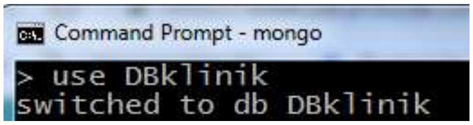
Nama : rena agustin

Nim   : 17050623005

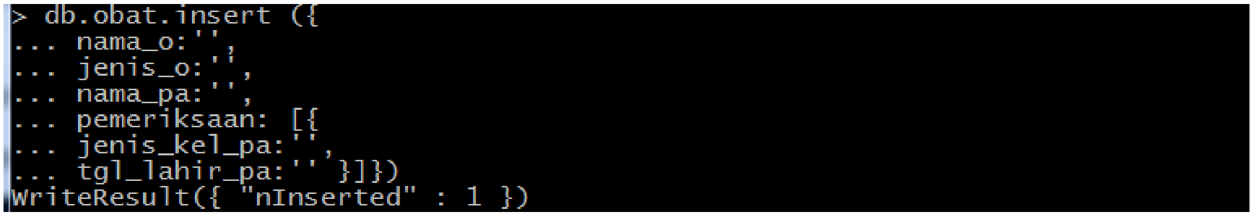
ONE TO MANY

- Pertama ketikan “USE” lalu “NAMA_KOLEKSI” tekan enter, untuk membuat database baru



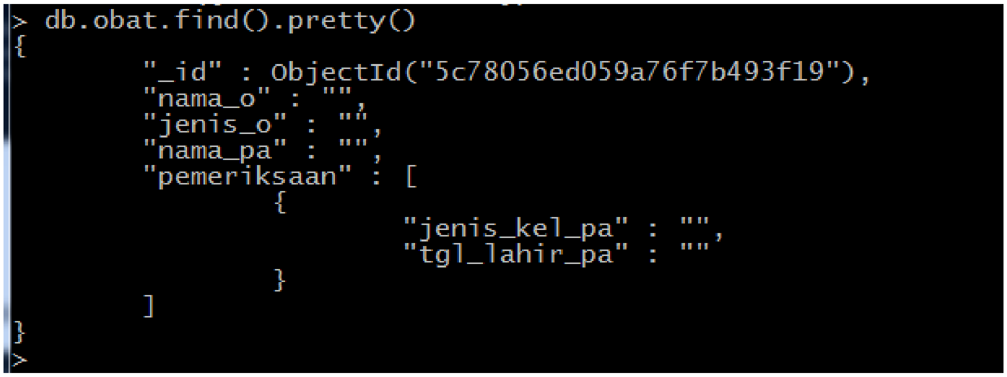
```
> use DBklinik
switched to db DBklinik
```

- Membuat collection baru yang didalamnya ada collection yang lainnya (menggunakan embedded document)
- lalu ketikan “db.<koleksi>.insert” ({ tekan enter masukan lah filed yg di inginkan dan akhiri tanda })



```
> db.obat.insert ({
... nama_o:'',
... jenis_o:'',
... nama_pa:'',
... pemeriksaan: [{
... jenis_kel_pa:'',
... tgl_lahir_pa:'' }]})
WriteResult({ "nInserted" : 1 })
```

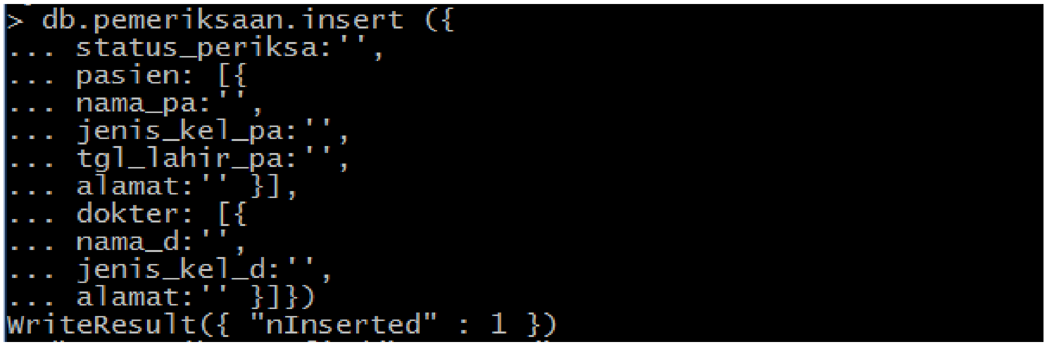
- melihat skema pembuatan collection di atas



```
> db.obat.find().pretty()
{
        "_id" : ObjectId("5c78056ed059a76f7b493f19"),
        "nama_o" : "",
        "jenis_o" : "",
        "nama_pa" : "",
        "pemeriksaan" : [
                {
                        "jenis_kel_pa" : "",
                        "tgl_lahir_pa" : ""
                }
        ]
}
>
```

