Lappeenrannan teknillinen yliopisto
School of Business and Management

Software Development Skills

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LEARNING DIARY
SOFTWARE DEVELOPMENT SKILLS
FULL STACK
MODULE

Contents

1   20.10.2020

Dear Diary,
After reading the introduction of the course, I replicated the Word Template for the diary in LaTeXusing Texmaker as a GUI for writing. I managed finding my old Github Account then and installed Git on my Ubuntu system. I decided using Fork for my version control because I used it before and I am familiar with the program.

2   22.10.2020

I wanted to download Fork but I realised that Fork (and SourceTree) don't have a Linux Version. During watching the Introduction to Version Control I saw that the code editor Atom has an implemented version control GUI, so I decided to take that one.
Afterwards I watched the video about Node.js. Because I planned improving my Python skills this semester I realised that the course is made for JavaScript, which I didn't use before so it is a whole new challenge for me. Regarding the point that JavaScript is useful for sending/getting data from a server, I am looking forward to it.
I already have an idea for a JS application. With a friend of mine I was planning to make a simple ToDo-list application using the Python. For storing (and checking) the entries of the list on a server, I am thinking about using JavaScript. Now I am setting up my Git-Repository and placing the Texmaker-Workspace in there. I tested the first commit of the folder SD_FS in the command line and the second commit directly using the extension of Atom. During this I am getting familiar with the code editor Atom and the Github implementation in it.

3   26.10.2020

During watching the video about Node.js I am creating my Exercises Workspace and the Project Workspace in my project folder. After I tried isntalling Node.js by using the tar.xz folder, which i didn't managed, I nstalled it using the command:
sudo apt install nodejs
After doing so I realised that I installe the version 10.19. So I deinstalled the program and installed it using PPA. It didn't work either. So I used the version manager by tyoing the following commands:
$curl-sLhttps://raw.githubusercontent.com/creationix/nvm/v0.31.0\,install.sh-oinstall_nvm.sh$
$bashinstall_nvm.sh$
nvm install 12.19.0
And setting the version to default.

4   27.10.2020

My environment during the Node.js Crashcourse contains now Atom and my Linux Terminal and it works all fine while the exercise till I wanted to use quotes in a String. The quotes with the dollarsign were not recognised as a quote. I started looking it uo and also started the JavaScript course on Codecadamy for learning the Basics of JS.

I figured out that I used the wrong quotation marks. Using the ones from the video my quotes are working fine.

In the end of the Youtube video I made myself a Heroku account and got my first Website online. It was really exciting and I am looking forward to my project now. You can see the result following this link:

https://blooming-fjord-46718.herokuapp.com/

After finishing the video I made a Commit on Github. Here I had the problem that the subfolder of SD FS was not committed. I looked it up.

5   31.10.2020

In the git documentary I saw that you need submodules for committing to two public repositories. So I decided to avoid these circumstances by making two project folders. One for Heroku and one for Github. I made myself a more serious Github account and seperated the folder for Heroku from it. Before committing I am making copies of the Heroku project into the Github project for sharing the code. I will also exclude the LaTeXcontent and will just make commits with the Diary pdf file in it.

After I setted up my new project folder I started the video about MongoDB. I installed the Linux version and eberything worked fine till I wanted o use MongoDB compass. It said to me the connection to the default server was refused. I shutted down the computer and quitted for today.

6   01.11.20

After the startup of my computer I tried the same thing as the previous day and eventually MongoDB was running. I didn't make any change. So I can continue with the MongoDB crash course with setting up the databases.

7   02.11.20

During the MongoDB Crash Course I experienced some very useful tools which are perfect for a ToDo list application that I thought I can build. In the end of the video I saw that Brad Traversy did a To Do entry and I definitly thought about doing this in my application.

I took a small look into the Example project Video series and I realised what the application should be about. I planned to do the example project too for

getting a Login page and then to implement a To Do list for every user.

It is especially really useful to store the ToDo entries in a MongoDB server for accessing and changing them from several devices.

Short after I started the Express Crash Course and setting a local server I made a commit on Github with all the tutorial stuff.

I continued with the video and everything becomes clearer for me. Especially the part of Express that you can just make .html files in one folder and a new page is opening amazes me.

8   03.11.20

I continued with the Express Crash Course and everything worked fine. After finishing the video I made a commit of my work and pushed it to Github.

I am now thinking about my own project and I searched for some inspiration in an Ted interview of Linus Torvalds. He says that his purpose is to make applications he needs. Here is therefore a collection of ideas of a garden/plant organizer. The functions that the user should be able to do on the website are:

- creating and logging into an account

- accessing a list of vegetables which is public and which he can extend

- adding vegetables from the public list to hiw own plant list

- creating hiw own list of vegetables he wants to plant next

- receiving a list of activities (like a ToDo-list) he has to do next

- also the weather should be displayed on the front page/Dashboard

By using the given Tutorials the application should be able to do the following:

- storing the entries for vegetables on a seperate server (MongoDB)

- the user profile should be protected with a password

- the Dashboard should change depending on the weather (also the weather of the last days) and the special season (written in JavaScript)

- having a handy and easy to use surface (Angular)

The vegetable Object should have the following:

- Caption

- description

- harvest time

- plant time

- pouring frequency

- optional Notes

9   04.11.20

I started the Angular Tutorial. While setting up my environment I decided to directly code in the git controlled dircetory this time. I setted up my environment again while using Atom (which I got failiar with and with which I am making my Commits and Pushes) and my bash Terminal. I got the default application from angular prompted in my browser.

