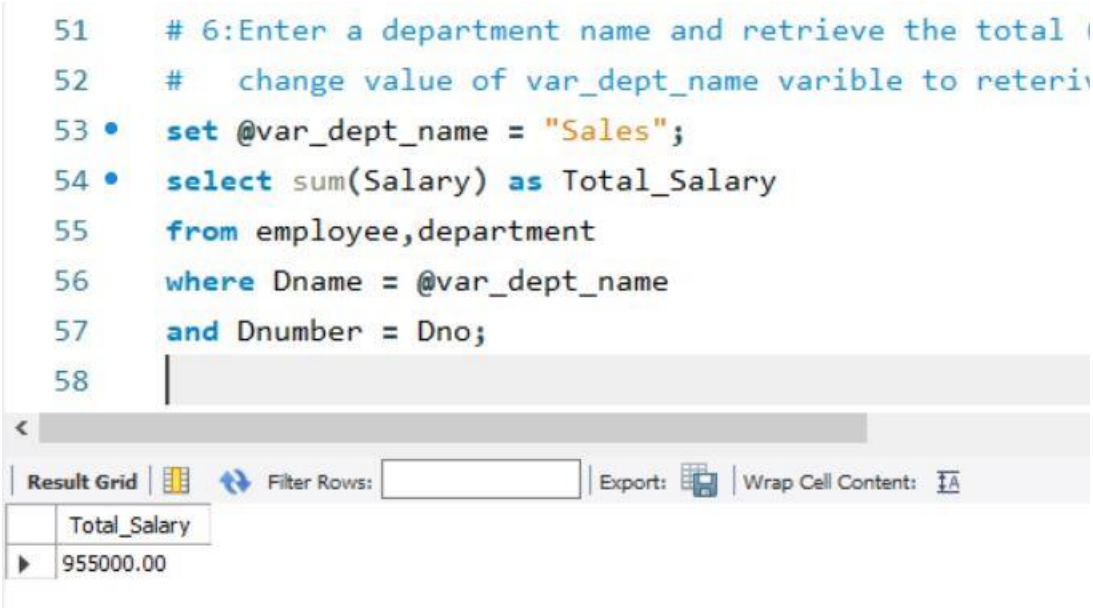
6. Enter a department name and retrieve the total (sum) of all employee salaries who work in the department.

   # change value of var_dept_name varible to reterive output for desired department name.

Query:

```
set @var_dept_name = "Sales";

select sum(Salary) as Total_Salary

from employee,department

where Dname = @var_dept_name

and Dnumber = Dno;
```

Screenshot:

