

Nama : Alma Fridyana
NIM : 17050623027
Prodi : D3 Manajemen Informatika

TUGAS BASIS DATA LANJUT

1. One to many

```
Command Prompt - mongo

> show dbs
admin 0.000GB
config 0.000GB
local 0.000GB
> use onetomany
switched to db onetomany
> db.mahasiswa.insert
function (obj, options) {
  if (!obj)
    throw Error("no object passed to insert!");

  var flags = 0;

  var wc = undefined;
  var allowDottedFields = false;
  if (options === undefined) {
    // do nothing
  } else if (typeof(options) === 'object') {
    if (options.ordered === undefined) {
      // do nothing, like above
    } else {
      flags = options.ordered ? 0 : 1;
    }

    if (options.writeConcern)
      wc = options.writeConcern;
    if (options.allowdotted)
      allowDottedFields = true;
  }

  if (options.writeConcern)
    wc = options.writeConcern;
  if (options.allowdotted)
    allowDottedFields = true;
}
```

```
Command Prompt - mongo

  if (options.writeConcern)
    wc = options.writeConcern;
  if (options.allowdotted)
    allowDottedFields = true;
} else {
  flags = options;
}

// 1 = continueOnError, which is synonymous with unordered in the write commands/bulk-api
var ordered = ((flags & 1) == 0);

if (!wc)
  wc = this.getWriteConcern();

var result = undefined;
var startTime =
  (typeof(_verboseShell) === 'undefined' || !_verboseShell) ? 0 : new Date().getTime();

if (this.getMongo().writeMode() != "legacy") {
  // Bit 1 of option flag is continueOnError. Bit 0 (stop on error) is the default.
  var bulk = ordered ? this.initializeOrderedBulkOp() : this.initializeUnorderedBulkOp();
  var isMultiInsert = Array.isArray(obj);

  if (isMultiInsert) {
    obj.forEach(function(doc) {
      bulk.insert(doc);
    });
  } else {
    bulk.insert(obj);
  }
}
```

```
Command Prompt - mongo

});
} else {
    bulk.insert(obj);
}

try {
    result = bulk.execute(wc);
    if (!isMultiInsert)
        result = result.toSingleResult();
} catch (ex) {
    if (ex instanceof BulkWriteError) {
        result = isMultiInsert ? ex.toResult() : ex.toSingleResult();
    } else if (ex instanceof WriteCommandError) {
        result = ex;
    } else {
        // Other exceptions rethrown as-is.
        throw ex;
    }
}
} else {
    if (typeof(obj._id) == "undefined" && !Array.isArray(obj)) {
        var tmp = obj; // don't want to modify input
        obj = {_id: new ObjectId()};
        for (var key in tmp) {
            obj[key] = tmp[key];
        }
    }

    this.getMongo().insert(this._fullName, obj, flags);
}

if (!isMultiInsert) {

```

db.mahasiswa.insert({.....})

