

COSC 416 - Special Topics in Databases

Assignment 7 - Redis Answer Key

Part I (10 marks)

Task #1 (1 mark)

```
SET <student number> <name>
```

Task #2 (1 mark)

```
RPUSH 416 hadoop pig hive neo4j sensei  
LTRIM 416 1 -1  
LREM 416 1 <db of your choice>
```

Task #3 (1 mark)

```
SADD A a b c  
SADD B c d e f  
SINTERSTORE C A B
```

Task #4 (1 mark)

```
ZADD 416a 1 hadoop 2 pig 3 hive 4 n4j 5 sensei  
ZINCRBY 416a -999 <db of your choice>  
ZRANGE 416a ID 0 100 withscores
```

Task #5 (1 mark)

```
HMSET 416h  
  id 00000  
  first G  
  last Douggie  
  bday 01-01-2001  
  email @.com  
HDEL 416h email  
HGETALL h
```

Task #6 (1 mark)

```
SUBSCRIBE COSC416A  
PUBLISH COSC416A "Hello Wolrd"
```

Task #7 (1 mark)

```
EXPIRE 416 10
PERSIST 416
```

Task #8 (3 mark)

```
MULTI
PEXPIRE 416 10
PERSIST 416
EXEC
```

Part II (10 marks)

-- Question Answer

```
local val = redis.call("get", KEYS[1])
val = val + 1
redis.call("set", KEYS[1], val)
return val
-- redis-cli --eval script.lua mykey
```

-- Question Answer with Bonus

```
local updates = {}
for i = 1, #KEYS do
    local val = redis.call("get", KEYS[i])
    val = val + tonumber(ARGV[i])
    table.insert(updates, KEYS[i])
    table.insert(updates, val)
    redis.call("set", KEYS[i], val)
end
return updates
-- redis-cli --eval script.lua mykey1 mykey2 , 1 2
```

Part III (30 marks)

See the attached template code.