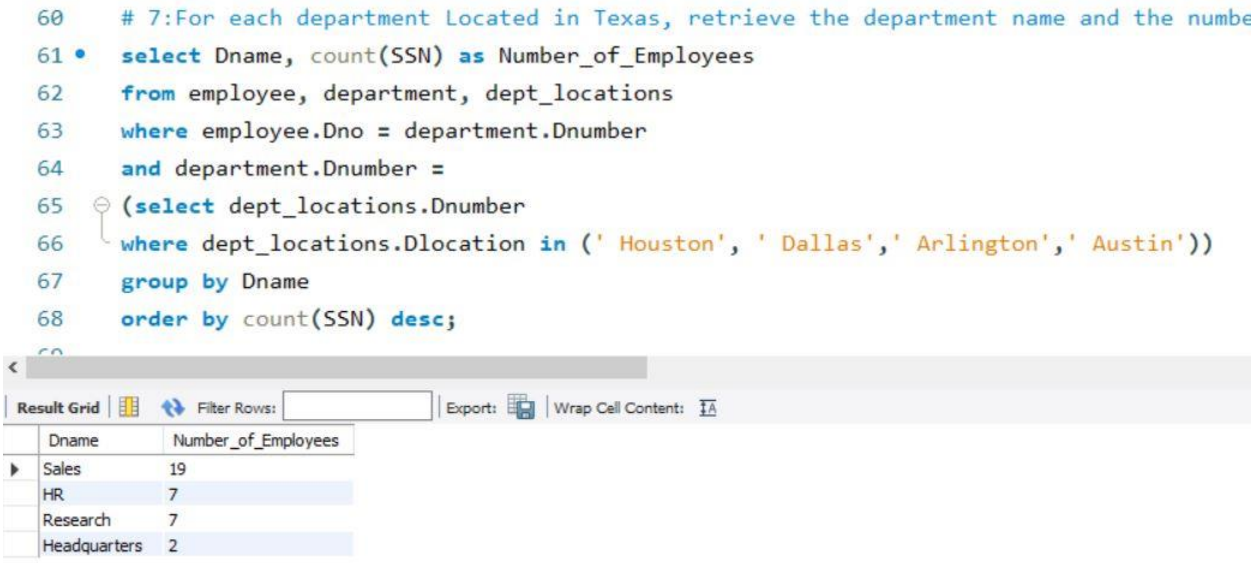


7. For each department Located in Texas, retrieve the department name and the number (count) employees who work in that department. Order the result by number of employees in descending order.

Query:

```
select Dname, count(SSN) as Number_of_Employees
from employee, department, dept_locations
where employee.Dno = department.Dnumber
and department.Dnumber =
(select dept_locations.Dnumber
where dept_locations.Dlocation in (' Houston', ' Dallas',' Arlington',' Austin'))
group by Dname
order by count(SSN) desc;
```

Screenshot:

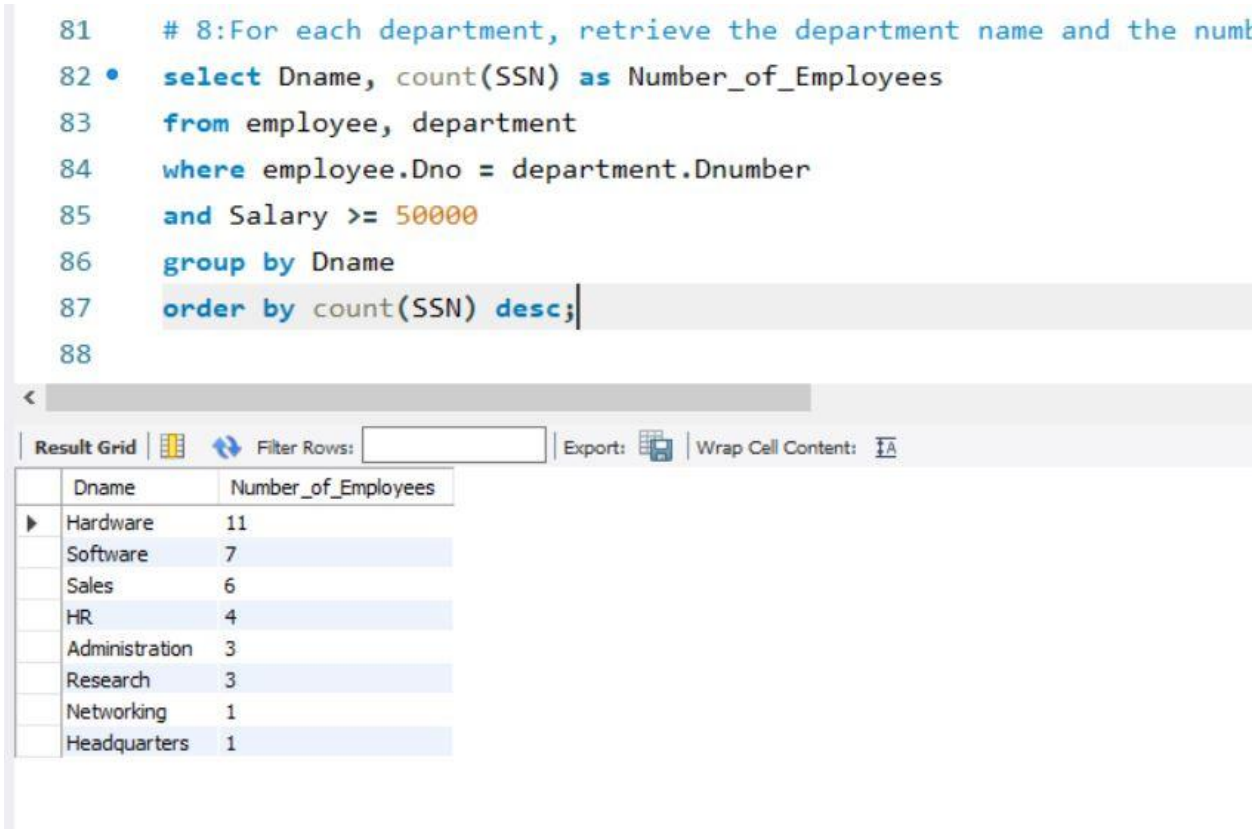


8. For each department, retrieve the department name and the number (count) of employees who work in that department. and have a salary greater or equal to 50000. Order the result by number of employees in descending order.

