



MACQUARIE
University
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COMP6210 Assignment 1

Submitted by:

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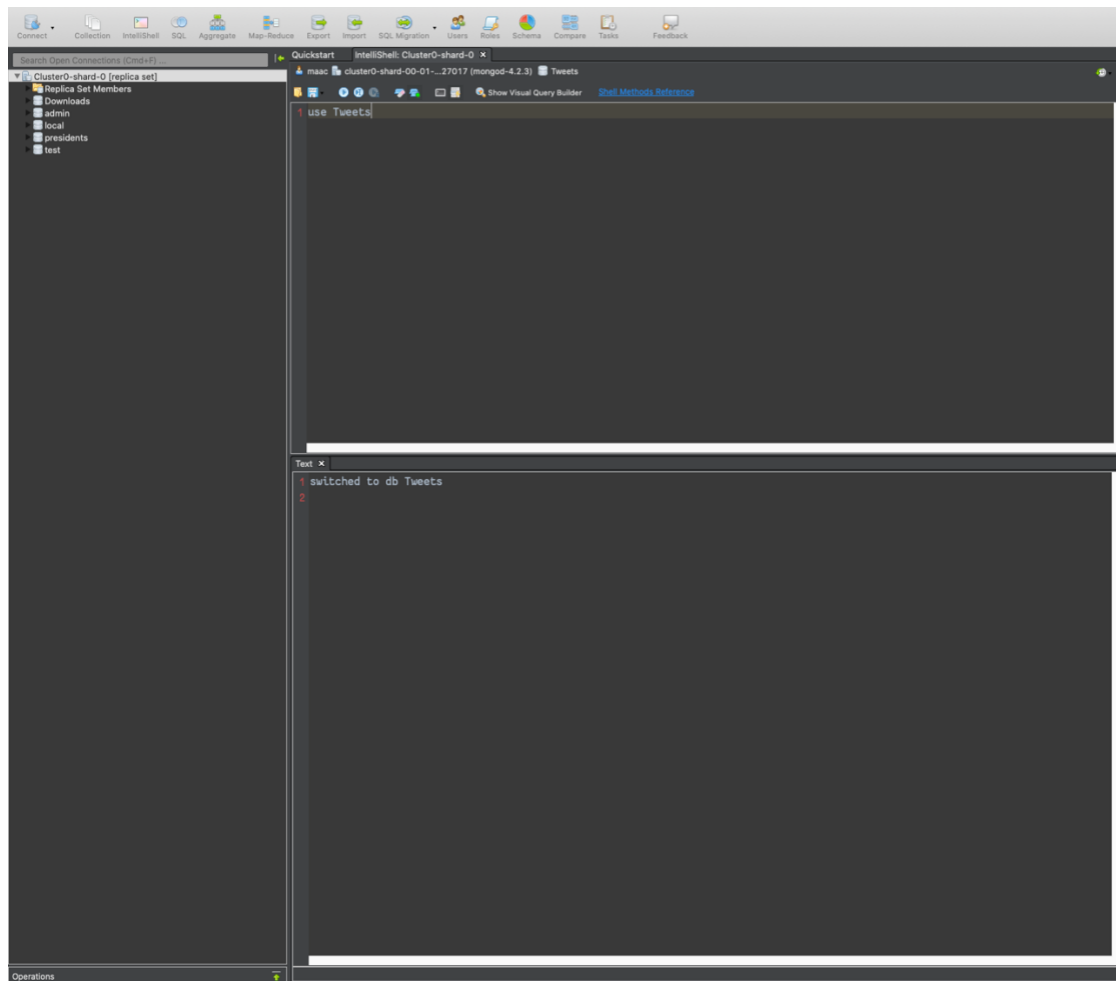
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Q1) Create a collection called 'Tweets'. We're going to put some Tweets in it.

