1. *Count total no. of employees.*

```
select count(*) from emp;
+----------+
| count(*) |
+----------+
|      20 |
+----------+
1 row in set (0.00 sec)
```

2. *Determine the maximum and minimum salary.*

```
mysql> select max(sal) from emp;
+----------+
| max(sal) |
+----------+
|  5000.00 |
+----------+
1 row in set (0.00 sec)

mysql> select min(sal) from emp;
+----------+
| min(sal) |
+----------+
|   800.00 |
+----------+
1 row in set (0.00 sec)
```

3. *Display the count of employees having salary greater than 3000.*

```
select count(*) from emp where sal>3000;
+----------+
| count(*) |
+----------+
|       3 |
+----------+
1 row in set (0.00 sec)
```

4. *Print department wise count of employees.*

```
select count(deptno) from emp;
+---------------+
| count(deptno) |
+---------------+
|          20 |
+---------------+
1 row in set (0.00 sec)
```

5. *Display employee details who earn maximum and minimum salary.*

6. *Print jobwise total salary.*

```
select sum(sal),job from emp group by job;
+----------+-----------+
| sum(sal) | job       |
+----------+-----------+
|  9250.00 | CLERK     |
|  9525.00 | SALESMAN  |
| 13675.00 | MANAGER   |
|  6000.00 | ANALYST   |
|  5000.00 | PRESIDENT |
+----------+-----------+
5 rows in set (0.00 sec)
```

7. *Print department wise maximum salary.*

```
select max(sal),deptno from emp group by deptno;
+----------+--------+
| max(sal) | deptno |
+----------+--------+
|  5000.00 |     10 |
|  3000.00 |     20 |
|  4150.00 |     30 |
+----------+--------+
3 rows in set (0.00 sec)
```

8. *Print jobwise average salary.*

```
select max(sal),deptno from emp group by deptno;
+----------+--------+
| max(sal) | deptno |
+----------+--------+
|  5000.00 |     10 |
|  3000.00 |     20 |
|  4150.00 |     30 |
+----------+--------+
3 rows in set (0.00 sec)
```

9. *Print count of employee working in department 20.*

```
select count(deptno) from emp where deptno=20;
+---------------+
```

```
| count(deptno) |
+---------------+
|           5 |
+---------------+
1 row in set (0.00 sec)
```

10. Print count of employee working in department 10 having job as MANAGER..

```
select count(*) from emp where deptno=10 and  job ="manager";
+----------+
| count(*) |
+----------+
|       1 |
+----------+
1 row in set (0.00 sec)
```

11. Print count of employee working in department 20 having comm as null.

```
select count(deptno) ,deptno ,comm from emp where deptno=20 and comm=null ;
+---------------+--------+------+
| count(deptno) | deptno | comm |
+---------------+--------+------+
|           0 |   NULL | NULL |
+---------------+--------+------+
1 row in set (0.00 sec)
```

12. Print names of employees working in ACCOUNTS department having maximum salary.

```
select ename , max(sal) from emp where job="accounts" ;
+-------+----------+
| ename | max(sal) |
+-------+----------+
| NULL  |     NULL |
+-------+----------+
1 row in set (0.00 sec)
```

13. Print employee details having salary less than average salary of MANAGER.

14. Give SQL statement to find the average annual salary per job in each detp.

```
select sal,job,deptno,avg(sal*12 ) as annualsalary from emp group by job;
```

```
+---------+-----------+--------+--------------+
| sal     | job       | deptno | annualsalary |
+---------+-----------+--------+--------------+
|  800.00 | CLERK     |     20 | 18500.000000 |
| 1600.00 | SALESMAN  |     30 | 19050.000000 |
| 2975.00 | MANAGER   |     20 | 32820.000000 |
| 3000.00 | ANALYST   |     20 | 36000.000000 |
| 5000.00 | PRESIDENT |     10 | 60000.000000 |
+---------+-----------+--------+--------------+
5 rows in set (0.00 sec)
```

15. Count the number of people in the dept 30 who receive a salary and the no.of people who receive comm.

```
mysql> select deptno,count(deptno),count(comm) from emp where deptno=20;
+--------+---------------+-------------+
| deptno | count(deptno) | count(comm) |
+--------+---------------+-------------+
|     20 |             5 |           0 |
+--------+---------------+-------------+
1 row in set (0.00 sec)
```