Query:

```
select Dname, count(SSN) as Number_of_Employees
from employee, department
where employee.Dno = department.Dnumber
and Salary >= 50000
group by Dname
order by count(SSN) desc;
```

Screenshot:



```
81    # 8:For each department, retrieve the department name and the numb
82 •  select Dname, count(SSN) as Number_of_Employees
83    from employee, department
84    where employee.Dno = department.Dnumber
85    and Salary >= 50000
86    group by Dname
87    order by count(SSN) desc;
88
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Dname	Number_of_Employees
Hardware	11
Software	7
Sales	6
HR	4
Administration	3
Research	3
Networking	1
Headquarters	1

9. For each department, retrieve the following information: the department name; the first and last name of the employee who manages the department; the number (count) of employees who work in the department; the total (sum of) salaries of the employees who work in that

department; and the highest and lowest salary of the employees who work in that department. Order the result alphabetically by department name.

Query:

```
select Dname,E.Fname,E.Lname,
count(employee.SSN) as Number_of_Employees,
sum(employee.Salary) as Total_Salary,
max(employee.Salary) as Highest_Salary,
min(employee.Salary) as Lowest_Salary
from department,employee as E,employee
where E.SSN = department.Mgr_SSN
and employee.Dno = department.Dnumber
group by Dname
order by Dname asc;
```

```
90    # 9:For each department, retrieve the following information: the d
91 •  select Dname,E.Fname,E.Lname,
92    count(employee.SSN) as Number_of_Employees,
93    sum(employee.Salary) as Total_Salary,
94    max(employee.Salary) as Highest_Salary,
95    min(employee.Salary) as Lowest_Salary
96    from department,employee as E,employee
97    where E.SSN = department.Mgr_SSN
98    and employee.Dno = department.Dnumber
99    group by Dname
100   order by Dname asc;
101
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