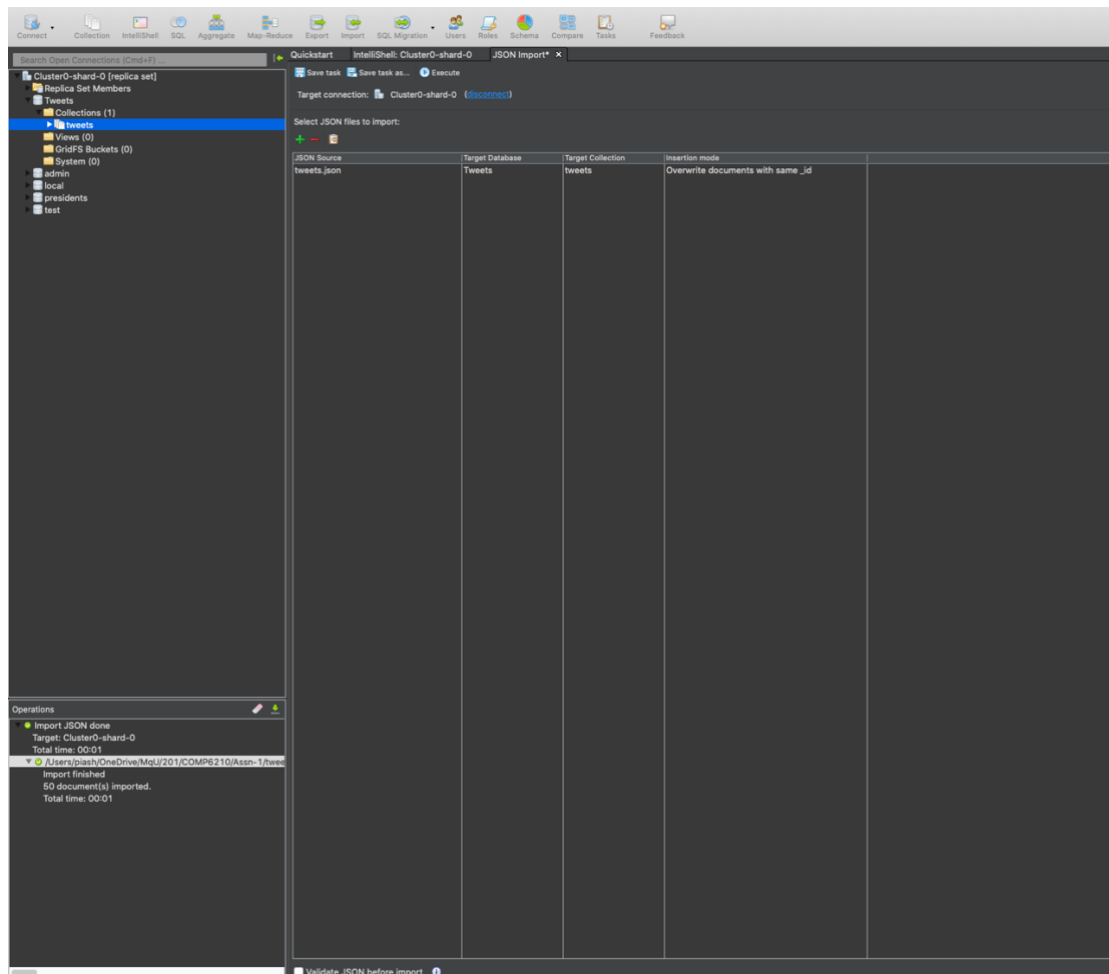
Answer:

use Tweets



Q2) Add 50 Tweets to the database.

Answer:



Q3) Write a MongoDB query that returns all the Tweets.

Answer:

`db.tweets.find()`

The screenshot shows the MongoDB Compass interface. On the left, the database structure is visible, including a 'tweets' collection. The main editor shows the query `db.tweets.find()` in the 'IntelliShell: Cluster0-shard-0' tab. Below the query editor, the 'JSON View' tab displays the results of the query, which is a single document. The document contains fields for 'id', 'created_at', 'id_str', 'text', 'user', 'place', 'entities', and 'urls'. The 'user' field is expanded, showing details like 'name', 'screen_name', 'location', 'url', and 'description'. The 'urls' field is also expanded, showing a 'url' and an 'unwound' array. The bottom status bar indicates '1 document selected' and 'Count Documents 0.134s'.

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```

Q4) Write a MongoDB query to find one of your Tweets by name (e.g. "name": "Twitter Dev").

Answer:

```
db.tweets.find({ "user.name": "user 01" })
```

The screenshot displays the MongoDB Compass application interface. On the left, a sidebar shows the database structure for 'Cluster0-shard-0 (replica set)', including collections like 'tweets' and 'views'. The main workspace is divided into two panes. The top pane, titled 'Quickstart', contains the query: `1 db.tweets.find({ "user.name": "user 01" })`. The bottom pane, titled 'JSON View', displays the result of the query as a single JSON document. The document includes fields for '_id', 'created_at', 'id_str', 'text', 'user' (with nested fields for 'id', 'name', 'screen_name', 'location', 'url', and 'description'), 'place', 'entities' (with 'hashtags'), and 'urls' (with 'url' and 'unwound' sub-fields). The status bar at the bottom indicates '1 document selected' and 'Count Documents 0.043s'.

