Afroditi Georgiadi

Comp20 HW12

The web app is online and can be accessed through the form in the url:

https://afrogeo.github.io/comp20/getData.html

Node.js vs PHP which do you prefer and WHY:

I do not have enough experience in either of them so I do not have a strong preference. PHP was easier to learn and I was able to adjust to it faster without many problems, however node.js was efficient once I learned how to work with it and was much faster and has more features. So I would say that I prefer Node.js for more time-consuming and more complex work.

ALL CODE:

Web app that reads CSV file and stores it to mongodb:

```
const fs = require('fs');
const fastcsv = require('fast-csv');
const MongoClient = require('mongodb').MongoClient;

let url =
"mongodb+srv://comp20:nikodeedo@cluster0.jyaa0.mongodb.net/companies?retryWrites=tr
ue&w=majority"
let stream = fs.createReadStream("companies.csv");
let csvData = [];
let csvStream = fastcsv
    .parse()
    .on("data",function(data) {
        csvData.push({
            Company: data[0],
            Ticker: data[1]
        });
    })
    .on("end", function() {
        csvData.shift();

        console.log(csvData);
```

```
        MongoClient.connect(url, { useNewUrlParser: true, useUnifiedTopology:
true},
            (err,client) => {
                if(err) throw err;
                client
                    .db("companies")
                    .collection('companies')
                    .insertMany(csvData, (err, res) => {
                        if (err) throw err;
                        console.log('inserted:' + res.insertedCount + 'rows');
                        client.close();
                    });
            }
        );
    });
    stream.pipe(csvStream);
```

Form html file to get company or ticker from user:

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title> </title>
    </head>
    <body>
        <form action="https://democomp20.herokuapp.com/" method="GET">
            Company: <input type="text" name="comp">
            Ticker: <input type="text" name="tick">
            <br /><input type="submit" value="Submit">
        </form>
    </body>
</html>
```

Web app that gets query from form, searches in mongodb for the query, and displays results:

```
var http = require('http');
var url = require('url');
var port = process.env.PORT || 3000;

const MongoClient = require('mongodb').MongoClient;
const uri =
"mongodb+srv://comp20:nikodeedo@cluster0.jyaa0.mongodb.net/companies?retryWrites=tr
ue&w=majority"
```

```
http.createServer(function(req,res) {
    res.writeHead(200, {'Content-Type':'text/html'});
    var qobj = url.parse(req.url,true).query;
    var company = qobj.comp;
    var ticker = qobj.tick;


    if (company) {
        MongoClient.connect(uri, { useUnifiedTopology: true},
            function(err,db)  {
                if (err) { console.log("CONNECTION ERR: " + err); return;}

                var dbo = db.db("companies");
                var coll = dbo.collection('companies');
                const query = {Company: company}

                coll.find(query).toArray(function(err,items) {
                    if (err) {
                        console.log("Error: " + err);
                    } else {
                        if (items.length == 0) {
                            res.write("<h2> No company " + company + " found!
</h2>");
                        } else {
                            res.write("<h2> Companies found: </h2><br>");
                            for (i=0;i<items.length;i++) {
                                res.write("<hp> - Company: " + items[i].Company + "
// Ticker: " +
                                items[i].Ticker + "</p><br>");
                            }
                        }
                        res.end();
                    }
                    db.close();
                });
                console.log("Success!");
        });

    } else {
        MongoClient.connect(uri, { useUnifiedTopology: true},
            function(err,db)  {
                if (err) { console.log("CONNECTION ERR: " + err); return;}

                var dbo = db.db("companies");
                var coll = dbo.collection('companies');
                const query = {Ticker: ticker}

                coll.find(query).toArray(function(err,items) {
                    if (err) {
                        console.log("Error: " + err);
                    } else {
```

```
                        if (items.length == 0) {
                            res.write("<h2> No companies with ticker " + ticker + "
found! </h2>");
                        } else {
                            res.write("<h2> Companies found: </h2> <br>");
                            for (i=0;i<items.length;i++) {
                                res.write("<p> - Company: " + items[i].Company + "
// Ticker: " +
                                items[i].Ticker + "</p><br>");
                            }
                        }
                        res.end();
                    }
                    db.close();
                });
                console.log("Success!");
        });
    }


}).listen(port);
```

package.json file for heroku to open the web app online

```
{
    "name": "helloapp",
    "version": "1.0.0",
    "description": "node app",
    "main": "form.js",
    "scripts": {
        "start": "node form.js"
    },
    "repository": {
        "type": "git",
        "url": ""
    },
    "author": "",
    "license": "ISC",
    "bugs": {
        "url": ""
    },
    "homepage": "",
    "dependencies": {
        "mongodb": "*"
    }
}
```