

Aggregate functions

max, min, avg, sum, count

```
select max(salary), min(salary), avg(salary),  
       count(*)  
from Emp;
```

max()	min()	avg()	count()
55000	25000	35125	8

```
select max(salary), Lname, Dno  
from Emp;
```

max()	Lname	Dno
55000	Smith	5

update emp set salary = NULL where sal = 55000

```
select max(sal), min(sal), count(sal), avg(sal)  
from Emp;
```

max()	min()	count(sal)	avg()
43000	25000	7	32000

```

select max(sal), min(sal), count(*), Dno
from Emp
Group By Dno;

```

max()	min()	count()	Dno
55000	55000	1	1
43000	25000	3	4
40000	25000	4	5

```

select max(sal), min(sal), count(*), Dno
from emp
where salary > 25000
Group by Dno;

```

max()	min()	count()	Dno
55000	30000	5	5

max()	min()	count()	Dno
55000	55000	1	1
40000	30000	3	5
43000	43000	1	4

```

select max(sal), min(sal), count(*), Dno
from Emp
where salary > 25000 and count(*) > 1
Group by Dno
HAVING count(*) > 1;

```

max()	min()	count()	Dno
40000	30000	3	5

Query: List # of emp who work in each department.

```
select count(*), dno
from Emp
Group By dno;
```

Dname	Count(*)
Head	1
Admin	3
Research	4

```
select Dname, count(*) as numEmp
from Emp JOIN Department
ON dno = Dnumber
Group by dno;
HAVING max(salary) > 40000
```

```
select superssn, dno, count(*)
from Emp
Group by superssn, dno;
```

Superssn	Dno	count(*)
3334	5	3
8886	4	1

8886	5	1
9876	4	2
NULL	1	1

Query: List the Lname of emp who earns the maximum salary.

Bog	55000
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1) ~~Select Lname, max(sal)
from Emp;~~ X Smith 55000

2) ~~Select Lname, max(sal)
from Emp
where salary = max(sal);
having salary = max(sal);~~ X X