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Menggunakan Mongodb di Linux

1. Menjalankan server

```
cd /opt/lampp/mongodb/bin && mkdir binadarma
Sudo mongod --dbpath=/opt/lampp/mongodb/bin/binadarma
```

```

DRACOS MENU Google Chrome Terminal 04:44 AM EN faiz
File Edit View Terminal Tabs Help
faiz@debian: ~
hist:812 jobs:0 $ echo "mengaktifkan server"
mengaktifkan server
faiz@debian: ~
hist:813 jobs:0 $ cd /opt/lampp/mongodb/bin
faiz@debian: /opt/lampp/mongodb/bin
hist:813 jobs:0 $ ls
binadarma install_compass mongo mongod mongos test
faiz@debian: /opt/lampp/mongodb/bin
hist:782 jobs:0 $ sudo mongod --dbpath=/opt/lampp/mongodb/bin/binadarma
[sudo] password for faiz:
{"t":{"$date":"2022-03-14T04:43:49.892-04:00"},"s":"I", "c":"CONTROL", "id":23285, "ctx":"-", "msg":"Automatically disabling TLS 1.0, to force-enable TLS 1.0 specify --sslDisabledProtocols 'none'"}, {"t":{"$date":"2022-03-14T04:43:49.896-04:00"},"s":"I", "c":"NETWORK", "id":4915701, "ctx":"-", "msg":"Initialized wire specification", "attr":{"spec":{"incomingExternalClient":{"minWireVersion":0,"maxWireVersion":13},"incomingInternalClient":{"minWireVersion":0,"maxWireVersion":13},"isInternalClient":true}}}, {"t":{"$date":"2022-03-14T04:43:49.901-04:00"},"s":"W", "c":"ASIO", "id":22601, "ctx":"main", "msg":"No TransportLayer configured during NetworkInterface startup"}, {"t":{"$date":"2022-03-14T04:43:49.902-04:00"},"s":"I", "c":"NETWORK", "id":4648601, "ctx":"main", "msg":"Implicit TCP FastOpen unavailable. If TCP FastOpen is required then set tcpFastOpenServer, tcpFastOpenClient, and tcpFastOpenQueueSize."}, {"t":{"$date":"2022-03-14T04:43:49.909-04:00"},"s":"W", "c":"ASIO", "id":22601, "ctx":"main", "msg":"No TransportLayer configured during NetworkInterface startup"}, {"t":{"$date":"2022-03-14T04:43:49.910-04:00"},"s":"I", "c":"REPL", "id":5123008, "ctx":"main", "msg":"Successfully registered PrimaryOnlyService", "attr":{"service":"TenantMigrationDonorService","ns":"config.tenantMigrationDonors"}}, {"t":{"$date":"2022-03-14T04:43:49.910-04:00"},"s":"I", "c":"REPL", "id":5123008, "ctx":"main", "msg":"Successfully registered PrimaryOnlyService", "attr":{"service":"TenantMigrationRecipientService","ns":"config.tenantMigrationRecipients"}}, {"t":{"$date":"2022-03-14T04:43:49.910-04:00"},"s":"I", "c":"CONTROL", "id":5945603, "ctx":"main", "msg":"Multi threading initialized"}, {"t":{"$date":"2022-03-14T04:43:49.910-04:00"},"s":"I", "c":"CONTROL", "id":4615611, "ctx":"mainandlisten", "msg":"MongoDB starting", "attr":{"pid":15314,"port":27017,"dbPath":"/opt/lampp/mongodb/bin/binadarma", "architecture":"64-bit", "host":"debian"}}, {"t":{"$date":"2022-03-14T04:43:49.911-04:00"},"s":"I", "c":"CONTROL", "id":23403, "ctx":"mainandlisten", "msg":"Build Info", "attr":{"buildInfo":{"version":"5.0.6","glibcVersion":"2.12a8dbb47f7042dae194a9c75baec1d81dd9259","opensslVersion":"OpenSSL 1.1.1d 10 Sep 2019","modules":[],"allocator":"tcmalloc","environment":{"distmod":"debian10","distarch":"x86_64","targetarch":"x86_64"}}}}, {"t":{"$date":"2022-03-14T04:43:49.911-04:00"},"s":"I", "c":"CONTROL", "id":51765, "ctx":"mainandlisten", "msg":"Operating System", "attr":{"os":{"name":"PRETTY_NAME=\\\"DracOS GNU/Linux 3.1.5 (Remastered)\\\"","version":"Kernel 4.19.0-17-amd64"}}}, {"t":{"$date":"2022-03-14T04:43:49.911-04:00"},"s":"I", "c":"CONTROL", "id":21951, "ctx":"mainandlisten", "msg":"Options set by command line", "attr":{"options":{"storageEngine":{"dbPath":"/opt/lampp/mongodb/bin/binadarma"}}}}, {"t":{"$date":"2022-03-14T04:43:49.916-04:00"},"s":"I", "c":"STORAGE", "id":22270, "ctx":"mainandlisten", "msg":"Storage engine to use detected by data files", "attr":{"dbpath":"/opt/lampp/mongodb/bin/binadarma", "storageEngine":"wiredtiger"}}, {"t":{"$date":"2022-03-14T04:43:49.916-04:00"},"s":"I", "c":"STORAGE", "id":22297, "ctx":"mainandlisten", "msg":"Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See http://dochub.mongodb.org/core/prodnotes-filesystem", "tags":["StartupWarnings"]}, {"t":{"$date":"2022-03-14T04:43:49.916-04:00"},"s":"I", "c":"STORAGE", "id":22315, "ctx":"mainandlisten", "msg":"Opening WiredTiger", "attr":{"config":{"create,cache_size=1252M,session_max=33000,evictions=(threads_min=4,threads_max=4),config_base=false,statistics=(fast),log=(enabled=true,archive=true,path=journal,compressor=snappy),buildoptions=(--disable-assertions,--enable-wiredtiger,--with-openssl)}}}}, {"t":{"$date":"2022-03-14T04:43:49.916-04:00"},"s":"I", "c":"STORAGE", "id":22315, "ctx":"mainandlisten", "msg":"Opening WiredTiger", "attr":{"config":{"create,cache_size=1252M,session_max=33000,evictions=(threads_min=4,threads_max=4),config_base=false,statistics=(fast),log=(enabled=true,archive=true,path=journal,compressor=snappy),buildoptions=(--disable-assertions,--enable-wiredtiger,--with-openssl)}}}}