16. Calculate the avg, min and max salary of those groups of employees having the job as CLERK or MANAGER.

```
select job,avg(sal),min(sal),max(sal) from emp group by job having job
in("clerk","manager");
+---------+-------------+----------+----------+
| job     | avg(sal)    | min(sal) | max(sal) |
+---------+-------------+----------+----------+
| CLERK   | 1541.666667 |   800.00 |  3350.00 |
| MANAGER | 2735.000000 |  1250.00 |  4150.00 |
+---------+-------------+----------+----------+
2 rows in set (0.01 sec)
```

17. Display the deptno of departments which have more than one CLERK.

18. List names and hiredates of employees who were hired in the month of December

```
select ename,monthname(hiredate)from emp where monthname(hiredate)="december";
+-------+--------------------+
| ename | monthname(hiredate) |
+-------+--------------------+
| SMITH | December           |
```

```
| AARAV | December          |
| SCOTT | December          |
| JAMES | December          |
| FORD  | December          |
+-------+--------------------+
5 rows in set (0.00 sec)
```

19. List names and hiredate of employees hired in the year 1980

```
 select ename,monthname(hiredate)from emp where year(hiredate)="1980";
+--------+--------------------+
| ename  | monthname(hiredate) |
+--------+--------------------+
| SMITH  | December          |
| GRASS  | February          |
| AARUSH | February          |
+--------+--------------------+
3 rows in set (0.00 sec)
```

20. Display names and jobs of the people separated by a hyphen. Capitalize the first character of name and job.

```
            select ename ,job,
concat(concat(upper(substr(ename,1,1)),lower(substr(ename,2))),"-",
concat(upper(substr(job,1,1)),lower(substr(job,2)))) from emp;
+---------+-----------+-------------------------------------------------------------------------------------------------------------------------------+
| ename   | job       | concat(concat(upper(substr(ename,1,1)),lower(substr(ename,2))),"-",
concat(upper(substr(job,1,1)),lower(substr(job,2)))) |
+---------+-----------+-------------------------------------------------------------------------------------------------------------------------------+
| SMITH   | CLERK     | Smith-Clerk
|
| AARAV   | CLERK     | Aarav-Clerk
|
| THOMAS  | CLERK     | Thomas-Clerk
|
| ALLEN   | SALESMAN  | Allen-Salesman
|
| WARD    | SALESMAN  | Ward-Salesman
|
| JONES   | MANAGER   | Jones-Manager
|
| MARTIN  | SALESMAN  | Martin-Salesman
|
| BLAKE   | MANAGER   | Blake-Manager
|
```

```
| CLARK   | MANAGER   | Clark-Manager
|
| SCOTT   | ANALYST   | Scott-Analyst
|
| KING    | PRESIDENT | King-President
|
| TURNER  | SALESMAN  | Turner-Salesman
|
| ADAMS   | CLERK     | Adams-Clerk
|
| JAMES   | CLERK     | James-Clerk
|
| FORD    | ANALYST   | Ford-Analyst
|
| HOFFMAN | MANAGER   | Hoffman-Manager
|
| GRASS   | SALESMAN  | Grass-Salesman
|
| MILLER  | CLERK     | Miller-Clerk
|
| AARUSH  | SALESMAN  | Aarush-Salesman
|
| ALEX    | MANAGER   | Alex-Manager
|
+---------+-----------+-----------------------------------------------------------------------------------------
-----------------------------+
20 rows in set (0.00 sec)
```

21. List employee numbers, names and hiredates of the people working in the department number 20, display the hiredates in the dd/mm/yy format

```
select empno, ename,date_format(hiredate,"%d/%m/%y") from emp where deptno =20;
+-------+-------+---------------------------------+
| empno | ename | date_format(hiredate,"%d/%m/%y") |
+-------+-------+---------------------------------+
|  7369 | SMITH | 17/12/80                         |
|  7566 | JONES | 02/04/81                        |
|  7788 | SCOTT | 09/12/82                         |
|  7876 | ADAMS | 12/01/83                          |
|  7902 | FORD  | 03/12/81                        |
+-------+-------+---------------------------------+
5 rows in set (0.00 sec)
```

22. Find number of months the president has worked for the company.

```
 select ename ,job, timestampdiff(month,date(hiredate),date(now())) as m from emp
where job="president";
+-------+-----------+------+
| ename | job       | m    |
+-------+-----------+------+
| KING  | PRESIDENT |  454 |
+-------+-----------+------+
1 row in set (0.00 sec)
```

