

1. Select employees first name, last name, job_id and salary whose first name starts with alphabet S.

```
mysql>
mysql>
mysql> select first_name,last_name,job_id,salary
-> from employees
-> where first_name like 'S%';
```

first_name	last_name	job_id	salary
Steven	King	AD_PRES	24000.00
Shelli	Baida	PU_CLERK	2900.00
Sigal	Tobias	PU_CLERK	2800.00
Shanta	Vollman	ST_MAN	6500.00
Steven	Markle	ST_CLERK	2200.00

5 rows in set (0.04 sec)

```
mysql> _
```

2. Write a query to select employee with the highest salary (using inner query).

```
mysql>
mysql>
mysql>
mysql> select * from employees
      -> where salary = (select MAX(salary) from employees);
```

Employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	department_id
100	Steven	King	SKING	515.123.4567	1987-06-17	AD_PRE	24000.00	NULL	NULL	20

```
1 row in set (0.09 sec)
```

```
mysql>
```

3. Select employee with the second highest salary.

```
mysql>
mysql>
mysql>
mysql> select * from employees
      -> where salary = (select MAX(salary) from employees where salary < (select MAX(salary) from employees));
```

Employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	department_id
101	Neena	Kochhar	NKOCHHAR	515.123.4568	1989-11-21	AD_VP	17000.00	NULL	100	20
102	Lex	De Haan	LDEHAAN	515.123.4569	1993-09-12	AD_VP	17000.00	NULL	100	30

```
2 rows in set (0.04 sec)

mysql> ■
```


4. Write a query to select employees and their corresponding managers and their salaries

```
mysql>
mysql> select concat(e.first_name,' ',e.last_name) as employee_name,e.salary employee_salary,
-> concat(m.first_name,' ',m.last_name) as manager_name,m.salary manager_salary
-> from employees e
-> inner join employees m on m.Employee_id = e.manager_id;
```

employee_name	employee_salary	manager_name	manager_salary
Neena Kochhar	17000.00	Steven King	24000.00
Lex De Haan	17000.00	Steven King	24000.00
Alexander Hunold	9000.00	Lex De Haan	17000.00
Bruce Ernst	6000.00	Alexander Hunold	9000.00
David Austin	4800.00	Alexander Hunold	9000.00
Valli Pataballa	4800.00	Alexander Hunold	9000.00
Diana Lorentz	4200.00	Alexander Hunold	9000.00
Nancy Greenberg	12000.00	Neena Kochhar	17000.00
Daniel Faviet	9000.00	Nancy Greenberg	12000.00
John Chen	8200.00	Nancy Greenberg	12000.00
Ismael Sciarra	7700.00	Nancy Greenberg	12000.00
Jose Manuel Urman	7800.00	Nancy Greenberg	12000.00
Luis Popp	6900.00	Nancy Greenberg	12000.00
Den Raphaely	11000.00	Steven King	24000.00
Alexander Khoo	3100.00	Den Raphaely	11000.00
Shelli Baida	2900.00	Den Raphaely	11000.00
Sigal Tobias	2800.00	Den Raphaely	11000.00
Guy Himuro	2600.00	Den Raphaely	11000.00
Karen Colmenares	2500.00	Den Raphaely	11000.00
Matthew Weiss	8000.00	Steven King	24000.00
Adam Fripp	8200.00	Steven King	24000.00
Payam Kaufling	7900.00	Steven King	24000.00
Shanta Vollman	6500.00	Steven King	24000.00
Kevin Mourgous	5800.00	Steven King	24000.00
Julia Nayer	3200.00	Matthew Weiss	8000.00
Irene Mikkilineni	2700.00	Matthew Weiss	8000.00
James Landry	2400.00	Matthew Weiss	8000.00
Steven Markle	2200.00	Matthew Weiss	8000.00
Laura Bissot	3300.00	Adam Fripp	8200.00
Mozhe Atkinson	2800.00	Adam Fripp	8200.00

5. Write a query to select employees and their corresponding managers and their salaries (SELF Join).

```
mysql>
mysql> select concat(e.first_name,' ',e.last_name) as employee_name,e.salary employee_salary,
-> concat(m.first_name,' ',m.last_name) as manager_name,m.salary manager_salary
-> from employees e
-> inner join employees m on m.Employee_id = e.manager_id;
```

