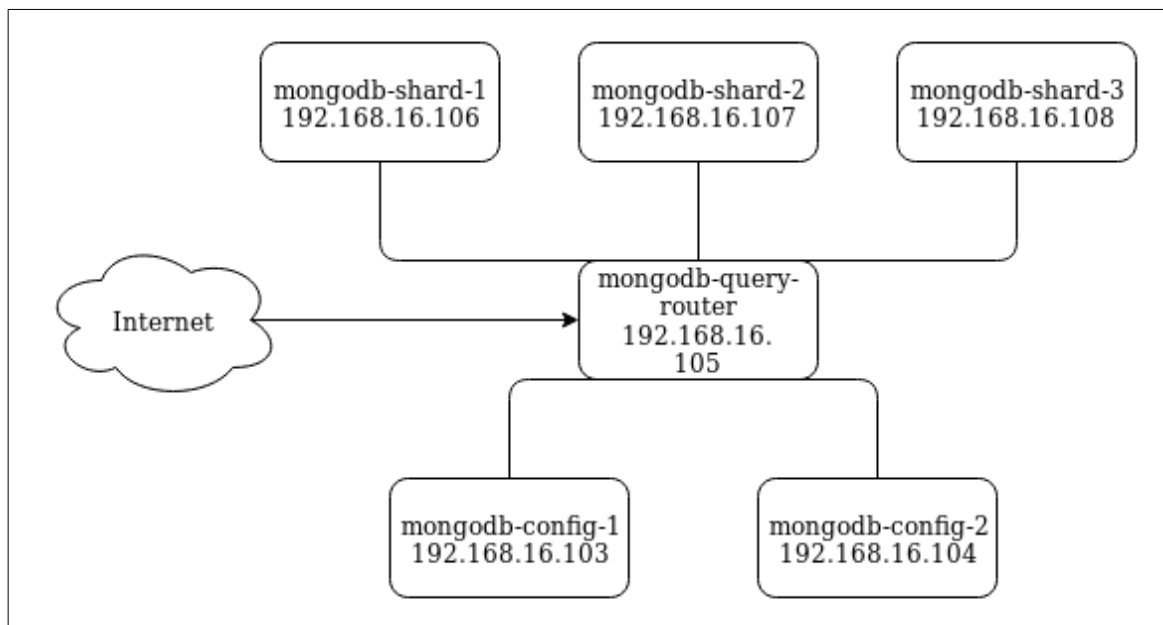


Prosedur konfigurasi MongoDB Cluster

Terdiri dari:

- 3 shard server
- 2 config server
- 1 query router server



1. Run *vagrant up*.
2. Setelah *vagrant up* sukses dirun, kita harus *copy mapping* IP ke *hostname* yang terdapat dalam file */etc/hosts*. Lakukan ini di setiap server shard, config dan query router.

```
192.168.16.103 mongodb-config-1
192.168.16.104 mongodb-config-2
192.168.16.105 mongodb-query-router
192.168.16.106 mongodb-shard-1
192.168.16.107 mongodb-shard-2
192.168.16.108 mongodb-shard-3
```

3. Pembuatan root user dilakukan pada salah satu config server yang ingin digunakan sebagai primary node. Run command sebagai berikut.

```
mongo

use admin

db.createUser({user: "mongo-admin", pwd: "password", roles:[{role: "root", db: "admin"}]})
```

4. Pada setiap config server (mongodb-config-1 dan mongodb-config-2), perbarui file */etc/mongod.conf* sebagai berikut.

```
port: 27019
bindIp: 192.168.16.103

replication:
  replSetName: configReplSet

sharding:
  clusterRole: "configsvr"
```

Nilai *bindIP* menyesuaikan IP address dari server. Lalu run `sudo systemctl restart mongod`.

5. Untuk inisialisasi replica set config server, masuk ke server mongodb-config-2 lalu run command berikut.

```
mongo mongodb-config-1:27019 -u mongo-admin -p --authenticationDatabase admin

rs.initiate( { _id: "configReplSet", configsvr: true, members: [ { _id: 0,
host: "mongodb-config-1:27019" }, { _id: 1, host: "mongodb-config-2:27019" }" }
] } )
```

6. Masuk ke server query router. Buat file dengan path `/etc/mongos.conf` dengan nilai berikut.

```
# where to write logging data.
systemLog:
  destination: file
  logAppend: true
  path: /var/log/mongodb/mongos.log

# network interfaces
net:
  port: 27017
  bindIp: 192.168.16.105

sharding:
  configDB: configReplSet/mongodb-config-1:27019,mongodb-config-2:27019
```

