

Tugas Basis Data Lanjut

Membuat Relasi One to Many dan Many to Many

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A. One to Many

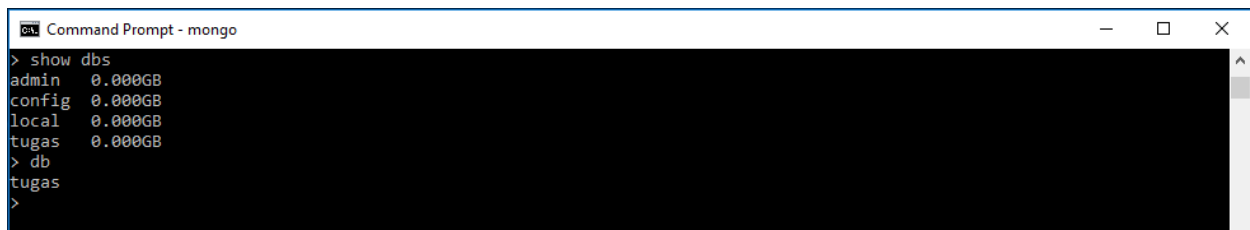
1. membuat database

> use tugas

switched to db tugas

> db

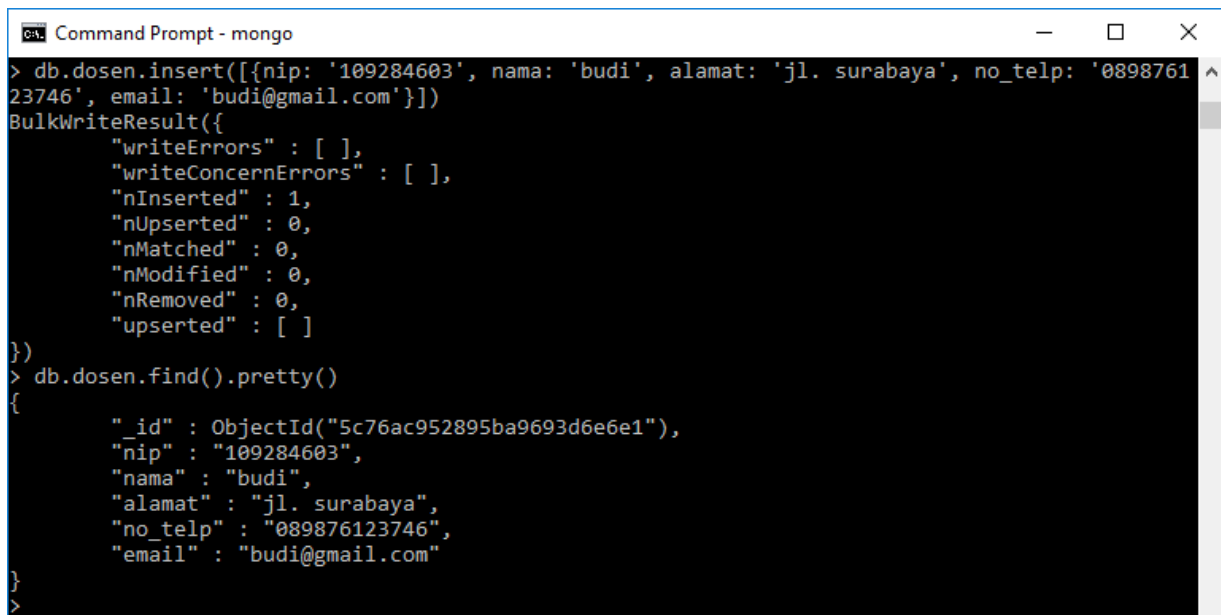
tugas



```
Command Prompt - mongo
> show dbs
admin    0.000GB
config  0.000GB
local    0.000GB
tugas    0.000GB
> db
tugas
>
```

