1.Write a query to find the name (first_name, last_name) and the salary of the employees who have a higher salary than the employee whose last_name='Bull'.

mysql> select First_Name ,Last_Name,salary from employee_a where salary > (select salary from employee_a where Last_Name ='BULL');

First_Name	Last_Name	salary
steven	king	24000.00
Neena	Kochhar	17000.00
Lex	Dehaan	17000.00
Alexander	Hunold	9000.00
Bruce	Ernst	6000.00
David	Austin	4800.00
Valli	Pattabala	4800.00
Diana	lorentz	4200.00
Nancy	Greenbe	12000.00
Daniel	Faviet	9000.00
John	Chen	8200.00
Ismael	Sciarra	7700.00
Jose Manuel	Urman	7800.00
Den	Raphaely	11000.00

14 rows in set (0.00 sec)

2.Write a query to find the name (first_name, last_name) of all employees who works in the IT department.

mysql> select First_Name,Last_Name FROM EMPLOYEE_A where job_id ='IT_PROG';

First_Name	Last_Name
Alexander	Hunold
Bruce	Ernst
David	Austin
Valli	Pattabala
Diana	lorentz

5 rows in set (0.00 sec)

3.Write a query to find the name (first_name, last_name) of the employees who have a manager and worked in a USA based department.

mysql> select First_Name ,Last_Name from employee_a inner join department on employee_a.manager_id=department.manager_id inner join location on location.location_id=department.location_id where employee_a. manager_id is not null and country_id='US';

First_Name	Last_Name
steven	king
steven	king
Bruce	Ernst
David	Austin
Valli	Pattabala
Diana	lorentz
Alexander	Khoo
Shelli	Baida
Alexis	Bull

9 rows in set (0.02 sec)

4.Write a query to find the name (first_name, last_name) of the employees who are managers

mysql> select First_Name,Last_Name from employee_a where employee_id in(select distinct manager_id from employee_a where manager_id is not null);

First_Name	Last_Name
Neena	Kochhar
Lex	Dehaan
steven	king
Diana	lorentz
Den	Raphaely

5 rows in set (0.01 sec)

5.Write a query to find the name (first_name, last_name), and salary of the employees whose salary is greater than the average salary.

mysql> select First_Name,Last_Name ,salary from employee_a where salary >(select avg(salary) from employee_a);

First_Name	Last_Name	salary
steven	king	24000.00

Neena	Kochhar	17000.00
Lex	Dehaan	17000.00
Alexander	Hunold	9000.00
Nancy	Greenbe	12000.00
Daniel	Faviet	9000.00
John	Chen	8200.00
Den	Raphaely	11000.00
+------------+-----------+----------+
8 rows in set (0.01 sec)

6.Write a query to find the name (first_name, last_name), and salary of the employees who earns more than the average salary and works in any of the IT departments.
Refer employees and departments

mysql> select First_Name,Last_Name ,salary from employee_a where salary >(select avg(salary) from employee_a) and job_id in('IT_PROG');
+------------+-----------+---------+
| First_Name | Last_Name | salary |
+------------+-----------+---------+
| Alexander | Hunold | 9000.00 |
+------------+-----------+---------+
1 row in set (0.00 sec)

7.Write a query to find the name (first_name, last_name), and salary of the employees who earns more than the earning of Mr. Bell.

mysql> select First_Name,Last_Name ,salary from employee_a where salary >(select salary from employee_a where Last_Name='bell');
+-------------+-----------+----------+
| First_Name | Last_Name | salary |
+-------------+-----------+----------+
steven	king	24000.00
Neena	Kochhar	17000.00
Lex	Dehaan	17000.00
Alexander	Hunold	9000.00
Bruce	Ernst	6000.00
David	Austin	4800.00
Valli	Pattabala	4800.00
Diana	lorentz	4200.00
Nancy	Greenbe	12000.00
Daniel	Faviet	9000.00
John	Chen	8200.00
Ismael	Sciarra	7700.00

Jose Manuel	Urman	7800.00
Den	Raphaely	11000.00
Alexis	Bull	4100.00
+-------------+-----------+----------+
15 rows in set (0.00 sec)

8.Write a query to find the name (first_name, last_name), and salary of the employees who earn the same salary as the minimum salary for all departments.

mysql> select First_Name,Last_Name ,salary from employee_a where salary =(select min(salary) from employee_a);
+------------+-----------+---------+
| First_Name | Last_Name | salary |
+------------+-----------+---------+
| Shelli | Baida | 2900.00 |
| Timothy | Gates | 2900.00 |
+------------+-----------+---------+
2 rows in set (0.00 sec)

