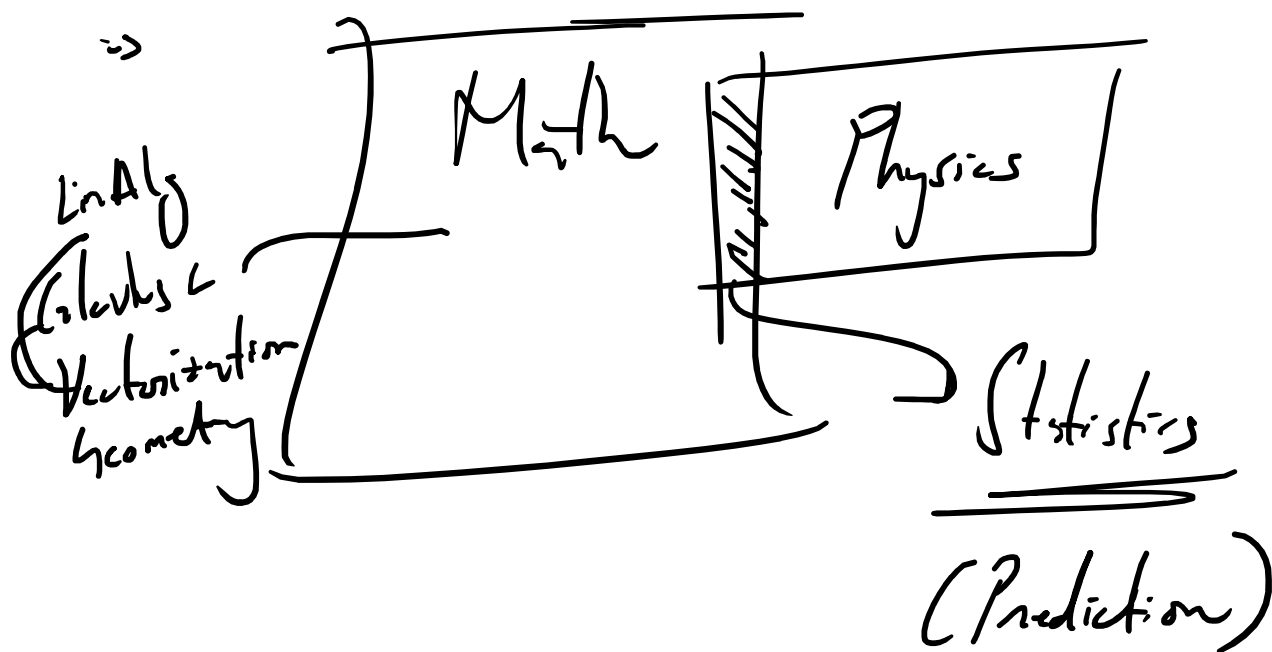
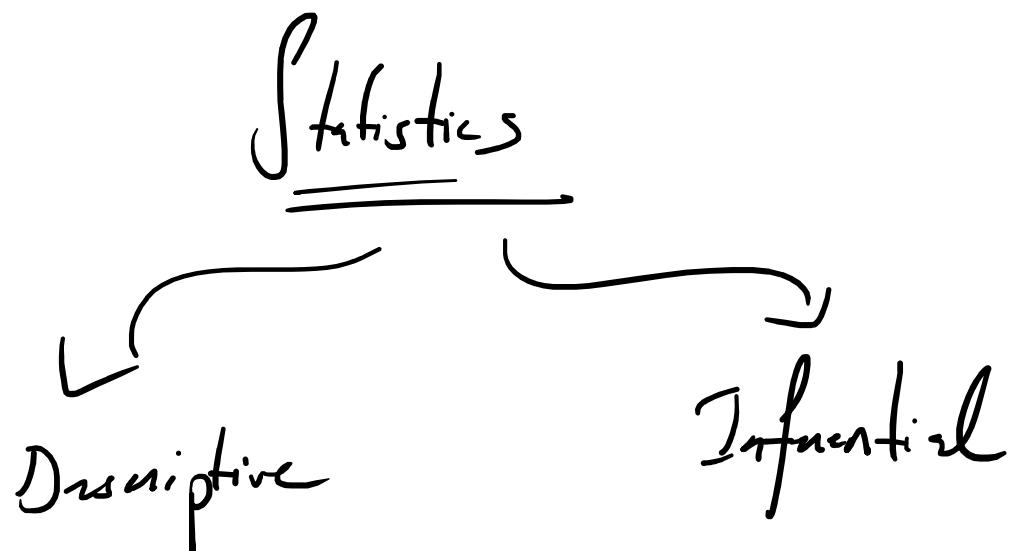


