In this thread I want to discuss MongoDB. I will define what MongoDB is. I will describe and define what collections and documents are within MongoDB. I would like to discuss MongoDB’s version of an auto-generated primary key. As well, I list in table format the key differences between MongoDB and MySQL. So, what is MongoDB?

“[MongoDB](https://www.mongodb.com/what-is-mongodb) is an open source, nonrelational database management system (DBMS) that uses flexible documents instead of tables and rows to process and store various forms of data. As a NoSQL solution, MongoDB does not require a relational database management system (RDBMS), so it provides an elastic data storage model that enables users to store and query multivariate data types with ease.” (Education, 2022). “A collection is a grouping of MongoDB [documents](https://www.mongodb.com/docs/compass/current/documents/#std-label-compass-documents). Documents within a collection can have different fields. A collection is the equivalent of a table in a relational database system. A collection exists within a single [database](https://www.mongodb.com/docs/compass/current/databases/#std-label-database-tab).” (Collections — MongoDB Compass, n.d.). “A document in MongoDB is a series of key-value pairs wrapped in curly braces. The structure of a MongoDB document follows JSON-like specification known as BSON. Documents are grouped by collections in MongoDB, where each collection is equivalent to a table, and each document is equivalent to a row in a NoSQL database.” (Khifer, 2022). “All documents in a [MongoDB](http://www.mongodb.org/) collection have a primary key dubbed \_id. This field is automatically assigned to a document upon insert, so there’s rarely a need to provide it.” (Glover, 2013). Let’s examine some differences between MongoDB and MySQL database in the table below:

|  |  |
| --- | --- |
| MongoDB | MySQL |
| Each individual record is stored as a “document”. | Each individual record is stored as a rows in a table. |
| Documents belonging to a particular class or group as stored in a [‘collection’](https://www.geeksforgeeks.org/mongodb-getting-started/). Example: collection of users. | A ‘table’ is used to store rows (records) of similar type. |
| MongoDB was designed with high availability and scalability in mind, and includes out-of-the-box [replication](https://docs.mongodb.com/manual/replication) and [sharding](https://docs.mongodb.com/manual/sharding). | MySQL concept does not allow efficient replication and sharding but in MySQL one can access associated data using joins which minimizes duplication. |

(GeeksforGeeks, 2018).

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