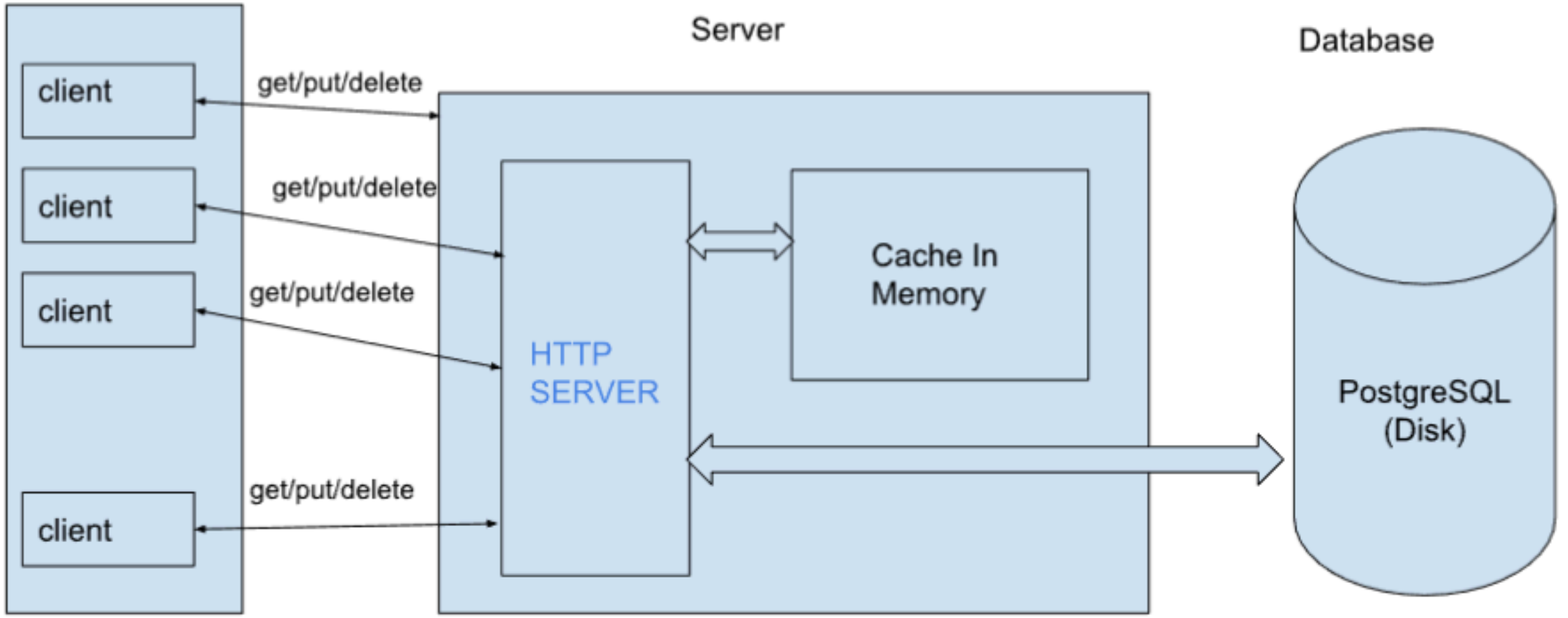
Multi-Tier key value server

Rudreswar Pal- 25m0750


Server
Database
client
client
client
client
get/put/delete
get/put/delete
get/put/delete
get/put/delete
HTTP
SERVER
Cache In
Memory
PostgreSQL
(Disk)

Devolopement Process:

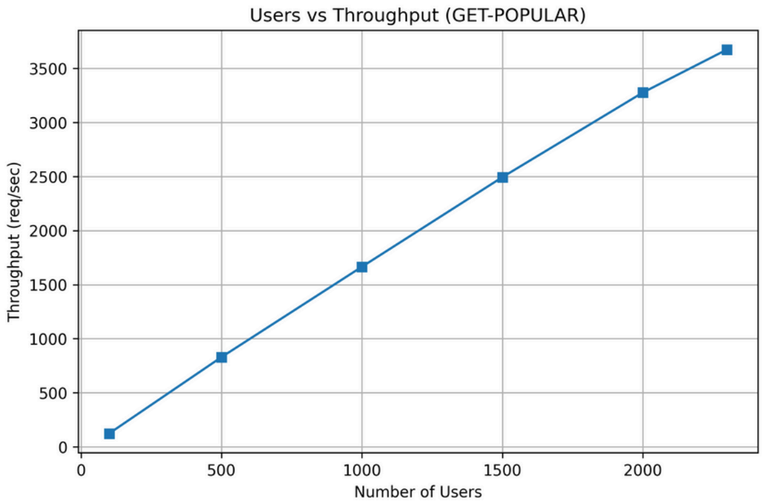
Server : C++ with cibetweb
cache: a list stored in dram(size 10000)
database : Postgresql
loadgenerator : apache jmeter

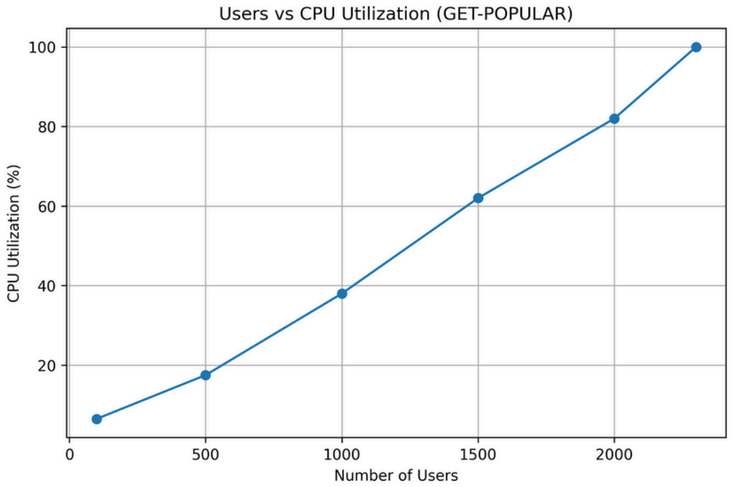
load test setup:

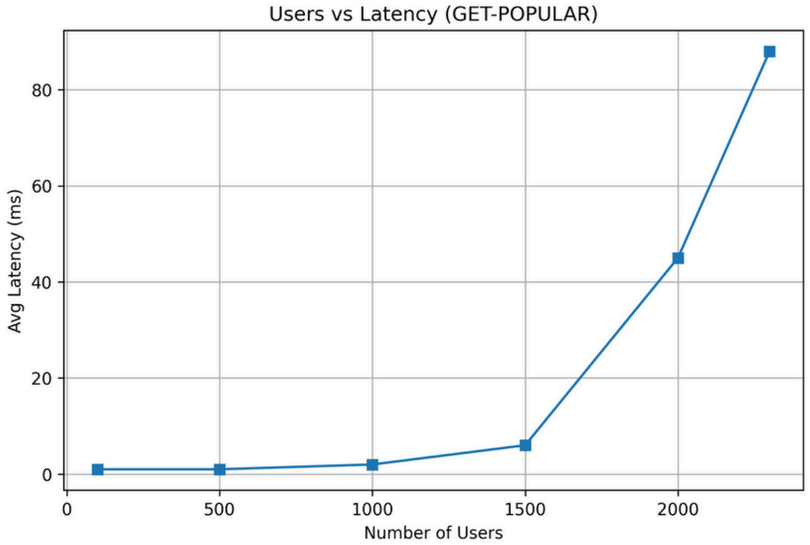
- Docker is used
- Server is used as a container
- Database is in another container:connected via tcp in local network in docker : port 5432
- apache jmeter in host machine