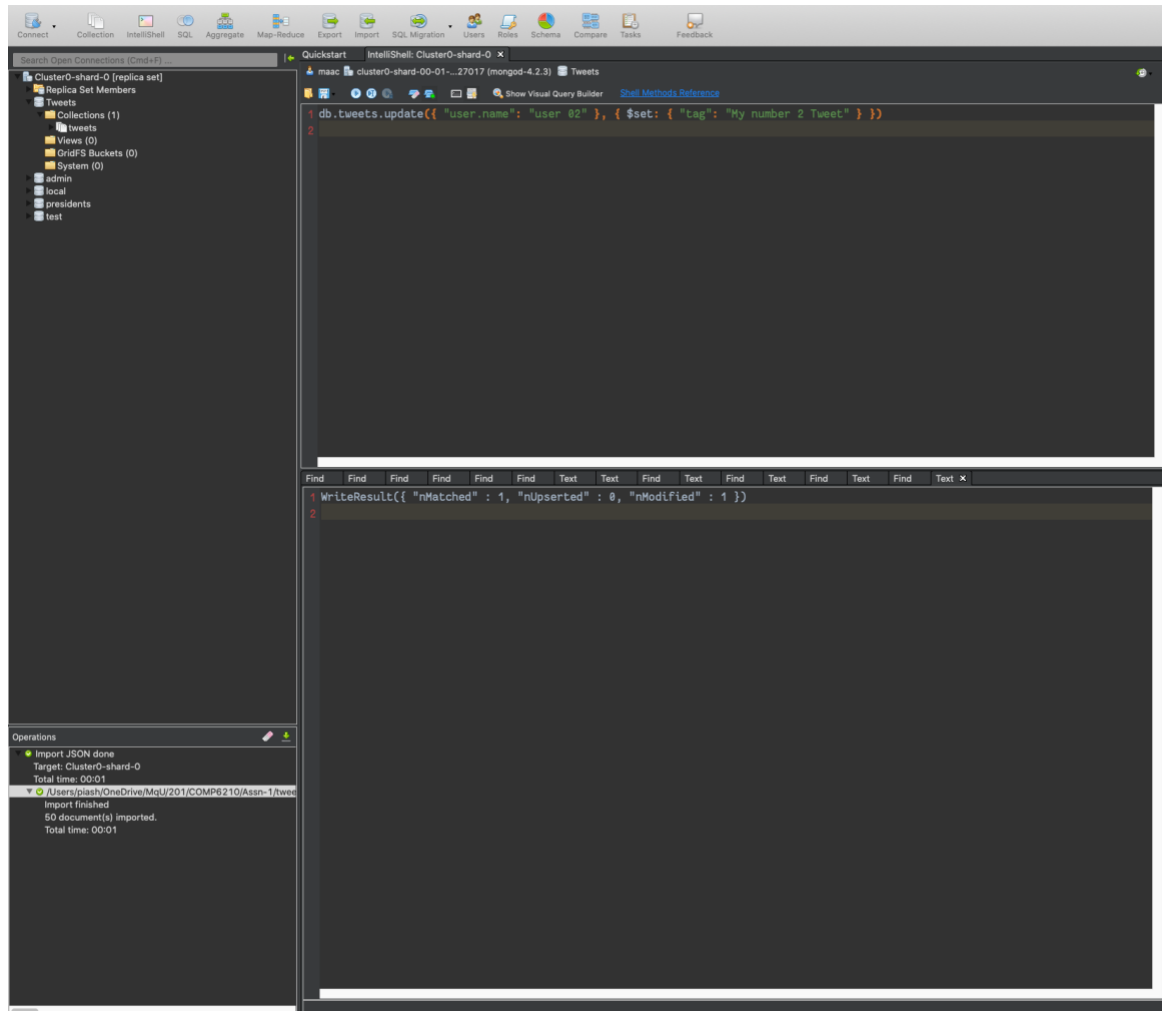
```
1 db.tweets.find({ "user.name": "user 01" })
```

```
{
  "_id" : ObjectId("5e6fcd2cfaabb569b6eff12"),
  "created_at" : "Thu Apr 06 15:24:15 +0000 2017",
  "id_str" : "1050006245121695744",
  "text" : "Train people well enough so they can leave, treat them well enough so they don't want to. -@richardbranson",
  "user" : {
    "id" : NumberLong(224499494501),
    "name" : "user 01",
    "screen_name" : "Twitter User",
    "location" : "Internet",
    "url" : "user URL",
    "description" : "user description"
  },
  "place" : {
  },
  "entities" : {
    "hashtags" : [
    ],
    "urls" : [
      {
        "url" : "twit url sample",
        "unwound" : {
          "url" : "url sample",
          "title" : "web page title"
        }
      }
    ]
  },
  "urls" : [
  ]
}
```

