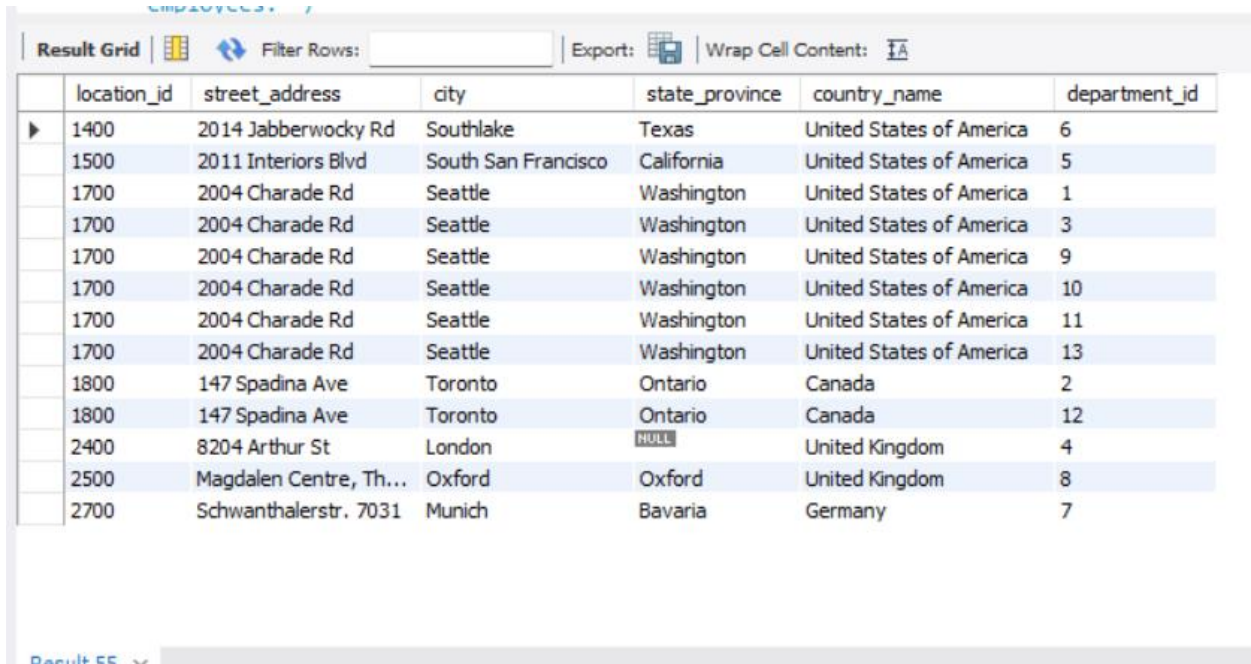


1. Write a query to find the addresses (location_id, street_address, city, state_province, country_name) of all the departments.

```
select l.location_id, l.street_address, l.city, l.state_province, c.country_name, d.department_id 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);
```



The screenshot shows a database query result grid with 15 rows and 7 columns. The columns are: location_id, street_address, city, state_province, country_name, and department_id. The data is as follows:

	location_id	street_address	city	state_province	country_name	department_id
▶	1400	2014 Jabberwocky Rd	Southlake	Texas	United States of America	6
	1500	2011 Interiors Blvd	South San Francisco	California	United States of America	5
	1700	2004 Charade Rd	Seattle	Washington	United States of America	1
	1700	2004 Charade Rd	Seattle	Washington	United States of America	3
	1700	2004 Charade Rd	Seattle	Washington	United States of America	9
	1700	2004 Charade Rd	Seattle	Washington	United States of America	10
	1700	2004 Charade Rd	Seattle	Washington	United States of America	11
	1700	2004 Charade Rd	Seattle	Washington	United States of America	13
	1800	147 Spadina Ave	Toronto	Ontario	Canada	2
	1800	147 Spadina Ave	Toronto	Ontario	Canada	12
	2400	8204 Arthur St	London	HULL	United Kingdom	4
	2500	Magdalen Centre, Th...	Oxford	Oxford	United Kingdom	8
	2700	Schwanthalerstr. 7031	Munich	Bavaria	Germany	7

