Name	**Ehcache X**	**Memcached X**	**Redis X**
Description	A widely adopted Java cache with tiered storage options	In-memory key-value store, originally intended for caching	In-memory data structure store, used as database, cache and message broker
Primary database model	Key-value store	Key-value store	Key-value store
Secondary database models			Document store Graph DBMS Search engine Time Series DBMS
DB-Engines RankingTrend Chart	Score6.69Rank#53 Overall#8 Key-value stores	Score27.01Rank#26 Overall#4 Key-value stores	Score144.08Rank#8 Overall#1 Key-value stores
Website	www.ehcache.org	www.memcached.org	redis.io
Technical documentation	www.ehcache.org/-documentation	github.com/-memcached/-memcached/-wiki	redis.io/-documentation
Developer	Terracotta Inc, owned by Software AG	Danga Interactive	Salvatore Sanfilippo
Initial release	2009	2003	2009
Current release	3.6.1, September 2018	1.5.12, November 2018	5.0.5, May 2019
License	Open Source	Open Source	Open Source
Cloud-based only	no	no	no
DBaaS offerings (sponsored links)			
Implementation language	Java	C	C

Server operating systems	All OS with a Java VM	FreeBSD Linux OS X Unix Windows	BSD Linux OS X Windows
Data scheme	schema-free	schema-free	schema-free
Typing	yes	no	partial
XML support	no		no
Secondary indexes	no	no	yes
SQL	no	no	no
APIs and other access methods	JCache	Proprietary protocol	proprietary protocol
Server-side scripts	no	no	Lua
Triggers	yes	no	no
Partitioning methods	Sharding	none	Sharding
Replication methods	yes	none	Master-slave replication Multi-master replication
MapReduce	no	no	no
Consistency concepts	Tunable Consistency (Strong, Eventual, Weak)		Strong eventual consistency with CRDTs Eventual Consistency
Foreign keys	no	no	no
Transaction concepts	yes	no	Optimistic locking, atomic execution of commands blocks and scripts
Concurrency	yes	yes	yes

Durability	yes	no	yes
In-memory capabilities	yes		yes
User concepts	no	yes	Simple password-based access control

Supported programming languages	Java	.Net C C++ ColdFusion Erlang Java Lisp Lua OCaml Perl PHP Python Ruby	C C# C++ Clojure Crystal D Dart Elixir Erlang Fancy Go Haskell Haxe Java JavaScript (Node.js) Lisp Lua MatLab Objective-C OCaml Pascal Perl PHP Prolog Pure Data Python R Rebol Ruby Rust Scala Scheme Smalltalk Swift Tcl Visual Basic