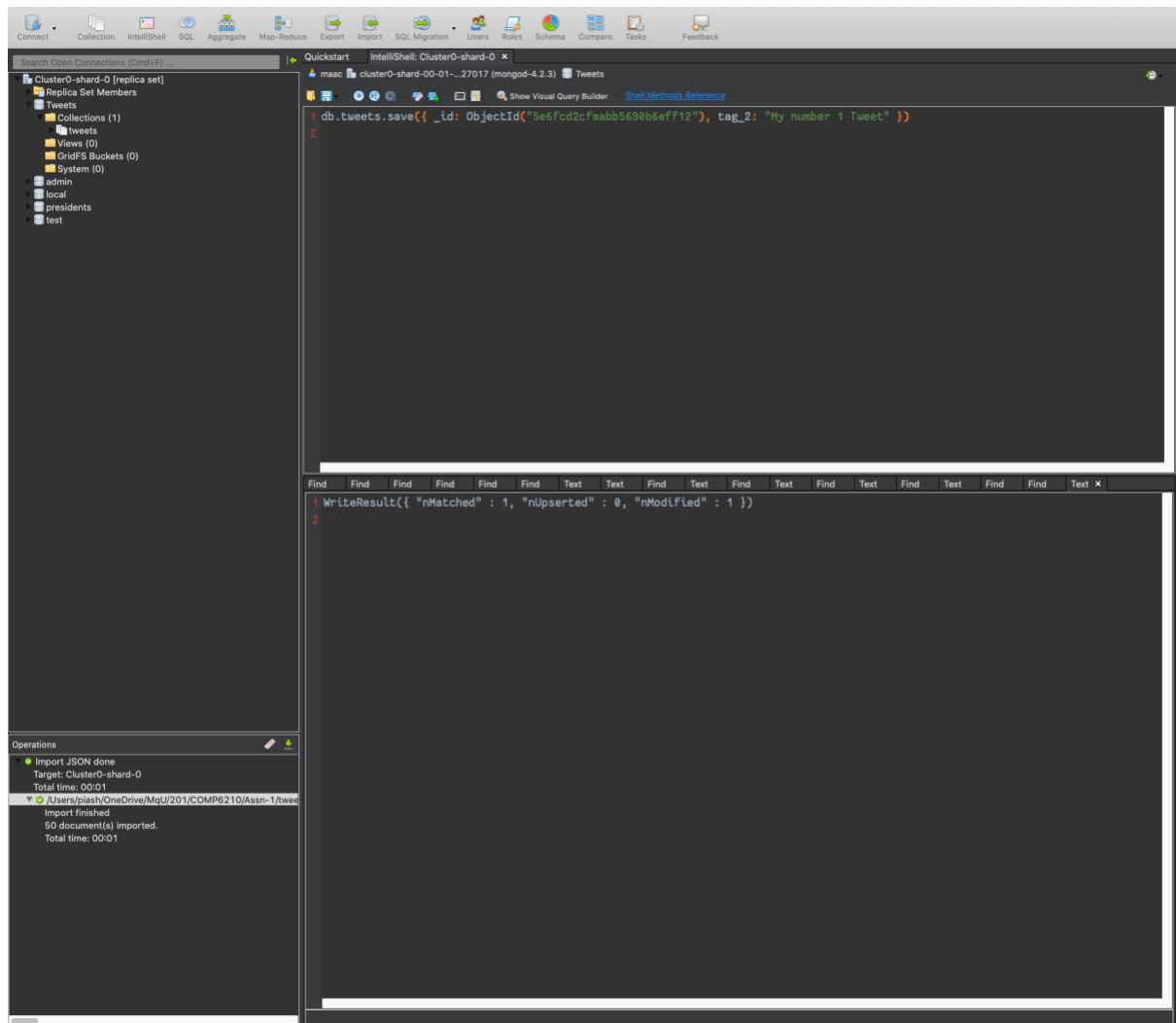
Q5) Update your two favourite Tweets to have two tags called 'My number 1 Tweet' and 'My number 2 Tweet'. Show two ways to do this. Do the first using update() and do the second using save().