```

2. Menjalankan Mongoddb

Buka terminal baru, jalankan perintah berikut:

mongo atau mongosh

```

faiz@debian: ~$ mongo
MongoDB shell version: 4.0.1
connecting to: mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
Current Mongosh Log ID: 622f00eb410c6a92c504787f
Connecting to:
  mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+1.2.2
Using MongoDB:
  5.0.6
Using Mongosh:
  1.2.2

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

-----
The server generated these startup warnings when booting:
  2022-03-14T04:43:49.916-04:00: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See http://dochub.mongodb.org/core/prodnotes-filesystem
  2022-03-14T04:43:50.888-04:00: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
  2022-03-14T04:43:50.889-04:00: You are running this process as the root user, which is not recommended
  2022-03-14T04:43:50.889-04:00: This server is bound to localhost. Remote systems will be unable to connect to this server. Start the server with --bind_ip <address> to specify which IP addresses it should serve responses from, or with --bind_ip_all to bind to all interfaces. If this behavior is desired, start the server with --bind_ip 127.0.0.1 to disable this warning
  2022-03-14T04:43:50.889-04:00: /sys/kernel/mm/transparent_hugepage/enabled is 'always'. We suggest setting it to 'never'
  2022-03-14T04:43:50.889-04:00: Soft limits for open file descriptors too low

-----
Warning: Found ~/.mongorc.js, but not ~/.mongoshrc.js. ~/.mongorc.js will not be loaded.
You may want to copy or rename ~/.mongorc.js to ~/.mongoshrc.js.
test>

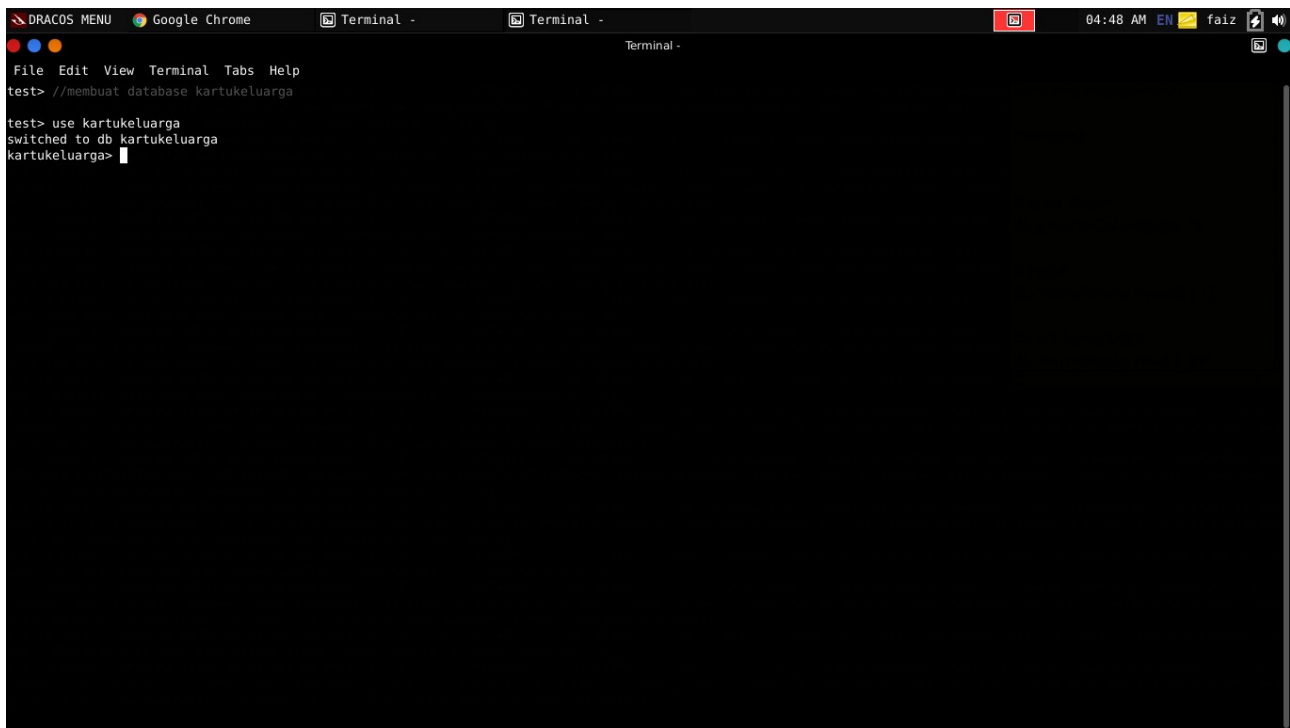
```