Result 55

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_id, d.department_name from
employees e inner join departments d on (e.department_id = d.department_id);
```

Result Grid					
Filter Rows: <input type="text"/>					
Export: <input type="button" value="Export"/>					
Wrap Cell Content: <input type="button" value="Wrap"/>					
	first_name	last_name	department_id	department_id	department_name
▶	Jennifer	Whalen	1	1	Administration
	Michael	Hartstein	2	2	Marketing
	Pat	Fay	2	2	Marketing
	Den	Raphaely	3	3	Purchasing
	Alexander	Khoo	3	3	Purchasing
	Shelli	Baida	3	3	Purchasing
	Sigal	Tobias	3	3	Purchasing
	Guy	Himuro	3	3	Purchasing
	Karen	Colmenares	3	3	Purchasing
	Susan	Mavris	4	4	Human Resources
	Matthew	Weiss	5	5	Shipping
	Adam	Fripp	5	5	Shipping
	Payam	Kaufling	5	5	Shipping
	Shanta	Vollman	5	5	Shipping
	Irene	Mikkilineni	5	5	Shipping

Result 56 x

Output

Action Output

#	Time	Action	Message
72	12:00:49	select d.department_id, d.department_name, m.first_name from departments d inner join employees e on (d.department_j...	41 row(s) returned
73	12:02:08	select l.location_id, l.street_address, l.city, l.state_province, c.country_name, d.department_id from locations l inner join d...	13 row(s) returned
74	12:02:32	select e.first_name, e.last_name, e.department_id, d.department_id, d.department_name from employees e inner join dep...	40 row(s) returned

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, j.job_title, d.department_id, d.department_name, l.city from
employees e inner join departments d on (e.department_id = d.department_id) inner join jobs j on
(e.job_id = j.job_id) inner join locations l on (d.location_id = l.location_id) and l.city = 'London';
```

683						
Result Grid						
Filter Rows: <input type="text"/>						
Export: <input type="button" value="Export"/>						
Wrap Cell Content: <input type="button" value="Wrap"/>						
	first_name	last_name	job_title	department_id	department_name	city
▶	Susan	Mavris	Human Resources Representative	4	Human Resources	London

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 left join employees m
on (e.manager_id = m.employee_id);
```

Result Grid			
Filter Rows: <input type="text"/>			
Export: Wrap Cell Content:			
employee_id	last_name	manager_id	last_name
100	King	NULL	NULL
101	Kochhar	100	King
102	De Haan	100	King
103	Hunold	102	De Haan
104	Ernst	103	Hunold
105	Austin	103	Hunold
106	Pataballa	103	Hunold
107	Lorentz	103	Hunold
108	Greenberg	101	Kochhar
109	Faviet	108	Greenberg
110	Chen	108	Greenberg
111	Sciarra	108	Greenberg
112	Urman	108	Greenberg
113	Popp	108	Greenberg
114	Raphaely	100	King

Result 70 x

Output

#	Time	Action	Message
86	12:18:48	select j.job_title, avg(e.salary) from employees e inner join jobs j on (e.job_id = j.job_id) group by j.job_title LIMIT 0, 10000	19 row(s) returned
87	12:20:13	select j.job_title, e.employee_id, e.salary - j.min_salary from employees e inner join jobs j on (e.job_id = j.job_id) LIMIT 0, 1...	42 row(s) returned
88	12:21:07	select e.employee_id, e.last_name, e.manager_id, m.last_name from employees e left join employees m on (e.manager_id = m.employee_id)	42 row(s) returned

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

select first_name, last_name, hire_date from employees where hire_date > (select hire_date from employees where first_name = 'John');

Result Grid			
Filter Rows: <input type="text"/>			
Export: Wrap Cell Content:			
first_name	last_name	hire_date	
David	Austin	1997-06-25	
Valli	Pataballa	1998-02-05	
Diana	Lorentz	1999-02-07	
John	Chen	1997-09-28	
Ismael	Sciarra	1997-09-30	
Jose Manuel	Urman	1998-03-07	
Luis	Popp	1999-12-07	
Shelli	Baida	1997-12-24	
Sigal	Tobias	1997-07-24	
Guy	Himuro	1998-11-15	
Karen	Colmenares	1999-08-10	
Adam	Fripp	1997-04-10	
Shanta	Vollman	1997-10-10	
Irene	Mikkilineni	1998-09-28	
Karen	Partners	1997-01-05	

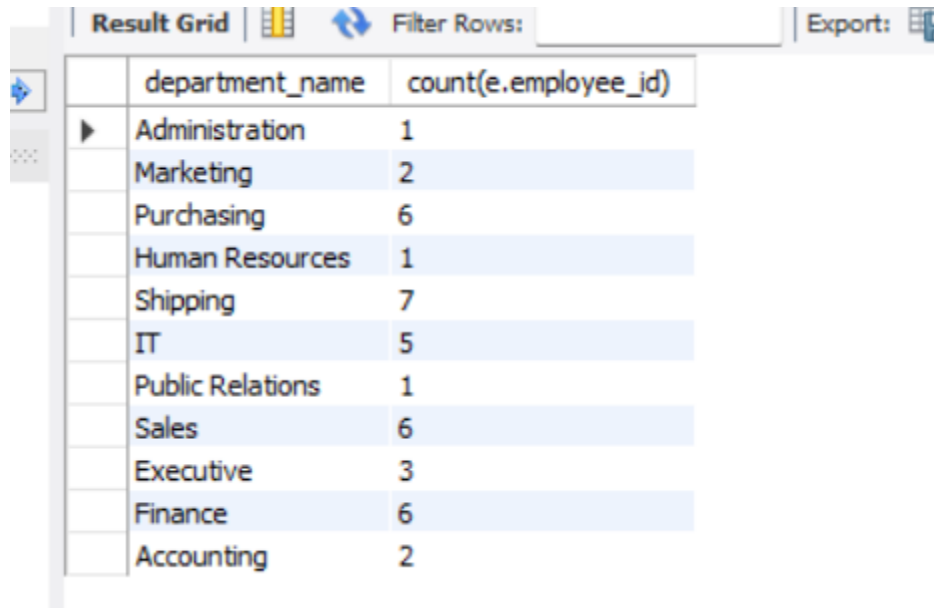
employees 73 x

Output

#	Time	Action	Message
89	12:21:44	select count(manager_id) from employees LIMIT 0, 10000	1 row(s) returned
90	12:21:53	select e.employee_id, e.last_name, e.manager_id, m.last_name from employees e left join employees m on (e.manager_id = m.employee_id)	42 row(s) returned
91	12:24:12	select first_name, last_name, hire_date from employees where hire_date > (select hire_date from employees where first_name = 'John');	23 row(s) returned

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

