1. **What is NoSQL data base?**

A **NoSQL** database provides a mechanism for storage and  retrieval of data that is modeled in means other than the tabular relations used in relational databases. It is a generic Data model.

NoSQL analytics systems support runtime type identification and conversion so that custom business logic can be used to dictate analytic treatment of variation. Data is stored in single tables as compared to joining multiple tables.

1. **How does data get stored in NoSQl database?**

NoSQL database systems such as MongoDB being a document oriented database facilitates storage of data as key value pairs into lightweight BSON documents thereby facilitating flexibility into schema design of database.

MongoDB follows non relational model which defines relationship between entities through defining referential integrity constraints .

Alternatively Mongodb defines related entity as part of document belonging to main entity as embedded documents into a single collection which minimizes data traversal operations into Database.

1. **What is a column family in HBase?**

In the HBase data model columns are grouped into column families, which must be defined up front during table creation. Column families are stored together on disk, which is why HBase is referred to as a column-oriented data store.

Generally, column families remain fixed throughout the lifetime of an HBase table but new column families can be added by using administrative commands. In addition, data with similar access patterns should be stored in the same column family.

1. **How many maximum number of columns can be added to HBase table?**

There is no maximum limit for the number of columns that can be added to a HBase table.

1. **Why columns are not defined at the time of table creation in HBase?**

The columns are not defined at the time of table creation in HBase because HBase supports dynamic schema structure. If any column needs to be added/deleted after the table is created, it happens dynamically.

1. **How does data get managed in HBase?**

Data can be managed in HBase by using the **create**, **get**, **put**, and **scan** commands from the HBase shell. Data is written to the database by using **put** and read by using **get**. The scan command is used to obtain data from multiple rows in a table. Data can also be managed using the HBase C# API, which provides a client library on top of the HBase REST API. An HBase database can also be queried by using Hive.

1. **What happens internally when new data gets inserted into HBase table?**

The data is written to Write Ahead Log(WAL). It is the stored in Memstore which structures data in a sorted map of key value in memory. The data is then periodically written to HFiles which are sorted Key Value on disk.