employee_name	employee_salary	manager_name	manager_salary
Neena Kochhar	17000.00	Steven King	24000.00
Lex De Haan	17000.00	Steven King	24000.00
Alexander Hunold	9000.00	Lex De Haan	17000.00
Bruce Ernst	6000.00	Alexander Hunold	9000.00
David Austin	4800.00	Alexander Hunold	9000.00
Valli Pataballa	4800.00	Alexander Hunold	9000.00
Diana Lorentz	4200.00	Alexander Hunold	9000.00
Nancy Greenberg	12000.00	Neena Kochhar	17000.00
Daniel Faviert	9000.00	Nancy Greenberg	12000.00
John Chen	8200.00	Nancy Greenberg	12000.00
Ismael Sciarra	7700.00	Nancy Greenberg	12000.00
Jose Manuel Urman	7800.00	Nancy Greenberg	12000.00
Luis Popp	6900.00	Nancy Greenberg	12000.00
Den Raphaely	11000.00	Steven King	24000.00
Alexander Khoo	3100.00	Den Raphaely	11000.00
Shelli Baida	2900.00	Den Raphaely	11000.00
Sigal Tobias	2800.00	Den Raphaely	11000.00
Guy Himuro	2600.00	Den Raphaely	11000.00
Karen Colmenares	2500.00	Den Raphaely	11000.00
Matthew Weiss	8000.00	Steven King	24000.00
Adam Fripp	8200.00	Steven King	24000.00
Payam Kaufling	7900.00	Steven King	24000.00
Shanta Vollman	6500.00	Steven King	24000.00
Kevin Mourgous	5800.00	Steven King	24000.00
Julia Nayer	3200.00	Matthew Weiss	8000.00
Irene Mikkilineni	2700.00	Matthew Weiss	8000.00
James Landry	2400.00	Matthew Weiss	8000.00
Steven Markle	2200.00	Matthew Weiss	8000.00
Laura Bissot	3300.00	Adam Fripp	8200.00
Mozhe Atkinson	2800.00	Adam Fripp	8200.00

6. Create a view for the above query.

```
mysql>
mysql>
mysql> create view employee_manager_salary as
-> select concat(e.first_name,' ',e.last_name) as employee_name,e.salary employee_salary,
-> concat(m.first_name,' ',m.last_name) as manager_name,m.salary manager_salary
-> from employees e
-> inner join employees m on m.Employee_id = e.manager_id;
```

Query OK, 0 rows affected (0.12 sec)

```
mysql> show full tables;
```

Tables_in_entri_assignment	Table_type
departments	BASE TABLE
employee_manager_salary	VIEW
employees	BASE TABLE

7. Write a query to show count of employees under each manager in descending order (from view).

```
mysql>
mysql> select manager_name, count(employee_name) employee_count
-> from employee_manager_salary
-> group by manager_name
-> order by employee_count desc;
```

manager_name	employee_count
Steven King	8
Nancy Greenberg	5
Den Raphaely	5
Alexander Hunold	4
Matthew Weiss	4
Adam Fripp	2
Lex De Haan	1
Neena Kochhar	1

8. Find the count of employees in each department.

```
mysql>
mysql>
mysql> select Department_name,count(Employee_id) employee_count
-> from departments d
-> left join employees e on d.Department_id = e.Department_id
-> group by d.Department_id,Department_name
-> order by employee_count desc;
```

Department_name	employee_count
Shipping	7
IT	4
Purchasing	3
Human Resources	3
Marketing	2
Sales	2
Payroll	2
Public Relations	1
Executive	1
Finance	1
Accounting	1
Corporate Tax	1
Control And Credit	1
Shareholder Services	1
Benefits	1
Treasury	0

```
16 rows in set (0.00 sec)
```


9. Get the count of employees hired year wise.

```
mysql>
mysql>
mysql> select year(hire_date) year, count(Employee_id) employee_count
-> from employees
-> group by year(hire_date)
-> order by year(hire_date);
```

year	employee_count
1987	1
1989	1
1990	1
1991	1
1993	1
1994	3
1995	2
1996	1
1997	10
1998	4
1999	5
2000	1

```
12 rows in set (0.03 sec)
```

10. Create a stored procedure to get the “ Get the count of employees hired in the input year”(IN year , OUT count).

```
mysql>
mysql> DELIMITER //
mysql>
mysql> CREATE PROCEDURE GetEmployessCountByYear(IN input_year INT, OUT employee_count INT)
-> BEGIN
-> Select count(*) INTO employee_count from employees where year(hire_date) = input_year;
-> END //
Query OK, 0 rows affected (0.25 sec)

mysql> DELIMITER ;
```


11. Select the employees whose first_name contains "an".

```
mysql>
mysql> select concat(first_name, ' ', last_name) as employee_name
-> from employees
-> where first_name like '%an%';
```

employee_name
Alexander Hunold
Diana Lorentz
Nancy Greenberg
Daniel Faviet
Jose Manuel Urman
Alexander Khoo
Shanta Vollman

```
7 rows in set (0.00 sec)
```