```
select d.department_name, count(e.employee_id) from employees e inner join departments d on  
(e.department_id = d.department_id) group by d.department_name;
```

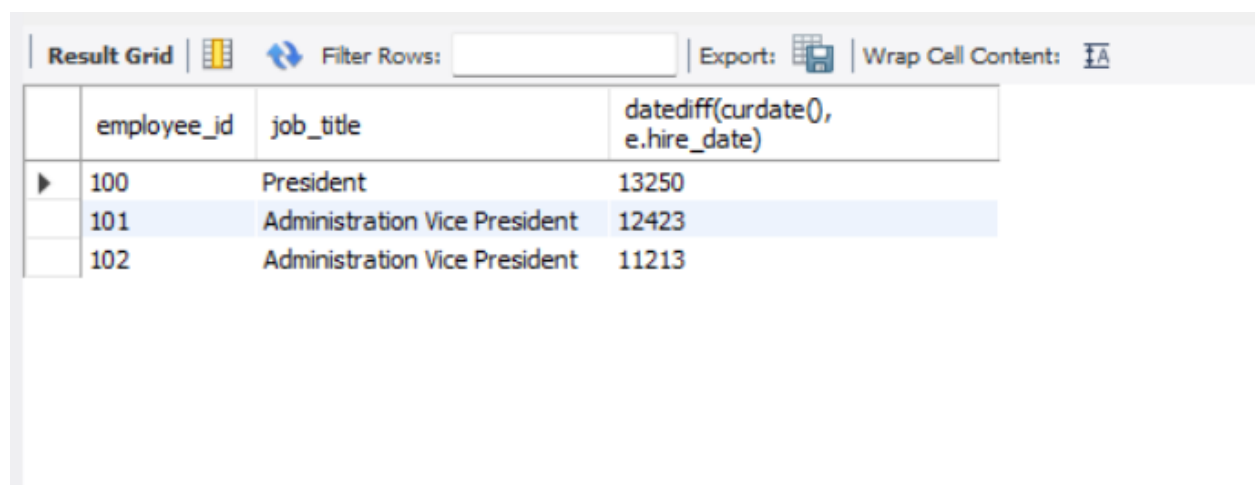


The screenshot shows a database query result grid with the following data:

department_name	count(e.employee_id)
Administration	1
Marketing	2
Purchasing	6
Human Resources	1
Shipping	7
IT	5
Public Relations	1
Sales	6
Executive	3
Finance	6
Accounting	2

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 9.