⇒ 6 Modules :





→ Probability is axiomatic & statistics  
is propositionally true. (Logic)

⇒ Statistics for historical data

↓  
Recorded measure

↓  
Information

↕  
Axiomatic

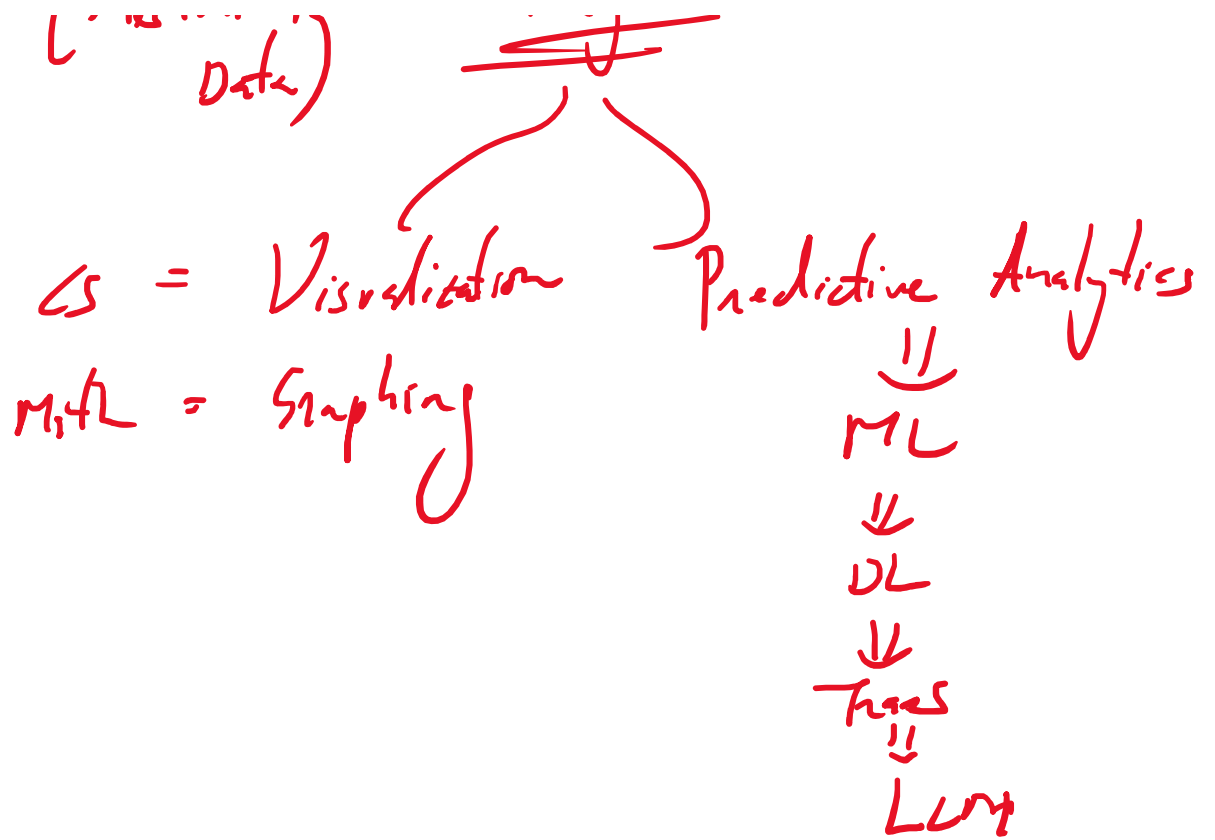
⇒ Knowledge

↕  
Propositionally  
true

↓  
Statistics

(Historical  
Data)

↓  
Analysis

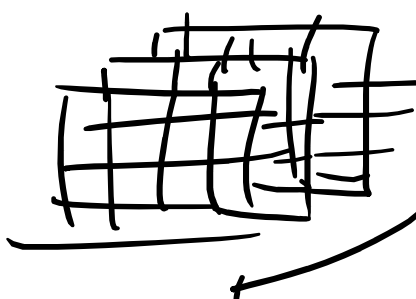


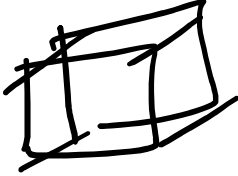
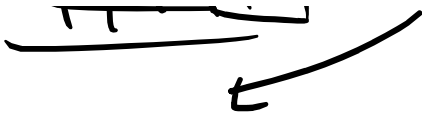
⇒ Conventions;

$[x]$  - 1-D ~ Scalar

$[x][x][x]$  - 2-D ~ Vector (Arrays)

