Practical – 02

Aim: - Interacting With Redis

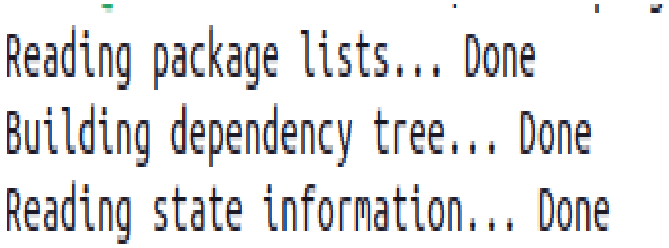
a) Install Redis on your lab server or local machine.
b) Store and retrieve data in Redis using various data structures like strings, lists, and sets.
c) Implement basic Redis commands for data manipulation and retrieval

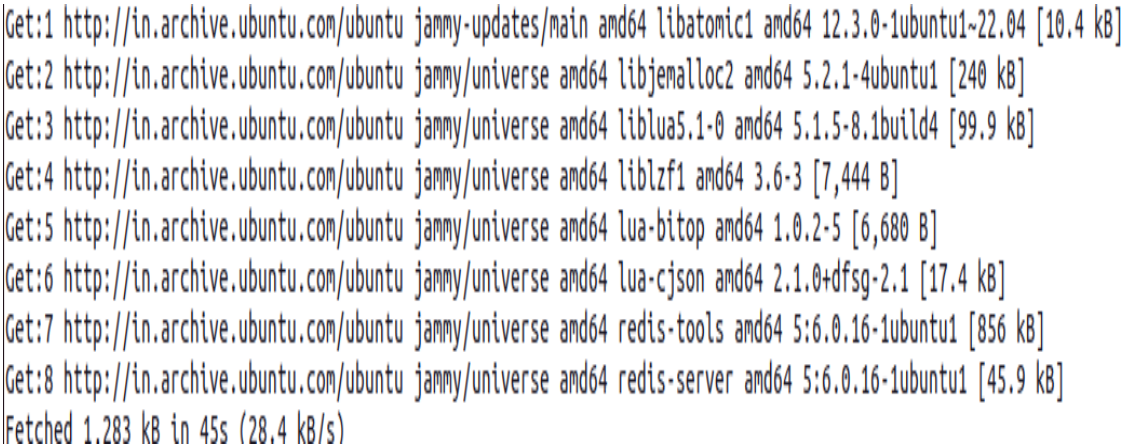
Description: - Redis is an open-source in-memory storage, used as a distributed, in-memory key–valuedatabase, cache and message broker, with optional durability. Because it holds all data in memory andbecause of its design, Redis offers low-latency reads and writes, making it particularly suitable for use cases that require a cache.

Execution:

1. Installing Redis

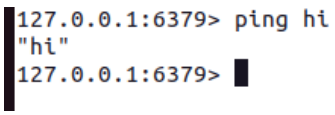
- sudo apt-get update
- sudo apt-get install redis-server





2) Connecting Redis

- Redis-cli



3) Performing CRUD operations using Strings, List and Sets.

- Creating Strings

```
127.0.0.1:6379> SET mykey "Redis connected !"
OK
127.0.0.1:6379> GET mykey
"Redis connected !"
```

- Working with Lists

```
127.0.0.1:6379> LPUSH mylist element1 element2 element3 element3
(integer) 4
127.0.0.1:6379> LRANGE mylist 0 -1
1) "element3"
2) "element3"
3) "element2"
4) "element1"
```

- Working with Sets

```
127.0.0.1:6379> SADD myset 1 2 3 4 4 5 6
(integer) 6
```

```
127.0.0.1:6379> SMEMBERS myset
1) "1"
2) "2"
3) "3"
4) "4"
5) "5"
6) "6"
```

- Basic Redis

  Commands# Check

```
127.0.0.1:6379> Exists mykey
(integer) 1
```

  if

  a key exists

  # Delete a key

```
127.0.0.1:6379> DEL mykey
(integer) 1
```

  # Increment a key

```
127.0.0.1:6379> SET mynumber 10
OK
127.0.0.1:6379> INCR mynumber
(integer) 11
127.0.0.1:6379> GET mynumber
"11"
```

  # Decrement a key

```
127.0.0.1:6379> DECR mynumber
(integer) 10
127.0.0.1:6379> GET mynumber
"10"
```

  # Expire a key after a specific time (in second

```
127.0.0.1:6379> EXPIRE mynumber 60
(integer) 1
127.0.0.1:6379> TTL mynumber
(integer) 50
127.0.0.1:6379> TTL mynumber
(integer) 48
```