Comparison Of SQL And MongoDB

# 1.Defination

 **SQL Databases:** Relational databases that use Structured Query Language (SQL) for defining and manipulating data.

 **MONGODB:** A NoSQL database that uses a flexible, document-oriented data model.

# 2.Purpose

 SQL databases are ideal for structured data with clear relationships.

#  MongoDB is suitable for unstructured or semi-structured data, providing flexibility in data storage.

3. Schema

 **SQL:** Fixed schema, predefined tables and columns.

 **MongoDB:** Flexible schema, documents can vary in structure.

# 4.Functionality Of SQL Database

  **Data Structure:** Tables with rows and columns, enforcing a schema.

 **Query Language:** Uses SQL for queries, data manipulation, and definition.

 **Relationships:** Supports complex joins and foreign keys to manage relationships between tables.

# 5.Functionality Of MongoDB Database

 **Data Structure:** Stores data in flexible, JSON-like documents (BSON format).

 **Schema-less:** Allows for dynamic schemas, enabling rapid iteration and scaling.

 **Query Language:** Uses a rich, expressive query language similar to JSON.

 **Scalability:** Designed for horizontal scaling using sharding.