9.Write a query to find the name (first_name, last_name) and salary of the employees who earn a salary that is higher than the salary of all the Shipping Clerk (JOB_ID = 'SH_CLERK').
Sort the results of the salary of the lowest to highest
mysql> select First_Name,Last_Name ,salary from employee_a where salary > (select max(salary) where job_id='SH_CLERK') ORDER BY SALARY ASC;
Empty set (0.00 sec)

10.Write a query to find the name (first_name, last_name) of the employees who are not supervisors

mysql> SELECT FIRST_NAME,LAST_NAME FROM EMPLOYEE_A WHERE JOB_ID IN (SELECT JOB_ID FROM EMPLOYEE_A WHERE MANAGER_ID IS NOT NULL) ORDER BY FIRST_NAME,LAST_NAME;
+-------------+-----------+
| FIRST_NAME | LAST_NAME |
+-------------+-----------+
Alexander	Hunold
Alexander	Khoo
Alexis	Bull
Bruce	Ernst
Daniel	Faviet
David	Austin
Den	Raphaely
Diana	lorentz
Ismael	Sciarra

Jennifer	Dilly
John	Chen
Jose Manuel	Urman
Kelly	Chung
Lex	Dehaan
Nancy	Greenbe
Neena	Kochhar
sarah	bell
Shelli	Baida
steven	king
Timothy	Gates
Valli	Pattabala
+-------------+-----------+
21 rows in set (0.00 sec)

11.Write a query to display the employee ID, first name, last name, and department names of all employees.

mysql> select First_Name,Last_Name,job_id from employee_a;
+-------------+-----------+------------+
| First_Name | Last_Name | job_id |
+-------------+-----------+------------+
steven	king	AD_PRES
Neena	Kochhar	AD_VP
Lex	Dehaan	AD_VP
Alexander	Hunold	IT_PROG
Bruce	Ernst	IT_PROG
David	Austin	IT_PROG
Valli	Pattabala	IT_PROG
Diana	lorentz	IT_PROG
Nancy	Greenbe	FI_MGR
Daniel	Faviet	FT_ACCOUNT
John	Chen	FT_ACCOUNT
Ismael	Sciarra	FT_ACCOUNT
Jose Manuel	Urman	FT_ACCOUNT
Den	Raphaely	PU_MAN
Alexander	Khoo	PU_CLERK
Shelli	Baida	PU_CLERK
Kelly	Chung	SH_CLERK
Jennifer	Dilly	SH_CLERK
Timothy	Gates	SH_CLERK
Alexis	Bull	SH_CLERK
sarah	bell	SH_CLERK
+-------------+-----------+------------+

21 rows in set (0.01 sec)

12.Write a query to display the employee ID, first name, last name, salary of all employees whose salary is above average for their departments

mysql> select e.Employee_id,e.First_Name,e.Last_Name ,e.salary from employee_a e where e.salary >(select avg(salary) where department_id=e.department_id);
Empty set (0.00 sec)

13.Write a query to fetch even numbered records from employees table.

mysql> select * from (select * ,ROW_NUMBER() OVER () AS row_num from employee_a) as temp WHERE MOD(row_num, 2) = 0;

Employee_id	First_Name	Last_Name	email	phone_number	Hire_date	job_id	salary	commission_pct	manager_id	department_id	row_num
102	Neena	Kochhar	Nkochhar	515.123.4568	1987-06-18	AD_VP	17000.00	0.00	100	90	2
104	Alexander	Hunold	AHunold	590.423.4567	1987-06-20	IT_PROG	9000.00	0.00	102	60	4
106	David	Austin	DAustin	590.423.4569	1987-06-22	IT_PROG	4800.00	0.00	103	60	6
108	Diana	lorentz	Dlorentz	590.423.5567	1987-06-24	IT_PROG	4200.00	0.00	103	60	8
110	Daniel	Faviet	DFaviet	515.124.4169	1987-06-26	FT_ACCOUNT	9000.00	0.00	108	100	10
112	Ismael	Sciarra	ISciarra	515.124.4369	1987-06-28	FT_ACCOUNT	7700.00	0.00	108	100	12
114	Den	Raphaely	DRaphaely	515.127.4561	1987-07-01	PU_MAN	11000.00	0.00	100	30	14
116	Shelli	Baida	SBaida	515.127.4563	1987-07-03	PU_CLERK	2900.00	0.00	114	30	16
118	Jennifer	Dilly	JDilly	650.505.2876	1987-09-16	SH_CLERK	3600.00	0.00	122	50	18
120	Alexis	Bull	ABull	650.509.2876	1987-09-10	SH_CLERK	4100.00	0.00	121	50	20

10 rows in set (0.01 sec)

14. Write a query to find the 5th maximum salary in the employees table

mysql> select salary from employee_a ORDER BY salary DESC LIMIT 1 OFFSET 4;

```
+----------+
| salary   |
+----------+
| 11000.00 |
+----------+
```

