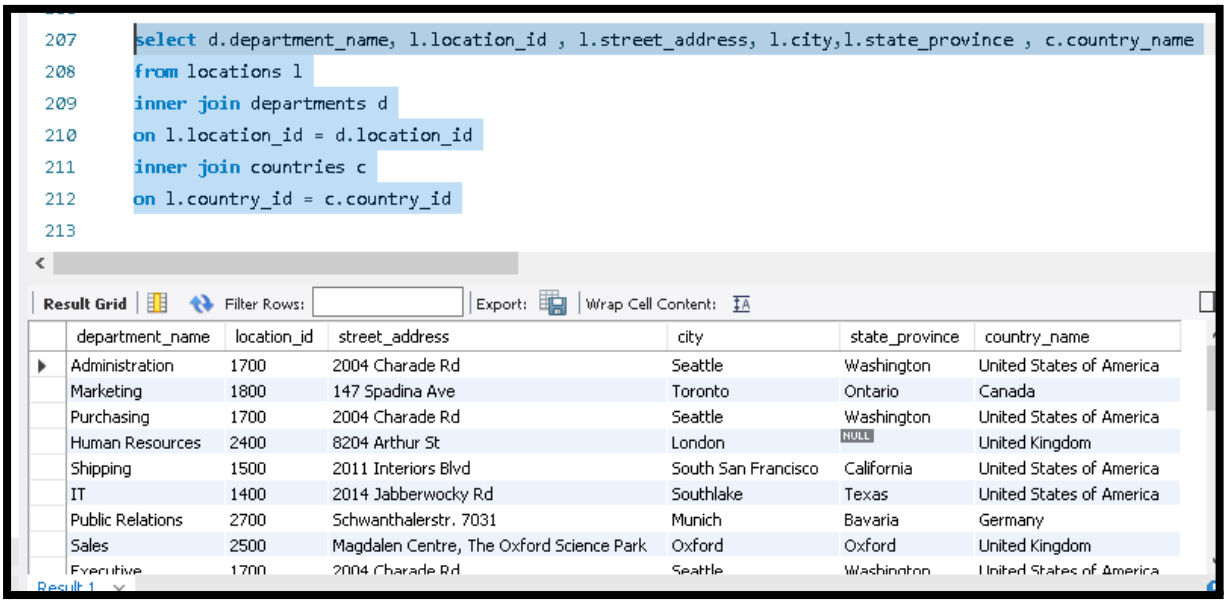
Join

1. Write a query to find the addresses (location_id, street_address, city, state_province, country_name) of all the departments.

```
select d.department_name, l.location_id , l.street_address, l.city,l.state_province ,
c.country_name
from locations l
inner join departments d
on l.location_id = d.location_id
inner join countries c
on l.country_id = c.country_id
```



```
207  select d.department_name, l.location_id , l.street_address, l.city,l.state_province , c.country_name
208  from locations l
209  inner join departments d
210  on l.location_id = d.location_id
211  inner join countries c
212  on l.country_id = c.country_id
213
```

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

department_name	location_id	street_address	city	state_province	country_name
Administration	1700	2004 Charade Rd	Seattle	Washington	United States of America
Marketing	1800	147 Spadina Ave	Toronto	Ontario	Canada
Purchasing	1700	2004 Charade Rd	Seattle	Washington	United States of America
Human Resources	2400	8204 Arthur St	London	NULL	United Kingdom
Shipping	1500	2011 Interiors Blvd	South San Francisco	California	United States of America
IT	1400	2014 Jabberwocky Rd	Southlake	Texas	United States of America
Public Relations	2700	Schwanthalerstr. 7031	Munich	Bavaria	Germany
Sales	2500	Magdalen Centre, The Oxford Science Park	Oxford	Oxford	United Kingdom
Executive	1700	2004 Charade Rd	Seattle	Washington	United States of America

Result 1

2. Write a query to find the name (first_name, last name), department ID and name of all the employees.

```
select e.first_name,e.last_name,e.department_id , d.department_name
from employees e
inner join departments d
on e.department_id = d.department_id
```

```
218
219     select e.first_name,e.last_name,e.department_id , d.department_name
220     from employees e
221     inner join departments d
222     on e.department_id = d.department_id
223
224
```