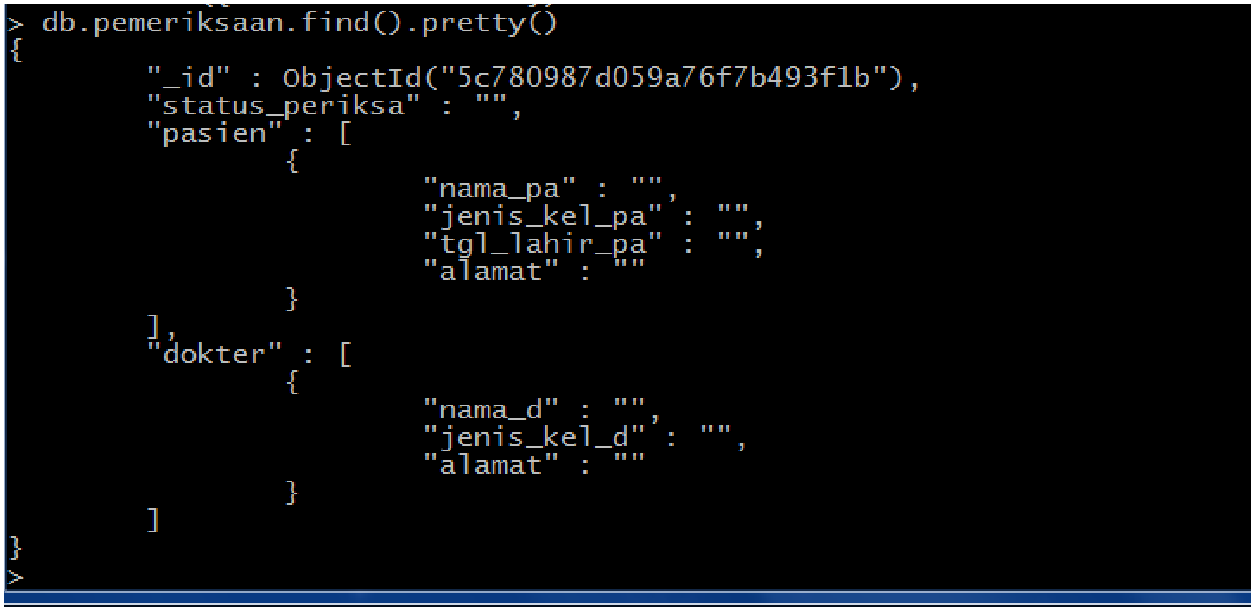
MANY TO MANY

- Membuat collection baru yang didalamnya ada collection yang lainnya (menggunakan embedded document)
- lalu ketikan “db.<koleksi>.insert” ({ tekan enter masukan lah filed yg di inginkan dan akhiri tanda })

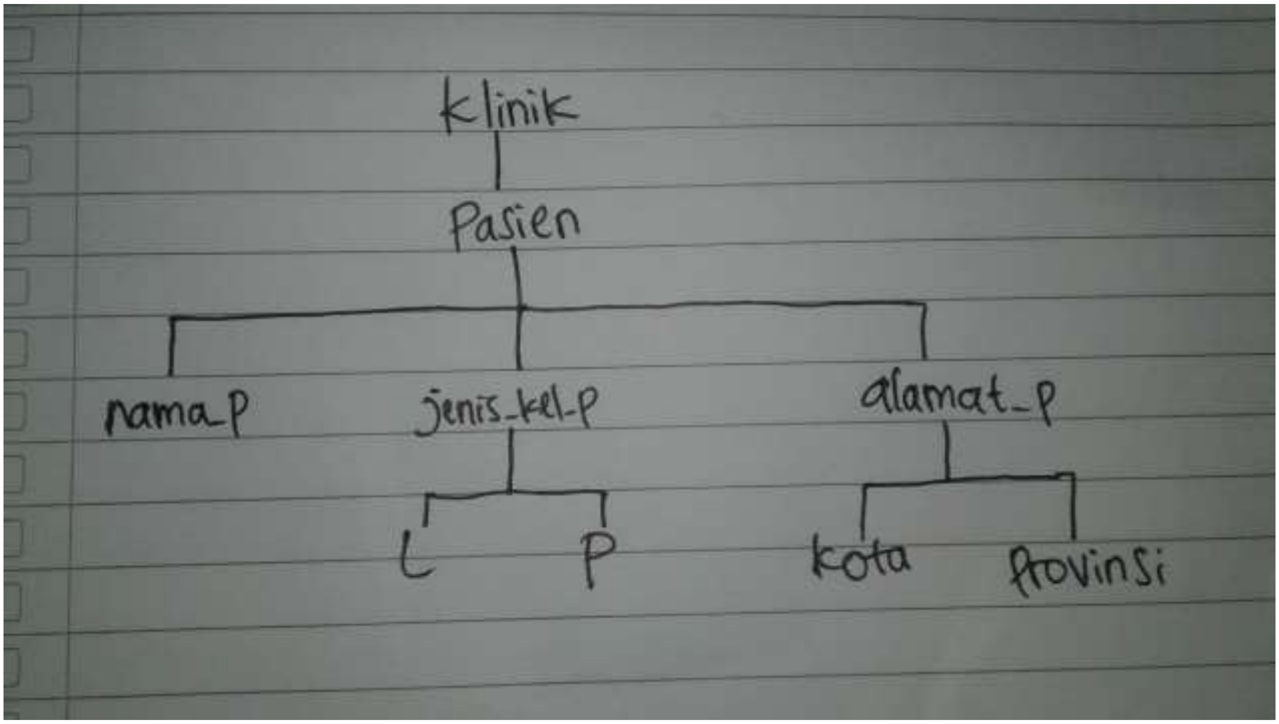


```
> db.pemeriksaan.insert ({
... status_periksa:'',
... pasien: [{
... nama_pa:'',
... jenis_kel_pa:'',
... tgl_lahir_pa:'',
... alamat:'' }],
... dokter: [{
... nama_d:'',
... jenis_kel_d:'',
... alamat:'' }]})
WriteResult({ "nInserted" : 1 })
```

