INDUSTRIAL ASSIGNMENT-10

DIFFERENT TYPES OF NOSQL DATABASE:

Types of NOSQL Database:

- Documents Database
- Key-value stores
- Column-oriented databases
- Graph-based database

Document-Based Database:

The document-based database in a non-relational database. Instead of storing the data in rows and columns (tables), it uses the documents to store the data in the database A document database stoves data is ISON, BSON, or XML documents

Key features of documents database:

- Flexible schema: Documents in the database has a flexible schema It means the documents in the database need not be the same schema.
- Faster creation and maintenance: the creation of documents is easy and minimal maintenance is required once we create the document.
- No foreign keys: There is no dynamic relationship between two documents so documents can be independent of one another. So, there is no requirement for a foreign key in a document database,
- Open formats: To build a document we use XML, JSON, and others

Examples: Amazon, Neptune, Noo4g, MongoDB, CouchDB, OrientDB RavenB

Key-Value Stores:

A key-value store is a non-relational database. The simplest form of a NOSQU database is a key-value store. Every data element in the database is stored in key-value pairs.

A key-value store is like a relational database with only two columns which is the key and the value.

Key features of the key-value store:

- Simplicity
- Scalability
- Speed

Examples: Tokyo Cabinet/Tyrane, Redis, DynamoDB, Voldemort, oracle BDB

Amazon Simple-DB, Riak

Column Oriented Databases:

A column-oriented database in a non-relational database that stores the data in columns instead of rows.Columnar databases are designed to read data more efficiently and retrieve the data with greater speed.

Features of columnar oriented database:

- Scalability
- Compression
- Very responsive.

Examples: Cassandra, HBase, BigTable, Hypertable

Graph-Based databases:

graph-based databases fiscus on the relationship between the elements. It stores the data in the form of nodes in the database. The connections between the nodes are called links or relationships.

Key features of graph database:

- In a graph-based database, it is easy in identify the relationship between the
- data by using the links.
- The Query's output is real-time results.
- The speed depends upon the number of relationships among the database elements.

Example: Neo4J, Janas Graph, InfoGrid, Infinite Graph, Flock DB