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

first_name	last_name	department_id	department_name
Jennifer	Whalen	10	Administration
Michael	Hartstein	20	Marketing
Pat	Fay	20	Marketing
Den	Raphaely	30	Purchasing
Alexander	Khoo	30	Purchasing
Shelli	Baida	30	Purchasing
Sigal	Tobias	30	Purchasing
Guy	Himuro	30	Purchasing
Karen	Colmenares	30	Purchasing

Result 2

3. Write a query to find the name (first_name, last_name), job, department ID and name of the employees who works in London.

```
select e.first_name , e.last_name , e.job_id , e.department_id , d.department_name
from employees e
inner join departments d
on e.department_id = d.department_id
inner join locations l
on l.location_id = d.location_id
where l.city = "London"
```

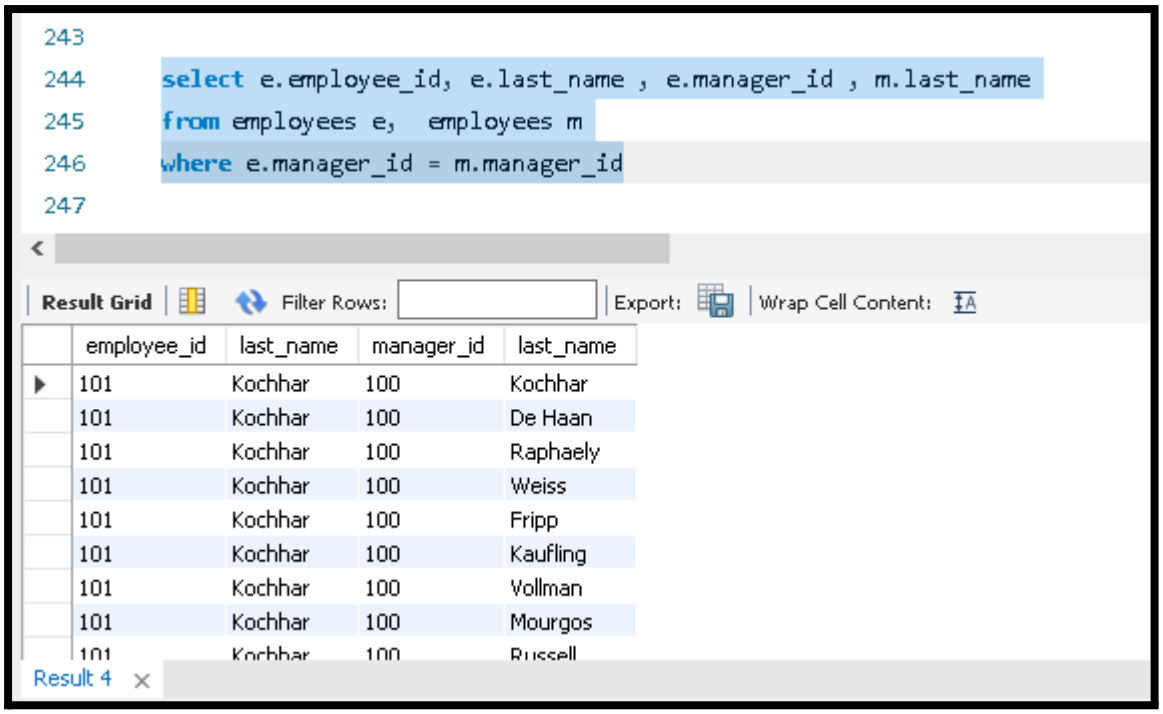
```
230     select e.first_name , e.last_name , e.job_id , e.department_id , d.department_name
231     from employees e
232     inner join departments d
233     on e.department_id = d.department_id
234     inner join locations l
235     on l.location_id = d.location_id
236     where l.city = "London"
```

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

first_name	last_name	job_id	department_id	department_name
Susan	Mavris	HR_REP	40	Human Resources

4. Write a query to find the employee id, name (last_name) along with their manager_id and name (last_name).

```
select e.employee_id, e.last_name , e.manager_id , m.last_name
from employees e,  employees m
where e.manager_id = m.manager_id
```



