1. Difference between Data and Information

Data

Data consists of unprocessed raw facts.
Raw data alone is insufficient for decision making.
Data doesn't depend on information.
Data refers to raw facts that have no specific meaning.
An example of data is a student's test score.

Information

Information is the processed form of data.
Information is sufficient for decision making.
Information depends on data.
Information refers to processed data that has purpose and meaning.
The average score of a class is the information derived from the given data.

2. How Data is useful for us?

Data is useful for us to find location which location is profitable.
Data can also inform which product to advertise.
Data can also useful to spot any financial fraud.
Data Can Be Used To Enhance Business Operations.
Data can save your time and solve problems in real time.

3. What is Big Data?

Big data refers to a collection of data that is huge and complex that none of the traditional management data tools are able to store it or processed it efficiently. Big data is also a combination of structured, semi structured and unstructured data collected by any organizations. Big data is characterized by the three V's which are Velocity , Volume and Variety.

4. Difference between Structured, Semi-structured and Unstructured data

Structured data

Structured data is highly organized and can be quickly processed by computers.
It is organized and fits into templates and spreadsheets, making it easy to analyze.
It takes less storage. It can be numbers and dates.

Unstructured data

Unstructured data is unorganized and difficult to process.
Unstructured data comes in different forms. It can be text, videos, audio, and images.
It takes more storage.

semi-structured data

Semi-structured data combines unstructured and structured data because it contains elements of both Semi-structured data does not have a fixed data model like structured data but is not entirely unorganized like unstructured data. It can be HTML web pages, CSV files.

5. What are quantitative and qualitative data?

Quantitative Data:

Quantitative data refers to numerical, non-descriptive data. Quantitative data can usually be collected faster and is easier to analyze. It could be structured more easily and put into graphs and charts for better readability. Two types are discrete and continuous data. Examples are number of pets,time of day, temperature outside.

Qualitative Data

Typically refers to non-numerical data that's descriptive. Qualitative data is usually time-consuming to collect and analyze. Examples are color of house, smells of socks and texture of dress.
There are 5 V's in Bigdata which are volume, velocity, variety, veracity and value

6. What are the different v's in Big Data

There are 5 V's in Bigdata which are volume, velocity, variety, veracity and value.

Volume: Amount of data.
Velocity: Speed of data.
Variety: Types of data.
Veracity: Accuracy gained from data.
Value: Insights gained from data.

7. Name some popular tools used in Big Data

There are a number of big data tools available in the market such as

Hadoop which helps in storing and processing large data.
Spark helps in-memory calculation.
Storm helps in faster processing of unbounded data.
Apache Cassandra provides high availability and scalability of a database.
MongoDB provides cross-platform capabilities.

8. What are different types of Data?

There are two type of data Quantitative and Qualitative data.

Quantitative Data:

Quantitative data refers to numerical, non-descriptive data. There are two types of Quantitative data.

Discrete data: This data refers to exact value.
Example- Shoe size.
Continuous data: Continuous data refers to any values.
Example- Height

Qualitative data:

Qualitative data refers to non-numerical data that's descriptive and categorical.

Nominal data: This data refers to no order data.
Example- Color of hair.
Ordinal data: This data refers to data which in order.
Example- Income level, Education level.