3. Perintah Dasar

3.1 Membuat Database

Contoh membuat database `kartukeluarga`

Command `use kartukeluarga`

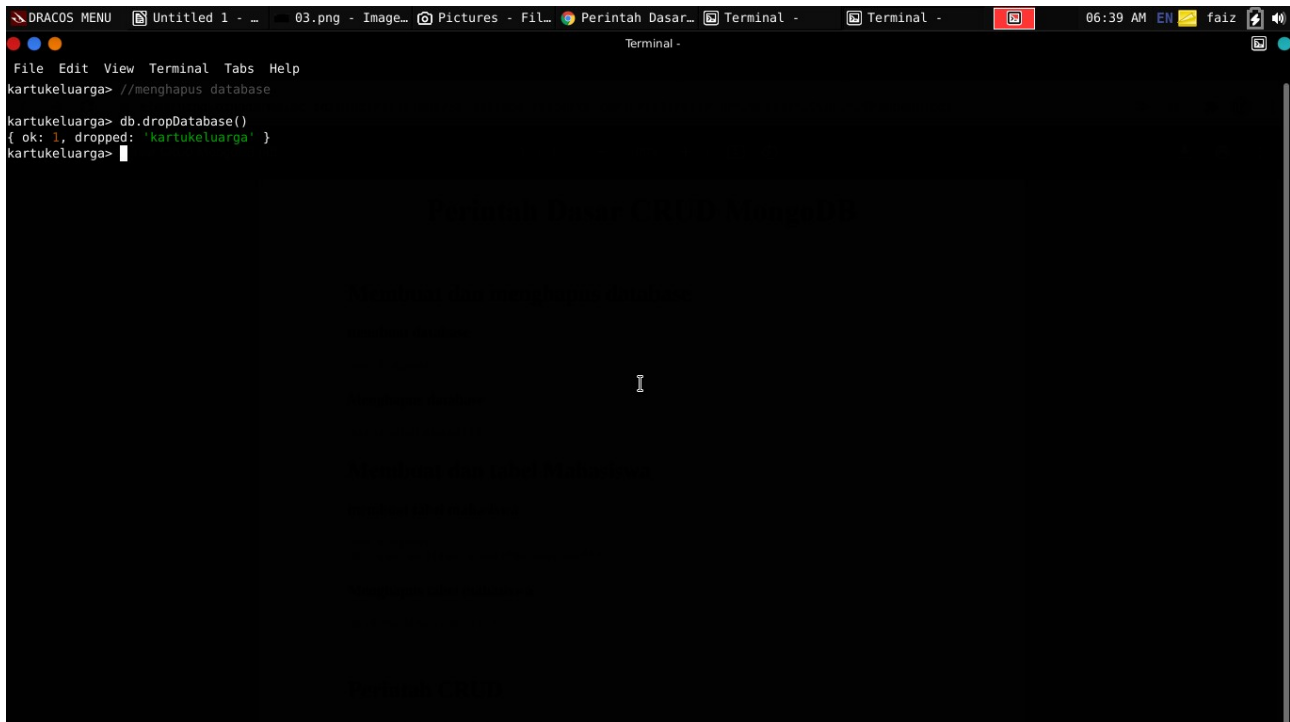


```
DRACOS MENU Google Chrome Terminal - Terminal - 04:48 AM EN faiz
File Edit View Terminal Tabs Help
test> //membuat database kartukeluarga

test> use kartukeluarga
switched to db kartukeluarga
kartukeluarga>
```

