**Introduction to MongoDB**

When dealing with data, there are two types of data as we know – (i) structured data and (ii) unstructured data. Structured data is usually stored in a tabular form whereas unstructured data is not. To manage huge sets of unstructured data like log or IoT data, a NoSQL database is used.

**What is MongoDB ?**

* MongoDB is an open-source NoSQL database written in C++ language. It uses JSON-like documents with optional schemas.
* It provides easy scalability and is a cross-platform, document-oriented database.
* MongoDB works on the concept of Collection and Document.
* It combines the ability to scale out with features such as secondary indexes, range queries, sorting, aggregations, and geospatial indexes.
* MongoDB is developed by MongoDB Inc. and licensed under the Server Side Public License (SSPL).

**What are some of the advantages of MongoDB?**

Some advantages of MongoDB are as follows:

* MongoDB supports field, range-based, string pattern matching type queries. for searching the data in the database
* MongoDB support primary and secondary index on any fields
* MongoDB basically uses JavaScript objects in place of procedures
* MongoDB uses a dynamic database schema
* MongoDB is very easy to scale up or down
* MongoDB has inbuilt support for data partitioning (Sharding).

**2. What is a Document in MongoDB?**

A Document in MongoDB is an ordered set of keys with associated values. It is represented by a map, hash, or dictionary. In JavaScript, documents are represented as objects:  
{"greeting" : "Hello world!"}

Complex documents will contain multiple key/value pairs:  
{"greeting" : "Hello world!", "views" : 3}

**How to join two collections in MongoDB?**

Students.aggregate([{  
$lookup: {  
From: ‘Grades’,  
LocalField: ‘Student\_id’,  
foreignField: ‘Stud\_id’,  
as: ‘Student\_grade’  
}}]);