Answer:

```
db.tweets.update({ "user.name": "user 02" }, { $set: { "tag": "My number 2 Tweet" } })
```



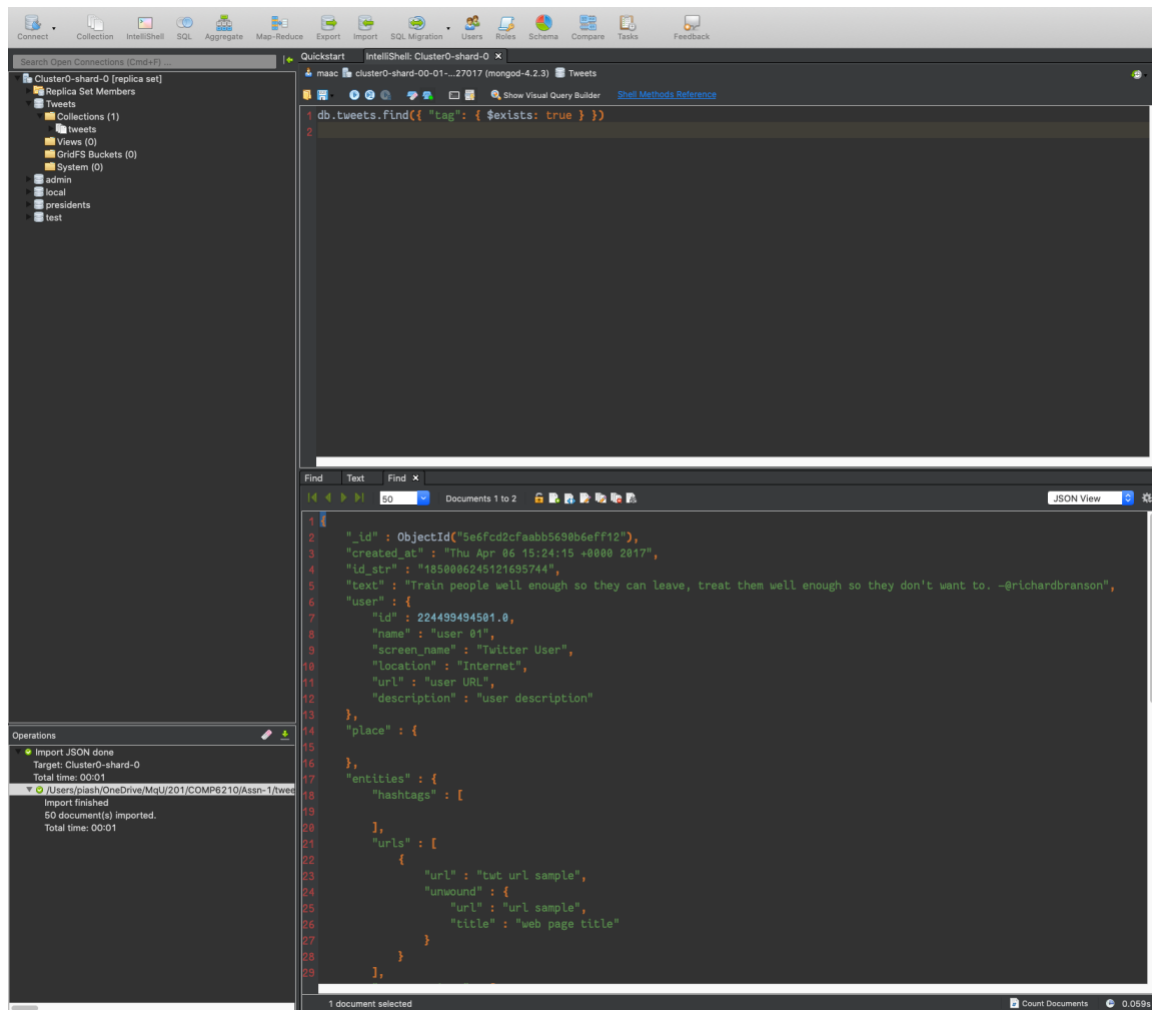
```
db.tweets.save({ _id: ObjectId(98s98977s089za098098ff12), tag: "My number 1 Tweet" })
```



Q6) Write a MongoDB query that returns only Tweets that have tags.