3.2 Menghapus Database

`db.dropDatabase()`

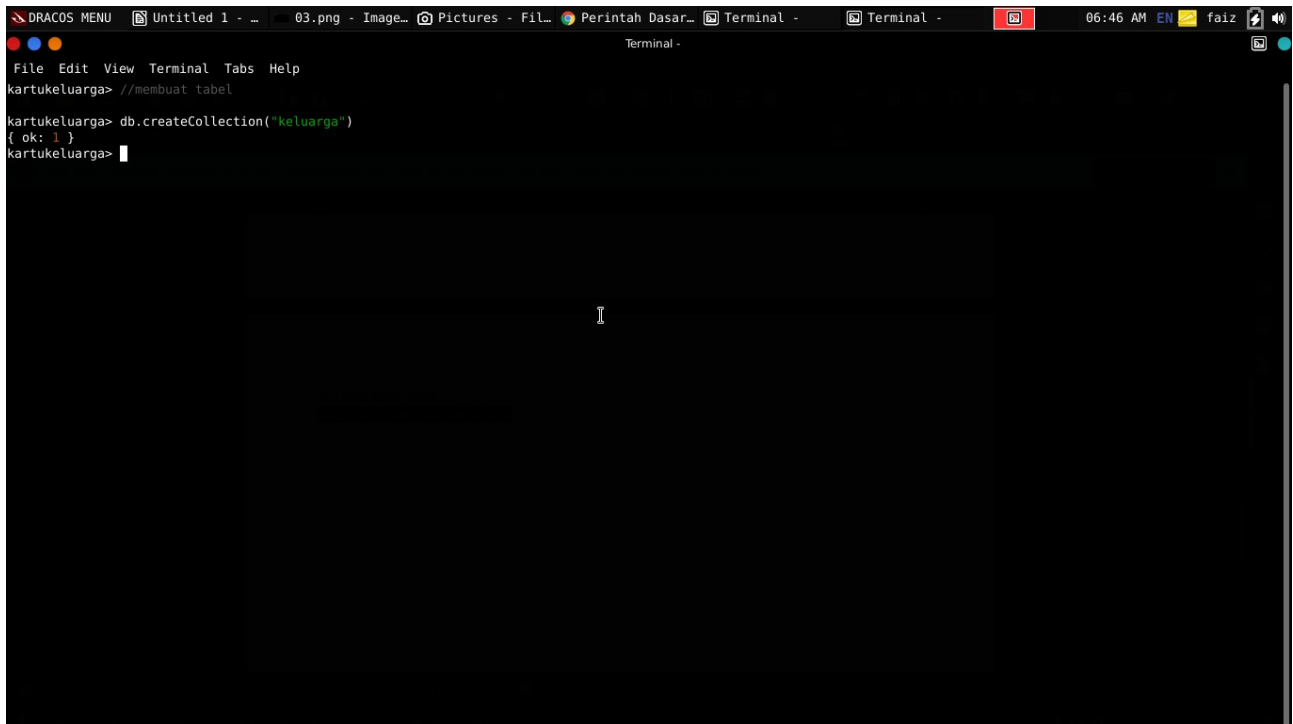


```
DRACOS MENU Untitled 1 - ... 03.png - Image... Pictures - Fil... Perintah Dasar... Terminal - Terminal - 06:39 AM EN faiz
File Edit View Terminal Tabs Help
kartukeluarga> //menghapus database

kartukeluarga> db.dropDatabase()
{ ok: 1, dropped: 'kartukeluarga' }
kartukeluarga>
```

