

Task 3- {Basmala}

Data:

- Distinct pieces of information
- Used to understand and improve every facet of our lives.
- Can be utilized to make better decision and accomplish your goals.

Data Types:

“Analyzing data types is important as it allows us to understand the types of analyses that we can perform and the plots we can build”

Divided into:

- Quantitative data: as number of dogs.
- Categorical data: as the breed.

Quantitative data:

“takes on numeric values that allow us to perform mathematical operations”

Divided into:

- **Continuous data:** take on any numeric value including decimal values ,and sometimes negative numbers.
- ex of continuous: age as it can be divided into many units as (years ,months ,days..etc) and still makes sense.
- **Discrete data:** only takes on countable values, such as number of dogs.

Categorical data:

“Used frequently to label a group or set of items.”

Divided into:

- **Ordinal (Ordered) :** it's items can be ranked

- **Nominal (NO Order):** do not have a rank order
-

Measures of centers :

| gives an idea of the average student.

As:

- **Mean:** Sum of all values divided by count of values “not always the best measure of center”
- **Median:** The middle value of data set ,median depends on the number of elements in data set.
 - **Even** :the median is : the mean of the two numbers in the middle
 - **Odd** :the median is jus the number in the middle.
- **Mode:** provides the most common (frequent) value in data set

Measures of spread :

| gives an idea of how students differ.

Visuals:

| give a more complete picture .

FREE NOTES:

Notation: common math language used to communicate

Random values: signed by capital letters

Observed values: signed by lowercase letters

Aggregation: a way to turn multiple numbers into fewer numbers “usually one number”