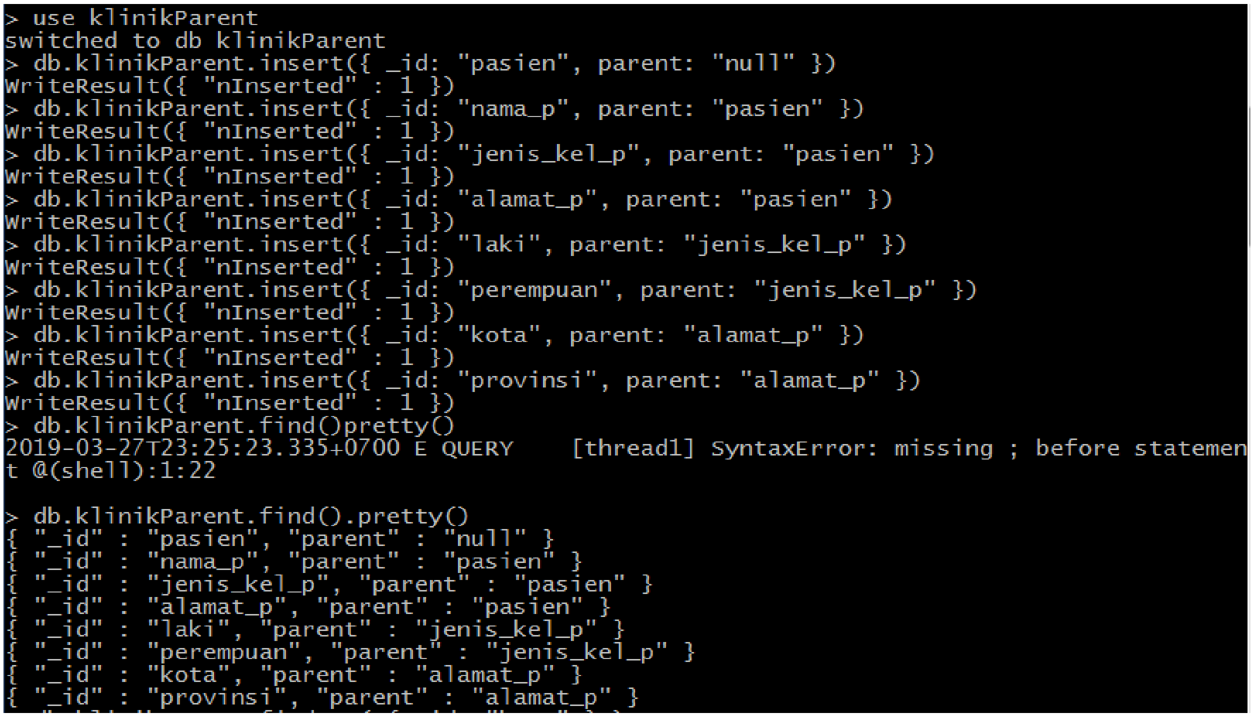
- melihat skema pembuatan collection di atas



```
> db.pemeriksaan.find().pretty()
{
        "_id" : ObjectId("5c780987d059a76f7b493f1b"),
        "status_periksa" : "",
        "pasien" : [
                {
                        "nama_pa" : "",
                        "jenis_kel_pa" : "",
                        "tgl_lahir_pa" : "",
                        "alamat" : ""
                }
        ],
        "dokter" : [
                {
                        "nama_d" : "",
                        "jenis_kel_d" : "",
                        "alamat" : ""
                }
        ]
}
>
```

