↳ Data visualizations

↳ Art : How we create (scale, axis, ticks) etc

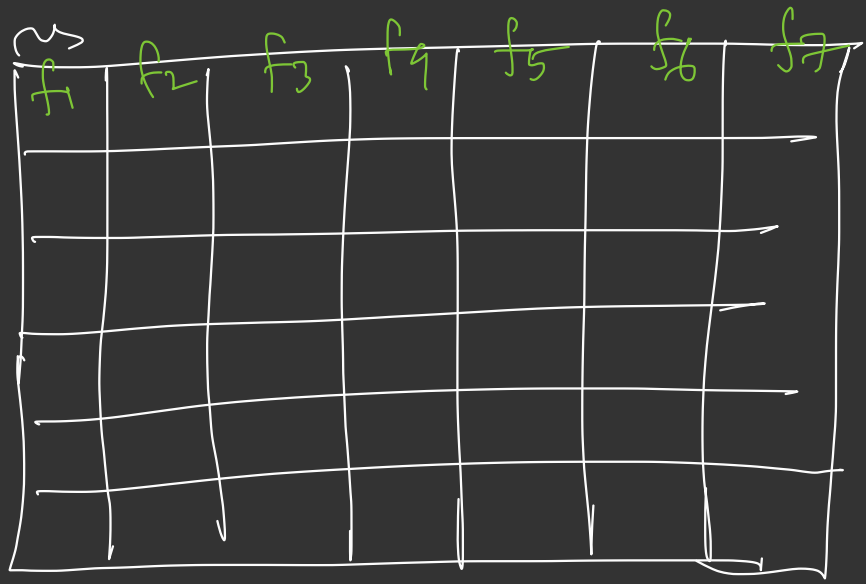
↳ Science : Which plot do I choose to get the most insight.

Q. Why do we need to visualize data?

↳ Exploratory : ✍

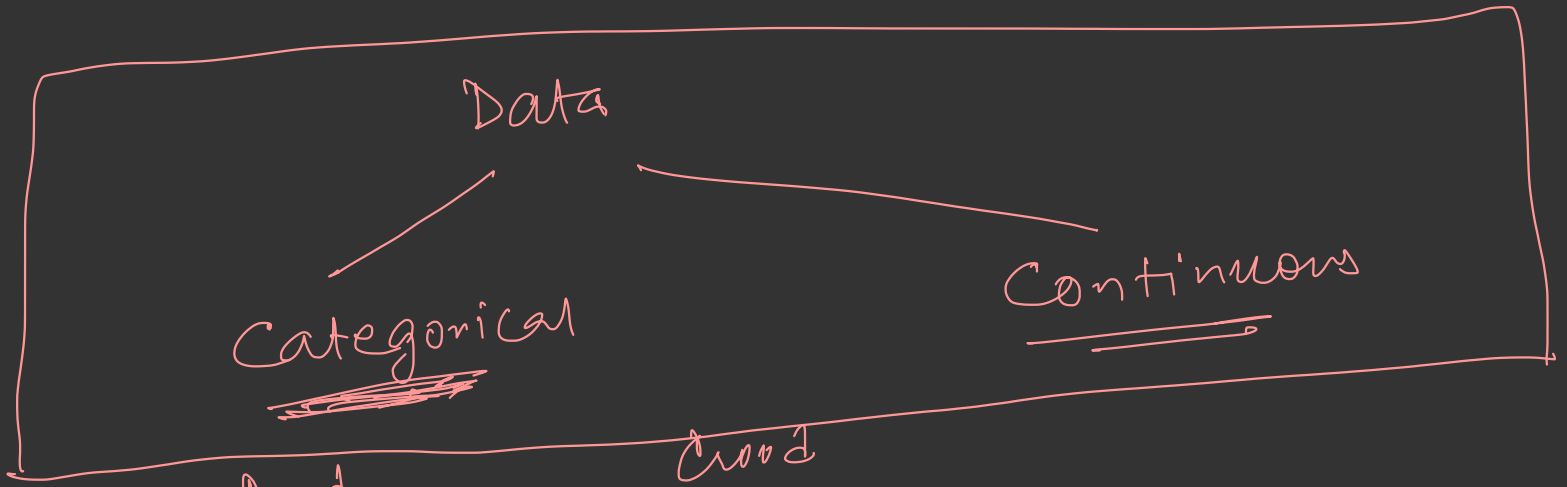
↳ Explanatory : ✍

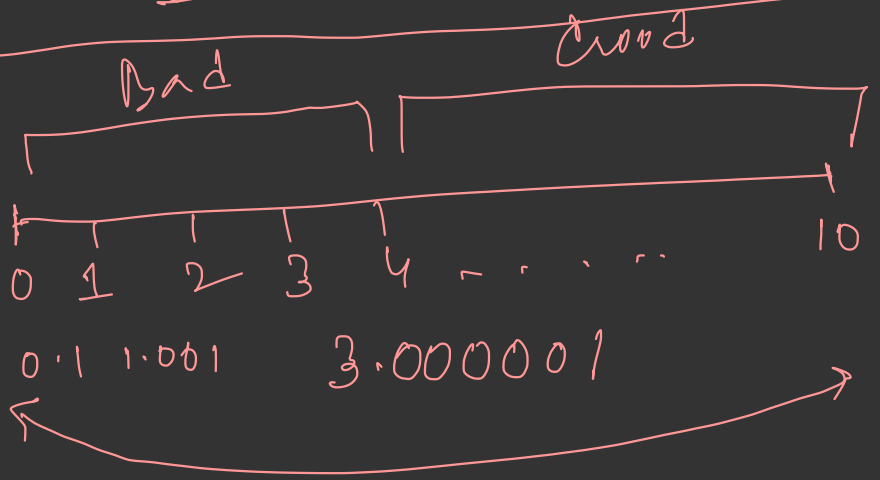
feature variables




} sample / record / datapoint

$(c_1 f_1) + (c_2 f_2) + (c_3 f_3) + \cdots$




[0, 10]

