

## Mission Name: Summary Statistics

- \* Min Function :- Used to get the minimum value from a column.

Eg:- `SELECT MIN(Unemployment_rate) FROM recent_grads`

- \* A function is an entity that takes in one or multiple inputs and produces something, often called as the output of the function. MIN is a function.

- \* Aggregate Functions are functions that are applied over columns of values and return a single value.

Eg, MIN, MAX, AVG, COUNT, SUM

Eg:- `SELECT SUM(Total) from recent_grads`

- \* Eg:- `SELECT COUNT(Major)`  
`FROM recent_grads`

`WHERE ShareWomen > 0.5;`

- \* Aggregate functions ignores NULL values so we must be sure that there is no NULL value in the column to avoid wrong calculations.

- \* Eg:- `SELECT COUNT(*) ; COUNT(Unemployment_rate)`  
`from recent_grads`

- \* Eg:- `SELECT AVG(Total), MIN(Men), MAX(women) from`  
`recent_grads`

- \* Alias names for columns can be created using AS clause.

Eg:- `SELECT COUNT(Major) AS "Number of Majors",`  
`MAX (Unemployment_rate) AS "Highest`  
`Unemployment Rate" FROM`  
`recent_grads`



\* DISTINCT clause can be used to find unique values from a column.

\* `SELECT COUNT(DISTINCT Major) as unique-major,  
COUNT(DISTINCT Major-category) as unique-cat  
COUNT(DISTINCT Major-code) as unique-code  
FROM recent-grads`

\* LENGTH function can be used to find the length of strings.

\* `||` is used to concat two words or columns.

Eg:- `LENGTH(column-name)`

`SELECT 'Data' || 'quest' as 'e-learning';`  
o/p:- 

e-learning
Dataquest

`SELECT 'CAT: ' || Major-category FROM recent-grads  
LIMIT 2;`

o/p:- 

CAT: Major-category
cat: Engineering
cat: Engineering

\* LOWER can be used to convert all cases to lowercase

Eg:- `SELECT 'Major: ' || LOWER(Major) AS Major, Total,  
Men, Women, Unemployment_rate, LENGTH(Major)  
as LENGTH-OF-NAME FROM recent-grads  
ORDER BY Unemployment_rate DESC.`

\* `SELECT Major, Major-category, (P75th-P25th) AS  
'quantile-spread' FROM recent-grads ORDER BY quantile-  
spread LIMIT 20.`