**James Bailey CSD 310 Module 4 Discussion: What is MongoDB? (Due: June 15, 2022)**

**Advantages and Disadvantages of MongoDB.**

Advantages: Through my research, I found many lists of advantages for using MongoDB. They all were repetitive, the provided link (first) being the most populated one. Here are the top seventeen advantages of MongoDB.

1. It is easy to install and setup MongoDB.

2. No Schema migrations needed. Mongo DB is schema-free, the code defines the schema.

3. Because the way MongoDB stores the data in the form of BSON (Binary JSON), ruby hashes, etc., that help to store data in a rich way while being capable of holding arrays and other documents. This ability to derive a document-based data model is one of the most attractive advantages of MongoDB (studytonight.com).

4. Supported dynamic queries, supported by the MongoDB document query language.

5. Easy to scale.

6. No needed complex joins, due to the BSON format key: value pair structuring way of the data in MongoDB.

7. Performance tuning is much easier compared to relational databases.

8. Mapping application objects to data objects is not needed in MongoDB.

9. MongoDB uses internal memory for storage, which enables faster access to the data.

10. Secure by nature with NoSQL injection.

11. MongoDB can also be used as a file system.

12. Supports ‘regex’ as well as ‘fields.’

13. Can be run as a windows service.

14. Great amount of tutorial documentation available online.

15. Does not require the aid of a Virtual Machine (VM).

16. MongoDB has regular release cycles of the newest versions.

17. Key features include Sharding ‘out of the box.’

Disadvantages: The availability of a product’s list of disadvantages is quite difficult to find, especially when analyzing top corporate or top sold products. With that said, I found a direct list of disadvantages through aconde.in online.

1. MongoDB usus high amounts of memory for data storage.

2. There is a limited document size of 16MB.

3. There is no transaction support in MongoDB.

From the provided link (in module4), there is a link on the left to a page which gives an implicit disadvantage. It looks like MongoDB choses data insertion rate over safety concerns; therefore, some data loss is going to happen. Also, it may be that security best practices are not met, although the NoSQL nature of the database should provide the necessary security.

Work Cited:

<https://acodez.in/mongodb-nosql-database/>

<https://www.studytonight.com/mongodb/advantages-of-mongodb>

<https://www.studytonight.com/mongodb/why-switch-to-mongodb>