23. Find the day of the week on which SMITH joined

```
  select ename,dayofweek(hiredate) from emp where ename="smith";
+-------+--------------------+
| ename | dayofweek(hiredate) |
+-------+--------------------+
| SMITH |                  4 |
+-------+--------------------+
1 row in set (0.00 sec)
```

24. Find the time of time of the day in which ADAMS joined

```
select ename,time(hiredate) from emp where ename="adams";
+-------+----------------+
| ename | time(hiredate) |
+-------+----------------+
| ADAMS | 00:00:00       |
+-------+----------------+
1 row in set (0.00 sec)
```

25. Find day of month on which KING joined

```
select ename,dayofmonth(hiredate) from emp where ename="king";
+-------+----------------------+
| ename | dayofmonth(hiredate) |
+-------+----------------------+
| KING  |                 17 |
+-------+----------------------+
1 row in set (0.00 sec)
```

26. Find out month on which MARTIN joined

```
          select ename,month(hiredate) from emp where ename="martin";
+--------+-----------------+
| ename  | month(hiredate) |
+--------+-----------------+
| MARTIN |               9 |
+--------+-----------------+
1 row in set (0.00 sec)
```

27. *Find out which quarter of the year the employees joined. Display their number and names as well*

```
select ename,empno,quarter(hiredate) from emp;
+---------+-------+------------------+
| ename   | empno | quarter(hiredate) |
+---------+-------+------------------+
| SMITH   |  7369 |                4 |
| AARAV   |  7415 |                4 |
| THOMAS  |  7421 |                3 |
| ALLEN   |  7499 |                1 |
| WARD    |  7521 |                1 |
| JONES   |  7566 |                2 |
| MARTIN  |  7654 |                3 |
| BLAKE   |  7698 |                2 |
| CLARK   |  7782 |                2 |
| SCOTT   |  7788 |                4 |
| KING    |  7839 |                4 |
| TURNER  |  7844 |                3 |
| ADAMS   |  7876 |                1 |
| JAMES   |  7900 |                4 |
| FORD    |  7902 |                4 |
| HOFFMAN |  7919 |                1 |
| GRASS   |  7920 |                1 |
| MILLER  |  7934 |                1 |
| AARUSH  |  7945 |                1 |
| ALEX    |  7949 |                1 |
+---------+-------+------------------+
20 rows in set (0.00 sec)
```

28. *Retrieve ANALYST records with the hiredate formatted as – 'The 3rd of December 1984'*

```
mysql> select ename,empno,date_format(hiredate," the %D of  %M %Y") from emp where
job="analyst";
+-------+-------+-----------------------------------------+
| ename | empno | date_format(hiredate," the %D of  %M %Y") |
+-------+-------+-----------------------------------------+
| SCOTT |  7788 |  the 9th of  December 1982              |
| FORD  |  7902 |  the 3rd of  December 1981              |
+-------+-------+-----------------------------------------+
2 rows in set (0.00 sec)
```

29. *List all names, jobs, and a job classification number, which is to be assigned by you. Translate the value started in each job field to a job classification number. This is to be done as follows-*

A. CLERK
B. MANAGER
C. PRESIDENT
D. OTHER

```
select ename,empno , job, case job when 'clerk' then 'a' when 'manager' then 'b' else "c" end from emp;
+---------+-------+-----------+-----------------------------------------------------------------------+
| ename   | empno | job       | case job when 'clerk' then 'a' when 'manager' then 'b' else "c" end |
+---------+-------+-----------+-----------------------------------------------------------------------+
| SMITH   |  7369 | CLERK     | a                                                                     |
| AARAV   |  7415 | CLERK     | a                                                                     |
| THOMAS  |  7421 | CLERK     | a                                                                     |
| ALLEN   |  7499 | SALESMAN  | c                                                                     |
| WARD    |  7521 | SALESMAN  | c                                                                     |
| JONES   |  7566 | MANAGER   | b                                                                     |
| MARTIN  |  7654 | SALESMAN  | c                                                                     |
| BLAKE   |  7698 | MANAGER   | b                                                                     |
| CLARK   |  7782 | MANAGER   | b                                                                     |
| SCOTT   |  7788 | ANALYST   | c                                                                     |
| KING    |  7839 | PRESIDENT | c                                                                     |
| TURNER  |  7844 | SALESMAN  | c                                                                     |
| ADAMS   |  7876 | CLERK     | a                                                                     |
| JAMES   |  7900 | CLERK     | a                                                                     |
| FORD    |  7902 | ANALYST   | c                                                                     |
| HOFFMAN |  7919 | MANAGER   | b                                                                     |
| GRASS   |  7920 | SALESMAN  | c                                                                     |
| MILLER  |  7934 | CLERK     | a                                                                     |
| AARUSH  |  7945 | SALESMAN  | c                                                                     |
| ALEX    |  7949 | MANAGER   | b                                                                     |
+---------+-------+-----------+-----------------------------------------------------------------------+
20 rows in set (0.00 sec)
```