3.3 Membuat Tabel

```
db.createCollection("keluarga")
```



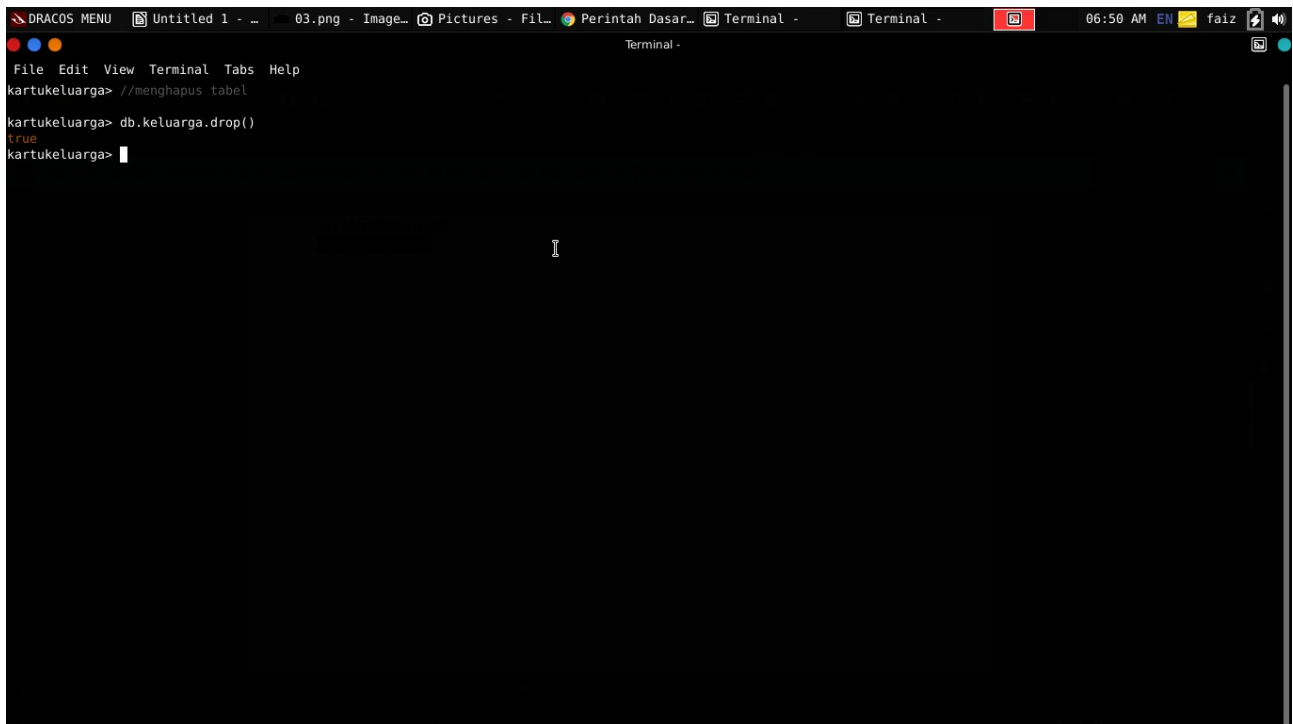
A screenshot of a terminal window titled "Terminal -". The window has a menu bar with "File", "Edit", "View", "Terminal", "Tabs", and "Help". The terminal shows the following commands and output:

```
kartukeluarga> //membuat tabel
kartukeluarga> db.createCollection("keluarga")
{ ok: 1 }
```

The cursor is positioned at the end of the last line.

3.4 Menghapus Tabel

```
db.keluarga.drop()
```



A screenshot of a terminal window titled "Terminal -". The window has a menu bar with "File", "Edit", "View", "Terminal", "Tabs", and "Help". The terminal shows the following commands and output:

```
kartukeluarga> //menghapus tabel
kartukeluarga> db.keluarga.drop()
true
```

The cursor is positioned at the end of the last line.

3.5 Insert

Buat database kartukeluarga lagi beserta tabel keluarga.

nik	nama_lengkap	status_dalam_keluarga	pekerjaan	usia
123456781	Mad Roji	Kepala Keluarga	Petani	43
123456782	Prihatin	Istri	Petani	40
123456783	Hafidz Mubarok	Anak	Petani	27
123456784	Alim Mustain	Anak	Petani	23

