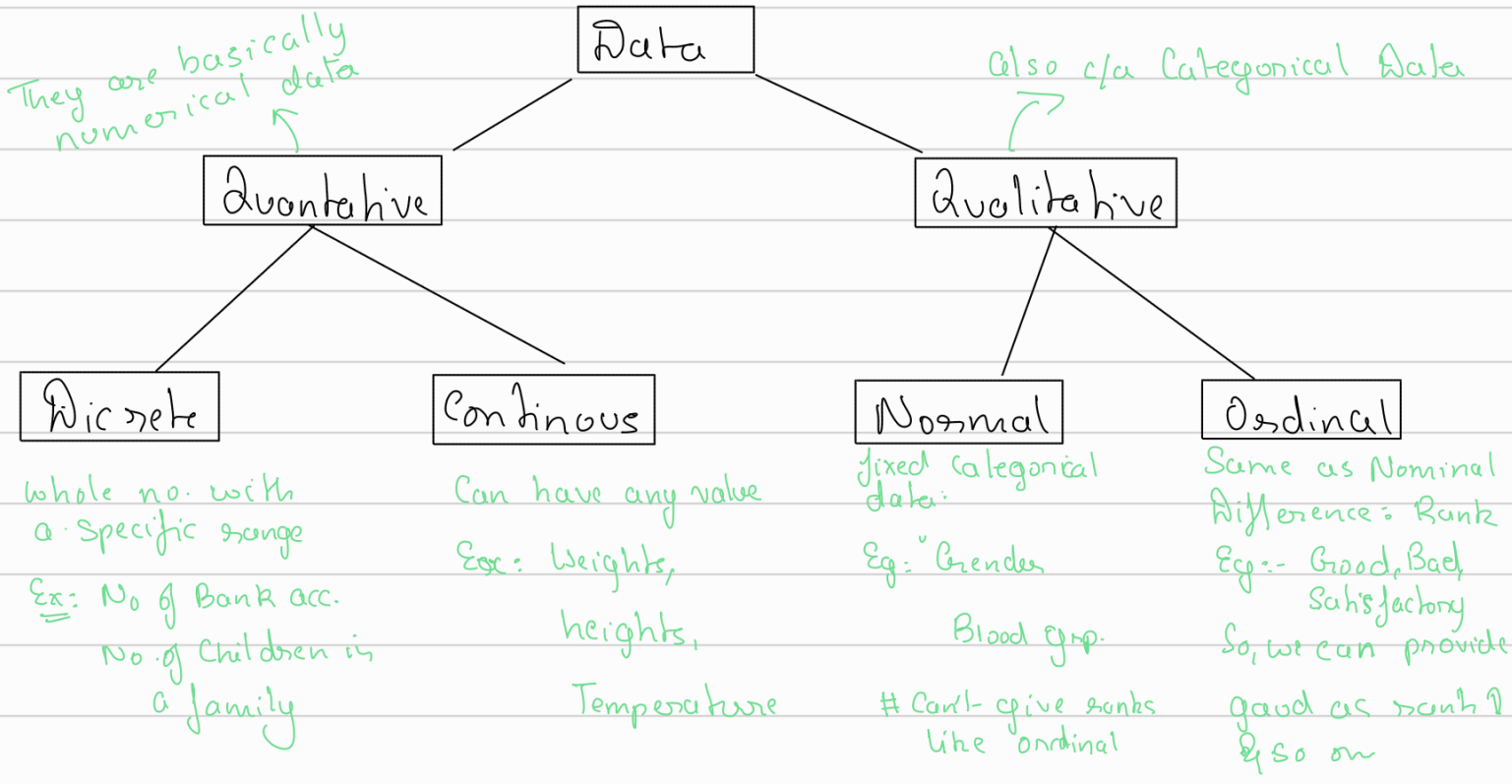
Types of Data:



Assignment:

Q1) What kind of variable "Marital status" is ? - Categorical Nominal

Q2) What kind of variable "Nile River length" is ? Quantative discrete.

Q3) What kind of variable "Movie Duration" is ? Quantitative Continous

Q4) Define the type of datas for the table colums given below:

DMC	DC	ISI	BUI	FWI	Classes	Region
3.4	7.6	1.3	3.4	0.5	not fire	0
4.1	7.6	1	3.9	0.4	not fire	0
2.5	7.1	0.3	2.7	0.1	not fire	0
1.3	6.9	0	1.7	0	not fire	0
3	14.2	1.2	3.9	0.5	not fire	0
5.8	22.2	3.1	7	2.5	fire	0
9.9	30.5	6.4	10.9	7.2	fire	0
12.1	38.3	5.6	13.5	7.1	fire	0

Quantitative Continous Variable

Catigorical Nominal Variable

Scale of Measurement of Data

In data collection stage we collect varities of data, so to measure that data through some scale is very imp.

There are 4 types of scales of measurement.

1. Nominal Scale Data
2. Ordinal Scale Data
3. Internal Scale Data
4. Ratio Scale Data

we must know in which collection measurement scale the data falls while collecting a data.

1) Nominal Scale Data :-

- Type of data involved :- Qualitative / Catagorical variable
- Eg: gender, colour, Labels
- Order does not matter

ex:- 10 ppl asked to choose the Best Colour

"Red" → 5 ppl
"Black" → 3 ppl
"Blue" → 2 ppl

conclusion
50% ppl like red
30% Black
20% Blue

2) Ordinal Scale Data :-

Ranking and Order matters
Difference can't be measured

Ex: Qualification Dataset

Phd	1st Rank
Masters	2nd
B.Sc	3rd
B.com	4th

Based on rank difference can't be calculated

3) Interval Scale Data :-

Rank and Order matters
Differences can be measured
Ratios can't be measured
Doesn't have '0' as starting point

Ex: Temperature

-30°F
0°F
30°F
60°F
80°F
90°F

- Difference can be measured
  d = 0 - (-30) = 30°F
- Ratio has no significance as; $\frac{30^\circ F}{60^\circ F} = \frac{1}{2}$, it does not mean that you feel 2 twice as hot in 60°F than in 30°F

4) Ratio Scale Data :-

Order and Rank matters
Differences and Ratios are measurable
It does have a starting point '0'.

Ex:- Marks

100
90
80
70
60
50
:

$\frac{100}{50} = \frac{2}{1}$ Person with marks 100 has double (ex) the marks of a person with marks 50.