Chapter 3: Slow Queries

Lab: Analyse Profiler Data

Problem:

In this lab, you are tasked to determine when a given event happened by analysing the `system.profiler` data.

This profiler information was captured during the execution of test script performing read operations. These read operations, consisted on 3 types of queries:

- query on **_id** field -> `db.employees.find({_id: XXXX})`
- query on **address.zip** field -> `db.employees.find({"address.zip": XXX })`
- range query on **birthday** field -> `db.employees.find({"birthday": {"$gt": X, "$lt": X }})`

To analyse the profiler data, we are going to use the best database in the world that, as you all know, is MongoDB.

Let's go ahead and setup the environment.

- First step, launch a single node `mongod` instance:

```
cd m312-vagrant-env
vagrant up
vagrant ssh
mlaunch --single
```

- The following step is to download the attached `profile.json` data and make it available in your **m312** virtual machine:

```
cp Downloads/profiler*.json m312-vagrant-env/dataset
```

The command line example is set for Unix but a simple copy of this file will suffice

- Next, we will load the dataset into our single node `mongod` instance. Let's load the data into a collection named **profiler_data**

```
                                                    📋 COPY
vagrant ssh
mongoimport -d m312 -c profiler_data /dataset/profile.json
```

The profiler data contains all read operations that surpassed the threshold of 40ms, the set `slowms` value:

```
db.setProfilingLevel(1, 40)                         📋 COPY
```

During the execution of our script, our DBAs decided to create an index that affected the behavior of one of the offending queries.

From the profiler data, we are asked to determined which index was created and when was this change reflected on the behavior of our query.

So in this lab we want to know:

When and which index was created ?

Attempts Remaining: Correct Answer ✅ ⚪ ⚪

Choose the best answer:

○
```
db.employees.createIndex({'birthdate': 1})

Before 2017-03-06T22:57:57.332Z
```

○
```
db.companies.createIndex({'address.zip': 1})

After 2017-03-06T22:57:00.039Z
```

○
```
db.employees.createIndex({'birthdate': 1})

After 2017-03-06T22:57:00.039Z
```

○
```
db.employees.createIndex({'address.zip': 1})

After 2017-03-06T22:56:30.407Z
```

```
db.employees.createIndex({'address.zip': 1})

After 2017-03-06T22:55:55.065Z
```

Correct!	See detailed answer

Proceed to next section

Assignment is Due

00d:04hr:05m
24 gru, 17:00 UTC

Your Grade

PASS/FAIL
Submitted

Download Handouts

⬇ **m312/lab_analyse_profiler/profile.json**