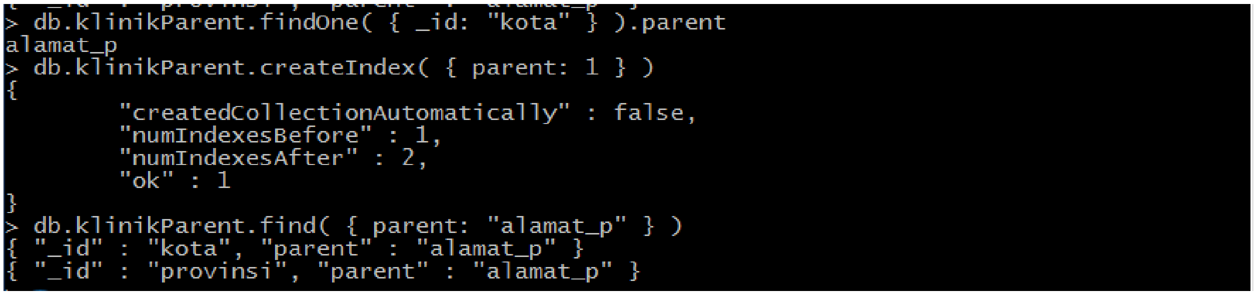


Model Tree Structures with Parent References



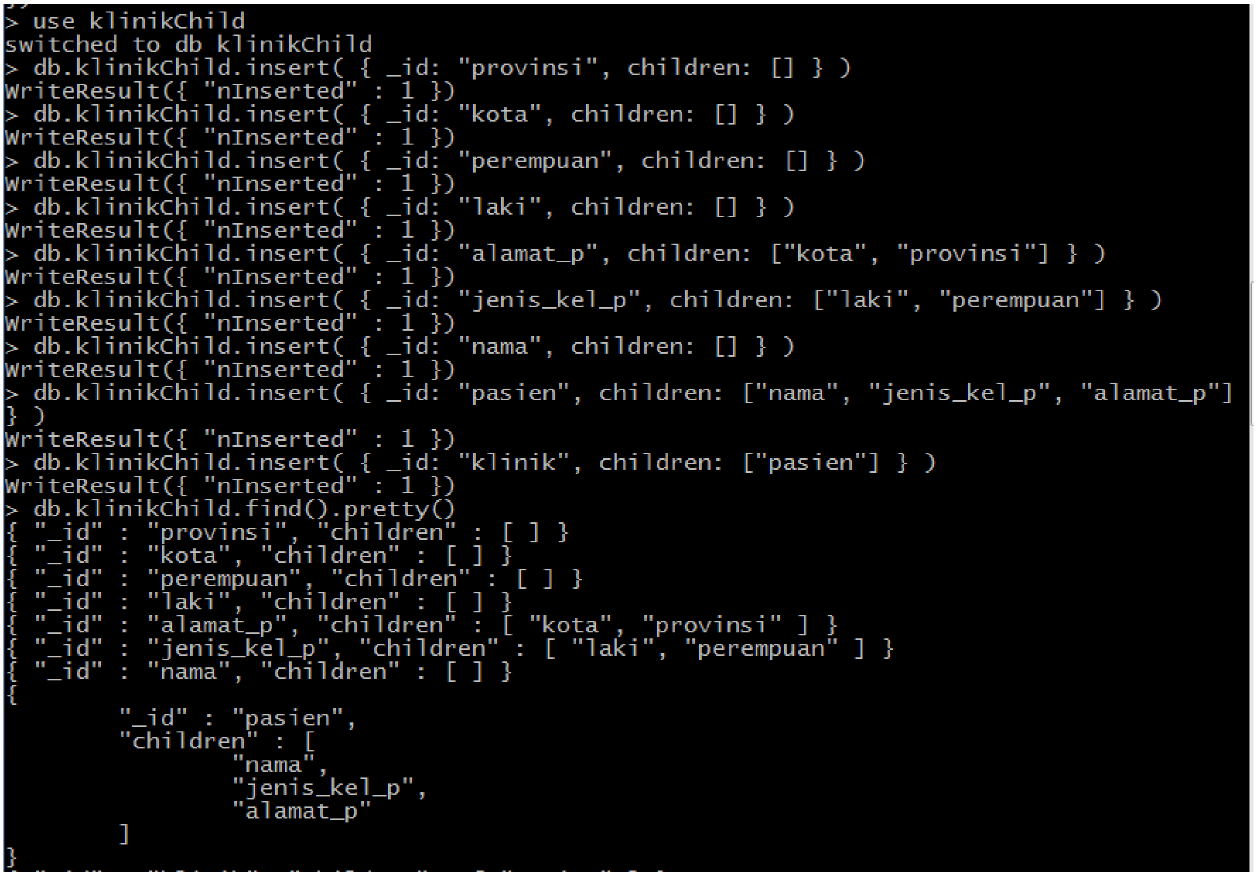
```
> use klinikParent
switched to db klinikParent
> db.klinikParent.insert({ _id: "pasien", parent: "null" })
WriteResult({ "nInserted" : 1 })
> db.klinikParent.insert({ _id: "nama_p", parent: "pasien" })
WriteResult({ "nInserted" : 1 })
> db.klinikParent.insert({ _id: "jenis_kel_p", parent: "pasien" })
WriteResult({ "nInserted" : 1 })
> db.klinikParent.insert({ _id: "alamat_p", parent: "pasien" })
WriteResult({ "nInserted" : 1 })
> db.klinikParent.insert({ _id: "laki", parent: "jenis_kel_p" })
WriteResult({ "nInserted" : 1 })
> db.klinikParent.insert({ _id: "perempuan", parent: "jenis_kel_p" })
WriteResult({ "nInserted" : 1 })
> db.klinikParent.insert({ _id: "kota", parent: "alamat_p" })
WriteResult({ "nInserted" : 1 })
> db.klinikParent.insert({ _id: "provinsi", parent: "alamat_p" })
WriteResult({ "nInserted" : 1 })
> db.klinikParent.find()pretty()
2019-03-27T23:25:23.335+0700 E QUERY    [thread1] SyntaxError: missing ; before statemen
t @(shell):1:22

> db.klinikParent.find().pretty()
{ "_id" : "pasien", "parent" : "null" }
{ "_id" : "nama_p", "parent" : "pasien" }
{ "_id" : "jenis_kel_p", "parent" : "pasien" }
{ "_id" : "alamat_p", "parent" : "pasien" }
{ "_id" : "laki", "parent" : "jenis_kel_p" }
{ "_id" : "perempuan", "parent" : "jenis_kel_p" }
{ "_id" : "kota", "parent" : "alamat_p" }
{ "_id" : "provinsi", "parent" : "alamat_p" }
```