```
select e.employee_id, j.job_title, datediff(curdate(), e.hire_date) from employees e inner join jobs j on  
(e.job_id = j.job_id) and e.department_id = 9;
```



The screenshot shows a database query result grid with the following data:

employee_id	job_title	datediff(curdate(), e.hire_date)
100	President	13250
101	Administration Vice President	12423
102	Administration Vice President	11213

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

select d.department_id, d.department_name, m.first_name from departments d inner join employees e on (d.department_id = e.department_id) inner join employees m on (e.employee_id = m.manager_id);

Result Grid			
Filter Rows:		Export:	Wrap Cell Content:
department_id	department_name	first_name	
9	Executive	Neena	
9	Executive	Lex	
9	Executive	Alexander	
6	IT	Bruce	
6	IT	David	
6	IT	Valli	
6	IT	Diana	
9	Executive	Nancy	
10	Finance	Daniel	
10	Finance	John	
10	Finance	Ismael	
10	Finance	Jose Manuel	
10	Finance	Luis	
9	Executive	Den	
3	Purchasing	Alexander	

Output			
Action Output			
#	Time	Action	Message
93	12:25:56	select d.department_name, count(e.employee_id) from employees e inner join departments d on (e.department_id = d.de...	11 row(s) returned
94	12:26:23	select e.employee_id, j.job_title, datediff(curdate(), e.hire_date) from employees e inner join jobs j on (e.job_id = j.job_id) a...	3 row(s) returned
95	12:26:56	select d.department_id, d.department_name, m.first_name from departments d inner join employees e on (d.department_id = e.employee_id) inner join employees m on (e.employee_id = m.manager_id);	41 row(s) returned

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

select d.department_name, e.first_name, e.last_name, e.manager_id, l.city from employees e inner join departments d on (e.department_id = d.department_id) inner join locations l on (d.location_id = l.location_id);

Result Grid					
Filter Rows:		Export:		Wrap Cell Content:	
department_name	first_name	last_name	manager_id	city	
IT	Alexander	Hunold	102	Southlake	
IT	Bruce	Ernst	103	Southlake	
IT	David	Austin	103	Southlake	
IT	Valli	Pataballa	103	Southlake	
IT	Diana	Lorentz	103	Southlake	
Shipping	Matthew	Weiss	100	South San Francisco	
Shipping	Adam	Fripp	100	South San Francisco	
Shipping	Payam	Kaufling	100	South San Francisco	
Shipping	Shanta	Vollman	100	South San Francisco	
Shipping	Irene	Mikkilineni	120	South San Francisco	
Shipping	Sarah	Bell	123	South San Francisco	
Shipping	Britney	Everett	123	South San Francisco	
Administration	Jennifer	Whalen	101	Seattle	
Purchasing	Den	Raphaely	100	Seattle	
Purchasing	Alexander	Khoo	114	Seattle	

Output			
Action Output			
#	Time	Action	Message
94	12:26:23	select e.employee_id, j.job_title, datediff(curdate(), e.hire_date) from employees e inner join jobs j on (e.job_id = j.job_id) a...	3 row(s) returned
95	12:26:56	select d.department_id, d.department_name, m.first_name from departments d inner join employees e on (d.department_j...	41 row(s) returned
96	12:27:27	select d.department_name, e.first_name, e.last_name, e.manager_id, l.city from employees e inner join departments d on (...)	40 row(s) returned

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

select j.job_title, avg(e.salary) from employees e inner join jobs j on (e.job_id = j.job_id) group by j.job_title;

Result Grid		
Filter Rows:		Export: Wrap Cell Content:
job_title	avg(e.salary)	
Public Accountant	8300.000000	
Accounting Manager	12000.000000	
Administration Assistant	4400.000000	
President	24000.000000	
Administration Vice President	17000.000000	
Accountant	7920.000000	
Finance Manager	12000.000000	
Human Resources Representative	6500.000000	
Programmer	5760.000000	
Marketing Manager	13000.000000	
Marketing Representative	6000.000000	
Public Relations Representative	10000.000000	
Purchasing Clerk	2780.000000	
Purchasing Manager	11000.000000	
Sales Manager	13750.000000	

Output			
Action Output			
#	Time	Action	Message
95	12:26:56	select d.department_id, d.department_name, m.first_name from departments d inner join employees e on (d.department_j...	41 row(s) returned
96	12:27:27	select d.department_name, e.first_name, e.last_name, e.manager_id, l.city from employees e inner join departments d on (...)	40 row(s) returned
97	12:28:04	select j.job_title, avg(e.salary) from employees e inner join jobs j on (e.job_id = j.job_id) group by j.job_title LIMIT 0, 10000	19 row(s) returned

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.employee_id, e.salary - j.min_salary from employees e inner join jobs j on (e.job_id = j.job_id);
```