Loadtest 1:cpu bottle neck

Get Popular: 8000 unique key and request send in loop
all request will hit cache

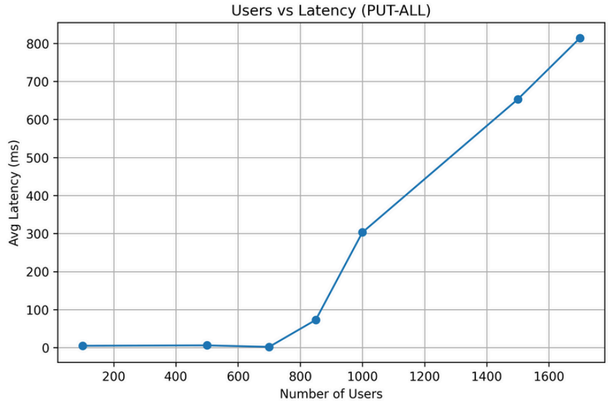


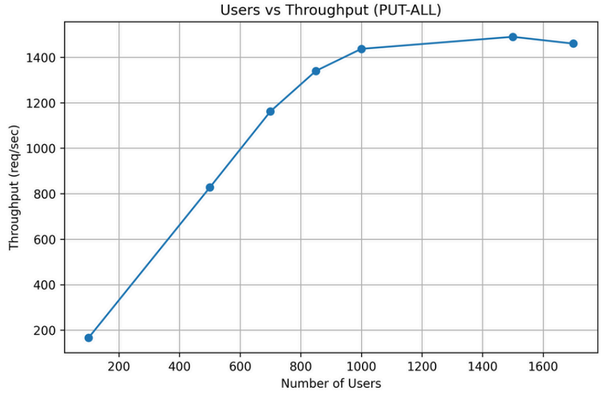


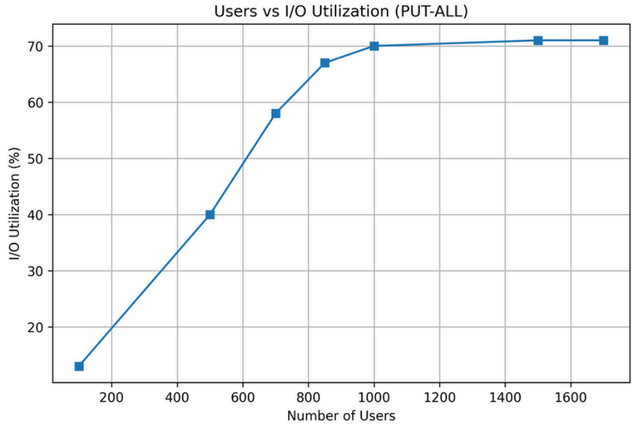


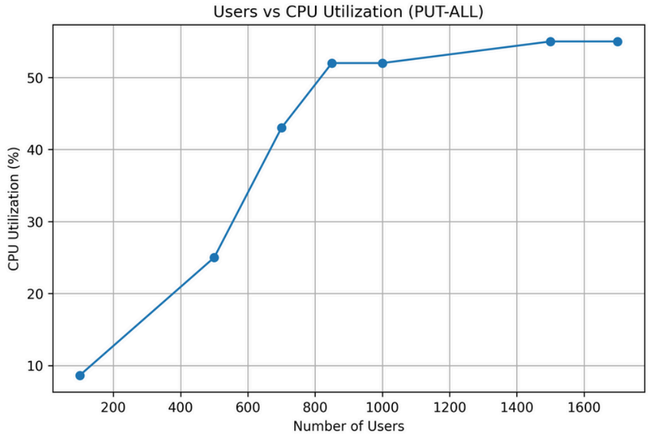
Loadtest 2:IO bottle neck

put all: random key from 1 to 1000000 and request send in loop
all request hits database









THANK YOU!