5. Write a query to find the name (first_name, last_name) and hire date of the employees who was hired after 'Jones.

```
select first_name,last_name,hire_date
from employees
where hire_date > (select hire_date from employees where last_name = 'Jones')
```

OR

```
SELECT e.first_name, e.last_name, e.hire_date
FROM employees e
JOIN employees davies
ON (davies.last_name = 'Jones')
WHERE davies.hire_date < e.hire_date;
```

```
252
253     select first_name,last_name,hire_date
254     from employees
255     where hire_date > (select hire_date from employees where last_name = 'Jones')
256
257
```

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

first_name	last_name	hire_date
Luis	Popp	1999-12-07
Karen	Colmenares	1999-08-10
Kevin	Mourgos	1999-11-16
Steven	Markle	2000-03-08
TJ	Olson	1999-04-10
Ki	Gee	1999-12-12
Hazel	Philtanker	2000-02-06
Gerald	Cambrault	1999-10-15
Eleni	Zlotkey	2000-01-29

employees 1

6. Write a query to get the department name and number of employees in the department.

```
select j.department_name, count(e.department_id)
from employees e
join departments j
on e.department_id = j.department_id
group by e.department_id
```

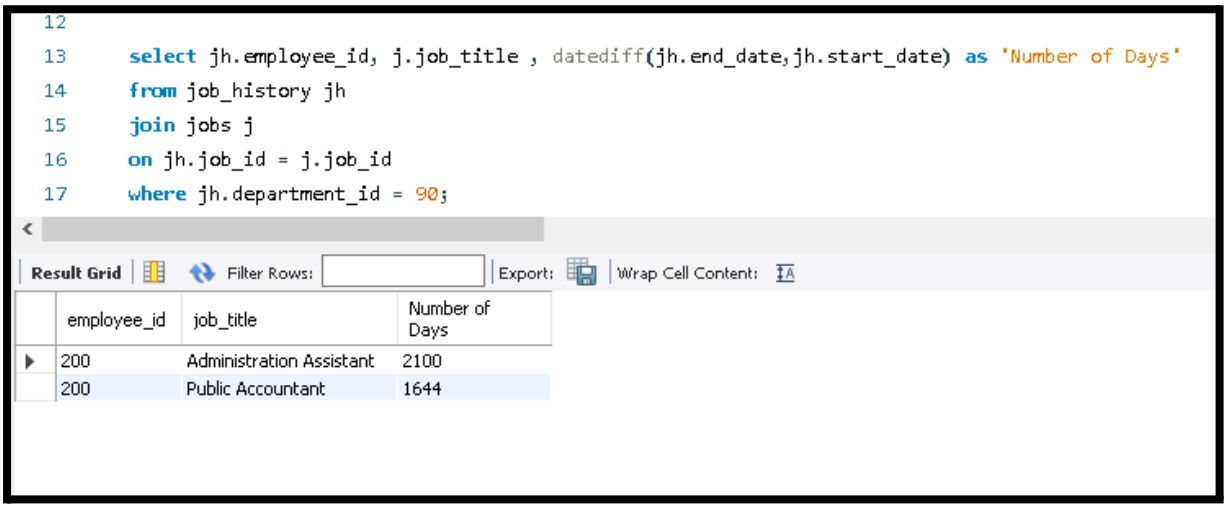
```
2
3     select j.department_name, count(e.department_id)
4     from employees e
5     join departments j
6     on e.department_id = j.department_id
7     group by e.department_id
```

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

department_name	count(e.department_id)
Administration	1
Marketing	2
Purchasing	6
Human Resources	1
Shipping	45
IT	5
Public Relations	1
Sales	34

7. Write a query to find the employee ID, job title, number of days between ending date and starting date for all jobs in department 90.

```
select jh.employee_id, j.job_title , datediff(jh.end_date,jh.start_date) as 'Number of Days'
from job_history jh
join jobs j
on jh.job_id = j.job_id
where jh.department_id = 90;
```



