#### Memcached vs redis

Same

At face value, Redis and Memcached look like they do the same thing.

Both Redis and Memcached:

- 1. Store data in memory for fast retrieval, making them perfect targets for caching.
- 2. Are a NoSQL data store, keeping data as key value pairs.
- 3. Are both open source, with plenty of documentation to help get set up.

### Different

# 1. Sub-millisecond latency

Both Redis and Memcached support sub-millisecond response times. By storing data inmemory they can read data more quickly than disk based databases.

## 2. Developer ease of use

Both Redis and Memcached are syntactically easy to use and require a minimal amount of code to integrate into your application.

# 3. Data partitioning

Both Redis and Memcached allow you to distribute your data among multiple nodes. This allows you to scale out to better handle more data when demand grows.

### 4. Support for a broad set of programming languages

Both Redis and Memcached have many open-source clients available for developers. Supported languages include Java, Python, PHP, C, C++, C#, JavaScript, Node.js, Ruby, Go and many others.

### 5. Advanced data structures

In addition to strings, Redis supports lists, sets, sorted sets, hashes, bit arrays, and hyperloglogs. Applications can use these more advanced data structures to support a variety of use cases. For example, you can use Redis Sorted Sets to easily implement a game leaderboard that keeps a list of players sorted by their rank.

#### 6. Multithreaded architecture

Since Memcached is multithreaded, it can make use of multiple processing cores. This means that you can handle more operations by scaling up compute capacity.

## 7. Snapshots

With Redis you can keep your data on disk with a point in time snapshot which can be used for archiving or recovery.

## 8. Replication

Redis lets you create multiple replicas of a Redis primary. This allows you to scale database reads and to have highly available clusters.

#### 9. Transactions

Redis supports transactions which let you execute a group of commands as an isolated and atomic operation.

#### 10. Pub/Sub

Redis supports Pub/Sub messaging with pattern matching which you can use for high performance chat rooms, real-time comment streams, social media feeds, and server intercommunication.

## 11. Lua scripting

Redis allows you to execute transactional Lua scripts. Scripts can help you boost performance and simplify your application.

## 12. Geospatial support

Redis has purpose-built commands for working with real-time geospatial data at scale. You can perform operations like finding the distance between two elements (for example people or places) and finding all elements within a given distance of a point.

### LRU - OOP design

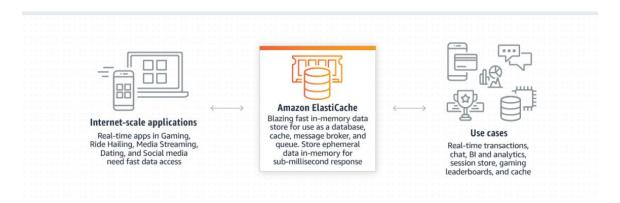
#Check Github

## **AWS: Elastic Cache**

Amazon ElastiCache offers fully managed Redis and Memcached. With both ElastiCache for Redis and ElastiCache for Memcached you:

Amazon ElastiCache is a fully managed, in-memory caching service supporting flexible, real-time use cases. You can use ElastiCache for caching, which accelerates application and database performance, or as a primary data store for use cases that don't require

durability like session stores, gaming leaderboards, streaming, and analytics. ElastiCache is compatible with Redis and Memcached.



# Accelerate application performance

Access data with microsecond latency and high throughput for lightning-fast application performance.

#### Ease backend database load

Cache your data to reduce pressure on your backend database, enabling higher application scalability and reducing operational burden.

# Build low-latency data stores

Use ElastiCache to store non-durable datasets in memory and support real-time applications with microsecond latency.