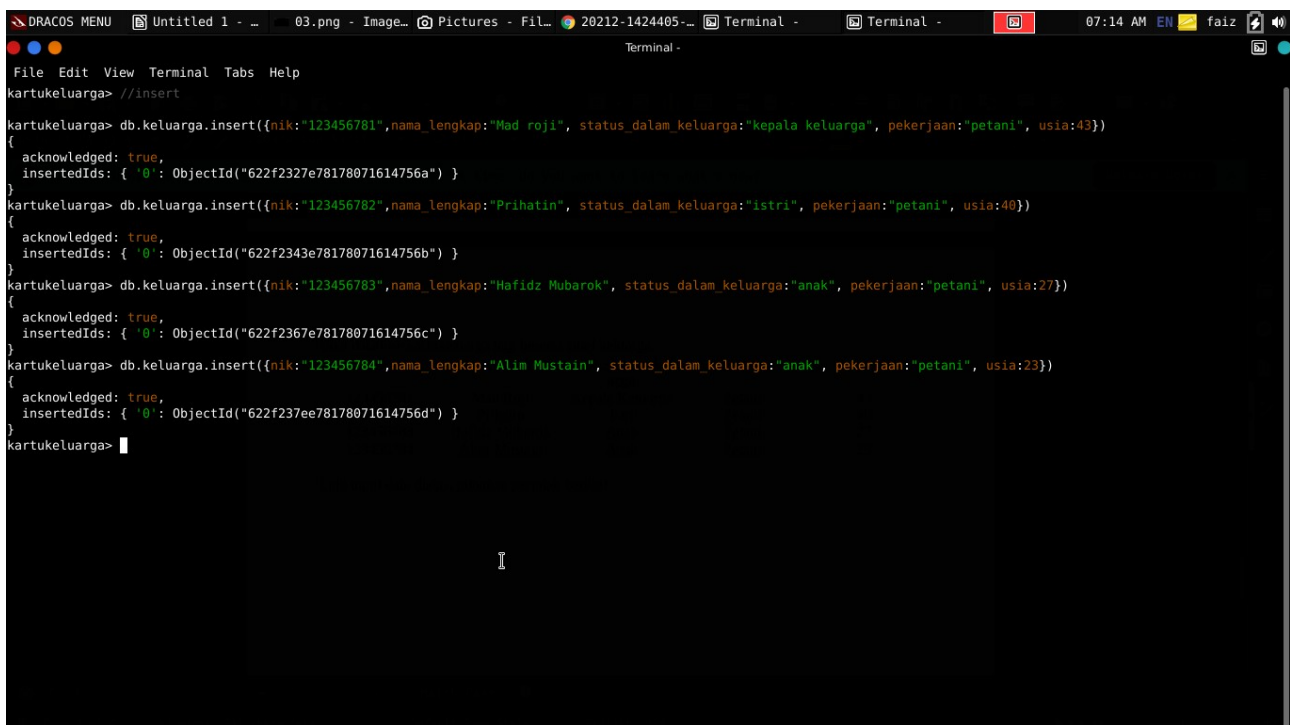
Lalu input data diatas, gunakan perintah berikut:

```
db.keluarga.insert({nik:"123456781",nama_lengkap:"Mad roji", status_dalam_keluarga:"kepala keluarga", pekerjaan:"petani", usia:43})
```

```
db.keluarga.insert({nik:"123456782",nama_lengkap:"Prihatin", status_dalam_keluarga:"istri", pekerjaan:"petani", usia:40})
```

```
db.keluarga.insert({nik:"123456783",nama_lengkap:"Hafidz Mubarok", status_dalam_keluarga:"anak", pekerjaan:"petani", usia:27})
```

```
db.keluarga.insert({nik:"123456784",nama_lengkap:"Alim Mustain", status_dalam_keluarga:"anak", pekerjaan:"petani", usia:23})
```

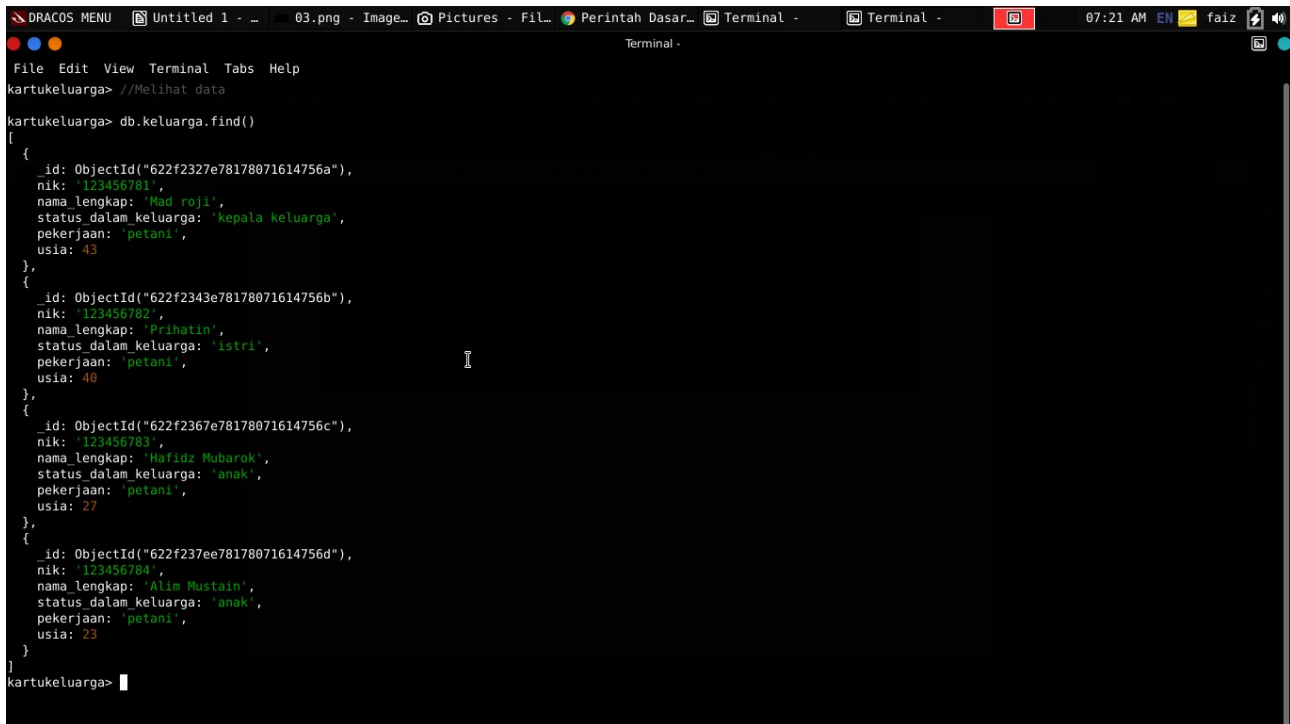


```
DRACOS MENU  Untitled 1 - ...  03.png - Image...  Pictures - Fil...  20212-1424405-...  Terminal -  Terminal -  07:14 AM EN faiz  [Speaker Icon]

Terminal -
File Edit View Terminal Tabs Help
kartukeluarga> //insert
kartukeluarga> db.keluarga.insert({nik:"123456781",nama_lengkap:"Mad roji", status_dalam_keluarga:"kepala keluarga", pekerjaan:"petani", usia:43})
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("622f2327e78178071614756a") }
}
kartukeluarga> db.keluarga.insert({nik:"123456782",nama_lengkap:"Prihatin", status_dalam_keluarga:"istri", pekerjaan:"petani", usia:40})
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("622f2343e78178071614756b") }
}
kartukeluarga> db.keluarga.insert({nik:"123456783",nama_lengkap:"Hafidz Mubarok", status_dalam_keluarga:"anak", pekerjaan:"petani", usia:27})
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("622f2367e78178071614756c") }
}
kartukeluarga> db.keluarga.insert({nik:"123456784",nama_lengkap:"Alim Mustain", status_dalam_keluarga:"anak", pekerjaan:"petani", usia:23})
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("622f237ee78178071614756d") }
}
kartukeluarga> 
```

