**Semi structured database**

A semi-structured database is a type of database that does not require a rigid schema or predefined structure for storing data. It allows for more flexible data models compared to traditional relational databases.

In a semi-structured database, data is typically stored in a format that is self-describing, such as JSON (JavaScript Object Notation), XML (eXtensible Markup Language), or key-value pairs. This means that each data item can have different attributes or fields, and the structure of the data can vary from one item to another.

Semi-structured databases are often used when dealing with unstructured or semi-structured data, such as documents, social media feeds, sensor data, or log files. They provide a way to store and query data without having to define a strict schema in advance, which can be beneficial in scenarios where the data is rapidly evolving or where the structure of the data is not well-defined.

One of the advantages of using a semi-structured database is its flexibility. It allows for easy storage and retrieval of data with varying structures, as there is no need to conform to a fixed schema. This flexibility also simplifies data integration from different sources, as the data can be stored as is without extensive preprocessing or transformation.

Examples of popular databases that support semi-structured data include MongoDB, Apache Cassandra, Couchbase, and Amazon DynamoDB. These databases provide powerful querying and indexing capabilities to efficiently work with semi-structured data.

Overall, semi-structured databases provide a flexible and scalable solution for managing and querying data that does not fit well into a traditional relational database schema.