7. Buat file systemd untuk mongos dengan path `/lib/systemd/system/mongos.service` dengan nilai berikut.

```
[Unit]
Description=Mongo Cluster Router
After=network.target

[Service]
User=mongodb
Group=mongodb
ExecStart=/usr/bin/mongos --config /etc/mongos.conf
# file size
LimitFSIZE=infinity
# cpu time
LimitCPU=infinity
# virtual memory size
LimitAS=infinity
# open files
LimitNOFILE=64000
# processes/threads
```

```
LimitNPROC=64000
# total threads (user+kernel)
TasksMax=infinity
TasksAccounting=false

[Install]
WantedBy=multi-user.target
```

Berhentikan server mongod agar tidak konflik dengan mongos, dengan cara run command `sudo systemctl stop mongod.`

Nyalakan server mongos dengan run command berikut:

```
sudo systemctl enable mongos.service
sudo systemctl start mongos
```

8. Ketika server mongos sudah nyala, maka kita dapat konfigurasi server shard. Masuk ke masing-masing server shard (mongodb-shard-1, mongodb-shard-2, mongodb-shard-3), lalu perbarui file `/etc/mongod.conf`. Pada bagian bindIP sesuai dengan IP address masing-masing server. Karena kita akan set sebagai replica set, maka bagian replication dan replSetName diisi dengan name replica set. Per replica set hanya ada 1 server, maka untuk setiap server, replSetName akan diincrement dengan 1. Replica set yang nyala, akan diset sebagai shard, oleh karena itu clusterRole memiliki nilai shardsvr . Sebagai contoh rs1, rs2, rs3.

```
bindIP: 127.0.0.1,192.168.16.106
```

```
replication:
  replSetName: rs1
```

```
sharding:
  clusterRole: "shardsvr"
```

Restart mongod dengan run command `sudo systemctl restart mongod.`

9. Masuk ke masing-masing shard server, lalu run command berikut. Nilai dari `_id` dan `members` akan menyesuaikan dengan masing-masing server.

```
mongo

rs.initiate( {
  _id: "rs1",
  version: 1,
  members: [
    { _id: 0, host : "mongodb-shard-1:27017" },
  ]
})
```

10. Login ke mongos query router dan tambahkan replica set sebagai shard dengan cara run command berikut.

```
mongo mongodb-query-router:27017 -u mongo-admin -p -- authenticationDatabase
admin

sh.addShard( "rs1/mongodb-shard-1:27017" )
sh.addShard( "rs2/mongodb-shard-2:27017" )
sh.addShard( "rs3/mongodb-shard-3:27017" )
```

11. Login ke mongos query router, lalu nyalakan sharding pada database dengan cara run command berikut.

```
mongo mongodb-query-router:27017 -u mongo-admin -p - authenticationDatabase
admin

use reviewsDb
sh.enableSharding("reviewsDb")
```

Nyalakan sharding pada sisi collections.

```
db.reviews.ensureIndex( { _id: "hashed" } )
sh.shardCollection( "reviewsDb.reviews", { "_id": "hashed" } )
```

Import file reviews, melalui command line host OS.

```
mongoimport --host 192.168.16.105:27017 --authenticationDatabase admin -d
reviewsDb -c reviews --type csv --file 'Womens Clothing E-Commerce Reviews.csv'
--headerline -u mongo-admin
```

Check data yang terdistribusi pada shard yang tersedia
`db.reviews.getShardDistribution()`.

Uji Coba CRUD

1. Create Review

Jumlah data awal sebanyak 23486:

```
mongos> db.reviews.getShardDistribution()

Shard rs3 at rs3/mongodb-shard-3:27017
data : 3.93MiB docs : 7749 chunks : 2
estimated data per chunk : 1.96MiB
estimated docs per chunk : 3874

Shard rs2 at rs2/mongodb-shard-2:27017
data : 4.04MiB docs : 7935 chunks : 2
estimated data per chunk : 2.02MiB
estimated docs per chunk : 3967

Shard rs1 at rs1/mongodb-shard-1:27017
data : 3.98MiB docs : 7802 chunks : 2
estimated data per chunk : 1.99MiB
estimated docs per chunk : 3901

Totals
data : 11.96MiB docs : 23486 chunks : 64

Check your data distribution:
Shard rs3 contains 32.87% data, 32.99% docs in cluster, avg obj size on shard : 532B
Shard rs2 contains 33.85% data, 33.78% docs in cluster, avg obj size on shard : 535B
Shard rs1 contains 33.27% data, 33.21% docs in cluster, avg obj size on shard : 534B
```

