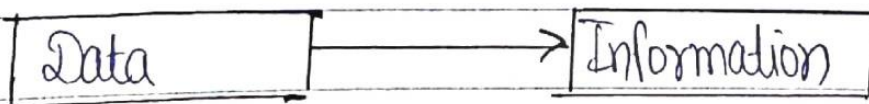# * Data :-

Before starting the discussion on the data structure and its types, It would be better to understand what data is and how it is Important.

→ The term data has been derived from the word datum.

→ The term data refers to a value or set of value that are raw and unorganized.

→ Data may be simple, random and useless until it is organised.

→ When data is Processed i.e. organized, structured and presented in a meaningful context so that it become useful for decision making and it become information.

| Data | → | Information |

Classification of Data :-

Data can be broadly classified into 3 types:-
   (1) Structured Data
   (2) Unstructured Data
   (3) Semi-structured Data

1 Structured Data :-

Structured data is a created using a fixed schema and it is maintained in tabular format.

Example:- Consider an example for Relational Data like you have to maintain a record of students for a college like name, ID, address and Email of the student.

S_ID	S_Name	S_ADDRESS	S_EMAIL
101	Palvi	Malout	p@gmail.com
102	Jashan	Muktsar	j@gmail.com

2. <u>Unstructured Data :-</u>

- It does not follow any organized format.

- It is defined as the data which is not follow a pre-defined standard

- Example :- Word, PDF, text etc.

3. <u>Semi- Structured Data :-</u>

- Semi-structured data is the data which does not confirms to a data model but has some structure

- It is the data that does not reside in a rational databases but that that have some organsational Properties that makes it easier to analyse.

- Example :- XML data.