



Chapter 3: Sharding

Lab - Detect Scatter Gather Queries

Problem:

Lab Prerequisites

This lab assumes that the m103.products collection is sharded on sku. If you sharded on name instead, you must reimport the dataset and shard it on sku. Here are the instructions to do this:

1. Drop the collection **m103.products** and reimport the dataset:

```
mongoimport --drop /dataset/products.json --port 26000 -u "m103-admin" \
-p "m103-pass" --authenticationDatabase "admin" \
--db m103 --collection products
```

2. Create an index on sku:

```
db.products.createIndex({"sku":1})
```

3. Enable sharding on m103 if not enabled:

sh.enableSharding("m103")

4. Shard the collection on sku:



Once you've sharded your cluster on **sku**, any queries that use **sku** will be routed by mongos to the correct shards.

Lab Description

In this lab, you will use the output of the explain() command to distinguish between targeted queries (sent to specific shards) and scatter gather queries (sent to all shards).

Here are a few definitions regarding the output of explain():

• SHARDING_FILTER: The step performed by mongos used to make sure that documents

Correct! SEE DETAILED ANSWER

• IXSCAN: An index scan, used to scan through index keys.

• FETCH: A document fetch, used to retrieve an entire document because one or more of the fields is necessary.

You can find more information about explain() in the official MongoDB documentation.

Now, given the explain() output of the following two queries:

Query 1:

<pre>db.products.explain("executionStats").find({"sku":</pre>	23153/19	
db.products.exptain(executionstats).rind({ sku . 23133	2313343	□ сору
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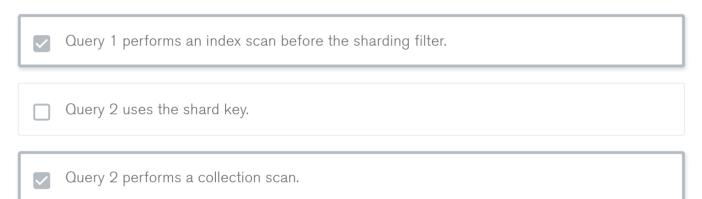
Query 2:

db.products.explain("executionStats").find({"shippingWeigh	

Assuming the only indexes on this collection are { _id: 1 } and { sku: 1 }, which of the following statements are true?

Attempts Remaining: Correct Answer

Check all answers that apply:



See detailed answer

Proceed to next section

Assignment is Due

18d:01hr:14m

Dec 17, 17:00 UTC

Your Grade

PASS/FAIL

Submitted