IntroRedis2

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1 Reset the Redis server to "initial state" for your database..

```
OK
1617973669.459042 [0 127.0.0.1:56914] "FLUSHALL"
```

Figure 1: Resetting server

2 Post articles, and print the (augmented) "article state" to the terminal.

```
To see the code snippets after each step please see the source code. It would be redundant to post snippets here as well.

1) Reset the Redis server to "initial state" for your database.

2) Post the following articles in this order:
3) As you post each of these articles, print the (augmented) "article state" to the terminal:
/Users/tombohbot/TomsGit/BohbotTom/ModernDataManagement/assignments/IntroRedis2/IntroRedis2.py:23: DeprecationWarning: Red
is.hmset() is deprecated. Use Redis.hset() instead.
  r.hmset(str(count), {
augnmented article state after 1st inserted article
{b'id': b'1',
 b'link': b'http://www.qq.com',
 b'now': b'1617924266.0029209',
 b'score': b'1617924766',
 b'title': b'title21',
 b'user': b'Bob',
 b'votes': b'1'}

augnmented article state after 2nd inserted article
{b'id': b'2',
 b'link': b'http://www.youtube.com title',
 b'now': b'1617924266.0061388',
 b'score': b'1617924766',
 b'title': b'title180',
 b'user': b'Bob',
 b'votes': b'1'}

augnmented article state after 3rd inserted article
{b'id': b'3',
 b'link': b'http://www.vk.com',
 b'now': b'1617924266.006871',
 b'score': b'1617924766',
 b'title': b'title47',
 b'user': b'Bob',
 b'votes': b'1'}
```

Figure 2: First three articles

```
augnmented article state after 4th inserted article
{b'id': b'4',
 b'link': b'http://www.vk.com',
 b'now': b'1617924266.007571',
 b'score': b'1617924766',
 b'title': b'title94',
 b'user': b'Jane',
 b'votes': b'1'}

augnmented article state after 5th inserted article
{b'id': b'5',
 b'link': b'http://www.google.co.in',
 b'now': b'1617924266.008207',
 b'score': b'1617924766',
 b'title': b'title151',
 b'user': b'Xandra',
 b'votes': b'1'}
```

Figure 3: Last two articles

```
1617973669.463107 [0 127.0.0.1:56914] "HMSET" "1" "link" "http://www.qq.com" "votes
" "1" "title" "title21" "user" "Bob" "now" "1617973669.46006" "id" "1" "score" "161
7974169"
1617973669.463669 [0 127.0.0.1:56914] "ZADD" "score" "1617974169.46006" "1"
1617973669.464204 [0 127.0.0.1:56914] "ZADD" "time" "1617973669.46006" "1"
1617973669.464368 [0 127.0.0.1:56914] "HGETALL" "1"
1617973669.464962 [0 127.0.0.1:56914] "HMSET" "2" "link" "http://www.youtube.com ti
tle" "votes" "1" "title" "title180" "user" "Bob" "now" "1617973669.4648" "id" "2" "
score" "1617974169"
1617973669.465129 [0 127.0.0.1:56914] "ZADD" "score" "1617974169.4648" "2"
1617973669.465257 [0 127.0.0.1:56914] "ZADD" "time" "1617973669.4648" "2"
1617973669.465395 [0 127.0.0.1:56914] "HGETALL" "2"
1617973669.465763 [0 127.0.0.1:56914] "HMSET" "3" "link" "http://www.vk.com" "votes
" "1" "title" "title47" "user" "Bob" "now" "1617973669.465633" "id" "3" "score" "16
17974169"
1617973669.466029 [0 127.0.0.1:56914] "ZADD" "score" "1617974169.465633" "3"
1617973669.466248 [0 127.0.0.1:56914] "ZADD" "time" "1617973669.465633" "3"
1617973669.466402 [0 127.0.0.1:56914] "HGETALL" "3"
1617973669.466851 [0 127.0.0.1:56914] "HMSET" "4" "link" "http://www.vk.com" "votes
" "1" "title" "title94" "user" "Jane" "now" "1617973669.466689" "id" "4" "score" "1
617974169"
1617973669.467077 [0 127.0.0.1:56914] "ZADD" "score" "1617974169.466689" "4"
1617973669.467287 [0 127.0.0.1:56914] "ZADD" "time" "1617973669.466689" "4"
1617973669.467443 [0 127.0.0.1:56914] "HGETALL" "4"
1617973669.467891 [0 127.0.0.1:56914] "HMSET" "5" "link" "http://www.google.co.in"
"votes" "1" "title" "title151" "user" "Xandra" "now" "1617973669.467705" "id" "5" "
score" "1617974169"
1617973669.468090 [0 127.0.0.1:56914] "ZADD" "score" "1617974169.467705" "5"
1617973669.468278 [0 127.0.0.1:56914] "ZADD" "time" "1617973669.467705" "5"
1617973669.468458 [0 127.0.0.1:56914] "HGETALL" "5"
```

Figure 4: MONITOR

3 User Joel votes for the first article posted

```
4) User Joel votes for the first article posted:

5) Echo the current number of votes associated with that article:
Votes associated with first inputted article: b'2'
```