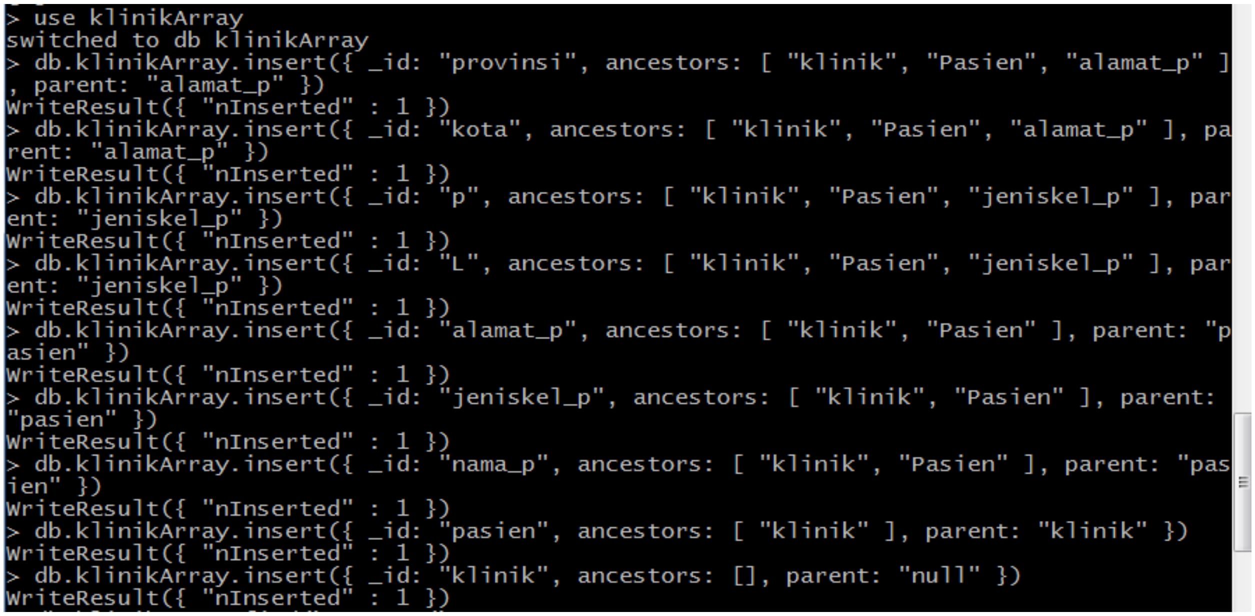
```
{ "_id" : "provinsi", "parent" : "alamat_p" }
> db.klinikParent.findOne( { _id: "kota" } ).parent
alamat_p
> db.klinikParent.createIndex( { parent: 1 } )
{
        "createdCollectionAutomatically" : false,
        "numIndexesBefore" : 1,
        "numIndexesAfter" : 2,
        "ok" : 1
}
> db.klinikParent.find( { parent: "alamat_p" } )
{ "_id" : "kota", "parent" : "alamat_p" }
{ "_id" : "provinsi", "parent" : "alamat_p" }
```