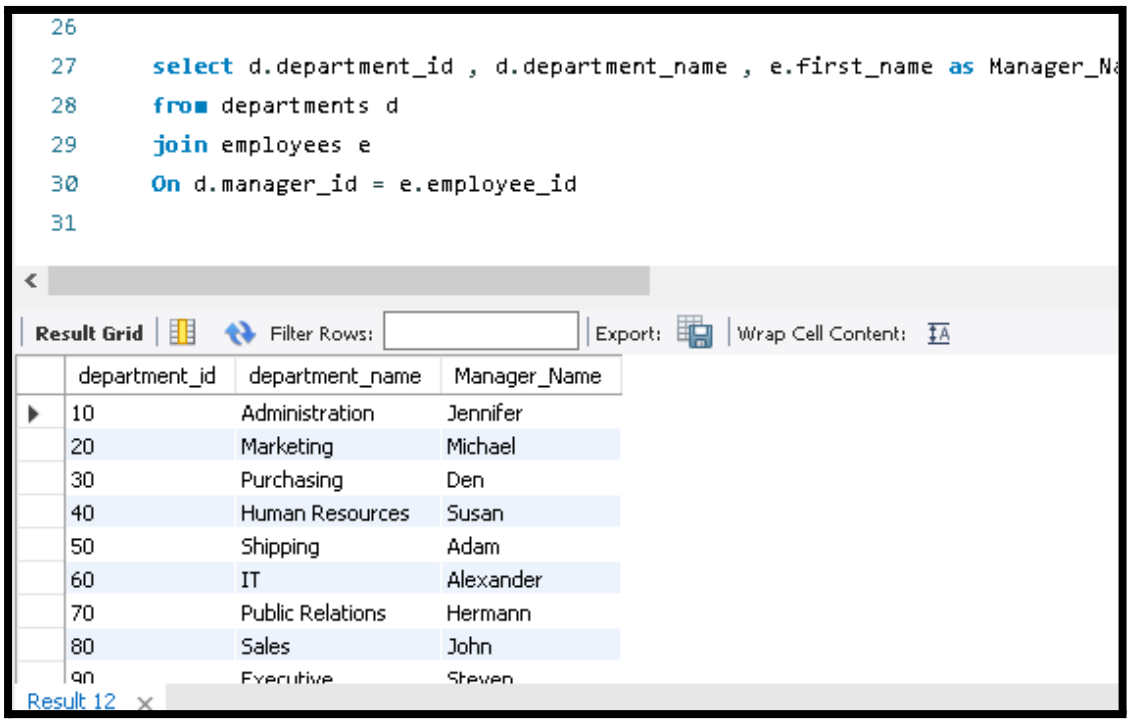
```
12
13    select jh.employee_id, j.job_title , datediff(jh.end_date,jh.start_date) as 'Number of Days'
14    from job_history jh
15    join jobs j
16    on jh.job_id = j.job_id
17    where jh.department_id = 90;
```

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

employee_id	job_title	Number of Days
200	Administration Assistant	2100
200	Public Accountant	1644

8. Write a query to display the department ID and name and first name of manager.

```
select d.department_id , d.department_name , e.first_name as Manager_Name
from departments d
join employees e
On d.manager_id = e.employee_id
```



```
26
27    select d.department_id , d.department_name , e.first_name as Manager_Na
28    from departments d
29    join employees e
30    On d.manager_id = e.employee_id
31
```