2. membuat table dosen dan collision

> db.dosen.insert([{nip: '109284603', nama: 'budi', alamat: 'jl. surabaya', no_telp: '089876123746', email: 'budi@gmail.com'}])

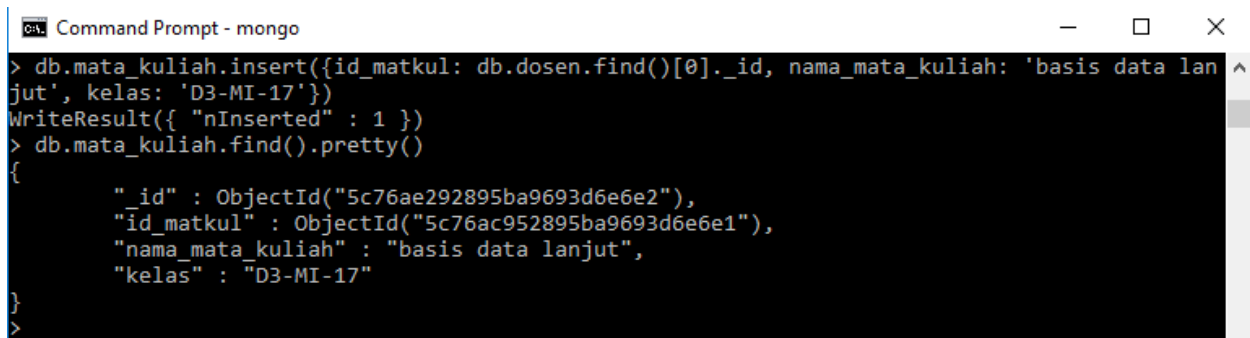


```
Command Prompt - mongo
> db.dosen.insert([{nip: '109284603', nama: 'budi', alamat: 'jl. surabaya', no_telp: '089876123746', email: 'budi@gmail.com'}])
BulkWriteResult({
  "writeErrors" : [ ],
  "writeConcernErrors" : [ ],
  "nInserted" : 1,
  "nUpserted" : 0,
  "nMatched" : 0,
  "nModified" : 0,
  "nRemoved" : 0,
  "upserted" : [ ]
})
> db.dosen.find().pretty()
{
  "_id" : ObjectId("5c76ac952895ba9693d6e6e1"),
  "nip" : "109284603",
  "nama" : "budi",
  "alamat" : "jl. surabaya",
  "no_telp" : "089876123746",
  "email" : "budi@gmail.com"
}
>
```

3. Tabel Mata Kuliah

```
> db.mata_kuliah.insert({id_matkul: db.dosen.find()[0]._id, nama_mata_kuliah: 'basis data lanjut', kelas: 'D3-MI-17'})
```

```
WriteResult({ "nInserted" : 1 })
```



```
Command Prompt - mongo
> db.mata_kuliah.insert({id_matkul: db.dosen.find()[0]._id, nama_mata_kuliah: 'basis data lanjut', kelas: 'D3-MI-17'})
WriteResult({ "nInserted" : 1 })
> db.mata_kuliah.find().pretty()
{
  "_id" : ObjectId("5c76ae292895ba9693d6e6e2"),
  "id_matkul" : ObjectId("5c76ac952895ba9693d6e6e1"),
  "nama_mata_kuliah" : "basis data lanjut",
  "kelas" : "D3-MI-17"
}
```

4. Relasi Tabel Dosen dan Mata Kuliah



```
Command Prompt - mongo
> db.dosen.find().pretty()
{
  "_id" : ObjectId("5c76ac952895ba9693d6e6e1"),
  "nip" : "109284603",
  "nama" : "budi",
  "alamat" : "j1. surabaya",
  "no_telp" : "089876123746",
  "email" : "budi@gmail.com"
}
> db.mata_kuliah.find().pretty()
{
  "_id" : ObjectId("5c76ae292895ba9693d6e6e2"),
  "id_matkul" : ObjectId("5c76ac952895ba9693d6e6e1"),
  "nama_mata_kuliah" : "basis data lanjut",
  "kelas" : "D3-MI-17"
}
```

