Introduction & types of data - Basic definitions.

- Statistics is the art of learning from data. It is concerned with the collec^n of data, their subsequent description, and their analysis, which often leads to the drawing of conclusions (Sheldon M. Ross)

- Description → Descriptive stats - concerned with the descrip^n and summariza^n of data

(two branches)

↳ Inference → Inferential stats - drawing conclu^n from data
↳ possibility of chance (Probability)

- Population - The total collecⁿ of all the elements that we are interested it.

- Sample - A subgroup of population that will be studied in detail.

- If the purpose of analysis is to examine and explore info. for its own intrinsic interest only, the study is descrif descriptive.

- If info. is obtained from a sample of population and purpose of study is to use that info. to draw conclusion about the population, the study is <u>inferential</u>.

- A descriptive may be performed either on a sample or population.

- when an inference is made about the population based on information from sample ⟹ inferential statistics.