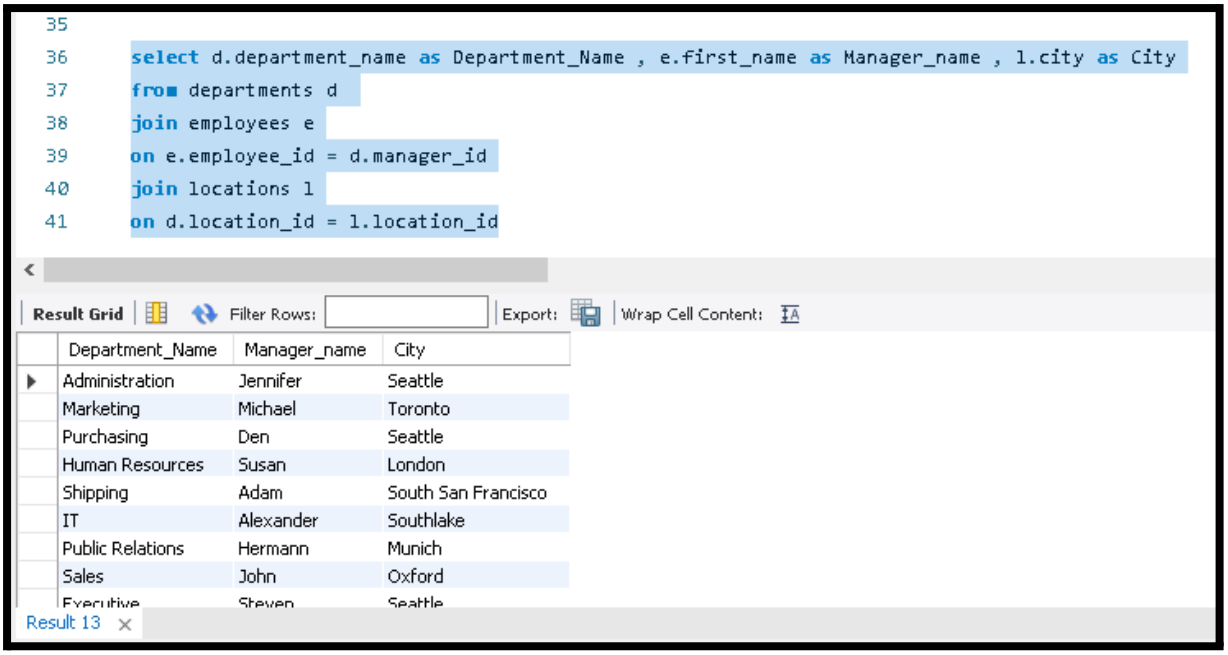
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

department_id	department_name	Manager_Name
10	Administration	Jennifer
20	Marketing	Michael
30	Purchasing	Den
40	Human Resources	Susan
50	Shipping	Adam
60	IT	Alexander
70	Public Relations	Hermann
80	Sales	John
90	Executive	Steven

Result 12

9. Write a query to display the department name, manager name, and city.

```
select d.department_name as Department_Name , e.first_name as Manager_name , l.city as City
from departments d
join employees e
on e.employee_id = d.manager_id
join locations l
on d.location_id = l.location_id
```



```
35
36      select d.department_name as Department_Name , e.first_name as Manager_name , l.city as City
37      from departments d
38      join employees e
39      on e.employee_id = d.manager_id
40      join locations l
41      on d.location_id = l.location_id
```

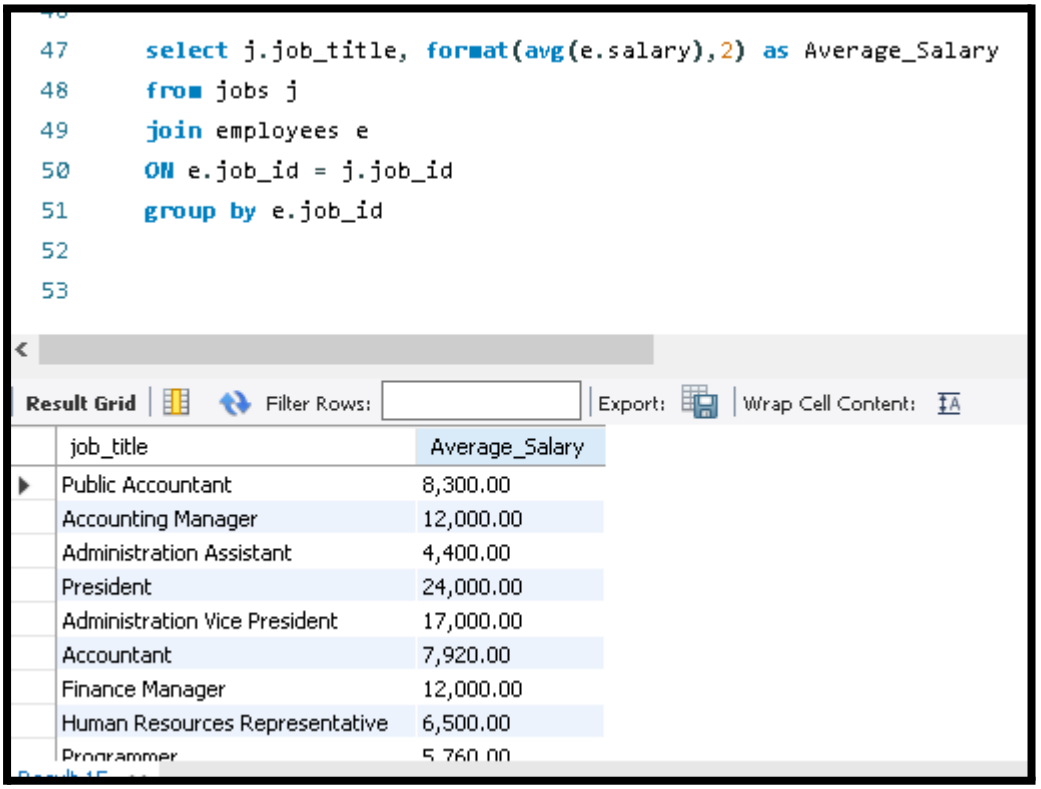
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Department_Name	Manager_name	City
Administration	Jennifer	Seattle
Marketing	Michael	Toronto
Purchasing	Den	Seattle
Human Resources	Susan	London
Shipping	Adam	South San Francisco
IT	Alexander	Southlake
Public Relations	Hermann	Munich
Sales	John	Oxford
Executive	Steven	Seattle