(0, 10]

0 — N 1 — Y 2 — Y

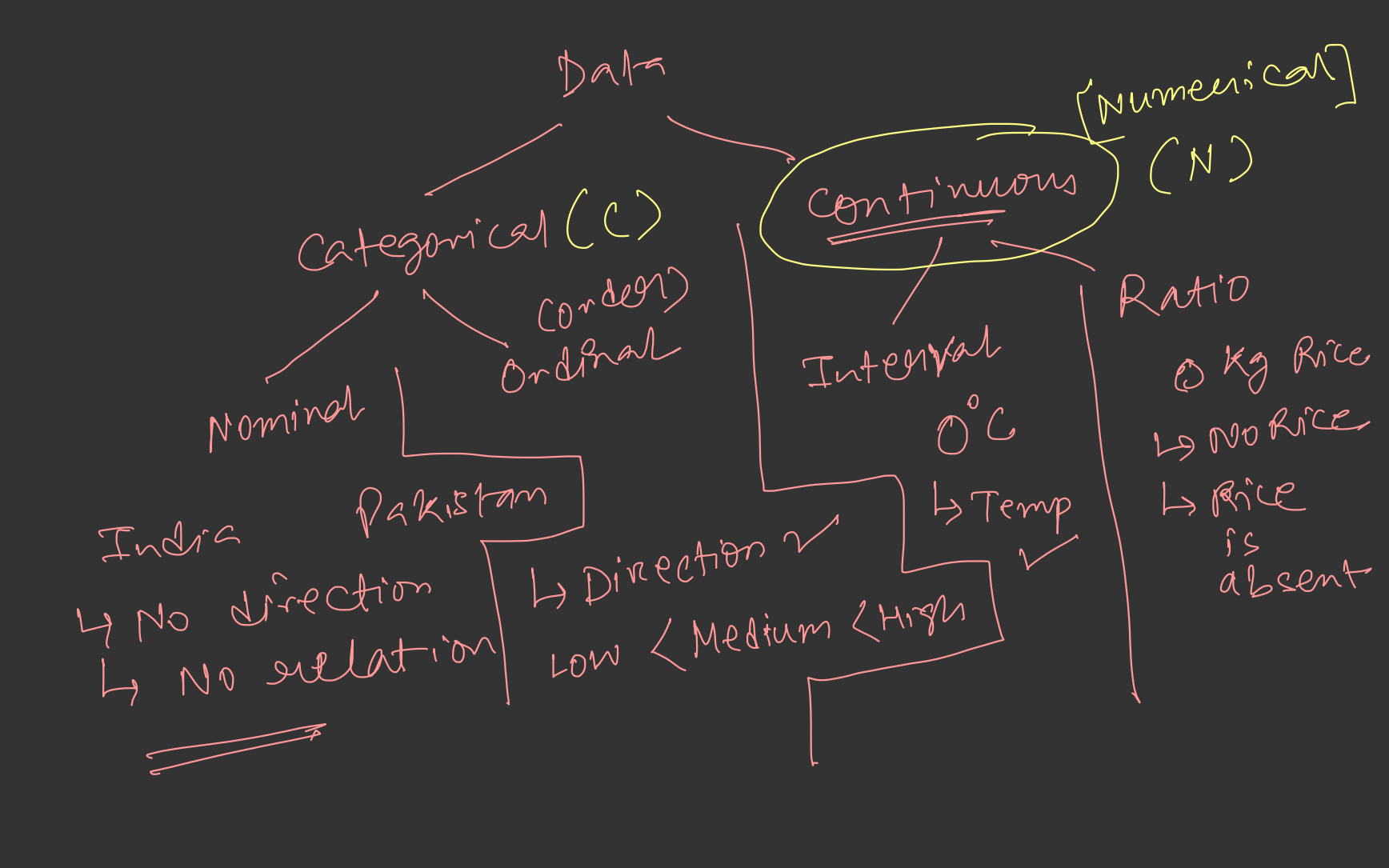
numerical

100 200 300 } 3 values

100 → Sad

200 → Neutral

300 → Happy


Data
Categorical (C)
Continuous
[Numerical]
(N)
Nominal
Ordinal
(ordered)
Interval
Ratio
India
Pakistan
↳ No direction
↳ No relation
↳ Direction ✓
Low < Medium < High
0°C
↳ Temp
✓
0 Kg Rice
↳ No Rice
↳ Rice is absent

Continuous

Continuous

Discrete

Analyse the data :

↳ Univariate : C or N

↳ Bivariate : $C\overset{\sim}{=}N$, CC, NN,

↳ Multivariate :

## Which Chart ?

* Univariate
  - C ⟶ Countplot, Piechart, Barplot
  - N ⟶ Barplot, histogram, KDEplot
* Bivariate
  - C C ⟶
  - C N ⟶
  - N N ⟶
* Multivariate
  - N N N ⟶

- CNN →
- CCC →
- CCN →

matplotlib [Folder]

↳ pyplot [file]

↳ image

# Anatomy of Matplotlib