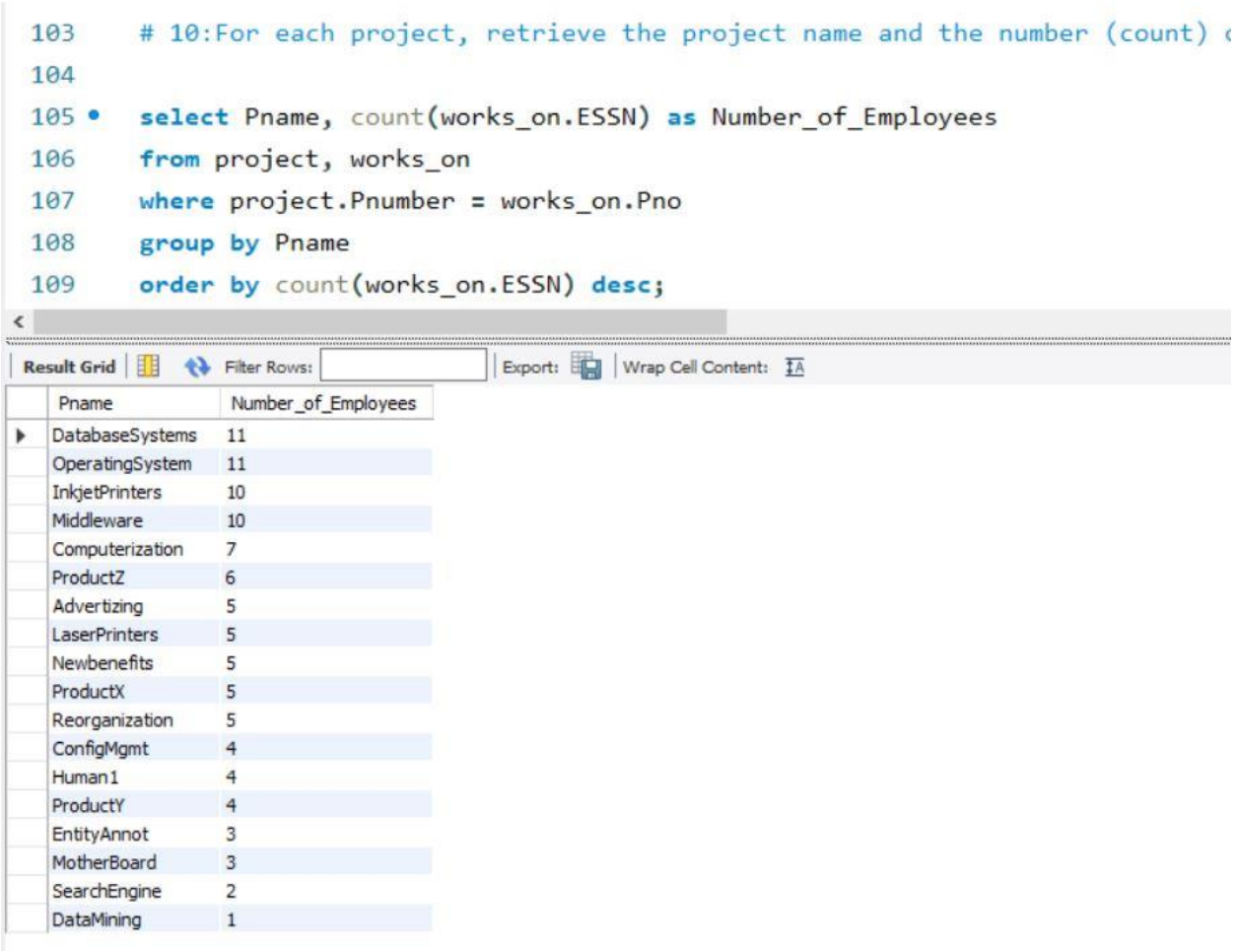
Dname	Fname	Lname	Number_of_Employees	Total_Salary	Highest_Salary	Lowest_Salary
Administration	Jennifer	Wallace	6	330500.00	85000.00	25000.00
Hardware	Alex	Freed	14	949500.00	95000.00	43000.00
Headquarters	James	Borg	2	70000.00	55000.00	15000.00
HR	Juan	Linda	7	317500.00	65000.00	12000.00
Networking	Sunil	Gupta	1	80000.00	80000.00	80000.00
Research	Franklin	Wong	7	346500.00	75000.00	25000.00
Sales	John	James	19	955000.00	96000.00	29000.00
Software	Jared	James	18	869000.00	85000.00	17000.00

10. For each project, retrieve the project name and the number (count) of employees who are working on that project. Order the result in descending order by number of employees.

Query:

```
select Pname, count(works_on.ESSN) as Number_of_Employees
from project, works_on
where project.Pnumber = works_on.Pno
group by Pname
order by count(works_on.ESSN) desc;
```