12. Select employee first name and the corresponding phone number in the format (_ _ _)-(_ _ _)-(_ _ _ _).

```
mysql>
mysql> select first_name, concat
-> ('(', SUBSTRING(phone_number,1,3), '-')-(',SUBSTRING(phone_number,5,3), '-')-(',SUBSTRING(phone_number,9,4), ')')
-> as formattedPhone_number
-> from employees;
```

first_name	formattedPhone_number
Steven	(515)-(123)-(4567)
Neena	(515)-(123)-(4568)
Lex	(515)-(123)-(4569)
Alexander	(590)-(423)-(4567)
Bruce	(590)-(423)-(4568)
David	(590)-(423)-(4569)
Valli	(590)-(423)-(4560)
Diana	(590)-(423)-(5567)
Nancy	(515)-(124)-(4569)
Daniel	(515)-(124)-(4169)
John	(515)-(124)-(4269)
Ismael	(515)-(124)-(4369)
Jose Manuel	(515)-(124)-(4469)
Luis	(515)-(124)-(4567)
Den	(515)-(127)-(4561)
Alexander	(515)-(127)-(4562)
Shelli	(515)-(127)-(4563)
Sigal	(515)-(127)-(4564)
Guy	(515)-(127)-(4565)
Karen	(515)-(127)-(4566)
Matthew	(650)-(123)-(1234)
Adam	(650)-(123)-(2234)
Payam	(650)-(123)-(3234)
Shanta	(650)-(123)-(4234)
Kevin	(650)-(123)-(5234)
Julia	(650)-(124)-(1214)
Irene	(650)-(124)-(1224)
James	(650)-(124)-(1334)
Steven	(650)-(124)-(1434)
Laura	(650)-(124)-(5234)
Mozhe	(650)-(124)-(6234)

```
31 rows in set (0.00 sec)
```


13. Find the employees who joined in August, 1994.

```
mysql>
mysql> select concat(first_name, ' ', last_name) as employee_name, year(hire_date) hire_date
-> from employees
-> where year(hire_date)='1994' and month(hire_date)='08';
```

employee_name	hire_date
Nancy Greenberg	1994
Daniel Faviet	1994

14. Find the maximum salary from each department.

```
mysql>
mysql> select Department_name,max(salary) max_salary
-> from departments d
-> inner join employees e on d.Department_id = e.Department_id
-> group by Department_name;
```

Department_name	max_salary
Marketing	24000.00
Purchasing	17000.00
Human Resources	7900.00
Shipping	8200.00
IT	9000.00
Public Relations	2900.00
Sales	5800.00
Executive	2400.00
Finance	12000.00
Accounting	2800.00
Corporate Tax	2500.00
Control And Credit	6900.00
Shareholder Services	7800.00
Benefits	7700.00
Payroll	9000.00

15. Write a SQL query to display the 5 least earning employees.

```
mysql>
mysql>
mysql> select * from employees
-> order by salary asc
-> limit 5;
```

Employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	department_id
128	Steven	Markle	SMARKLE	650.124.1434	2000-03-04	ST_CLERK	2200.00	NULL	120	50
127	James	Landry	JLANDRY	650.124.1334	1999-01-02	ST_CLERK	2400.00	NULL	120	90
119	Karen	Colmenares	KCOLMENA	515.127.4566	1999-04-08	PU_CLERK	2500.00	NULL	114	130
118	Guy	Himuro	GHIMURO	515.127.4565	1998-01-02	PU_CLERK	2600.00	NULL	114	60
126	Irene	Mikkilineni	INIKKILI	650.124.1224	1998-11-12	ST_CLERK	2700.00	NULL	120	50

5 rows in set (0.02 sec)

16. Find the employees hired in the 80s.

```
mysql>
mysql> select concat(first_name, ' ', last_name) as employee_name, year(hire_date) hire_year
-> from employees
-> where year(hire_date) between 1980 and 1989;
```

employee_name	hire_year
Steven King	1987
Neena Kochhar	1989

17. Find the employees who joined the company after 15th of the month.

```
mysql>
mysql>
mysql> select * from employees
      -> order by salary asc
      -> limit 5;
```

Employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	department_id
128	Steven	Markle	SMARKLE	650.124.1434	2000-03-04	ST_CLERK	2200.00	NULL	120	50
127	James	Landry	JLANDRY	650.124.1334	1999-01-02	ST_CLERK	2400.00	NULL	120	90
119	Karen	Colmenares	KCOLMENA	515.127.4566	1999-04-08	PU_CLERK	2500.00	NULL	114	130
118	Guy	Himuro	GHIMURO	515.127.4565	1998-01-02	PU_CLERK	2600.00	NULL	114	60
126	Irene	Mikkilineni	IMIKKILI	650.124.1224	1998-11-12	ST_CLERK	2700.00	NULL	120	50