Lakukan create review:

Review

Create Review

Create Review

Clothing ID

30

Class Name

Pants

Department Name

Clothing Department

Division Name

Clothing Division

Title

Fusce rutrum nulla nec libero dictum, a egestas massa porttitor. Vestibulum eget vulputate urna, in condimentum urna

Review Text

Etiam commodo elit sed dolor viverra lacinia. Pellentesque sit amet sagittis nisi. Proin et faucibus ligula. Donec porttitor, lacus sit amet egestas pharetra, ipsum est placerat quam, vel lacinia magna dui sit amet nisi. Nulla accumsan augue eget cursus ullamcorper. Nulla facilisi. Aenean nec sapien in urna auctor hendrerit. Nunc id tempus arcu, ac aliquet urna. Sed ullamcorper malesuada libero, vitae tempus mauris malesuada at. Aliquam quis maximus elit. Proin accumsan metus vitae tortor ultrices, a laoreet tellus egestas. Fusce porta risus libero, vel interdum tellus facilisis sit amet.

Rating

5

Recommend Product

☒ Yes ☐ No

What is your age?

20

Save

Setelah create review data bertambah 1 menjadi 23487, terdistribusi ke shard rs2:

```
mongos> db.reviews.getShardDistribution()

Shard rs3 at rs3/mongodb-shard-3:27017
data : 3.93MiB docs : 7749 chunks : 2
estimated data per chunk : 1.96MiB
estimated docs per chunk : 3874

Shard rs2 at rs2/mongodb-shard-2:27017
data : 4.05MiB docs : 7936 chunks : 2
estimated data per chunk : 2.02MiB
estimated docs per chunk : 3968

Shard rs1 at rs1/mongodb-shard-1:27017
data : 3.98MiB docs : 7802 chunks : 2
estimated data per chunk : 1.99MiB
estimated docs per chunk : 3901

Totals
data : 11.96MiB docs : 23487 chunks : 6
Shard rs3 contains 32.87% data, 32.99% docs in cluster, avg obj size on shard : 532B
Shard rs2 contains 33.86% data, 33.78% docs in cluster, avg obj size on shard : 535B
Shard rs1 contains 33.26% data, 33.21% docs in cluster, avg obj size on shard : 534B
```

[Configure Query Router](#)
[Add Shards to the Cluster](#)
[Configure Sharding](#)
 [Enable Sharding at Database Level](#)
 [Sharding Strategy](#)
 [Enable Sharding at Collection Level](#)
[Test Your Cluster](#)
[Next Steps](#)
[More Information](#)
[Join our Community](#)

2. Read Review

List review per halaman:

Review

Create Review

Love the embroidery!

Really cute top! the embroidery on the collar & bib of this top is beautiful and unique, received lots of compliments & questions about where i got it. i'm rather busty up top and the medium fit well, a small probably would've fit better but it's still super adorable.

★★★★★

👍

0 people found this helpful.

Love

I absolutely love this bib tee! it's probably my favorite retailer purchase of all time. i'm 5'7", 140 pounds and the small was a perfect fit for me. i typically wear either a s or m tops.

★★★★★

👍

2 people found this helpful.

Boring front, great back

This tank fit well and i loved the ruffle in the back and how it layed. but the front was not a good look and i will be retuning it.

★★★

👍

0 people found this helpful.

Soft and comfortable

I've been looking for bralettes that provide some support but not binding/tight for night time and casual wear. this is a light weight bra, could be a little more supportive. pretty color, with nice lines. only downside is the retailer tag on the back - itchy (i need to remove it.)

★★★★

👍

1 people found this helpful.

Super cute and unique top

Just received this in the mail, tried it on and am smitten. i'm usually a l, but sometimes i'm a xl (if no stretch), in retailer tops. i bought this one in l and i'm sure glad i did. very flowy, stretchy and comfortable. i also bought the meda lace top from one september and they are very similar expect this is more of a t-shirt and the other is more of a blouse. i almost think i could've gotten a m in this because there is a lot of extra fabric at the chest which is usually never the issue for me

★★★★★

👍

9 people found this helpful.

