

Statistics

Statistics:- statistics is the science of collecting, organizing and analyzing data

Eg: Height of the students in the classroom --> Students Height --> Collection
Class wise height of the students. 1st class height, 2nd class height...10th class Height.

Q: What is the avg Height of the 6th class ?
Q: What is the Highest height of 10th class students?

What is data ?
Facts or Pices of information.

Eg: Car, Wheels,Body,Colur,Sports
eg2: Students Name, Surname, Age

Types Statistics

Descriptive Stats

Defn: It consits of organizing and summerizing data.
Eg: Measure of central tendency {Mean, Median, Mode}
Eg 2:- Measure of dispersion.. {Varience, Standard Deviation}
Eg 3:- Distribution of data. {Histrogram , PDF, PMF}

Inferential Stats

Defn:- It consits of data that you have measured to form a conclusion.
Eg: Exit polls of elections

Sample->

Conclusion->

Population

Conclusion --> Hypothesis Testing

- 1.Z-test
- 2.t-test
- 3.chi-squae test
- 4.annova test
- 5.F-test

Questions:- Let say there are 20 classes in your college and you have collected the height of students in the class.
Heights; [175CM, 180CM, 140CM, 135CM, 160CM, 170CM]

Descriptive stats Q:- “What is the average height of the students in the classroom?”
--> Mean 160cm

Inferential Stats Q: “Are the height of the students in the classroom similar to what you expect in the college?”
population:- Students in college
Sample: Classroom.

Types Of Data

Quantitative

Qulitative