**Mongo DB**

MongoDB is an object-oriented, simple, dynamic, and scalable NoSQL database. It is based on the NoSQL document store model. The data objects are stored as separate documents inside a collection — instead of storing the data into the columns and rows of a traditional relational database. The motivation of the MongoDB language is to implement a data store that provides high performance, high availability, and automatic scaling. MongoDB is extremely simple to install and implement. MongoDB uses JSON or BSON documents to store data. General distributions for MongoDB support Windows, Linux, Mac OS X, and Solaris.

**Pros**

* Document oriented
* High performance
* High availability — Replication
* High scalability – Sharding
* Dynamic — No rigid schema.
* Flexible – field addition/deletion have less or no impact on the application
* Heterogeneous Data
* No Joins
* Distributed
* Data Representation in JSON or BSON
* Geospatial support
* Easy Integration with BigData Hadoop
* Document-based query language that’s nearly as powerful as SQL
* Cloud distributions such as AWS, Microsoft, RedHat,dotCloud and SoftLayer etc:-. In fact, MongoDB is built for the cloud. Its native scale-out architecture, enabled by ‘sharding,’ aligns well with the horizontal scaling and agility afforded by cloud computing.

**Cons**

* A downside of NoSQL is that most solutions are not as strongly ACID-compliant (Atomic, Consistency, Isolation, Durability) as the more well-established RDBMS systems.
* Complex transaction
* No function or stored procedure exists where you can bind the logic

**Implementation**

**Good For:**

* E-commerce product catalog.
* Blogs and content management.
* Real-time analytics and high-speed logging, caching, and high scalability.
* Configuration management.
* Maintaining location-based data — Geospatial data.
* Mobile and social networking sites.
* Evolving data requirements.
* Loosely coupled objectives — the design may change by over time.

**Not so Good For:**

* Highly transactional systems or where the data model is designed up front.
* Tightly coupled systems

Advantages of MongoDB over RDBMS

* **Schema less** − MongoDB is a document database in which one collection holds different documents. Number of fields, content and size of the document can differ from one document to another.
* Structure of a single object is clear.
* No complex joins.
* Deep query-ability. MongoDB supports dynamic queries on documents using a document-based query language that's nearly as powerful as SQL.
* Tuning.
* **Ease of scale-out** − MongoDB is easy to scale.
* Conversion/mapping of application objects to database objects not needed.
* Uses internal memory for storing the (windowed) working set, enabling faster access of data.

Why Use MongoDB?

* **Document Oriented Storage** − Data is stored in the form of JSON style documents.
* Index on any attribute
* Replication and high availability
* Auto-sharding
* Rich queries
* Fast in-place updates
* Professional support by MongoDB

Where to Use MongoDB?

* Big Data
* Content Management and Delivery
* Mobile and Social Infrastructure
* User Data Management
* Data Hub