30. Display the length of the longest employees name

```
select ename,(char_length(ename)) from emp group by ename order by 2 desc limit 1;
+---------+----------------------+
| ename   | (char_length(ename)) |
+---------+----------------------+
| HOFFMAN |                    7 |
+---------+----------------------+
1 row in set (0.00 sec)
```

31. Write a query to list the length of service of the employees (of the form n years and m months).

32. select ename ,concat(timestampdiff(year,date(hiredate),date(now()))," years and ",12-month(hiredate)," months ") from emp;

```
+---------+-----------------------------------------------------------------------------------------------+
| ename   | concat(timestampdiff(year,date(hiredate),date(now()))," years and ",12-month(hiredate)," months ") |
+---------+-----------------------------------------------------------------------------------------------+
| SMITH   | 38 years and 0 months                                                                         |
| AARAV   | 37 years and 0 months                                                                         |
| THOMAS  | 38 years and 5 months                                                                         |
| ALLEN   | 38 years and 10 months                                                                        |
| WARD    | 38 years and 10 months                                                                        |
| JONES   | 38 years and 8 months                                                                         |
| MARTIN  | 38 years and 3 months                                                                         |
| BLAKE   | 38 years and 7 months                                                                         |
| CLARK   | 38 years and 6 months                                                                         |
| SCOTT   | 36 years and 0 months                                                                         |
| KING    | 37 years and 1 months                                                                         |
| TURNER  | 38 years and 3 months                                                                         |
| ADAMS   | 36 years and 11 months                                                                        |
| JAMES   | 37 years and 0 months                                                                         |
| FORD    | 37 years and 0 months                                                                         |
| HOFFMAN | 37 years and 9 months                                                                         |
| GRASS   | 39 years and 10 months                                                                        |
| MILLER  | 37 years and 11 months                                                                        |
| AARUSH  | 39 years and 10 months                                                                        |
| ALEX    | 37 years and 11 months                                                                        |
+---------+-----------------------------------------------------------------------------------------------+
20 rows in set (0.00 sec)
```

33. How many employees who are joined in 1985.

```
select count(*) from emp where year(hiredate)="1981";
+----------+
| count(*) |
+----------+
|       12 |
+----------+
1 row in set (0.00 sec)
```

34. How many employees joined each month in 1985.

```
select count(*),monthname(hiredate) as d1,year(hiredate) as y from emp group by d1 having y="1981";
+----------+-----------+------+
```

```
| count(*) | d1       | y    |
+----------+----------+------+
|       1 | July     | 1981 |
|       4 | February | 1981 |
|       1 | April    | 1981 |
|       2 | September | 1981 |
|       1 | May      | 1981 |
|       1 | June     | 1981 |
|       1 | November | 1981 |
+----------+----------+------+
7 rows in set (0.00 sec)
```

35. How many employees who are joined in March 1985.

```
select count(*),monthname(hiredate) as d1,year(hiredate) as y from emp group by d1
having y="1981" and d1="may" ;
+----------+------+------+
| count(*) | d1   | y    |
+----------+------+------+
|       1 | May  | 1981 |
+----------+------+------+
1 row in set (0.00 sec)
```

36. Find the total sales amount

```
select sum(amount) from sales;
+-------------+
| sum(amount) |
+-------------+
|   103587.00 |
+-------------+
1 row in set (0.00 sec)
```

