

Researching Project MongoDB and Mobile App

‘ Week2 Report ’

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Outline

- ❖ Planning for First Month.
- ❖ Connecting driver to Mongo Shell.(Locally)
- ❖ Starting to build sample backend.
- ❖ Reference

❖ Planning for First Month

Activity (Start on 06.08.2020)	Thursday (Presentation day)	Friday	Monday	Tuesday	Wednesday (Meeting day)
Week 1	Installation MongoDB (Shell and Compass) and connect localhost between Shell and Compass.(Locally)	Performing CRUD (Create, Read, Update, Delete) on Mongo Shell and MongoDB Compass.	Creating MongoDB Atlas account and connect it to Mongo Shell or MongoDB Compass, and Driver (Node.js).(Cloud)	Installation Visual Studio Code and connect driver to MongoDB Atlas.(Cloud)	Connecting sample Backend to MongoDB Cluster and storing Products in the Database.
Week 2	Connecting driver to Mongo Shell.(Locally)	Starting to build sample backend connect with or without MongoDB Atlas.	Build creating, editing and deleting Products on server.	Transmitting and fetching data to/from the Database.	Creating Login and Signup. (Email and password)
Week 3	Learning template Bootstrap 4	Starting to build backend for project.	Creating Login and Signup.	User management: <ul style="list-style-type: none"> • Create new user • Reset user password • Delete and edit user 	Manage new category: <ul style="list-style-type: none"> • Create new category • Edit and delete exiting categories.
Week 4	Manage news: <ul style="list-style-type: none"> • Post news • Edit news • Delete news 	Manage Info: <ul style="list-style-type: none"> • Logo • Name • Contact info • Map • Social 	Create Dashboard	Manage Calculate: <ul style="list-style-type: none"> • Addition • Subtraction • Multiplication • Division 	Get data from Sensors and Calculate.

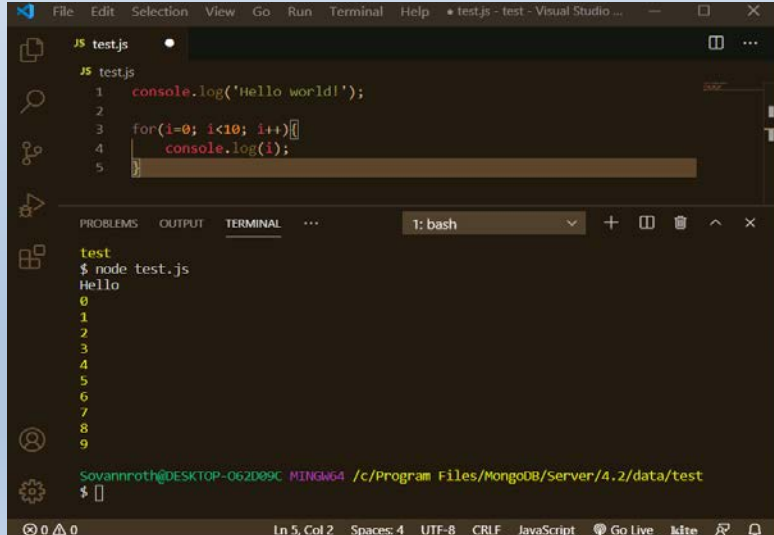
❖ Connecting driver to Mongo Shell.(Locally)

➤ Connecting

- On Mongo Shell use two cmd or terminal, one use command `>mongo` and next one use command `>mongo --port 27017`.(Port define by user)
- On Driver(Node.js), we create Folder as C:\Program Files\MongoDB\Server\4.2\data\Sample Backend. And connecting by '`mongodb://localhost:27017/test`'

➤ How to start server

- 1) Run "`npm install`" in the extracted project folder
- 2) Run "`npm start`" to start the React development server
- 3) Keep 2) running and additionally run "`npm run start:server`" in a new terminal/ command prompt window (also in the project folder) to start the Node.js server.



