**Redis Vs MongoDB**

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| **Comparison Index** | **Redis** | **MongoDB** |
| Introduction | Redis is in-memory data structure store, used as database, cache and message broker. | MongoDB is one of the most popular NoSQL database which follows the document stores structure. |
| Primary database model | Redis follows key-value store model. | MongoDB follows document store model. |
| Developed By | Redis is developed by Salvatore Sanfilippo at redis lab. | MongoDB is developed by MongoDB Inc. |
| Initial Release | Redis is initially released in 2009. | MongoDB is also initially released in 2009. |
| Licence | Redis is subscription based and open-source. | MongoDB is free to use and open-source. |
| Cloud based | No | No |
| Implementation Language | Redis is written and implemented in C language. | MongoDB is written and implemented in C++ language. |
| Server operating systems | BSD, Linux, OS X, Windows | Linux, OS X, Solaris, Windows |
| Data Scheme | schema-free | schema-free |
| Secondary Indexes | No | Yes |
| SQL | No | No |
| APIs and other access methods | Redis follows proprietary protocol. | MongoDB follows proprietary protocol using JSON. |
| Supported programming languages | C, C#, C++, Clojure, Crystal, D, Dart, Elixir, Erlang,Fancy, Go, Haskell, Haxe, Java, JavaScript (Node.js), Lisp, Lua, MatLab, Objective-C, OCaml, Perl, PHP, Prolog, Pure Data, Python, R, Rebol, Ruby, Rust, Scala, Scheme, Smalltalk, Tcl | Actionscript, C, C#, C++, Clojure, ColdFusion, D, Dart, Delphi, Erlang, Go, Groovy, Haskell, Java, JavaScript, Lisp, Lua, MatLab Perl, PHP, PowerShell, Prolog, Python, R, Ruby, Scala, Smalltalk |
| Server-side scripts | Lua | JavaScript |
| Triggers | No | No |
| Partitioning methods | Redis uses Sharding for partition. | MongoDB also uses Sharding for partition. |
| Replication methods | Redis follows master-slave replication. | MongoDB also follows master-slave replication. |
| MapReduce | No | Yes |
| Foreign keys | No | No |
| Transaction concepts | Optimistic locking, atomic execution of commands blocks and scripts. | No |
| Concurrency | Yes | Yes |
| MapReduce | No | Yes |
| User concepts | Simple password-based access control. | Access rights for users and roles. |
| Special Characteristics | Redis is ranked as world?s fastest database. It reduces application complexity, simplifies development, accelerates time to market and provides unprecedented flexibility to developers with its visionary data structures and modules. | MongoDB is considered as the next-generation database. It successfully helped many businesses to transform their industries by providing big data. The world?s most sophisticated organizations, from cutting-edge startups to the largest companies, use MongoDB to create applications never before possible, at a very low cost. |
| Comparing Advantages | Redis is an in-memory database platform provides support of wide range of data structures such as strings, hashes, sets, lists, sorted sets, bitmaps, hyperloglogs, and geospatial indexes. Redis provides effortless scaling in a fully automated manner by overseeing all the operations of sharding, re-sharding, migration. It also includes persistence, instant automatic failure detection, backup and recovery, and in-memory replication across racks, zones, datacenters, regions, and cloud platforms. | MongoDB provides the best of traditional databases as well as flexibility, scale, and performance required by today?s applications. MongoDB is a database of giant ideas. MongoDB keeps the most valuable features of Relational database i.e. strong consistency, expressive query language and secondary indexes. It facilitates developers to build highly functional applications faster than NoSQL databases. |
| Key Customers | Key customers of Redis are: Verizon, Vodafone, Atlassian, Trip Advisor, Jet.com, Nokia, Samsung, HTC, Docker, Staples, Intuit, Groupon, KPMG, TD Bank, UnitedHealthcare, RingCentral, The Motley Fool, Bleacher Report, HipChat, Salesforce, Hotel Tonight, Cirruspath, Itslearning.com, Xignite, Chargify, Rumble Entertainment, Scopely, Havas Digital, Revmob, MSN, Mobli, TMZ, Klarna, Shopify etc. | Key customers of MongoDB are: ADP, Adobe, AstraZeneca, BBVA, Bosch, Cisco, CERN, Department of Veteran Affairs, eBay, eHarmony, Electronic Arts, Expedia, Facebook, Parse, Forbes, Foursquare, Genentech, MetLife, Pearson, Sage, , The Weather Channel, Ticketmaster, Under Armour, |
| Market Metrics | Redis Labs consists of more than 60000 customers globally and is consistently ranked as a leader in top analyst reports on NoSQL, in-memory and operational databases. Redis is rated as no. 1 cloud database, no.1 database in Docker, no.1 NoSQL datastore, most popular NoSQL database in container. | 20 million downloads (growing at thousands downloads per day). More than 2,000 customers including over one third of the Fortune 100. Named a leader in the Forrester Wave: Big Data NoSQL, Q3 2016. Highest placed non-relational database in DB Engines rankings |