Model Tree Structures with Child References

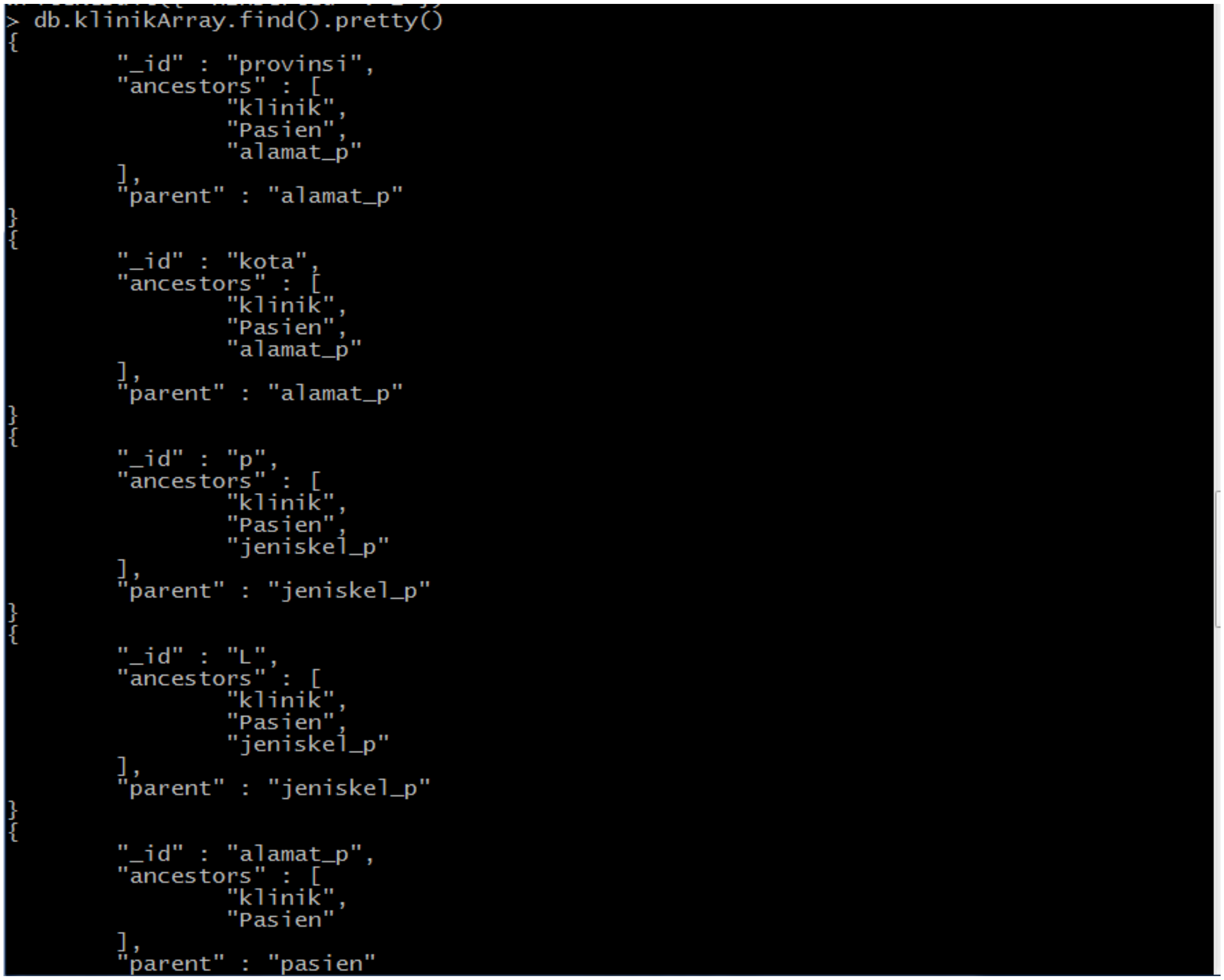


```
> use klinikChild
switched to db klinikChild
> db.klinikChild.insert( { _id: "provinsi", children: [] } )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.insert( { _id: "kota", children: [] } )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.insert( { _id: "perempuan", children: [] } )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.insert( { _id: "laki", children: [] } )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.insert( { _id: "alamat_p", children: ["kota", "provinsi"] } )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.insert( { _id: "jenis_kel_p", children: ["laki", "perempuan"] } )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.insert( { _id: "nama", children: [] } )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.insert( { _id: "pasien", children: ["nama", "jenis_kel_p", "alamat_p"]
} )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.insert( { _id: "klinik", children: ["pasien"] } )
WriteResult({ "nInserted" : 1 })
> db.klinikChild.find().pretty()
{ "_id" : "provinsi", "children" : [ ] }
{ "_id" : "kota", "children" : [ ] }
{ "_id" : "perempuan", "children" : [ ] }
{ "_id" : "laki", "children" : [ ] }
{ "_id" : "alamat_p", "children" : [ "kota", "provinsi" ] }
{ "_id" : "jenis_kel_p", "children" : [ "laki", "perempuan" ] }
{ "_id" : "nama", "children" : [ ] }
{
        "_id" : "pasien",
        "children" : [
                "nama",
                "jenis_kel_p",
                "alamat_p"
        ]
}
```