Figure 5: Echo the current number of votes associated with that article

```
1617974666.287090 [0 127.0.0.1:56965] "SADD" "Joel" "1"
1617974666.287189 [0 127.0.0.1:56965] "HGET" "1" "now"
1617974666.287339 [0 127.0.0.1:56965] "HINCRBY" "1" "score" "500"
1617974666.287441 [0 127.0.0.1:56965] "HINCRBY" "1" "votes" "1"
1617974666.287544 [0 127.0.0.1:56965] "ZINCRBY" "score" "500" "1"
1617974666.287660 [0 127.0.0.1:56965] "ZINCRBY" "votes" "1" "1"
1617974666.287774 [0 127.0.0.1:56965] "HGET" "1" "votes"
```

Figure 6: MONITOR

4 User Joel votes again for the first article posted

```
6) User Joel votes again for the first article posted

7) Echo the current number of votes associated with that article
Votes associated with first posted article: b'2'
```

Figure 7: Echo the current number of votes associated with that article

```
1617973669.470727 [0 127.0.0.1:56914] "SADD" "Joel" "1"
1617973669.471202 [0 127.0.0.1:56914] "HGET" "1" "now"
1617973669.471493 [0 127.0.0.1:56914] "HGET" "1" "votes"
```

Figure 8: MONITOR

5 Invoke getArticlesByScore to retrieve the first page of articles

```
8) Invoke ArticlesByScore to retrieve the first page of articles, followed by printArticles for the result-set.
{b'id': b'1',
 b'link': b'http://www.qq.com',
 b'now': b'1617924266.0029209',
 b'score': b'1617925266',
 b'title': b'title21',
 b'user': b'Bob',
 b'votes': b'2'}
{b'id': b'5',
 b'link': b'http://www.google.co.in',
 b'now': b'1617924266.008207',
 b'score': b'1617924766',
 b'title': b'title151',
 b'user': b'Xandra',
 b'votes': b'1'}
{b'id': b'4',
 b'link': b'http://www.vk.com',
 b'now': b'1617924266.007571',
 b'score': b'1617924766',
 b'title': b'title94',
 b'user': b'Jane',
 b'votes': b'1'}
```

Figure 9: printArticles for the result-set

```
1617973669.471784 [0 127.0.0.1:56914] "ZREVRANGE" "score" "0" "2"
1617973669.472039 [0 127.0.0.1:56914] "HGETALL" "1"
1617973669.472410 [0 127.0.0.1:56914] "HGETALL" "5"
1617973669.472895 [0 127.0.0.1:56914] "HGETALL" "4"
```

Figure 10: MONITOR

6 Invoke getArticlesByTime to retrieve the first page of articles

```
9) Invoke getArticlesByTime to retrieve the first page of articles, followed by printArticles for the result-set.
{b'id': b'5',
 b'link': b'http://www.google.co.in',
 b'now': b'1617924266.008207',
 b'score': b'1617924766',
 b'title': b'title151',
 b'user': b'Xandra',
 b'votes': b'1'}
{b'id': b'4',
 b'link': b'http://www.vk.com',
 b'now': b'1617924266.007571',
 b'score': b'1617924766',
 b'title': b'title94',
 b'user': b'Jane',
 b'votes': b'1'}
{b'id': b'3',
 b'link': b'http://www.vk.com',
 b'now': b'1617924266.006871',
 b'score': b'1617924766',
 b'title': b'title47',
 b'user': b'Bob',
 b'votes': b'1'}
```

printArticles for the result-set

```
1617973669.473434 [0 127.0.0.1:56914] "ZREVRANGE" "time" "0" "2"
1617973669.473659 [0 127.0.0.1:56914] "HGETALL" "5"
1617973669.474130 [0 127.0.0.1:56914] "HGETALL" "4"
1617973669.474508 [0 127.0.0.1:56914] "HGETALL" "3"
```

Figure 11: MONITOR

7 Your program sleeps for QUARTER_MINUTE_IN_SECONDS plus an additional 1000 milliseconds. Echo to the terminal when your program goes to sleep and when it wakes up.

```
10) Your program should sleep for QUARTER_MINUTE_IN_SECONDS and plus and additional 1000 milliseconds. 11) Echo to the ter
minal when your program goes to sleep and when it wakes up
Going to sleep
Just woke up
```

Figure 12: Program sleeping and waking

8 User Xandra votes for the second article posted

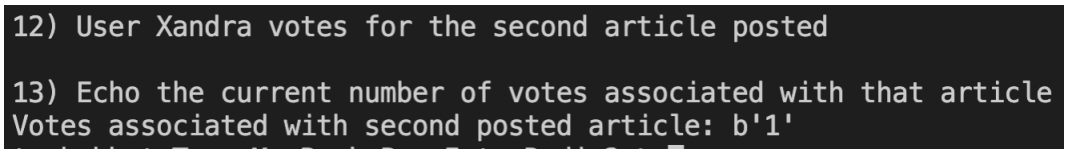

Figure 13: The current number of votes associated with that article

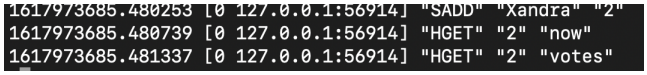

Figure 14: MONITOR