Result Grid			
Filter Rows:		Export:	Wrap Cell Content:
job_title	employee_id	e.salary - j.min_salary	
Public Accountant	206	4100.00	
Accounting Manager	205	3800.00	3800.00
Administration Assistant	200	1400.00	
President	100	4000.00	
Administration Vice President	101	2000.00	
Administration Vice President	102	2000.00	
Accountant	109	4800.00	
Accountant	110	4000.00	
Accountant	111	3500.00	
Accountant	112	3600.00	
Accountant	113	2700.00	
Finance Manager	108	3800.00	
Human Resources Represen...	203	2500.00	
Programmer	103	5000.00	

Result 80			
Output			
Action Output			
#	Time	Action	Message
96	12:27:27	select d.department_name, e.first_name,e.last_name,e.manager_id, l.city from employees e inner join departments d on (...)	40 row(s) returned
97	12:28:04	select j.job_title, avg(e.salary) from employees e inner join jobs j on (e.job_id = j.job_id) group by j.job_title LIMIT 0, 10000	19 row(s) returned
98	12:28:33	select j.job_title, e.employee_id, e.salary - j.min_salary from employees e inner join jobs j on (e.job_id = j.job_id) LIMIT 0, 1...	42 row(s) returned

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 e.employee_id, e.first_name, e.last_name, j.job_id, j.job_title from employees e inner join jobs j on (e.job_id = j.job_id) where e.salary > 10000;
```

Result Grid					
		Filter Rows:		Export:	Wrap Cell Content:
	employee_id	first_name	last_name	job_id	job_title
▶	100	Steven	King	4	President
	101	Neena	Kochhar	5	Administration Vice President
	102	Lex	De Haan	5	Administration Vice President
	108	Nancy	Greenberg	7	Finance Manager
	114	Den	Raphaely	14	Purchasing Manager
	145	John	Russell	15	Sales Manager
	146	Karen	Partners	15	Sales Manager
	201	Michael	Hartstein	10	Marketing Manager
	205	Shelley	Higgins	2	Accounting Manager
	500	frty	ascder	17	Shipping Clerk
	501	esrt	oiuy	18	Stock Clerk

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, e.manager_id from
employees e inner join departments d on (e.department_id = d.department_id) and datediff(curdate(),
e.hire_date)/365 > 15;
```

Result Grid						
		Filter Rows:		Export:	Wrap Cell Content:	
	department_name	first_name	last_name	hire_date	salary	manager_id
▶	Administration	Jennifer	Whalen	1987-09-17	4400.00	101
	Marketing	Michael	Hartstein	1996-02-17	13000.00	100
	Marketing	Pat	Fay	1997-08-17	6000.00	201
	Purchasing	Den	Raphaely	1994-12-07	11000.00	100
	Purchasing	Alexander	Khoo	1995-05-18	3100.00	114
	Purchasing	Shelli	Baida	1997-12-24	2900.00	114
	Purchasing	Sigal	Tobias	1997-07-24	2800.00	114
	Purchasing	Guy	Himuro	1998-11-15	2600.00	114
	Purchasing	Karen	Colmenares	1999-08-10	2500.00	114
	Human Resources	Susan	Mavris	1994-06-07	6500.00	101
	Shipping	Matthew	Weiss	1996-07-18	8000.00	100
	Shipping	Adam	Fripp	1997-04-10	8200.00	100
	Shipping	Payam	Kaufling	1995-05-01	7900.00	100
	Shipping	Shanta	Vollman	1997-10-10	6500.00	100
	Shipping	Irene	Mikkilineni	1998-09-28	2700.00	120

Result 82						
Output						
Action Output						
#	Time	Action	Message			
98	12:28:33	select j.job_title, e.employee_id, e.salary - j.min_salary from employees e inner join jobs j on (e.job_id = j.job_id) LIMIT 0, 1...	42 row(s) returned			
99	12:28:57	select e.employee_id, e.first_name, e.last_name, j.job_id, j.job_title from employees e inner join jobs j on (e.job_id = j.job_id)...	11 row(s) returned			
100	12:29:23	select d.department_name, e.first_name, e.last_name, e.hire_date, e.salary, e.manager_id from employees e inner join d...	40 row(s) returned			