37. Find the customer-wise lowest and highest sales amount

```
select custname,max(amount),min(amount) from sales group by custname;
+-----------------------------------------------+-------------+-------------+
| custname                                      | max(amount) | min(amount) |
+-----------------------------------------------+-------------+-------------+
| JOCKSPORTS                                    |    2400.00 |      50.00 |
| TKB SPORT SHOP                                |      58.00 |       8.40 |
| VOLLYRITE                                     |   16569.00 |    2300.50 |
| JUST TENNIS                                   |     450.00 |      24.00 |
| EVERY MOUNTAIN                                |    3000.00 |      24.00 |
```

```
| K + T SPORTS                          |   29000.00 |     340.00 |
| SHAPE UP                              |    4584.00 |       2.40 |
| WOMENS SPORTS                         |     280.00 |     180.00 |
| NORTH WOODS HEALTH AND FITNESS SUPPLY CENTER |    4800.00 |     440.00 |
+---------------------------------------------+------------+------------+
9 rows in set (0.00 sec)
```

38. *Find product-wise lowest, highest and total sales.*

```
select custname,prodname,max(amount),min(amount) from sales group by prodname;
+---------------+------------------------+-------------+-------------+
| custname      | prodname               | max(amount) | min(amount) |
+---------------+------------------------+-------------+-------------+
| JOCKSPORTS    | RH: "GUIDE TO TENNIS"  |     1703.40 |       34.00 |
| JOCKSPORTS    | ACE TENNIS RACKET II   |     4584.00 |      180.00 |
| JOCKSPORTS    | ACE TENNIS BALLS-3 PACK |    3306.00 |        8.40 |
| JOCKSPORTS    | ACE TENNIS NET         |    29000.00 |       50.00 |
| JOCKSPORTS    | ACE TENNIS RACKET I    |    16569.00 |       35.00 |
| JOCKSPORTS    | SB ENERGY BAR-6 PACK   |     2400.00 |        2.40 |
| VOLLYRITE     | ACE TENNIS BALLS-6 PACK |    5600.00 |      250.00 |
| EVERY MOUNTAIN | SP TENNIS RACKET      |     4800.00 |       24.00 |
| EVERY MOUNTAIN | SP JUNIOR RACKET      |     2500.00 |      900.00 |
| EVERY MOUNTAIN | SB VITA SNACK-6 PACK  |     1200.00 |      400.00 |
+---------------+------------------------+-------------+-------------+
10 rows in set (0.00 sec)
```

39. *Find department-wise average salary for all the departments employing more than three employees*

40. *Find the customer-wise total sales for all the customers except 'TKB SPORT SHOP' who came to purchase various sports items maximum four times.*

```
select custname,prodname,sum(amount) from sales group by custname having
prodname not like "tkb%" and count(prodname)>5;
+---------------+------------------------+-------------+
| custname      | prodname               | sum(amount) |
+---------------+------------------------+-------------+
| JOCKSPORTS    | RH: "GUIDE TO TENNIS"  |     5280.90 |
| EVERY MOUNTAIN | ACE TENNIS BALLS-6 PACK |    7160.80 |
| K + T SPORTS  | ACE TENNIS RACKET I    |    46370.00 |
| SHAPE UP      | SB ENERGY BAR-6 PACK   |     9024.40 |
+---------------+------------------------+-------------+
```

4 rows in set (0.00 sec)

41. Display the highest, lowest, sum and average salary for all employees. Label the columns appropriately.

select max(sal) as max,min(sal) as min ,avg(sal) as avg ,sum(sal) as sum from emp group by sal;

```
+---------+---------+-------------+---------+
| max     | min     | avg         | sum     |
+---------+---------+-------------+---------+
|  800.00 |  800.00 |  800.000000 |  800.00 |
| 3350.00 | 3350.00 | 3350.000000 | 3350.00 |
| 1750.00 | 1750.00 | 1750.000000 | 1750.00 |
| 1600.00 | 1600.00 | 1600.000000 | 1600.00 |
| 1250.00 | 1250.00 | 1250.000000 | 3750.00 |
| 2975.00 | 2975.00 | 2975.000000 | 2975.00 |
| 2850.00 | 2850.00 | 2850.000000 | 2850.00 |
| 2450.00 | 2450.00 | 2450.000000 | 2450.00 |
| 3000.00 | 3000.00 | 3000.000000 | 6000.00 |
| 5000.00 | 5000.00 | 5000.000000 | 5000.00 |
| 1500.00 | 1500.00 | 1500.000000 | 1500.00 |
| 1100.00 | 1100.00 | 1100.000000 | 1100.00 |
|  950.00 |  950.00 |  950.000000 |  950.00 |
| 4150.00 | 4150.00 | 4150.000000 | 4150.00 |
| 2575.00 | 2575.00 | 2575.000000 | 2575.00 |
| 1300.00 | 1300.00 | 1300.000000 | 1300.00 |
| 1350.00 | 1350.00 | 1350.000000 | 1350.00 |
+---------+---------+-------------+---------+
17 rows in set (0.00 sec)
```