Model Tree Structures with an Array of Ancestors

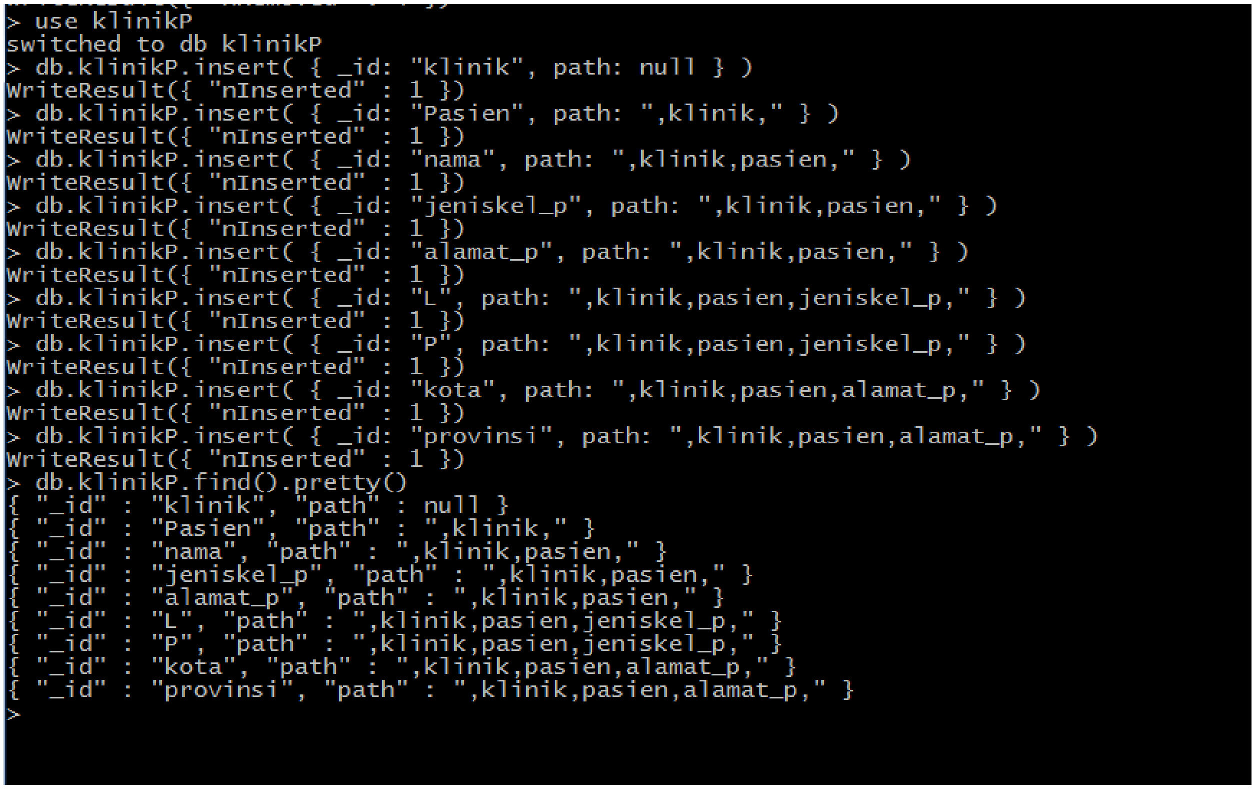


```
> use klinikArray
switched to db klinikArray
> db.klinikArray.insert({ _id: "provinsi", ancestors: [ "klinik", "Pasien", "alamat_p" ]
, parent: "alamat_p" })
WriteResult({ "nInserted" : 1 })
> db.klinikArray.insert({ _id: "kota", ancestors: [ "klinik", "Pasien", "alamat_p" ], pa
rent: "alamat_p" })
WriteResult({ "nInserted" : 1 })
> db.klinikArray.insert({ _id: "p", ancestors: [ "klinik", "Pasien", "jeniskel_p" ], par
ent: "jeniskel_p" })
WriteResult({ "nInserted" : 1 })
> db.klinikArray.insert({ _id: "L", ancestors: [ "klinik", "Pasien", "jeniskel_p" ], par
ent: "jeniskel_p" })
WriteResult({ "nInserted" : 1 })
> db.klinikArray.insert({ _id: "alamat_p", ancestors: [ "klinik", "Pasien" ], parent: "p
asien" })
WriteResult({ "nInserted" : 1 })
> db.klinikArray.insert({ _id: "jeniskel_p", ancestors: [ "klinik", "Pasien" ], parent:
"pasien" })
WriteResult({ "nInserted" : 1 })
> db.klinikArray.insert({ _id: "nama_p", ancestors: [ "klinik", "Pasien" ], parent: "pas
ien" })
WriteResult({ "nInserted" : 1 })
> db.klinikArray.insert({ _id: "pasien", ancestors: [ "klinik" ], parent: "klinik" })
WriteResult({ "nInserted" : 1 })
> db.klinikArray.insert({ _id: "klinik", ancestors: [], parent: "null" })
WriteResult({ "nInserted" : 1 })
```

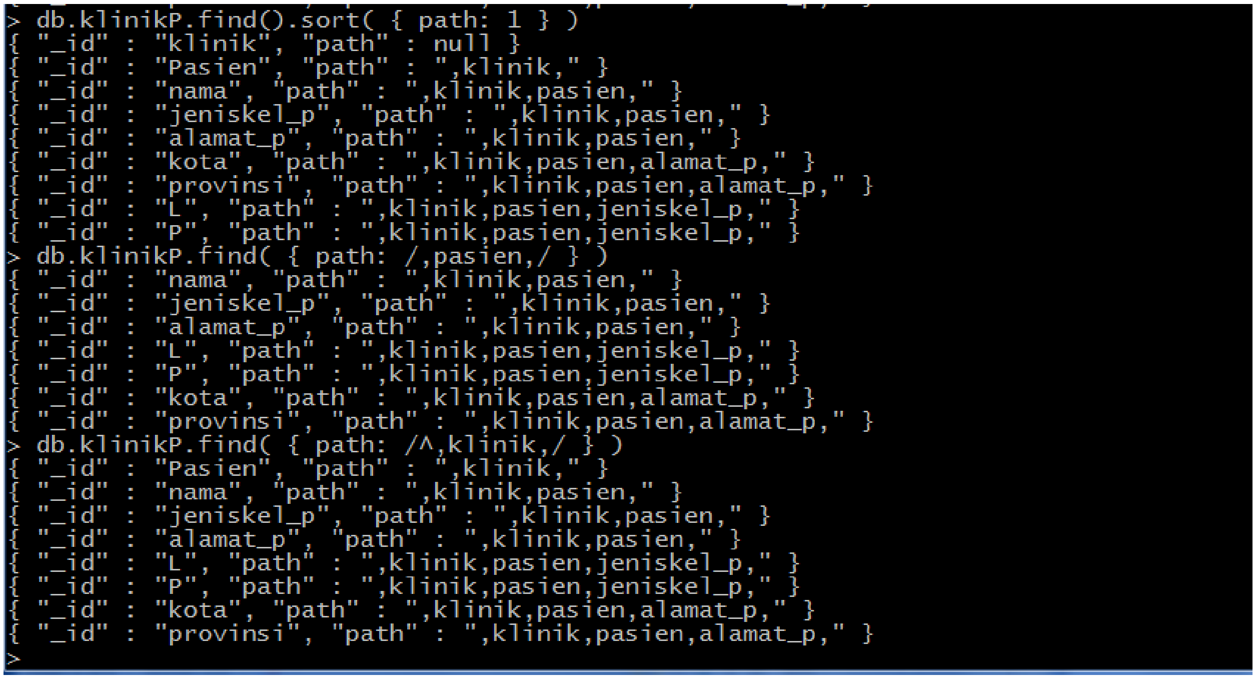


```
> db.klinikArray.find().pretty()
{
        "_id" : "provinsi",
        "ancestors" : [
                "klinik",
                "Pasien",
                "alamat_p"
        ],
        "parent" : "alamat_p"
}
{
        "_id" : "kota",
        "ancestors" : [
                "klinik",
                "Pasien",
                "alamat_p"
        ],
        "parent" : "alamat_p"
}
{
        "_id" : "p",
        "ancestors" : [
                "klinik",
                "Pasien",
                "jeniskel_p"
        ],
        "parent" : "jeniskel_p"
}
{
        "_id" : "L",
        "ancestors" : [
                "klinik",
                "Pasien",
                "jeniskel_p"
        ],
        "parent" : "jeniskel_p"
}
{
        "_id" : "alamat_p",
        "ancestors" : [
                "klinik",
                "Pasien"
        ],
        "parent" : "pasien"
```