Result 13

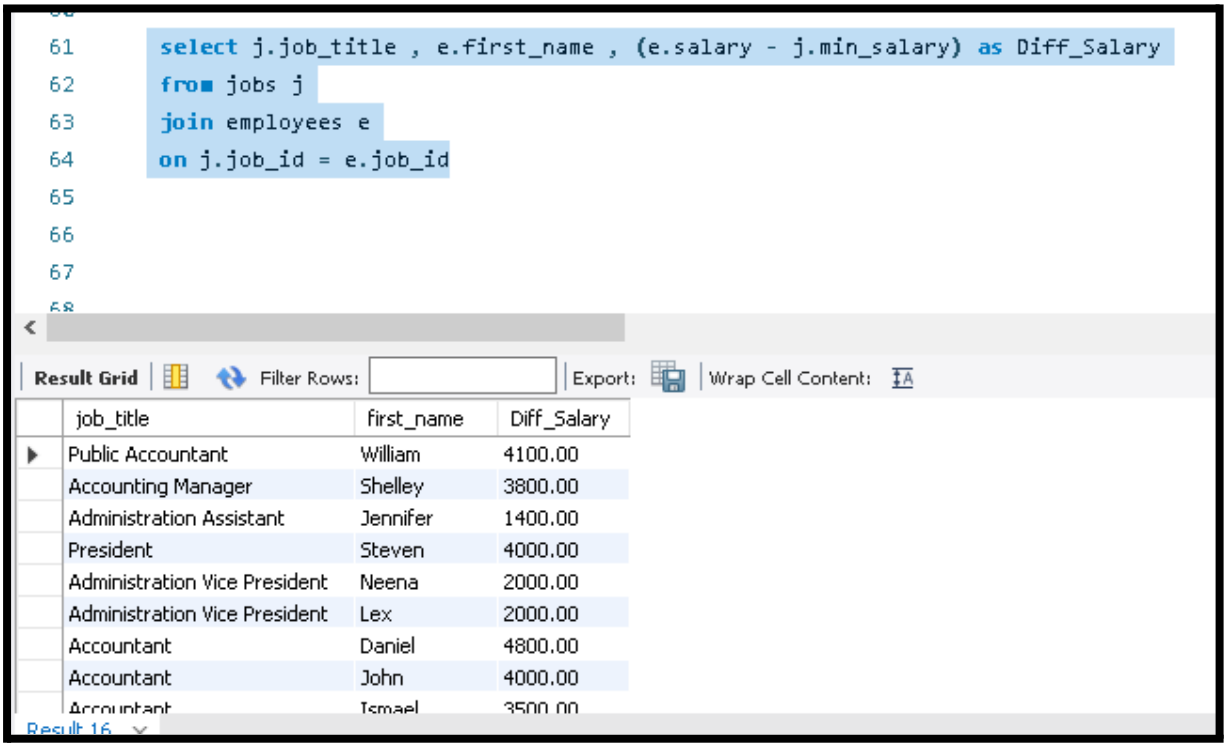
10. Write a query to display the job title and average salary of employees.

```
select j.job_title, format(avg(e.salary),2) as Average_Salary
from jobs j
join employees e
ON e.job_id = j.job_id
group by e.job_id
```