B. Many to Many

1. Membuat Database

```
> use sewa
```

```
switched to db sewa
```



```
Command Prompt - mongo
> use sewa
switched to db sewa
> db
sewa
```

2. Membuat table Peminjam

```
> db.peminjam.insert({Nama: 'Gigih Prasetya', alamat: 'Jaya Regency Sedati', no_telepon: '085732228997', email: 'gigih@gmail.com'})
```

```
Command Prompt - mongo
> db.peminjam.insert({Nama: 'Gigih Prasetya', alamat: 'Jaya Regency Sedati', no_telepon: '085732228997', email: 'gigih@gmail.com'})
WriteResult({ "nInserted" : 1 })
> db.peminjam.find().pretty()
{
  "_id" : ObjectId("5c76b2102895ba9693d6e6e3"),
  "Nama" : "Gigih Prasetya",
  "alamat" : "Jaya Regency Sedati",
  "no_telepon" : "085732228997",
  "email" : "gigih@gmail.com"
}
```

3. Membuat Tabel Barang

> db.barang.insert({Nama: 'kamera', tarif: '120000', stok: '5'})

```
> db.barang.insert({Nama: 'kamera', tarif: '120000', stok: '5'})
WriteResult({ "nInserted" : 1 })
> db.barang.find().pretty()
{
  "_id" : ObjectId("5c76b3e22895ba9693d6e6e4"),
  "Nama" : "kamera",
  "tarif" : "120000",
  "stok" : "5"
}
```

4. Membuat Table Transaksi

> db.transaksi.insert({id_transaksi: '111', id_peminjam: db.peminjam.find()[0]._id, id_barang: db.barang.find()[0]._id, jumlah: '1' total: '120000'})

```
Command Prompt - mongo
> db.transaksi.insert({id_transaksi: '111', id_peminjam: db.peminjam.find()[0]._id, id_barang : db.barang.find()[0]._id, jumlah: '1' total: '120000'})
2019-02-27T23:08:16.231+0700 E QUERY [js] SyntaxError: missing } after property list @(shell):1:130
> db.transaksi.insert({id_transaksi: '111', id_peminjam: db.peminjam.find()[0]._id, id_barang : db.barang.find()[0]._id, jumlah: '1', total: '120000'})
WriteResult({ "nInserted" : 1 })
> db.transaksi.find().pretty()
{
  "_id" : ObjectId("5c76b6142895ba9693d6e6e5"),
  "id_transaksi" : "111",
  "id_peminjam" : ObjectId("5c76b2102895ba9693d6e6e3"),
  "id_barang" : ObjectId("5c76b3e22895ba9693d6e6e4"),
  "jumlah" : "1",
  "total" : "120000"
}
```

5. Relasi Tabel Peminjam dan Barang Kepada Tabel Transaksi

```
Command Prompt - mongo
> db.peminjam.find().pretty()
{
  "_id" : ObjectId("5c76b2102895ba9693d6e6e3"),
  "Nama" : "Gigih Prasetya",
  "alamat" : "Jaya Regency Sedati",
  "no_telepon" : "085732228997",
  "email" : "gigih@gmail.com"
}
> db.barang.find().pretty()
{
  "_id" : ObjectId("5c76b3e22895ba9693d6e6e4"),
  "Nama" : "kamera",
  "tarif" : "120000",
  "stok" : "5"
}
> db.transaksi.find().pretty()
{
  "_id" : ObjectId("5c76b6142895ba9693d6e6e5"),
  "id_transaksi" : "111",
  "id_peminjam" : ObjectId("5c76b2102895ba9693d6e6e3"),
  "id_barang" : ObjectId("5c76b3e22895ba9693d6e6e4"),
  "jumlah" : "1",
  "total" : "120000"
}
>
```