I faced a problem while in the first section. I was not able to refresh the browser that it showed the name of the hero. I restarted the whole Tutorial project and tried it several times while I tried to understand what the Angular framework created there. I understood that it used Node.js and it wants to simplify the creation of a good looking website but I needed some time to get what the Initialisation created.

One thing that I experienced was that the .css files changed to .scss files. During the whole project up for one more time I realised that I chose the SCSS option in the initialisation.

In the third try the application of the first chapter of the Angular Tutorial everything worked fine. I had to restart the "serve" command because before restarting the input was not displayed above. I couldn't figure out why. After finishing the first chapter I made a Commit of my work.

10   05.11.20

I continued with working on the Angular Tutorial now doing the fourth chapter about how to add a service. While doing this I checked (way too late) what the language TypeScript is. I experienced like I guessed before that it is nearly the same a Java Script and that every JavaScript file can be compiled as a .ts file. During the process I made a safety Commit. I also trained myself further in JavaScript by reading over the basic commands.

After finishing the fourth chapter I understood the basic concepts of prompting messages, but it is still a long way to understand every command. In the fifth chapter (in-app-navigation) I hope to see better where the commands are connected to the outcome in the application. I am now really looking forward to start my own project to face this problems and to learn it better. I made a commit with my previous work.

11   07.11.20

I changed my way of learning the Angular Tutorial and Javascript/HTML in general. I am now going through the last chapters of the tutorial writing comments to all elements of the project. With changing names and testing different code I am tracking the outcome with the "ng serve" command process running in terminal. The commands with a questionmark mean that I am not totally

sure. After I understood the basic structure of the HTML pages and found every call for them a commit was made.

12   08.11.20

During the fifth chapter of the angular tutorial, I had a problem with routes. My Angular CLI displayed a problem in the file app.component.html. I couldn't figure out what was going wrong so I checked out the latest commit (commented commit). First I tried to store the .html files in their old directories (because I changed it the last time for my own benefit). After the problem came up again I saw that the routing files existed before the commit. I deleted them because I thought it maybe causes problems that they are not generated right by the CLI and I was right. After generating them again everything worked fine.
Before going on with seperating the details view in its own page I made a Commit (third safety Commit)

13   10.11.20

For reviewing the whole Angular Tutorial I am setting up my own Project development environment following the Tutorial once again. At the same time I add comments to the Exercise for better understanding what I am doing. THis is a first test and I am not sure if it works the first time.

14   19.11.20

The angular tutorial is finished now. I made the sixth part (Adding/deleting/Search function) in the train to Rovaniemi. Everything worked quite well and I made a commit with the train wifi at the moment when we saw the first Finnish snow. I started watching the Example Project playlist afterwards and I am looking forward to code along.

15   21.11.20

For the beginning coding along the video series and creating my own project seems to be the best choice. So the next commit will content a new application folder in Project Workspace called gardo. In there the modified Example-Project will be developed.

16   26.11.20

In the third video of the playlist a problem with mongodb occured. In my Mongo Shell (which I am using in a Linux Bash Terminal with command "mongo") I cannot see the necessary db server called "gardo". I didn' do the request on

Postman and realised that the db server is ony created after sending a request. However the problem persisted (I got the error "TypeError: User is not a constructor") in Postman and the nodemon shell at the same time) and I checked my code from the third video. After a while I found a feew mistakes and with the right code and a local request using postman, I got the right respond.

After beginning the fourth video I saw that my nodemon engine is not working. After typing "npm start" a deprecation warning occurred. Also using command "nodemon" the same thing happened. I watched on StackOverFlow for the problem and I found out that there are some version problems. Adding the following in app.js helped fixing the problem.

mongoose.connect(config.database, useNewUrlParser: true , useUnifiedTopology: true);

However this didn't work but the command "nodemon" worked fine. Instead I have another error probably in passport.js. It says: "Error: Expected "payload" to be a plain object." when I am doing an authenticate request with postman. I tried several things but nothing worked yet. I checked my whole code and it is completely the same than in the video.

Finally I looked in the source code on Github and saw that Brad had data:user instead of user in the ".sign" function in users.js. After changing it I received the token.

17   29.11.20

Going on with video 4 of the Full-Stack playlist of Brad Traversy I used the received token for a get request to test the authorization of a specific user. Eventually I had the same problem than in the video but the solution didn't work. I still got "Unauthorized" so I tested the code using "console.log(jwt _payload._id);" which idn't gave me the expected id. Instead "undefined" appeared into the console. Trying "console.log(jwtpayload.data.id);" gave me the expected ID number so I used this one and I got the right resonse in Postman.

In the beginning of Video 5 I uninstalled the actual version of the angular-cli and installed the old version as told in the course description. When I want to run "ng serve" in my new angular-src folder an error appears:

"ERROR in /Project_Workspace/gardo/gardoapp/angular-src/node_ modules/@types/node/index.d.ts (20,1): Invalid 'reference' directive syntax." After I searched for this error with google I found an explanation on Stackoverflow (https://stackoverflow.com/questions/63720450/node-modules-types-node-index-d-ts20-1-error-ts1084-invalid-reference-dir). I changed a command in the index.d.ts file (// ¡reference lib="es2015" /¿) in node_modules and my angular project compiled successfully.

I made a commit of this and went on with the video number 5. After writing the exact same navbar.component.html than in the video I got a crashed website with just MeanAuth App to read. My suggestion is that the bootswatch version changed and that the html commands are not working anymore.

Regarding this I will use the HTML code from bootswatch.com and will integrate the content of the video.

18   30.11.20

After completing the video 5 (I couldn't manage placing Login and Register on the right side of the navbar yet) I made a commit and went on with video number 6.
In Video 6 I improved my skills with implementing the flash messages and everything went fine. I made a commit after that video and went on with video number 7.