**Statistics**

* data
  + raw information
    - 30, person1, 40141
  + information
    - meaningful data
    - age: 30, name: person1, zipcode: 40141
  + Population
  + Sample
* types of data
  + based on measurement
    - Qualitative
      * measured
    - Quantitative
      * counted
      * types
        + discrete

finite set of values

e.g. students marks

* + - * + continuous

infinite set of values

e.g. weight or height of a student

* + based on type
    - numeric
    - categorical
      * types
        + nominal

order is NOT important in the categories

e.g. PurchaseABook => YES, NO

* + - * + ordered

order is important in the categories

e.g. ServiceRating => WORST BAD GOOD AWESOME

* measure of central tendency
  + to analyze the data
  + Mean
    - also called Average
    - also called as arithmetic mean
  + Mode
    - most frequent value
  + Median.
  + Variance
  + Standard Deviation
  + Quantiles
  + Interquartile range (IQR)
  + Min
  + Max
  + Range