

Difference Between Memcached and Redis

www.differencebetween.com

Key Difference - Memcached vs Redis

A relational [database](#) is a common database type, but it is not suitable for storing a large quantity of data. Therefore, [NoSQL](#) was introduced. It stands for a non-relational or non-SQL. Memcached and Redis are categorized to NoSQL. The **key difference** between Memcached and Redis is that **Memcached is an [open source](#), high performance distributed memory caching system which can speed up [web applications](#) by minimising database loads while Redis is an open source, key-value store for building scalable web applications.** This article discusses the difference between Memcached and Redis.

What is Memcached?

Memcached is an open source, high performance, distributed memory caching system. It is a persistent data store. The main advantage of Memcached is that it reduces the database load, so it is quite efficient and faster for [websites](#) with high database loads.

In Memcached, there are storage commands, retrieval commands and statistics commands. Some storage commands are set, add, append etc. The "set" command is used to set a new value to a new or existing key. The "add" command is used to set a value to a new key. The "replace" command is to replace the value of an existing key. The "append" command can add some data to an existing key. The "get", "delete" are retrieval commands. The "get" command is used to get the value stored in a key. The "delete" can be used to delete an existing key. Those are some Memcached commands.

What is Redis?

It is an open source, in-memory data structure store, used as a database, [cache](#) and message broker. Redis stands for remote dictionary server. It stores data in key-value format. To communicate with the database, the user should use commands. Commands are given using Redis Command Line Interface (CLI). For example, department="IT". Here, the department is the key and "IT" is the value. The user can write data to Redis data store using the command, "SET". e.g. SET "department" "IT". Redis set the data according to the key value. The user can read data with the "GET" command. e.g. GET "department". Redis returns the value corresponding to that key.

Redis is simple and easy to use. It is categorized to NoSQL database. Unlike relational database systems like [MySQL, Oracle](#), the Redis does not use tables to store data. It does not use regular SQL commands such as select, delete, create, update etc. It uses data structures to store data. Main data structures are String, Lists, Sets, Sorted Sets and

Hashes, bitmaps etc. Redis is written in [C language](#), and it is open source cross-platform system.



Figure 01: Redis

The main advantage of Redis is that it keeps data in the memory. This makes Redis fast. It also can write data to the disk. It can be used as a caching system or a fully-fledged database. Another advantage is that it can be used along with another database. Rather than accessing the main database, Redis can be store frequently accessing data, and the rest of the data can be fetched from the main database. It follows master-slave architecture. It provides performance, scalability and it is easy to use.

What are the Similarities Between Memcached and Redis?

- Both categorises to NoSQL.
- Both store data in the format of key, value.
- Both can store data in memory.

What is the Difference Between Memcached and Redis?

Memcached vs Redis	
Memcached is an open source, high performance, distributed memory caching system which can speed up web applications by reducing database load.	Redis is an open source, a key-value store which can be used as a database, cache and a message broker.
Use	
Memcached is hard to install than Redis.	Redis is easier to install and use.

Replication	
Memcached does not support replications.	Redis supports master-slave replications.
Data Types	
Memcached has a string, integers as data types.	Redis has more data types such as strings, Lists, Hashes etc.
Speed	
Memcached read / write speed is higher than Redis.	Redis, read/write speed fast, but it depends.

Summary - Memcached vs Redis

Memcached and Redis categories to NoSQL. They do not use Structured Query Language for data storing, retrieving and manipulation. The difference between Memcached and Redis is that Memcached is an open source, high performance distributed memory caching system and Redis is an open source, key-value store for building scalable web applications. Using Memcached or Redis depends on the application. Redis can be used when advanced data structures are required. Memcached is useful decrease database loads and to speed up web applications.

Reference:

1. ProgrammingKnowledge. YouTube, YouTube, 16 July 2017. [Available here](#)
2. Gaurav Agrawal, Software Engineer at Webdunia, Drupal Developer Follow. "Redis vs Memcached." LinkedIn SlideShare, 23 Oct. 2015. [Available here](#)
3. YouTube, Raghav Pal, 24 Apr. 2017. [Available here](#)

Image Courtesy:

- 1.'redis' by othree ([CC BY 2.0](#)) via [Flickr](#)

How to Cite this Article?

APA: Difference Between Memcached and Redis.(2018 January 02). Retrieved (date), from <http://differencebetween.com/difference-between-memcached-and-vs-redis/>

MLA: "Difference Between Memcached and Redis" Difference Between.Com. 02 January 2018. Web.

Chicago: "Difference Between Memcached and Redis." Difference Between.Com. <http://differencebetween.com/difference-between-memcached-and-vs-redis/> accessed (accessed [date]).