3.6 Melihat data

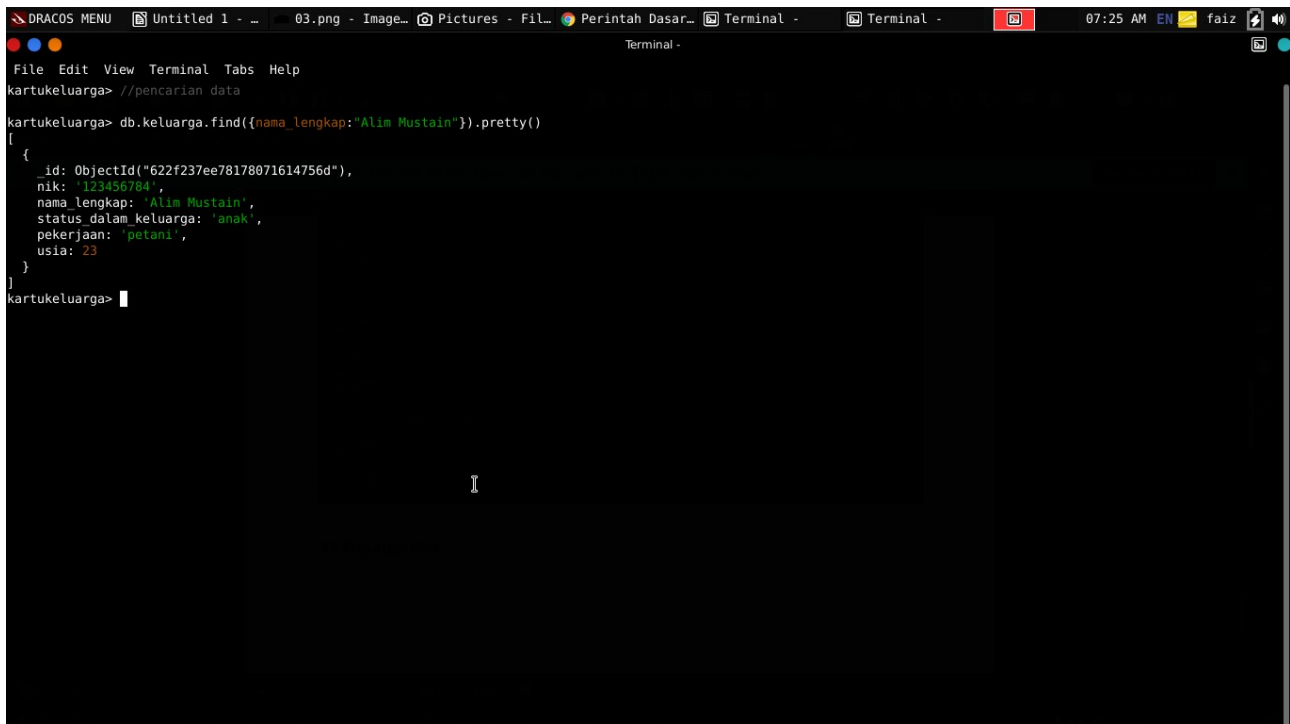
db.keluarga.find()



```
DRACOS MENU  Untitled 1 - ...  03.png - Image...  Pictures - Fil...  Perintah Dasar...  Terminal -  Terminal -  07:21 AM EN faiz
Terminal -
File Edit View Terminal Tabs Help
kartukeluarga> //Melihat data
kartukeluarga> db.keluarga.find()
[
  {
    _id: ObjectId("622f2327e78178071614756a"),
    nik: '123456781',
    nama_lengkap: 'Mad roji',
    status_dalam_keluarga: 'kepala keluarga',
    pekerjaan: 'petani',
    usia: 43
  },
  {
    _id: ObjectId("622f2343e78178071614756b"),
    nik: '123456782',
    nama_lengkap: 'Prihatin',
    status_dalam_keluarga: 'istri',
    pekerjaan: 'petani',
    usia: 40
  },
  {
    _id: ObjectId("622f2367e78178071614756c"),
    nik: '123456783',
    nama_lengkap: 'Hafidz Mubarok',
    status_dalam_keluarga: 'anak',
    pekerjaan: 'petani',
    usia: 27
  },
  {
    _id: ObjectId("622f237ee78178071614756d"),
    nik: '123456784',
    nama_lengkap: 'Alim Mustain',
    status_dalam_keluarga: 'anak',
    pekerjaan: 'petani',
    usia: 23
  }
]
kartukeluarga>
```