Screenshot:



```
103    # 10:For each project, retrieve the project name and the number (count) o
104
105 •  select Pname, count(works_on.ESSN) as Number_of_Employees
106    from project, works_on
107    where project.Pnumber = works_on.Pno
108    group by Pname
109    order by count(works_on.ESSN) desc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

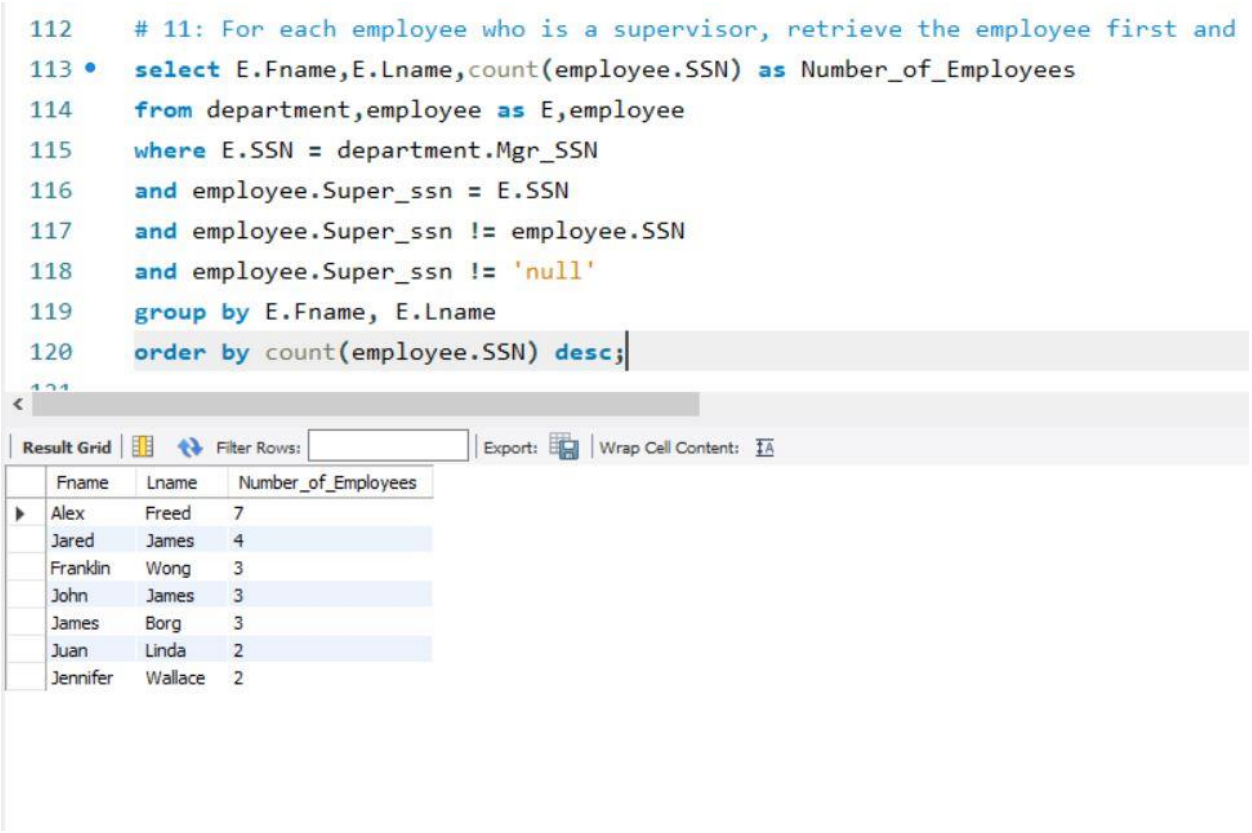
Pname	Number_of_Employees
DatabaseSystems	11
OperatingSystem	11
InkjetPrinters	10
Middleware	10
Computerization	7
ProductZ	6
Advertizing	5
LaserPrinters	5
Newbenefits	5
ProductX	5
Reorganization	5
ConfigMgmt	4
Human1	4
ProductY	4
EntityAnnot	3
MotherBoard	3
SearchEngine	2
DataMining	1

11. For each employee who is a supervisor, retrieve the employee first and last name and the number (count) of employees that are supervised. Order the result in descending order.

Query:

```
select E.Fname,E.Lname,count(employee.SSN) as Number_of_Employees
from department,employee as E,employee
where E.SSN = department.Mgr_SSN
and employee.Super_ssn = E.SSN
and employee.Super_ssn != employee.SSN
and employee.Super_ssn != 'null'
group by E.Fname, E.Lname
order by count(employee.SSN) desc;
```

Screenshot:



```
112    # 11: For each employee who is a supervisor, retrieve the employee first and
113 •  select E.Fname,E.Lname,count(employee.SSN) as Number_of_Employees
114    from department,employee as E,employee
115    where E.SSN = department.Mgr_SSN
116    and employee.Super_ssn = E.SSN
117    and employee.Super_ssn != employee.SSN
118    and employee.Super_ssn != 'null'
119    group by E.Fname, E.Lname
120    order by count(employee.SSN) desc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Fname	Lname	Number_of_Employees
Alex	Freed	7
Jared	James	4
Franklin	Wong	3
John	James	3
James	Borg	3
Juan	Linda	2
Jennifer	Wallace	2