FACETS OF DATA → Identifying the structure of data.

TYPES.

1. STRUCTURED DATA :- (Predefined)

* Structured data is data that depends on a data model and resides in a fixed field, within a record.

* It is easy to store structured data in tables with in databases or excel files.

* SQL or Structured Query Language is the preferred way to manage and query data that resides in data bases.

2. UNSTRUCTURED DATA :- (not predefined)

A Unstructured data is not organised in a pre-defined manner or does not have a pre defined model, thus it is not a good fit for a mainstream relational database.

* One example of unstructured data is our regular email..

3. NATURAL LANGUAGE :-

* Natural Language is a special type of unstructured data; its challenging to process because it requires knowledge of specific data science techniques and linguistics.

* Natural language processing is a branch that focuses on teaching Computers how to read and interpet the text in the same way as humans do.

* It is a field that is developing methodologies for filling the gap between Data science & human languages.

* A Human written email is a perfect example of natural language data.

4. MACHINE -GENERATED DATA :-

* Machine data also known as machine generated data, is information that is created without human interaction as a result of a computer process. This means that data entered manually by an enduser is not recognized to be machine generated.
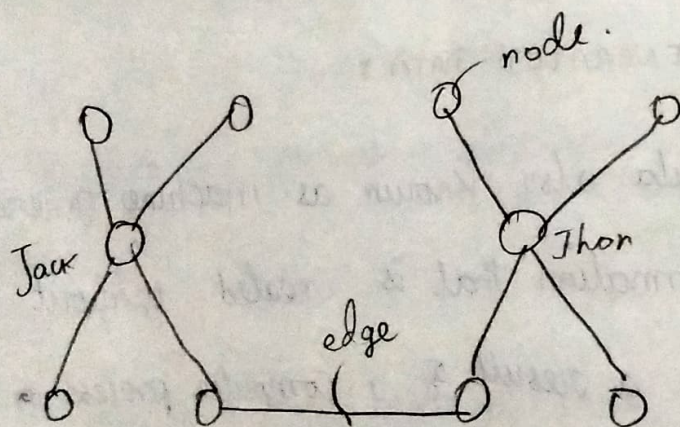
* Eg: tickets, Call detail records, alerts etc...,

5. **Graph based or Network data :-**

* Graphs are data structures to describe relationships and interactions between entities in Complex systems.

* In general, a graph contains a Collection of entities called nodes and another Collection of Interactions between a pair of nodes called edges.

* Graph-based data is a natural way to represent Social networks, and its structure allows us to Calculate specific metrics such as the influence of a person and the shortest path between two people

Eg: Social media websites → Twitter, Whatsapp, Facebook.

Friends in Social Network.

6. AUDIO, IMAGE AND VIDEO DATA :-

* The Audio, image and video are different types of data that pose Specific challenges to data Scientists.

* EG: vido games, graphics.

7. STREAMING DATA :-

* Streaming data is data that is generated Continuously by thousands of data Sources, which typically Send in the data records Simultaneously and in Small Sizes.

Eg: Live sporting or music events, Stock market.