3.7 Pencarian data

db.keluarga.find({nama_lengkap:"Alim Mustain"}).pretty()



```
DRACOS MENU  Untitled 1 - ...  03.png - Image...  Pictures - Fil...  Perintah Dasar...  Terminal -  Terminal -  07:25 AM EN faiz
Terminal -
File Edit View Terminal Tabs Help
kartukeluarga> //pencarian data
kartukeluarga> db.keluarga.find({nama_lengkap:'Alim Mustain'}).pretty()
[
  {
    _id: ObjectId("622f237ee78178071614756d"),
    nik: '123456784',
    nama_lengkap: 'Alim Mustain',
    status_dalam_keluarga: 'anak',
    pekerjaan: 'petani',
    usia: 23
  }
]
kartukeluarga>
```

3.8 Update data

update umur Alim Mustain dari 23 menjadi 24.

```
db.keluarga.update({nik:"123456784"},{$set:{usia:24}})
```

cek perubahan setelah di update

```
db.keluarga.find({nama_lengkap:"Alim Mustain'}).pretty()
```

```
DRACOS MENU  Untitled 1 - ...  03.png - Image...  Pictures - Fil...  Perintah Dasar...  Terminal -  Terminal -  07:29 AM EN faiz

File Edit View Terminal Tabs Help
kartukeluarga> //update data

kartukeluarga> db.keluarga.update({nik:"123456784"},{$set:{usia:24}})
DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
kartukeluarga> //cek perubahan

kartukeluarga> db.keluarga.find({nama_lengkap:"Alim Mustain'}).pretty()
[
  {
    _id: ObjectId("622f237ee78178071614756d"),
    nik: '123456784',
    nama_lengkap: 'Alim Mustain',
    status_dalam_keluarga: 'anak',
    pekerjaan: 'petani',
    usia: 24
  }
]
kartukeluarga>
```

3.9 Menghapus data

```
db.keluarga.remove({nik:"123456783"})
```

```
DRACOS MENU  Untitled 1 - ...  03.png - Image...  Pictures - Fil...  Perintah Dasar...  [Terminal - ]  Terminal -  07:43 AM EN faiz

File Edit View Terminal Tabs Help
kartukeluarga> //menghapus data

kartukeluarga> db.keluarga.remove({nik:"123456783"})
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete, or bulkWrite.
{ acknowledged: true, deletedCount: 1 }
kartukeluarga> //cek

kartukeluarga> db.keluarga.find()
[
  {
    _id: ObjectId("622f2327e78178071614756a"),
    nik: '123456781',
    nama_lengkap: 'Mad roji',
    status_dalam_keluarga: 'kepala keluarga',
    pekerjaan: 'petani',
    usia: 43
  },
  {
    _id: ObjectId("622f2343e78178071614756b"),
    nik: '123456782',
    nama_lengkap: 'Prihatin',
    status_dalam_keluarga: 'istri',
    pekerjaan: 'petani',
    usia: 40
  },
  {
    _id: ObjectId("622f237ee78178071614756d"),
    nik: '123456784',
    nama_lengkap: 'Alim Mustain',
    status_dalam_keluarga: 'anak',
    pekerjaan: 'petani',
    usia: 24
  }
]
kartukeluarga>
```