Structured data refers to data that is organized and formatted in a predefined manner, making it easily searchable, analyzable, and retrievable. It follows a specific data model and has a well-defined schema or set of rules that dictate how the data is organized and represented.

Key characteristics of structured data include:

Organization: Structured data is organized into a tabular structure with rows and columns, similar to a spreadsheet or a database table. Each column represents a specific attribute or variable, while each row represents a unique data entry or record.

Consistency: Structured data adheres to a predefined data schema or data model, which specifies the types of data that can be stored, the format of the data, and any constraints or rules that apply. This consistency enables efficient storage, retrieval, and analysis of the data.

Accessibility: Structured data can be easily accessed and manipulated using standard database query languages, such as SQL (Structured Query Language). This allows for efficient searching, filtering, and sorting of data based on specific criteria.

Relational nature: Structured data often follows a relational model, where data tables are linked or related to each other through common key values. This enables the establishment of relationships between different entities and supports complex data queries and analyses.

Scalability: Structured data can scale well, as it is designed to handle large volumes of data efficiently. Databases and data management systems are commonly used to store and process structured data, providing mechanisms for data indexing, optimization, and scalability.

Examples of structured data include customer information in a CRM system (with attributes such as name, address, and contact details stored in separate columns), financial transaction data in a banking system (with attributes such as date, amount, and account number), or patient data in a healthcare system (with attributes such as medical history, diagnosis, and treatment details).

Structured data is often contrasted with unstructured or semi-structured data, which do not adhere to a predefined format or schema. Examples of unstructured data include text documents, images, videos, social media posts, and sensor data.