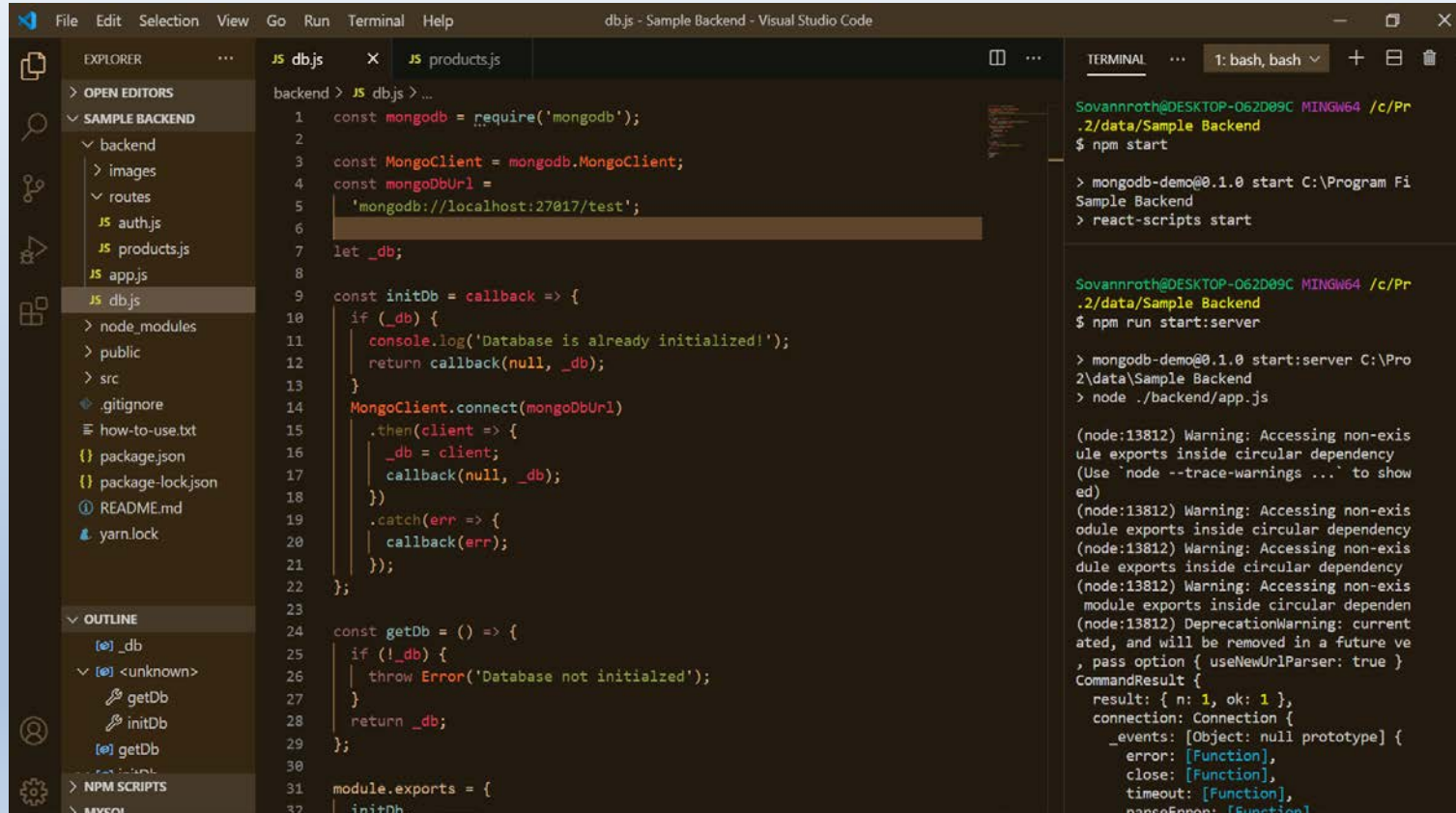
```
JS test.js
1 console.log('Hello world!');
2
3 for(i=0; i<10; i++){
4   console.log(i);
5 }

PROBLEMS OUTPUT TERMINAL ... 1: bash
test
$ node test.js
Hello
0
1
2
3
4
5
6
7
8
9

Sovanroth@DESKTOP-062D09C MINGW64 /c:/Program Files/MongoDB/Server/4.2/data/test
$
```

❖ Connecting driver to Mongo Shell.(Locally)

➤ Running server



```
db.js - Sample Backend - Visual Studio Code

EXPLORER
  > OPEN EDITORS
  > SAMPLE BACKEND
    > backend
      > images
      > routes
      JS auth.js
      JS products.js
      JS app.js
      JS db.js
    > node_modules
    > public
    > src
    .gitignore
    how-to-use.txt
    package.json
    package-lock.json
    README.md
    yarn.lock
  > OUTLINE
    [0] _db
    > [0] <unknown>
      > getDb
      > initDb
      [0] getDb
  > NPM SCRIPTS
  > MYSON

db.js
1 const mongodb = require('mongodb');
2
3 const MongoClient = mongodb.MongoClient;
4 const mongoDbUrl =
5   'mongodb://localhost:27017/test';
6
7 let _db;
8
9 const initDb = callback => {
10   if (_db) {
11     console.log('Database is already initialized!');
12     return callback(null, _db);
13   }
14   MongoClient.connect(mongoDbUrl)
15     .then(client => {
16       _db = client;
17       callback(null, _db);
18     })
19     .catch(err => {
20       callback(err);
21     });
22 };
23
24 const getDb = () => {
25   if (!_db) {
26     throw Error('Database not initialized');
27   }
28   return _db;
29 };
30
31 module.exports = {
32   initDb,
```

```
1: bash, bash
Sovannroth@DESKTOP-062D09C MINGW64 /c/Pr
./data/Sample Backend
$ npm start

> mongodb-demo@0.1.0 start C:\Program Fi
Sample Backend
> react-scripts start

Sovannroth@DESKTOP-062D09C MINGW64 /c/Pr
./data/Sample Backend
$ npm run start:server

> mongodb-demo@0.1.0 start:server C:\Pro
2\data/Sample Backend
> node ./backend/app.js

(node:13812) Warning: Accessing non-exis
tule exports inside circular dependency
(Use 'node --trace-warnings ...' to show
ed)
(node:13812) Warning: Accessing non-exis
odule exports inside circular dependency
(node:13812) Warning: Accessing non-exis
tule exports inside circular dependency
(node:13812) Warning: Accessing non-exis
odule exports inside circular dependen
(node:13812) DeprecationWarning: current
ated, and will be removed in a future ve
, pass option { useNewUrlParser: true }
CommandResult {
  result: { n: 1, ok: 1 },
  connection: Connection {
    _events: [Object: null prototype] {
      error: [Function],
      close: [Function],
      timeout: [Function],
      narseError: [Function]
```

❖ Starting to build sample backend

<https://github.com/Chanthan89/Smart-Irrigation/tree/master/Weekly%20Presentation/August-2020/VANNAK%20Sovannroth/Sample%20Backend>

❖ Reference

<http://mongodb.github.io/node-mongodb-native/3.6/api/>

<https://www.w3schools.com/nodejs/default.asp>

<https://www.tutorialsteacher.com/nodejs/access-sql-server-in-nodejs>

<https://www.geeksforgeeks.org/nodejs-tutorials/>

**Thank
You!**