42. Modify the above query and display the output for each job type.

select ename,job,max(sal) as max,min(sal) as min ,avg(sal) as avg ,sum(sal) as sum from emp group by job;

```
+-------+-----------+---------+---------+-------------+----------+
| ename | job       | max     | min     | avg         | sum      |
+-------+-----------+---------+---------+-------------+----------+
| SMITH | CLERK     | 3350.00 |  800.00 | 1541.666667 |  9250.00 |
| ALLEN | SALESMAN  | 2575.00 | 1250.00 | 1587.500000 |  9525.00 |
| JONES | MANAGER   | 4150.00 | 1250.00 | 2735.000000 | 13675.00 |
| SCOTT | ANALYST   | 3000.00 | 3000.00 | 3000.000000 |  6000.00 |
| KING  | PRESIDENT | 5000.00 | 5000.00 | 5000.000000 |  5000.00 |
+-------+-----------+---------+---------+-------------+----------+
5 rows in set (0.00 sec)
```

43. List names of people who have salary less than the average salary for dept 20

```
select sal,deptno,ename from emp where sal > (select avg(sal) from emp where
deptno=20);
+---------+--------+---------+
| sal     | deptno | ename   |
+---------+--------+---------+
| 3350.00 |     10 | AARAV   |
| 2975.00 |     20 | JONES   |
| 2850.00 |     30 | BLAKE   |
| 2450.00 |     10 | CLARK   |
| 3000.00 |     20 | SCOTT   |
| 5000.00 |     10 | KING    |
| 3000.00 |     20 | FORD    |
| 4150.00 |     30 | HOFFMAN |
| 2575.00 |     30 | GRASS   |
+---------+--------+---------+
9 rows in set (0.00 sec)
```

44. Find the average annual salary per job in each department.

```
select sal,deptno,ename,job,avg(sal*12) from emp group by deptno,job;
+---------+--------+-------+-----------+--------------+
| sal     | deptno | ename | job       | avg(sal*12)  |
+---------+--------+-------+-----------+--------------+
|  800.00 |     20 | SMITH | CLERK     | 11400.000000 |
| 3350.00 |     10 | AARAV | CLERK     | 25600.000000 |
| 1600.00 |     30 | ALLEN | SALESMAN  | 19050.000000 |
| 2975.00 |     20 | JONES | MANAGER   | 35700.000000 |
| 2850.00 |     30 | BLAKE | MANAGER   | 33000.000000 |
| 2450.00 |     10 | CLARK | MANAGER   | 29400.000000 |
| 3000.00 |     20 | SCOTT | ANALYST   | 36000.000000 |
| 5000.00 |     10 | KING  | PRESIDENT | 60000.000000 |
|  950.00 |     30 | JAMES | CLERK     | 11400.000000 |
+---------+--------+-------+-----------+--------------+
```

45. Count the number of people in department 30 who receive a salary and the number of people who receive a commission

```
select count(ename), count(comm),count(sal) from emp group by deptno
having deptno=30 ;
+--------------+-------------+------------+
| count(ename) | count(comm) | count(sal) |
+--------------+-------------+------------+
```

```
|        10 |         7 |        10 |
+--------------+------------+------------+
1 row in set (0.00 sec)
```

46. Compute the average, minimum and maximum salaries of these groups of employees having job as Clerk or manager, Display the job as well

```
select job, avg(sal),min(sal),max(sal) from emp group by job having job="clerk"
or job="manager";
+---------+-------------+----------+----------+
| job     | avg(sal)    | min(sal) | max(sal) |
+---------+-------------+----------+----------+
| CLERK   | 1541.666667 |   800.00 |  3350.00 |
| MANAGER | 2735.000000 |  1250.00 |  4150.00 |
+---------+-------------+----------+----------+
2 rows in set (0.00 sec)
```