11. Write a query to display job title, employee name, and the difference between salary of the employee and minimum salary for the job.

```
select j.job_title , e.first_name , (e.salary - j.min_salary) as Diff_Salary
from jobs j
join employees e
on j.job_id = e.job_id
```



```
61  select j.job_title , e.first_name , (e.salary - j.min_salary) as Diff_Salary
62  from jobs j
63  join employees e
64  on j.job_id = e.job_id
65
66
67
```

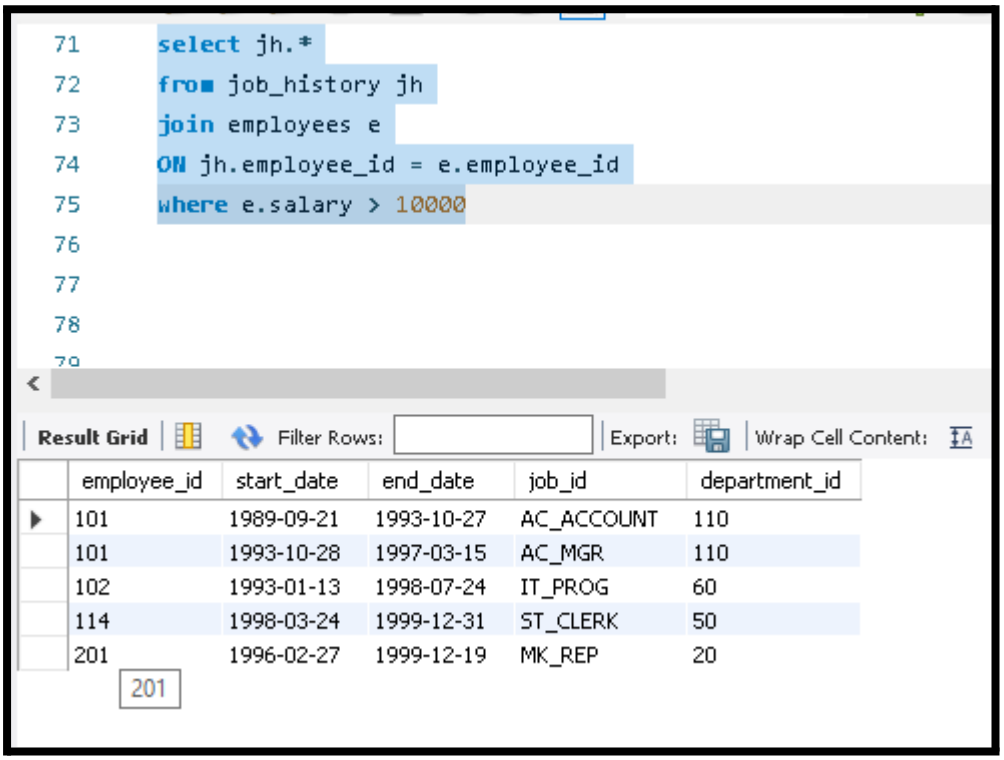
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

job_title	first_name	Diff_Salary
Public Accountant	William	4100.00
Accounting Manager	Shelley	3800.00
Administration Assistant	Jennifer	1400.00
President	Steven	4000.00
Administration Vice President	Neena	2000.00
Administration Vice President	Lex	2000.00
Accountant	Daniel	4800.00
Accountant	John	4000.00
Accountant	Ismael	3500.00

