

## TUGAS BASIS DATA LANJUT

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### 1. One To Many

Membuat database

```
> use tugas  
switched to db tugas  
>
```

Membuat tabel penulis

```
> db.penulis.insert([<nama: 'Raditya', alamat: 'jl.soekarno', email: 'raditya@gmail.com'>])  
BulkWriteResult<<  
  "writeErrors" : [ ],  
  "writeConcernErrors" : [ ],  
  "nInserted" : 1,  
  "nUpserted" : 0,  
  "nMatched" : 0,  
  "nModified" : 0,  
  "nRemoved" : 0,  
  "upserted" : [ ]  
>>  
>
```

Membuat tabel buku

```
> db.buku.insert(<<id_buku: db.penulis.find(<>)[0]._id, nama_buku: 'Marmut Merah Jambu', tahun_terbit: '2009'>>)  
WriteResult<< "nInserted" : 1 >>  
>
```

Relasi tabel penulis dan tabel buku

```

> db.penulis.find().pretty()
{
  "_id" : ObjectId("5c76c23d8ec18c765790ea73"),
  "nama" : "Raditya",
  "alamat" : "jl.soekarno",
  "email" : "raditya@gmail.com"
}
> db.buku.find().pretty()
{
  "_id" : ObjectId("5c76c3938ec18c765790ea74"),
  "id_buku" : ObjectId("5c76c23d8ec18c765790ea73"),
  "nama_buku" : "Marmut Merah Jambu",
  "tahun_terbit" : "2009"
}
>

```

## 2. Many To Many

Membuat database

```

> use tugas2
switched to db tugas2
> db
tugas2
>

```

Membuat tabel peminjam

```

> db.peminjam.insert({nama: 'Charisma Aulya', no_telp: '081358430650', alamat: '
Dalta Sari Indah', email: 'crocolatoz6@gmail.com'})
WriteResult({ "nInserted" : 1 })
> db.peminjam.find().pretty()
{
  "_id" : ObjectId("5c76c6a78ec18c765790ea75"),
  "nama" : "Charisma Aulya",
  "no_telp" : "081358430650",
  "alamat" : "Dalta Sari Indah",
  "email" : "crocolatoz6@gmail.com"
}
>

```

Membuat tabel barang untuk dipinjam

```

> db.barang.insert({nama: 'buku', tarif: '5000', stok: '2'})
WriteResult({ "nInserted" : 1 })
> db.barang.find().pretty()
{
  "_id" : ObjectId("5c76c7368ec18c765790ea76"),
  "nama" : "buku",
  "tarif" : "5000",
  "stok" : "2"
}
>

```

Membuat tabel transaksi

```

> db.transaksi.insert({id_transaksi: '1024', id_peminjam: db.peminjam.find()[0]._id, id_barang: db.barang.find()[0]._id, jumlah: '1', total: '5000'})
WriteResult({ "nInserted" : 1 })
> db.transaksi.find().pretty()
{
  "_id" : ObjectId("5c76c8318ec18c765790ea77"),
  "id_transaksi" : "1024",
  "id_peminjam" : ObjectId("5c76c6a78ec18c765790ea75"),
  "id_barang" : ObjectId("5c76c7368ec18c765790ea76"),
  "jumlah" : "1",
  "total" : "5000"
}

```

Relasi terhadap tabel peminjam, tabel barang, dan tabel transaksi

```

C:\Windows\system32\cmd.exe - mongo
> db.peminjam.find().pretty()
{
  "_id" : ObjectId("5c76c6a78ec18c765790ea75"),
  "nama" : "Charisma Aulya",
  "no_telp" : "081358430650",
  "alamat" : "Delta Sari Indah",
  "email" : "crocolatoz6@gmail.com"
}
> db.barang.find().pretty()
{
  "_id" : ObjectId("5c76c7368ec18c765790ea76"),
  "nama" : "buku",
  "tarif" : "5000",
  "stok" : "2"
}
> db.transaksi.find().pretty()
{
  "_id" : ObjectId("5c76c8318ec18c765790ea77"),
  "id_transaksi" : "1024",
  "id_peminjam" : ObjectId("5c76c6a78ec18c765790ea75"),
  "id_barang" : ObjectId("5c76c7368ec18c765790ea76"),
  "jumlah" : "1",
  "total" : "5000"
}

```