Answer:

```
db.tweets.find({ "tag": { $exists: true } })
```



Q7) Write a MongoDB query to display the first 5 Tweet which has the location 'Internet'.

Answer:

```
db.tweets.find({ "user.location": "Internet" }).limit(5)
```

The screenshot shows the MongoDB Compass application interface. On the left, a sidebar displays the database structure for 'Cluster0-shard-0', including collections like 'tweets', 'views', 'gridfs_buckets', and 'system'. The main workspace is divided into two panes. The top pane, titled 'Quickstart', contains the MongoDB query: `db.tweets.find({ "user.location": "Internet" }).limit(5)`. The bottom pane, titled 'Find', displays the results in JSON format. The first document is shown, containing fields for '_id', 'created_at', 'id_str', 'text', 'user' (with nested fields like 'id', 'name', 'screen_name', 'location', 'url', 'description'), 'place', 'entities' (with 'hashtags' and 'urls'), and 'urls'. The status bar at the bottom indicates '1 document selected' and 'Count Documents 0.047s'.

```
1 {
2   "_id" : ObjectId("5e6fcd2cfaabb5690b6eff12"),
3   "created_at" : "Thu Apr 06 15:24:15 +0000 2017",
4   "id_str" : "1858006245121695744",
5   "text" : "Train people well enough so they can leave, treat them well enough so they don't want to. -@richardbranson",
6   "user" : {
7     "id" : 224459494501,
8     "name" : "user 01",
9     "screen_name" : "Twitter User",
10    "location" : "Internet",
11    "url" : "user URL",
12    "description" : "user description"
13  },
14  "place" : {
15  },
16  },
17  "entities" : {
18    "hashtags" : [
19    ],
20    "urls" : [
21      {
22        "url" : "twit url sample",
23        "unwound" : {
24          "url" : "url sample",
25          "title" : "web page title"
26        }
27      }
28    ],
29  },
30 }
```

Q8) Write a MongoDB query to find the Tweets whose id is greater than 200000000000 but less than 300000000000.

Answer:

```
db.tweets.find({ "user.id": { $gt: 200000000000, $lt: 300000000000 } })
```

The screenshot displays the MongoDB Compass application interface. On the left, a sidebar shows the database structure for 'Cluster0-shard-0', including collections like 'tweets', 'views', 'gridfs Buckets', 'system', 'admin', 'local', 'presidents', and 'test'. The main workspace is divided into two panes. The top pane shows the MongoDB query: `db.tweets.find({ "user.id": { $gt: 200000000000, $lt: 300000000000 } })`. The bottom pane displays the results in JSON format, showing a single document with fields: `_id`, `created_at`, `id_str`, `text`, `user`, `place`, `entities`, and `urls`. The `text` field contains the tweet: "Train people well enough so they can leave, treat them well enough so they don't want to. -@richardbranson". The `user` field shows details for 'user 01'. The `urls` field contains a list of URLs. The bottom status bar indicates '1 document selected' and 'Count Documents 0.148s'.

```
1 db.tweets.find({ "user.id": { $gt: 200000000000, $lt: 300000000000 } })
```