1 row in set (0.00 sec)

15.Write a query to find the 4th minimum salary in the employees table

mysql> select salary from employee_a ORDER BY salary DESC LIMIT 1 OFFSET 3;

```
+----------+
| salary   |
+----------+
| 12000.00 |
+----------+
```

1 row in set (0.00 sec)

16.Write a query to select last 10 records from a table

mysql> select * from employee_a ORDER BY Employee_Id DESC LIMIT 10;

```
+-------------+------------+-----------+-----------+--------------+------------+------------+----------+------
----------+------------+---------------+
| Employee_id | First_Name  | Last_Name | email     | phone_number | Hire_date  | job_id     |
salary   | commission_pct | manager_id | department_id |
+-------------+------------+-----------+-----------+--------------+------------+------------+----------+------
----------+------------+---------------+
|         121 | sarah       | bell      | sbell     | 650.501.1876 | 1987-09-17 | SH_CLERK   |  4000.00 |
0.00 |         123 |           50 |
|         120 | Alexis      | Bull      | ABull     | 650.509.2876 | 1987-09-10 | SH_CLERK   |  4100.00 |
  0.00 |         121 |           50 |
|         119 | Timothy     | Gates     | TGates    | 650.505.3876 | 1987-09-17 | SH_CLERK   |  2900.00 |
       0.00 |         122 |           50 |
|         118 | Jennifer    | Dilly     | JDilly    | 650.505.2876 | 1987-09-16 | SH_CLERK   |  3600.00 |
 0.00 |         122 |           50 |
|         117 | Kelly       | Chung     | KChung    | 650.505.1876 | 1987-09-15 | SH_CLERK   |  3800.00 |
      0.00 |         122 |           50 |
|         116 | Shelli      | Baida     | SBaida    | 515.127.4563 | 1987-07-03 | PU_CLERK   |  2900.00 |
 0.00 |         114 |           30 |
|         115 | Alexander   | Khoo      | AKhoo     | 515.127.4562 | 1987-07-02 | PU_CLERK   |  3100.00 |
       0.00 |         114 |           30 |
|         114 | Den         | Raphaely  | DRaphaely | 515.127.4561 | 1987-07-01 | PU_MAN     | 11000.00 |
       0.00 |         100 |           30 |
|         113 | Jose Manuel | Urman     | JMurman   | 515.124.4469 | 1987-06-29 | FT_ACCOUNT |
7800.00 |           0.00 |         108 |           100 |
```

```
|       112 | Ismael      | Sciarra   | ISciarra  | 515.124.4369 | 1987-06-28 | FT_ACCOUNT |  7700.00 |
     0.00 |       108 |          100 |
+-------------+------------+-----------+-----------+--------------+------------+------------+----------+------
----------+------------+---------------+
10 rows in set (0.00 sec)
```

17.Write a query to list the department ID and name of all the departments where no employee is working.

```
mysql> SELECT department.department_id, department.department_name FROM department
LEFT JOIN employee_a ON department.department_id = employee_a.department_id  WHERE
employee_a.employee_id IS NULL;
+---------------+------------------+
| department_id | department_name  |
+---------------+------------------+
|           10 | Adiministration  |
|           20 | Marketing        |
|           40 | Human resources  |
|           70 | Public Relations |
|           80 | IT_support       |
+---------------+------------------+
5 rows in set (0.02 sec)
```

18.Write a query to get 3 maximum salaries

```
mysql> select  distinct salary from employee_a order by salary desc limit 3;
+-----------+
| salary    |
+-----------+
| 24000.00 |
| 17000.00 |
| 12000.00 |
+-----------+
3 rows in set (0.00 sec)
```

19.Write a query to get 3 minimum salaries.

```
mysql> select distinct salary from employee_a order by salary asc limit 3;
+----------+
| salary   |
+----------+
| 2900.00 |
| 3100.00 |
```

```
| 3600.00 |
+---------+
3 rows in set (0.00 sec)
```

20.Write a query to get nth max salaries of employees

```
mysql> SELECT salary
    -> FROM employee_a
    -> WHERE salary = (
    ->     SELECT DISTINCT salary
    ->     FROM employee_a
    ->     ORDER BY salary DESC
    ->     LIMIT 1 OFFSET n
    -> );
# replacing n with the desired value will give te n th maximum salary

mysql> SELECT salary
    -> FROM employee_a
    -> WHERE salary = (
    ->     SELECT DISTINCT salary
    ->     FROM employee_a
    ->     ORDER BY salary DESC
    ->     LIMIT 1 OFFSET 2
    -> );
+----------+
| salary   |
+----------+
| 12000.00 |
+----------+
1 row in set (0.00 sec)
```