CSCI3020U – No Brand Team

Ronald Sin, Jayson Sandhu, Alexander Minz

Nathanial Armogan, Matthew Witvoet

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# Topic

For our CSCI3020U final project we decided on creating health and fitness app. It would include simple data implementations, generic CRUD features such as creating and reading data values such as weight and heart rate history. We also wanted to include a Google Map integration that would allow the user to enter and save routes for planning fitness runs.

# Design

For this project we decided on a two-server approach. The front-end is an Angular based client facing server and the back-end is a NodeJS Express based server.

## Angular

There is nothing noteworthy about the implementation of Angular. It’s version 11 Angular running with compatible typescript.

## NodeJS Express

The back-end server is a NodeJS Express framework, running over a Sequelize ORM, wrapping a PostgreSQL database.

# Requirement Fulfillment

|  |  |
| --- | --- |
| Requirement | Fulfillment |
| SVG | Multiple D3 graphs throughout bloodpressure.componets.ts, etc. |
| HTML | \*.components.html |
| CSS and CSS Frameworks | Bulma is used throughout the Angular app |
| D3 | Multiple D3 graphs throughout bloodpressure.componets.ts, etc. |
| JavaScript, jQuery | NodeJS server, \*.components.ts |
| DHTML | Use of dynamic Bulma assets |
| AJAX, web services | Google Maps integration routes.components.html/ts |
| Node.js | NodeJS back-end server |
| Client-side framework | Angular 11 |
| Database | Postgresql with Sequelize ORM |
| Sockets, multi-threading | Dropped |

# Independent Study

For our independent study we decided to explore and integrate JWT (JSON Web Tokens) into our application for server authentication and database querying. We also decided to deploy our NodeJS server on a cloud-based service, in this case we decided on Heroku due to it’s easy-to-use nature and it’s free option.

<https://docs.google.com/presentation/d/1-DSLPeA1waVdRY2TWw0uvydcXP6MTRHXIz-_HWTuqc4/edit?usp=sharing>

# Installation

## Angular

For the Angular installation you can use the latest version of node. First navigate to the /angular/fitnessApp/ directory, then install the Angular CLI and devkit.

npm i

npm install @angular/cli

npm install –save-dev @angular-devkit/build-angular

Then run local with

ng serve –open

The Angular app will build and start up automatically in your browser, if it doesn’t autoload you can navigate to it at localhost:4200

*NOTE! The initial build time can take a couple of minutes, please be patient*

## NodeJS Express

Please note, the NodeJS instance is available on a cloud service at <http://enigmatic-cove-71059.herokuapp.com> (Credentials, git history, and access available upon request)

*NOTE! The Heroku service is free and is not active 24/7. After your first initial request, give the service a few minutes to boot up.*

For local installation, again the latest Node version is adequate. Navigate from the root directory to /node\_server/ then install with npm and npx

npm i

npm install npx

At this step, please install PostgreSQL locally and create a DB with match credentials to these

"username": "noBrandAdmin",

"password": "password",

"database": "noBrandDB",

"host": "127.0.0.1",

"dialect": "postgres"

Then we run our migrations with

npx sequelize-cli db:migrate

and run

npm run start

The server will be accessible on localhost:3000

# Citations

* https://bezkoder.com/angular-11-jwt-auth/