47. Write an SQL command that displays 2nd highest salary paid

```
select ename,max(sal) as "2nd highest salary" from emp group by ename  order by 2 desc
limit 2,1;
+-------+--------------------+
| ename | 2nd highest salary |
+-------+--------------------+
| AARAV |          3350.00 |
+-------+--------------------+
1 row in set (0.00 sec)
```

48. Write a query to find the employees who are earning the maximum salary in their departments.

```
select ename,max(sal) ,deptno from emp group by deptno;
+-------+----------+--------+
| ename | max(sal) | deptno |
+-------+----------+--------+
| AARAV |  5000.00 |     10 |
| SMITH |  3000.00 |     20 |
| ALLEN |  4150.00 |     30 |
+-------+----------+--------+
3 rows in set (0.00 sec)
```

49. Write a query to find the salesman number (repid) who has achieved the maximum total sales among the entire salesman.

```
select repid,max(amount) from sales;
+-------+-------------+
| repid | max(amount) |
+-------+-------------+
|  7844 |    29000.00 |
+-------+-------------+
```

1 row in set (0.00 sec)

50. List the highest salary paid for each job.

```
select max(sal),job from emp group by job;
+----------+-----------+
| max(sal) | job       |
+----------+-----------+
|  3350.00 | CLERK     |
|  2575.00 | SALESMAN  |
|  4150.00 | MANAGER   |
|  3000.00 | ANALYST   |
|  5000.00 | PRESIDENT |
+----------+-----------+
5 rows in set (0.00 sec)
```

51. Find the most recently hired employee in each department.

```
select ename,hiredate from emp group by hiredate order by hiredate desc;
+---------+---------------------+
| ename   | hiredate            |
+---------+---------------------+
| ADAMS   | 1983-01-12 00:00:00 |
| SCOTT   | 1982-12-09 00:00:00 |
| HOFFMAN | 1982-03-24 00:00:00 |
| ALEX    | 1982-01-24 00:00:00 |
| MILLER  | 1982-01-23 00:00:00 |
| AARAV   | 1981-12-31 00:00:00 |
| JAMES   | 1981-12-03 00:00:00 |
| KING    | 1981-11-17 00:00:00 |
| MARTIN  | 1981-09-28 00:00:00 |
| TURNER  | 1981-09-08 00:00:00 |
| THOMAS  | 1981-07-19 00:00:00 |
| CLARK   | 1981-06-09 00:00:00 |
| BLAKE   | 1981-05-01 00:00:00 |
| JONES   | 1981-04-02 00:00:00 |
| WARD    | 1981-02-22 00:00:00 |
| ALLEN   | 1981-02-20 00:00:00 |
| SMITH   | 1980-12-17 00:00:00 |
| GRASS   | 1980-02-14 00:00:00 |
+---------+---------------------+
```

52. In which year did most people join the company? Display the year and the number of employees.

select ename,empno,year(hiredate),count(year(hiredate)) from emp group by year(hiredate);

```
+-------+-------+---------------+----------------------+
| ename | empno | year(hiredate) | count(year(hiredate)) |
+-------+-------+---------------+----------------------+
| SMITH |  7369 |         1980 |                    3 |
| AARAV |  7415 |         1981 |                   12 |
| SCOTT |  7788 |         1982 |                    4 |
| ADAMS |  7876 |         1983 |                    1 |
+-------+-------+---------------+----------------------+
```

4 rows in set (0.00 sec)

53. Write a query to display employee name whose name occurs only once in the table.

54. Write a query to display all the details from dept table along with the no. of employee working in each dept.

select deptno,count(*) from emp group by deptno;

```
+--------+----------+
| deptno | count(*) |
+--------+----------+
|    10 |       5 |
|    20 |       5 |
|    30 |      10 |
+--------+----------+
```

3 rows in set (0.00 sec)

55. Find out which department does not have any employees.

56. List out the no. of employees joined in every month in ascending order.

select count(*),date_format(hiredate,"%M") from emp group by month(hiredate) order by date_format(hiredate,"%M") desc;

```
+----------+--------------------------+
| count(*) | date_format(hiredate,"%M") |
+----------+--------------------------+
|       2 | September                |
|       1 | November                 |
|       1 | May                      |
|       1 | March                    |
|       1 | June                     |
|       1 | July                     |
|       3 | January                  |
|       4 | February                 |
|       5 | December                 |
```

| 1 | April |
+----------+----------------------------+
10 rows in set (0.00 sec)