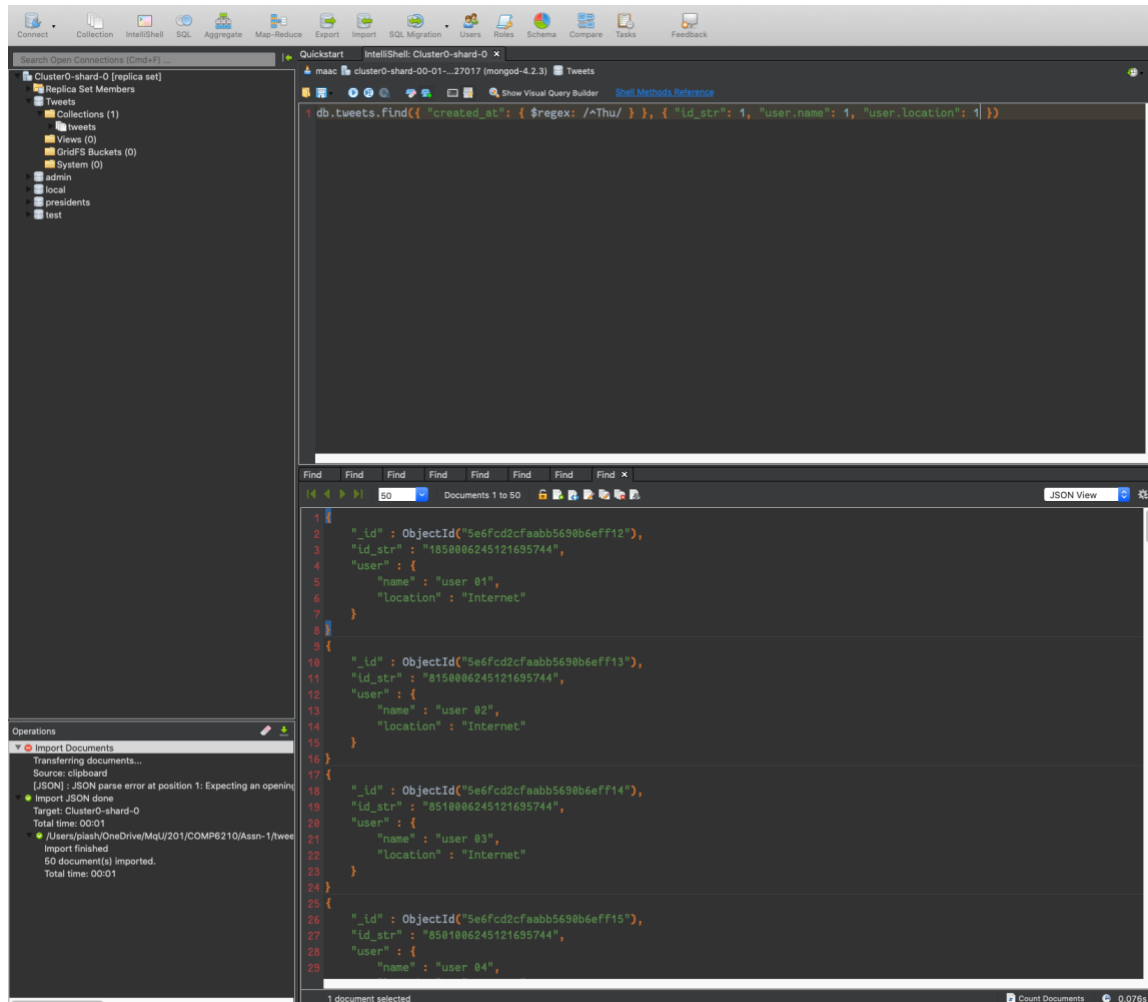
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1 {
2   "_id" : ObjectId("5e6fcd2cfambb5698b6eff12"),
3   "created_at" : "Thu Apr 06 15:24:15 +0000 2017",
4   "id_str" : "1850086245121695744",
5   "text" : "Train people well enough so they can leave, treat them well enough so they don't want to. -@richardbranson",
6   "user" : {
7     "id" : 224499494501.0,
8     "name" : "user 01",
9     "screen_name" : "Twitter User",
10    "location" : "Internet",
11    "url" : "user URL",
12    "description" : "user description"
13  },
14  "place" : {
15  },
16  "entities" : {
17    "hashtags" : [
18    ],
19    "urls" : [
20    ],
21    "media" : [
22    ],
23    "mentions" : [
24    ],
25    "images" : [
26    ],
27    "symbols" : [
28    ],
29  ],
30  "urls" : [
31    {
32      "url" : "twit url sample",
33      "unwound" : {
34        "url" : "url sample",
35        "title" : "web page title"
36      }
37    }
38  ]
39 }
```

1 document selected Count Documents 0.148s

9) Write a MongoDB query to find the Tweet Id, name and location for those Tweets which contain 'Thu' as first three letters for its 'created_at'.

Answer:

```
db.tweets.find({ "created_at": { $regex: /^Thu/ } }, { "id_str": 1, "user.name": 1, "user.location": 1 })
```



Q10) Write a MongoDB query to find the Tweet Id for those Tweets which contain the keyword 'health' in their text.

Answer:

```
db.tweets.find({ "text": { $regex: /. *health* ./ } }, { "id_str": 1 })
```