Result 16

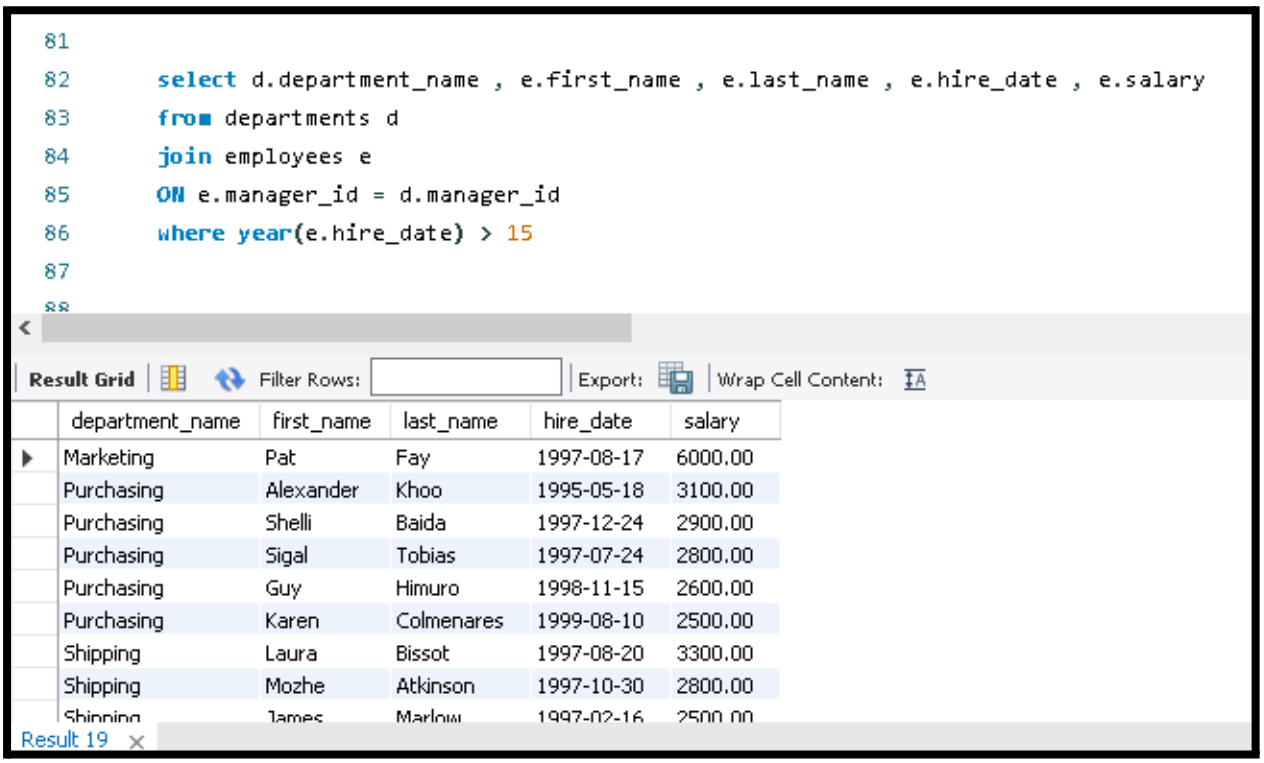
12. Write a query to display the job history that were done by any employee who is currently drawing more than 10000 of salary.

```
select jh.*
from job_history jh
join employees e
ON jh.employee_id = e.employee_id
where e.salary > 10000
```



13. Write a query to display department name, name (first_name, last_name), hire date, salary of the manager for all managers whose experience is more than 15 years.

```
select d.department_name , e.first_name , e.last_name , e.hire_date , e.salary
from departments d
join employees e
ON e.manager_id = d.manager_id
where year(e.hire_date) > 15
```



```
81
82      select d.department_name , e.first_name , e.last_name , e.hire_date , e.salary
83      from departments d
84      join employees e
85      ON e.manager_id = d.manager_id
86      where year(e.hire_date) > 15
87
```

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

department_name	first_name	last_name	hire_date	salary
Marketing	Pat	Fay	1997-08-17	6000.00
Purchasing	Alexander	Khoo	1995-05-18	3100.00
Purchasing	Shelli	Baida	1997-12-24	2900.00
Purchasing	Sigal	Tobias	1997-07-24	2800.00
Purchasing	Guy	Himuro	1998-11-15	2600.00
Purchasing	Karen	Colmenares	1999-08-10	2500.00
Shipping	Laura	Bissot	1997-08-20	3300.00
Shipping	Mozhe	Atkinson	1997-10-30	2800.00
Shipping	James	Marlow	1997-02-16	2500.00

Result 19