

# Understanding Data

## STUDY NOTES

- People take decisions based on certain data or information.
- Data is crucial for decision making.
- When we process large amount of data with computer we see a hidden trait which is otherwise not visible to humans.
- Data can be:
  - ❖ Structured or organised
  - ❖ Unstructured having no pattern
- In order to process data, it should be first collected.
- After data collection, data is stored on a storage device from where it can be retrieved easily.
- Data processing processes data to see results and analysing those results to make conclusions.
- Measure of central tendency gives us some idea about the data.
  - ❖ **Mean:** Average of numeric values of an attribute
  - ❖ **Median:** After all values are sorted, median is the middle value.
  - ❖ **Mode:** the value that occurs maximum number of times.
- Degree of diversity in a group is a measure of variability or measure of dispersion.
  - ❖ Range is the difference between the maximum and minimum values of data.
  - ❖ Standard deviation is squared difference of each value from mean value of data. Smaller value means less spread and larger value means more spread.