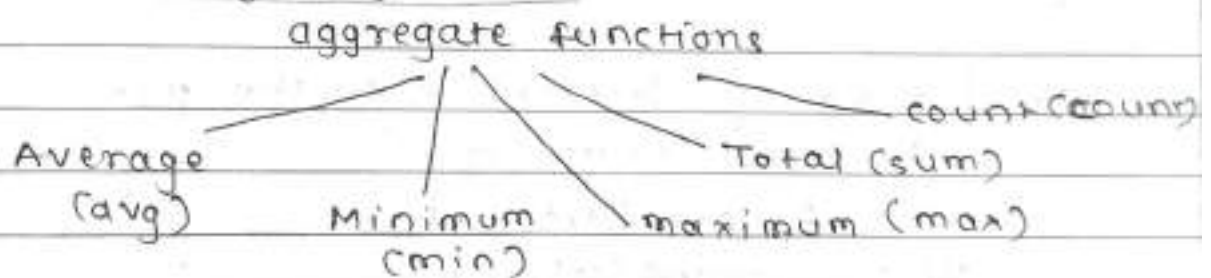


## \* Aggregate functions - (no. of

They are the fun<sup>n</sup> that take a collection of values as input and return a single value.

Various aggregate fun<sup>n</sup> are



Let us consider follo. table structures

'Part'

Pno	Pname	color	wt

'sp'

Pno	Sno	Qty

'Supplier'

sno	sname	status	city

- ① Count - We use aggregate function 'count' to count no. of tuples in a relation

Let us consider 'part' table.

Part			
Pno	Pname	color	wt
1	a	Red	-
2	b	Blue	-
3	c	Red	-
4	d	Blue	-
5	e	Red	-

e.g. find no. of tuples in 'Part' relation.

SQL> select count (\*)

from Part ; ↵

olp -

count(*)
5

e.g. List no. of colors given to the part

SQL> select count(color)

from Part ; ↵

olp .

count(color)
5

ex. SQL> select count distinct (color) ;

from Part ; ↵

olp .

count (color)
2

ex. Find no. of parts supplied by S1.

SQL> select count(Pno)

from SP

where Sno = 'S1' ; ↵

if

(2) Average (avg) - It returns the average value of the given column

ex. Find out average weight of the parts.

```
SQL> select avg(wt)
      from Part; ↵
```

o/p -	avg(wt)
	25.95

SQL> select avg(wt), "Average Weight" renaming to the o/p column  
 from Part; ↵

o/p -	Average Weight
	25.95

ex. Find the average weight of Red parts.

```
SQL> select avg(wt)
      from Part
      where color = 'Red'; ↵
```

(3) Minimum (min) -

It returns the smallest value for the given column from table.

ex. Find out minimum weight from Part.

```
SQL> select min(wt)
      from Part; ↵
```

(4) Maximum (max) -

It returns largest value from the given column

```
ex. SQL> select max(wt)
      from Part; ↵
```

5

### Total (sum) -

It returns the sum of numeric values in a column.

consider the table 'sp'.

Pno	Sno	Qty
P1	S1	10
P2	S2	5
P3	S3	15

ex. Find sum of quantity of total no. of part supplier.

SQL> select sum(Qty)  
from sp;

o/p -

sum(Qty)
30

consider the follo. 'sp' table

Pno	Sno	Qty
P1	S1	10
P2	S1	5
P3	S3	15

ex. Find out total no. of parts supplied by S1

SQL> select sum(Qty)  
from sp

where sno = 'S1';

o/p -

sum(Qty)
15