

ABSTRACT

Caching systems such as Redis and Memcached play a crucial role in enhancing the performance of modern applications. This study compares the performance of Redis and Memcached based on throughput, response time, memory usage, and CPU usage under various load conditions. The evaluation was conducted using the Memtier tool on a device equipped with an Intel Core i3-5005U processor, GeForce 930M graphics, and 6 GB of RAM. The results indicate that Redis excels in throughput and response time during evaluations with both low and high loads. Memcached is more efficient in terms of memory and CPU usage under both low and high loads. Redis is more effective in handling heavy workloads. Memcached is more resource-efficient in terms of CPU and memory usage during evaluations with both light and high workloads.

Key Word – *Server-side Caching, Redis, Memcached, Memtier.*