db.mahasiswa.find().pretty()

```
Command Prompt - mongo

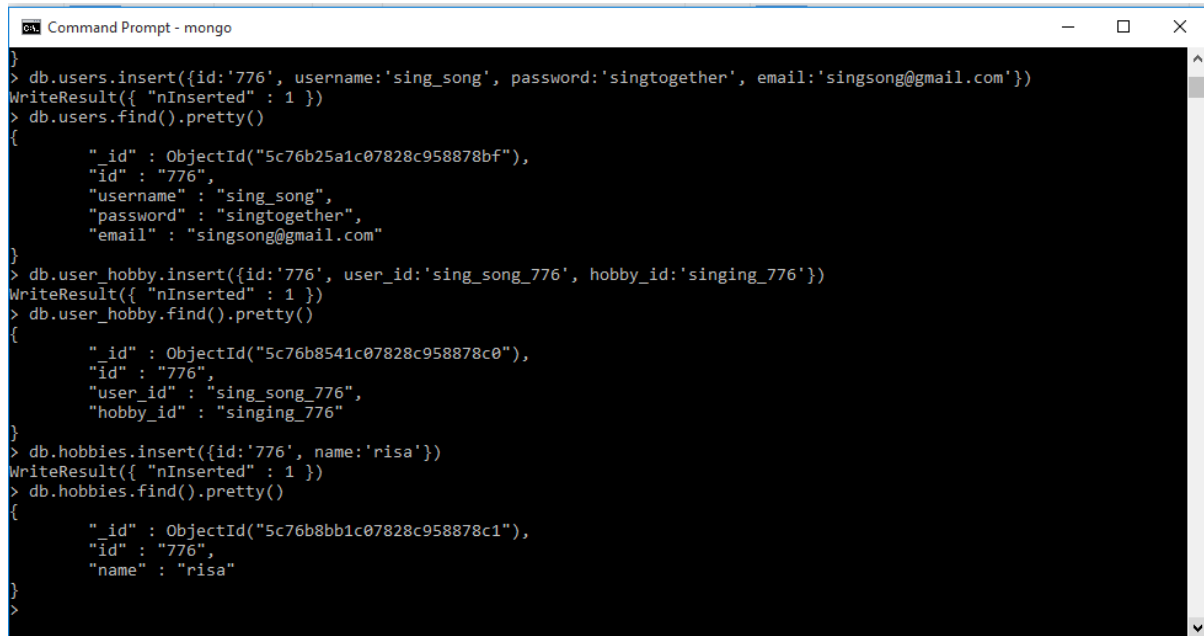
// enforce write concern, if required
if (wc)
    result = this.runCommand("getLastError", wc instanceof WriteConcern ? wc.toJSON() : wc);
}

this._lastID = obj._id;
this._printExtraInfo("Inserted", startTime);
return result;
}
> db.mahasiswa.insert({id:'17050623027', nama:'alma', kelas:'D3_ManajemenInformatika', angkatan:'17'})
WriteResult({ "nInserted" : 1 })
> db.mahasiswa.find().pretty()
{
  "_id" : ObjectId("5c76255f1c07828c958878bd"),
  "id" : "17050623027",
  "nama" : "alma",
  "kelas" : "D3_ManajemenInformatika",
  "angkatan" : "17"
}
> db.mata_kuliah.insert({kode_mk:'079', nama_mk:'JaringanKomputer', jumlah_sks:'2', semester:'4'})
WriteResult({ "nInserted" : 1 })
> db.mata_kuliah.find().pretty()
{
  "_id" : ObjectId("5c7626e31c07828c958878be"),
  "kode_mk" : "079",
  "nama_mk" : "JaringanKomputer",
  "jumlah_sks" : "2",
  "semester" : "4"
}
```

2. Many to many

```
db.users.insert({...})
```

```
db.users.find().pretty()
```



```
Command Prompt - mongo
> db.users.insert({id:'776', username:'sing_song', password:'singtogether', email:'singsong@gmail.com'})
WriteResult({ "nInserted" : 1 })
> db.users.find().pretty()
{
  "_id" : ObjectId("5c76b25a1c07828c958878bf"),
  "id" : "776",
  "username" : "sing_song",
  "password" : "singtogether",
  "email" : "singsong@gmail.com"
}
> db.user_hobby.insert({id:'776', user_id:'sing_song_776', hobby_id:'singing_776'})
WriteResult({ "nInserted" : 1 })
> db.user_hobby.find().pretty()
{
  "_id" : ObjectId("5c76b8541c07828c958878c0"),
  "id" : "776",
  "user_id" : "sing_song_776",
  "hobby_id" : "singing_776"
}
> db.hobbies.insert({id:'776', name:'risa'})
WriteResult({ "nInserted" : 1 })
> db.hobbies.find().pretty()
{
  "_id" : ObjectId("5c76b8bb1c07828c958878c1"),
  "id" : "776",
  "name" : "risa"
}
```