$\begin{bmatrix} x & x & x & x \\ x & x & x & x \\ x & x & x & x \end{bmatrix}$  - 3-D ~ Matrix (Arrays)  
(DataFrame)

 - N-D ~ Tensor  
(Tensoract)

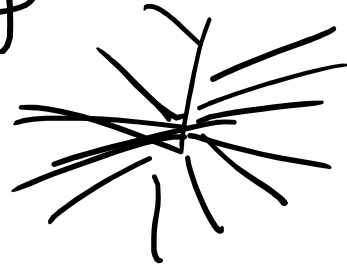
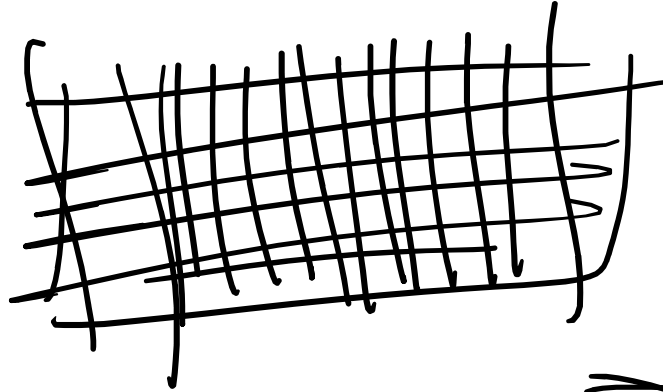


$\Rightarrow$  ROBOTS

CS  $\sim$  Tuples & Attributes

Rows & Columns

Features & Values



$\Rightarrow$  PDF & CDF

$\Rightarrow$  Descriptive Stats :

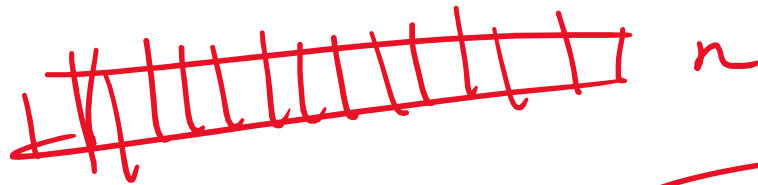
Information Mining

$\Rightarrow$  Measures of Dispersion

$\Rightarrow$  Measures of Central Tendency

1    11    .    —    -    1    2    22

↳ Mean :  $\bar{x} = \frac{1}{N} \sum_{i=1}^n x_i$

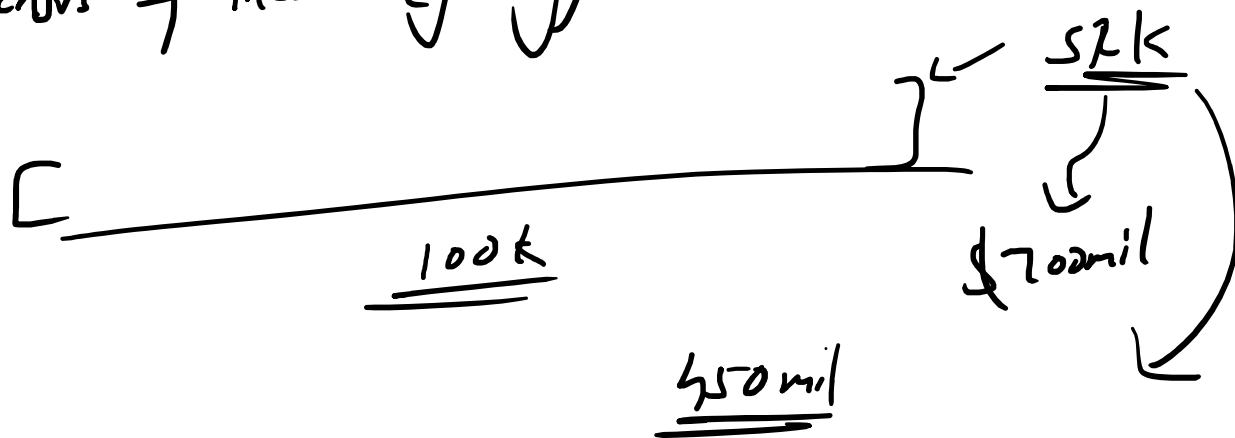


$\sum_{i=0}^n$   $\leftarrow$  for  $\_$  in range( $n$ )  
 $\text{sum} += \_$

$\text{sum} = \text{sum} / \text{len}(n)$

⇒ Median = (Excluding outliers)

Eg: (cars & income (yearly) in Bendra



Placements  
 3.5 L

Amazon  
 27 CTC

7-8 tPA

=> Median :