Model Tree Structures with Materialized Paths



```
> use klinikP
switched to db klinikP
> db.klinikP.insert( { _id: "klinik", path: null } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.insert( { _id: "Pasien", path: ",klinik," } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.insert( { _id: "nama", path: ",klinik,pasien," } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.insert( { _id: "jeniskel_p", path: ",klinik,pasien," } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.insert( { _id: "alamat_p", path: ",klinik,pasien," } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.insert( { _id: "L", path: ",klinik,pasien,jeniskel_p," } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.insert( { _id: "P", path: ",klinik,pasien,jeniskel_p," } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.insert( { _id: "kota", path: ",klinik,pasien,alamat_p," } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.insert( { _id: "provinsi", path: ",klinik,pasien,alamat_p," } )
WriteResult({ "nInserted" : 1 })
> db.klinikP.find().pretty()
{ "_id" : "klinik", "path" : null }
{ "_id" : "Pasien", "path" : ",klinik," }
{ "_id" : "nama", "path" : ",klinik,pasien," }
{ "_id" : "jeniskel_p", "path" : ",klinik,pasien," }
{ "_id" : "alamat_p", "path" : ",klinik,pasien," }
{ "_id" : "L", "path" : ",klinik,pasien,jeniskel_p," }
{ "_id" : "P", "path" : ",klinik,pasien,jeniskel_p," }
{ "_id" : "kota", "path" : ",klinik,pasien,alamat_p," }
{ "_id" : "provinsi", "path" : ",klinik,pasien,alamat_p," }
>
```



```
> db.klinikP.find().sort( { path: 1 } )
{ "_id" : "klinik", "path" : null }
{ "_id" : "Pasien", "path" : ",klinik," }
{ "_id" : "nama", "path" : ",klinik,pasien," }
{ "_id" : "jeniskel_p", "path" : ",klinik,pasien," }
{ "_id" : "alamat_p", "path" : ",klinik,pasien," }
{ "_id" : "kota", "path" : ",klinik,pasien,alamat_p," }
{ "_id" : "provinsi", "path" : ",klinik,pasien,alamat_p," }
{ "_id" : "L", "path" : ",klinik,pasien,jeniskel_p," }
{ "_id" : "P", "path" : ",klinik,pasien,jeniskel_p," }
> db.klinikP.find( { path: /,pasien,/ } )
{ "_id" : "nama", "path" : ",klinik,pasien," }
{ "_id" : "jeniskel_p", "path" : ",klinik,pasien," }
{ "_id" : "alamat_p", "path" : ",klinik,pasien," }
{ "_id" : "L", "path" : ",klinik,pasien,jeniskel_p," }
{ "_id" : "P", "path" : ",klinik,pasien,jeniskel_p," }
{ "_id" : "kota", "path" : ",klinik,pasien,alamat_p," }
{ "_id" : "provinsi", "path" : ",klinik,pasien,alamat_p," }
> db.klinikP.find( { path: /^,klinik,/ } )
{ "_id" : "Pasien", "path" : ",klinik," }
{ "_id" : "nama", "path" : ",klinik,pasien," }
{ "_id" : "jeniskel_p", "path" : ",klinik,pasien," }
{ "_id" : "alamat_p", "path" : ",klinik,pasien," }
{ "_id" : "L", "path" : ",klinik,pasien,jeniskel_p," }
{ "_id" : "P", "path" : ",klinik,pasien,jeniskel_p," }
{ "_id" : "kota", "path" : ",klinik,pasien,alamat_p," }
{ "_id" : "provinsi", "path" : ",klinik,pasien,alamat_p," }
>
```