Previous

Next

Agregasi review:

- Jumlah vote per rating untuk produk yang direkomendasi
- Rata-rata rating untuk produk yang tidak direkomendasi
- Tipe produk yang memiliki rata-rata rating terendah

Review

Create Review

Number of Votes per Rating of Recommended Products

Rating: 3 - Votes: 1189
Rating: 1 - Votes: 16
Rating: 4 - Votes: 4910
Rating: 2 - Votes: 94
Rating: 5 - Votes: 13106

Average Rating of Non Recommended Products

2.303691275167785

Clothing Type With Lowest Average Rating

Clothing Type: Trend - Average Rating: 3.8151260504201683

3. Edit Review

Review

Create Review

Edit Review

Clothing ID

30

Class Name

Short Pants

Department Name

Clothing Department

Division Name

Clothing Division

Title

Fusce rutrum nulla nec libero dictum, a egestas massa porttitor. Vestibulum eget vulputate urna, in condimentum urna

Review Text

Ut at lorem molestie, imperdiet urna at, mattis odio. Maecenas ex orci, lobortis eu augue non, placerat sagittis metus. Nam id hendrerit nisi, a luctus magna. Donec vel sapien odio. Suspendisse at dolor eros. Aenean a odio ante. Aliquam pharetra, sapien aliquam euismod tincidunt, lectus dui malesuada dolor, sed placerat ipsum risus eu ante. Ut sed tempor leo. Nam tincidunt ante nec leo posuere, id tempus libero varius.

Rating

4

Recommend Product

☒ Yes ☐ No

What is your age?

20

Save

Delete

4. Delete Review

Hapus salah satu review:

Review

Create Review

Some major design flaws

I had such high hopes for this dress and really wanted it to work for me. i initially ordered the petite small (my usual size) but i found this to be outrageously small. so small in fact that i could not zip it up! i reordered it in petite medium, which was just ok. overall, the top half was comfortable and fit nicely, but the bottom half had a very tight under layer and several somewhat cheap (net) over layers. imo, a major design flaw was the net over layer sewn directly into the zipper - it c

☆☆☆

0 people found this helpful.

Love this dress! it's sooo pretty. i happened to find it in a store, and i'm glad i did bc i never would have ordered it online bc it's petite. i bought a petite and am 5'8". i love the length on me- hits just a little below the knee. would definitely be a true midi on someone who is truly petite.

☆☆☆☆☆

4 people found this helpful.

Cagrcosal shimmer fun

I aded this in my basket at hte last minitue to see what it would look like in person. (store pick up). i went with teh darker color only because i am so pale :-) hte color is really gorgeous, and turns out it mathced everything i was trying on with it prefectly. it is a little baggy on me and hte xs is hte msallet size (bummer, no petite). i decided to keep it though, because as i said, it matvehd everything. my ejans, pants, and the 3 skirts i waas trying on (of which i kept all) oops.

☆☆☆☆☆

1 people found this helpful.

My favorite buy!

I love, love, love this jumpsuit. it's fun, flirty, and fabulous! every time i wear it, i get nothing but great compliments!

☆☆☆☆☆

0 people found this helpful.

Such a fun dress!

I'm 5'5" and 125 lbs. i ordered the s petite to make sure the length wasn't too long. i typically wear an xs regular in retailer dresses. if you're less busty (34b cup or smaller), a s petite will fit you perfectly (snug, but not tight). i love that i could dress it up for a party, or down for work. i love that the tulle is longer then the fabric underneath.

☆☆☆☆☆

0 people found this helpful.

Previous

Next

Setelah dihapus, data berkurang 1 menjadi 23486. Data yang dihapus berada pada shard rs1, karena sebelum dihapus shard rs1 memiliki jumlah data 7802, lalu berkurang menjadi 7801:

```
mongos> db.reviews.getShardDistribution()

Shard rs3 at rs3/mongodb-shard-3:27017
data : 3.93MiB docs : 7749 chunks : 2
estimated data per chunk : 1.96MiB
estimated docs per chunk : 3874

Shard rs1 at rs1/mongodb-shard-1:27017
data : 3.97MiB docs : 7801 chunks : 2
estimated data per chunk : 1.98MiB
estimated docs per chunk : 3900

Shard rs2 at rs2/mongodb-shard-2:27017
data : 4.05MiB docs : 7936 chunks : 2
estimated data per chunk : 2.02MiB
estimated docs per chunk : 3968

Totals
data : 11.96MiB docs : 23486 chunks : 6
Shard rs3 contains 32.87% data, 32.99% docs in cluster, avg obj size on shard : 532B
Shard rs1 contains 33.26% data, 33.21% docs in cluster, avg obj size on shard : 534B
Shard rs2 contains 33.86% data, 33.79% docs in cluster, avg obj size on shard : 535B
```