PG-DBDA March 2023
C-DAC THIRUVANANTHAPURAM

DATA COLLECTION & DBMS – LAB 09

1. Do the following in the Redis database numbered 3.

    Code:

    127.0.0.1:6379> select 3

    a. Create a string key named institution with value C-DAC.

    Code:

    127.0.0.1:6379[3]> set institution "CDAC"

    b. Create a hash key named student with fields stid, name, course.

    Code:

    127.0.0.1:6379[3]> HMSET student stid 04 name "Arunabh" course "DBDA"

    c. Create a list key named courses with values DBDA, DCSF, DAC, DESD.

    Code:

    127.0.0.1:6379[3]> lpush courses DBDA DCSF DAC DESD

    d. Create a set key named centres with values Trivandrum, Kochi, Mumbai, Pune.

    Code:

    127.0.0.1:6379[3]> sadd centres Trivandrum Kochi Mumbai Pune

    e. Create a sorted set key named departments with values STDC, CFS, CSS, ETG.

    Code:

    127.0.0.1:6379[3]> zadd departments 1 STDC 2 CFS 3 CSS 4 ETG

f. Display the number of keys created in the database.

Code:
    127.0.0.1:6379[3]> dbsize

g. Change the value of institution key as Centre for Development of Advanced Computing.

Code:
    127.0.0.1:6379[3]> set institution "Centre for Development of Advance Computing"

h. Add email and contact fields to student key.

Code:
    127.0.0.1:6379[3]> HMSET student email "arunabh@gmail.com" contact "9876543210"

i. Add a new value DMC to the right in courses key.

Code:
    127.0.0.1:6379[3]> rpush courses DMC

j. Insert a new value DRAT before DCSF in courses key.

Code:
    127.0.0.1:6379[3]> linsert courses BEFORE DCSF DRAT

k. Display all the members from centres key.

Code:
    127.0.0.1:6379[3]> smembers centres

l. Remove ETG from departments key.

Code:
    127.0.0.1:6379[3]> zrem departments ETG

m. Display the type of institution key.

Code:
127.0.0.1:6379[3]> type institution
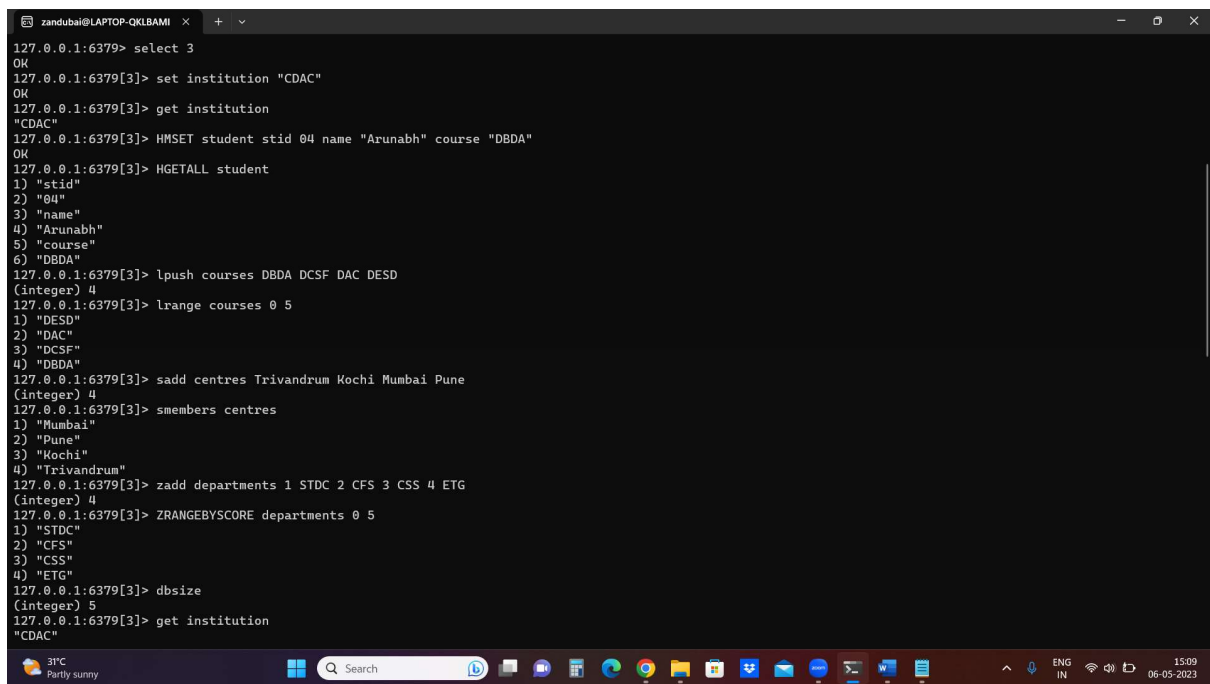
n. Display all the keys in the database.

Code:
127.0.0.1:6379[3]> keys *

o. Display the number of fields stored in student key.

Code:
127.0.0.1:6379[3]> hlen student

Screenshot:

```
127.0.0.1:6379[3]> set institution "Centre for Development of Advance Computing"
OK
127.0.0.1:6379[3]> get institution
"Centre for Development of Advance Computing"
127.0.0.1:6379[3]> HMSET student email "arunabh@gmail.com" contact "9876543210"
OK
127.0.0.1:6379[3]> HGETALL student
 1) "stid"
 2) "04"
 3) "name"
 4) "Arunabh"
 5) "course"
 6) "DBDA"
 7) "email"
 8) "arunabh@gmail.com"
 9) "contact"
10) "9876543210"
127.0.0.1:6379[3]> rpush courses DMC
(integer) 5
127.0.0.1:6379[3]> lrange courses 0 6
1) "DESD"
2) "DAC"
3) "DCSF"
4) "DBDA"
5) "DMC"
127.0.0.1:6379[3]> linsert courses BEFORE DCSF DRAT
(integer) 6
127.0.0.1:6379[3]> lrange courses 0 7
1) "DESD"
2) "DAC"
3) "DRAT"
4) "DCSF"
5) "DBDA"
6) "DMC"
127.0.0.1:6379[3]> smembers centres
1) "Mumbai"
2) "Pune"
3) "Kochi"
4) "Trivandrum"
127.0.0.1:6379[3]> zrem departments ETG
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```
10) "9876543210"
127.0.0.1:6379[3]> rpush courses DMC
(integer) 5
127.0.0.1:6379[3]> lrange courses 0 6
1) "DESD"
2) "DAC"
3) "DCSF"
4) "DBDA"
5) "DMC"
127.0.0.1:6379[3]> linsert courses BEFORE DCSF DRAT
(integer) 6
127.0.0.1:6379[3]> lrange courses 0 7
1) "DESD"
2) "DAC"
3) "DRAT"
4) "DCSF"
5) "DBDA"
6) "DMC"
127.0.0.1:6379[3]> smembers centres
1) "Mumbai"
2) "Pune"
3) "Kochi"
4) "Trivandrum"
127.0.0.1:6379[3]> zrem departments ETG
(integer) 1
127.0.0.1:6379[3]> ZRANGEBYSCORE departments 0 5
1) "STDC"
2) "CFS"
3) "CSS"
127.0.0.1:6379[3]> type institution
string
127.0.0.1:6379[3]> keys *
1) "institution"
2) "centres"
3) "student"
4) "courses"
5) "departments"
127.0.0.1:6379[3]> hlen student
(integer) 5
127.0.0.1:6379[3]>
```