NATIONAL TECHNICAL UNIVERSITY OF UKRAINE "IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE"

Faculty of Informatics and Computer Engineering Department of Computer Engineering

Лабораторная работа 6
Node.js и MongoDB
Цель: получить практические навыки работы с Node.js и MongoDB.

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```javascript
const express = require('express')
const app = express()

const cors = require('cors');

const {MongoClient} = require('mongodb');

const main = async () => {
    const uri =
'mongodb://localhost:27017/?readPreference=primary&appname=MongoDB
%20Compass&ssl=false';
    const client = new MongoClient(uri);
    try {
        await client.connect()
        return client
    } catch (e) {
        throwError()
    }
}
let users = null;

main().then((response) => {
    users = response.db('usersdb').collection('users')
});

app.get('/',(req,res) => {
    //1
```

```javascript
    users.find().toArray((err,result) => {
        console.log(result.slice(0,5))
    })


    //2
    users.find({languages: ['english','franch']}).toArray(read);


    //3
    users.find({ "languages.0" : "english"}).toArray(read);


    //4
    users.find({hobby: 'music'}).toArray(read);


    //5
    users.find({age : {$lt: 30,$gt: 24}}).toArray(read)
})
const read = (err,result) => {
    if (err){
        console.log(err)
    }
    console.log(result)
}




app.use(cors())
```

```
app.use(express.json())



app.listen(8080, () => console.log('server started at 8080 port'))
```

C:\mongodb\mongodb-win32-x86_64-2012plus-4.2.6\bin\mongod.exe — ☐ □

```
2020-05-18T10:24:33.873+0300 I  CONTROL  [main] Automatically disabling TLS 1.0, to force-enable TLS 1.0 specify --sslD
sabledProtocols 'none'
2020-05-18T10:24:34.550+0300 W  ASIO     [main] No TransportLayer configured during NetworkInterface startup
2020-05-18T10:24:34.551+0300 I  CONTROL  [initandlisten] MongoDB starting : pid=1800 port=27017 dbpath=C:\data\db\ 64-b
t host=DESKTOP-U9G2542
2020-05-18T10:24:34.551+0300 I  CONTROL  [initandlisten] targetMinOS: Windows 7/Windows Server 2008 R2
2020-05-18T10:24:34.552+0300 I  CONTROL  [initandlisten] db version v4.2.6
2020-05-18T10:24:34.552+0300 I  CONTROL  [initandlisten] git version: 20364840b8f1af16917e4c23c1b5f5efd8b352f8
2020-05-18T10:24:34.552+0300 I  CONTROL  [initandlisten] allocator: tcmalloc
2020-05-18T10:24:34.552+0300 I  CONTROL  [initandlisten] modules: none
2020-05-18T10:24:34.553+0300 I  CONTROL  [initandlisten] build environment:
2020-05-18T10:24:34.553+0300 I  CONTROL  [initandlisten]     distmod: 2012plus
2020-05-18T10:24:34.553+0300 I  CONTROL  [initandlisten]     distarch: x86_64
2020-05-18T10:24:34.553+0300 I  CONTROL  [initandlisten]     target_arch: x86_64
2020-05-18T10:24:34.553+0300 I  CONTROL  [initandlisten] options: {}
2020-05-18T10:24:34.627+0300 I  STORAGE  [initandlisten] Detected data files in C:\data\db\ created by the 'wiredTiger'
storage engine, so setting the active storage engine to 'wiredTiger'.
2020-05-18T10:24:34.628+0300 I  STORAGE  [initandlisten] wiredtiger_open config: create,cache_size=1484M,cache_overflow
(file_max=0M),session_max=33000,eviction=(threads_min=4,threads_max=4),config_base=false,statistics=(fast),log=(enabled
true,archive=true,path=journal,compressor=snappy),file_manager=(close_idle_time=100000,close_scan_interval=10,close_han
le_minimum=250),statistics_log=(wait=0),verbose=[recovery_progress,checkpoint_progress],
2020-05-18T10:24:34.928+0300 I  STORAGE  [initandlisten] WiredTiger message [1589786674:928062][1800:140708759362000],
xn-recover: Recovering log 2 through 3
2020-05-18T10:24:35.069+0300 I  STORAGE  [initandlisten] WiredTiger message [1589786675:69436][1800:140708759362000], t
n-recover: Recovering log 3 through 3
2020-05-18T10:24:35.234+0300 I  STORAGE  [initandlisten] WiredTiger message [1589786675:234464][1800:140708759362000],
xn-recover: Main recovery loop: starting at 2/6144 to 3/256
2020-05-18T10:24:35.493+0300 I  STORAGE  [initandlisten] WiredTiger message [1589786675:493368][1800:140708759362000],
xn-recover: Recovering log 2 through 3
```

```
31    db.users.insertOne({
32        name : 'geek))',
33        age : 30,
34        hobby: 'none',
35        languages : []
36    })
```

Terminal: Local (4) ×   Local ×   +

```
...        age : 30,
...        hobby: 'none',
...        languages : []
... });
{
        "acknowledged" : true,
        "insertedId" : ObjectId("6038f74f6b7ad949fa61e77a")
}
> db.users.find().limit(5);
```

```
{ "_id" : ObjectId("6038f74c6b7ad949fa61e772"), "name" : "helloworld", "age" : 20, "hobby" : "play_piano", "languages" : [ "english", "franch", "" ] }
{ "_id" : ObjectId("6038f74c6b7ad949fa61e773"), "name" : "qweqwe", "age" : 22, "hobby" : "playComputer", "languages" : [ "english", "franch" ] }
> db.users.find({languages: ['english','franch']});
{ "_id" : ObjectId("6038f74c6b7ad949fa61e773"), "name" : "qweqwe", "age" : 22, "hobby" : "playComputer", "languages" : [ "english", "franch" ] }
>
```

```
Terminal:  Local (4)      Local    +
>
>
>
>
>
>
> db.users.find({ "languages.0" : "english"});
{ "_id" : ObjectId("6038f74c6b7ad949fa61e772"), "name" : "helloworld", "age" : 20, "hobby" : "play_piano", "languages" : [ "english", "franch", "" ] }
>
```

```
>
>
>
>
>
> db.users.find({hobby: 'music'});
> //nothing
>
```

```
>
>
> db.users.find({age : {$lt: 30,$gt: 24}});
{ "_id" : ObjectId("6038f74f6b7ad949fa61e779"), "name" : "reactjs_programmer", "age" : 27, "hobby" : "none", "languages" : [ ] }
>
```