

Difference Between Firebase and MongoDB

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Key Difference - Firebase vs MongoDB

Relational <u>database</u> is a common database type, but it is not suitable for storing a large quantity of data. As a result, <u>NoSQL</u> was introduced. It stands for a non-relational or non-SQL. Two NoSQL databases are Firebase and MongoDB. Firebase is a complete system with many features such as test labs, crash reports, real-time database, hosting solutions and authentication, app indexing and cloud messaging. This article discusses the difference between Firebase and MongoDB databases. The **key difference** between Firebase and MongoDB is that **Firebase is a database to store and synchronize data in real-time whereas MongoDB is an open source document-oriented database**.

What is Firebase?

Google develops firebase real-time database. Synchronizing data between users in real-time is easy. It can easily notify all the devices within a short period. When a change occurs, all users get those updates. It gives the flexibility to access data from any device (web, mobile). As the data is hosted on the cloud, there is no server maintenance.

Another advantage is that it can be used in offline as well. When the connection is lost, the database uses local <u>cache</u> on the device to store changes. When the user comes back online, the local data is automatically synchronised. It provides data security using database security rules. Requests can be sent in and out without data refreshers.

What is MongoDB?

There are different types of databases. Relational databases are one common type. In relational databases data is stored in tables. A database can have multiple tables. These tables are related to each other and known as relational databases. Even relational databases are useful for software development they have some limitations. Relational databases are not efficient in storing and managing <u>Big Data</u> which is a large sum of data.

As an alternative to this issue, NoSQL was introduced. NoSQL is for non-relational databases. There are different types of NoSQL databases. Some of them are document based, graph-based databases. MongoDB is a document-based NoSQL database.



Figure 01: MongoDB

A collection in MongoDB is similar to a table in a relational database. A document in MongoDB is a record, and it is similar to a row in a relational database. A collection is a set of documents. These documents are written in JSON format. MongoDB internally converts them to BSON (binary format) format. MongoDB provides a number of advantages. The schema is dynamic and does not require complex joins as in a relational database. It is free open source database written in $\underline{C++}$. It provides horizontal scaling it is easy to add more servers.

What is the Similarity Between Firebase and MongoDB?

Both are NoSQL.

What is the Difference Between Firebase and MongoDB?

Firebase vs MongoDB	
Firebase is a database to store and synchronize data in real-time.	MongoDB is a free open source, high-performance document-based database.
Performance	
Firebase does not provide high performance like MongoDB.	MongoDB provides high performance with high traffic apps.
Developer	
Google developed firebase.	MongoDB Inc developed MongoDB.
Supported Programming Languages	
Firebase support Objective C, Java and JavaScript.	MongoDB supports many programming languages including C, C#, Java, JavaScript etc.
Security	
Firebase is not secure like MongoDB.	MongoDB provides more security than Firebase.
Applications	
Firebase is more suitable for small-scale applications.	MongoDB is more suitable for large-scale applications.

Summary - Firebase vs MongoDB

Modern applications require fast feature development, storing big data. Those can be achieved by NoSQL. Firebase and NoSQL are two such databases. Firebase is mainly used for applications which heavily depend on real-time data. Some examples are stock market price charts, social apps, mobile apps. MongoDB is used to build secure apps. The difference between Firebase and MongoDB is that Firebase is a real-time database developed by Google and MongoDB is a document-oriented database. These databases useful for storing Big Data and for building real-time <u>web applications</u>.

Reference:

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- 2.Point, Tutorials. "MongoDB Overview.", <u>Tutorials Point</u>, 15 Aug. 2017. <u>Available here</u> 3.Point, Tutorials. "Firebase Overview.", <u>Tutorials Point</u>, 15 Aug. 2017. <u>Available here</u>

Image Courtesy:

1. 'Antu mongodb'By Fabián Alexis, (CC BY-SA 3.0) via Commons Wikimedia

How to Cite this Article?

APA: Difference Between Firebase and MongoDB.(2018 January 03). Retrieved (date), from http://differencebetween.com/difference-between-firebase-and-vs-mongodb/

MLA: "Difference Between Firebase and MongoDB" Difference Between.Com. 03 January 2018. Web.

Chicago: "Difference Between Firebase and MongoDB" Difference Between.Com. http://differencebetween.com/difference-between-firebase-and-vs-mongodb/ accessed (accessed [date]).



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