TUGAS BASIS DATA LANJUT

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Prodi : D3-Manajemen Informatika

1. Mengaktifkan mongodb

```
C:\Users\ASUS A455L'>mongo --nodb
```

2. Membuat Replika

```
> replicaSet = new ReplSetTest({"nodes" : 3});
```

3. Menjalankan mongod server

```
> replicaSet.startSet()
```

4. Koneksi ke mongod port 20000

```
> conn1 = new Mongo("localhost:20000")
connection to localhost:20000
> primaryDB = conn1.getDB("test")
test
>
```

5. Primary dijalankan dengan isMaster

```
> primaryDB.isMaster()
{
        "hosts" : [
                "DESKTOP-NCAD9I8:20000",
                "DESKTOP-NCAD9I8:20001",
                "DESKTOP-NCAD9I8:20002"
        ],
        "setName" : "__unknown_name__",
        "setVersion" : 2,
        "ismaster" : true,
        "secondary" : false,
        "primary" : "DESKTOP-NCAD9I8:20000",
        "me" : "DESKTOP-NCAD9I8:20000",
        "electionId" : ObjectId("7fffffff0000000000000001"),
        "lastWrite" : {
                "opTime" : {
                        "ts" : Timestamp(1556208610, 3),
                        "t" : NumberLong(1)
                },
                "lastWriteDate" : ISODate("2019-04-25T16:10:10Z"),
                "majorityOpTime" : {
                        "ts" : Timestamp(1556208610, 3),
                        "t" : NumberLong(1)
                },
                "majorityWriteDate" : ISODate("2019-04-25T16:10:10Z")
        },
        "maxBsonObjectSize" : 16777216,
        "maxMessageSizeBytes" : 48000000,
        "maxWriteBatchSize" : 100000,
        "localTime" : ISODate("2019-04-25T16:24:13.442Z"),
```

6. Memasukkan data

```
> for (i=0; i<4; i++) {primaryDB.coll.insert({count: i})}
WriteResult({ "nInserted" : 1 })
> primaryDB.coll.count()
4
```

7. Mencoba koneksi ke secondaryDB dan akan muncul pesan error ketika akan melihat data

```
> conn2 = new Mongo("localhost:20001")
connection to localhost:20001
> secondaryDB = conn2.getDB("test")
test
> secondaryDB.coll.find()
Error: error: {
        "operationTime" : Timestamp(1556210469, 5),
        "ok" : 0,
        "errmsg" : "not master and slaveOk=false",
        "code" : 13435,
        "codeName" : "NotMasterNoSlaveOk",
        "$clusterTime" : {
                "clusterTime" : Timestamp(1556210469, 5),
                "signature" : {
                        "hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),
                        "keyId" : NumberLong(0)
                }
        }
}
```

8. Melihat data dari primaryDB melalui secondaryDB

```
> conn2.setSlaveOk()
> secondaryDB.coll.find()
{ "_id" : ObjectId("5cc1e32543139357892a0e69"), "count" : 1 }
{ "_id" : ObjectId("5cc1e32543139357892a0e68"), "count" : 0 }
{ "_id" : ObjectId("5cc1e32543139357892a0e6b"), "count" : 3 }
{ "_id" : ObjectId("5cc1e32543139357892a0e6a"), "count" : 2 }
> secondaryDB.coll.count()
4
```

9. Memasukkan data ke secondaryDB akan menyebabkan error

```
> secondaryDB.coll.insert({"count" : 5})
WriteCommandError({
        "operationTime" : Timestamp(1556210469, 5),
        "ok" : 0,
        "errmsg" : "not master",
        "code" : 10107,
        "codeName" : "NotMaster",
        "$clusterTime" : {
                "clusterTime" : Timestamp(1556210469, 5),
                "signature" : {
                        "hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),
                        "keyId" : NumberLong(0)
                }
        }
})
```

10. Melihat hasil error terakhir

```
> secondaryDB.runCommand({"getLastError" : 1})
{
        "connectionId" : 14,
        "err" : "not master",
        "code" : 10107,
        "codeName" : "NotMaster",
        "n" : 0,
        "ok" : 1,
        "operationTime" : Timestamp(1556210469, 5),
        "$clusterTime" : {
                "clusterTime" : Timestamp(1556210469, 5),
                "signature" : {
                        "hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),
                        "keyId" : NumberLong(0)
                }
        }
}
```

11. Membuat secondaryDB dijalankan dengan isMaster

```
> secondaryDB.isMaster()
{
        "hosts" : [
                "DESKTOP-NCAD9I8:20000",
                "DESKTOP-NCAD9I8:20001",
                "DESKTOP-NCAD9I8:20002"
        ],
        "setName" : "__unknown_name__",
        "setVersion" : 2,
        "ismaster" : true,
        "secondary" : false,
        "primary" : "DESKTOP-NCAD9I8:20001",
        "me" : "DESKTOP-NCAD9I8:20001",
        "electionId" : ObjectId("7fffffff0000000000000002"),
        "lastWrite" : {
                "opTime" : {
                        "ts" : Timestamp(1556211747, 2),
                        "t" : NumberLong(2)
                },
                "lastWriteDate" : ISODate("2019-04-25T17:02:27Z"),
                "majorityOpTime" : {
                        "ts" : Timestamp(1556211747, 2),
                        "t" : NumberLong(2)
                },
                "majorityWriteDate" : ISODate("2019-04-25T17:02:27Z")
        },
        "maxBsonObjectSize" : 16777216,
        "maxMessageSizeBytes" : 48000000,
        "maxWriteBatchSize" : 100000,
        "localTime" : ISODate("2019-04-25T17:14:13.137Z"),
```