Installation document

DigitalOcean

Firstly, I started by creating a droplet from digital ocean to act as the server for my production environment. I chose to install , as advised from the demo, Mean Ubuntu with 16.04 LTS because it contains MongoDB, Node.js, Express and AngularJS. Although only Node.js and Express are used in this assignment, it's better to have the MongoDB and AngularJS in case of further development with them.

Connecting Git to server

Afterwards, by using the demo on the course page for the production lecture and this tutorial from DigitalOcean, I have added a remote to my local machine repo by using the hooks of post-receive. The post-receive contains a bash command to update the server repo (remote) whenever the pushed to the production. This took me a while due to a mistake in the folder directory on the server ubuntu machine but finally I could get it to work.

Installing PM2

PM2 is a process manager that has a lot of features but mainly used in this assignment to keep the production environment alive and deal with unhandled exceptions or errors then restart the server again. So basically PM2 is used here for maintainability of the node server.

Installing PM2 was fairly easy and straightforward by installing the package using npm and install pm2 globally. Then starting the service with the node application like "pm2 start app.js" and it shows in the command line the running apps in pm2.

Nginx and Let's Encrypt

By following this tutorial and the demo on the course page for production, I was able to install Nginx and the SSL certificate. Nginx is to be used a reverse proxy server to handle static files and of course proxy different apps. It was installed on the server ubuntu machine successfully and then I had to edit the config file which is called "default" and followed the steps that were in the tutorial plus the demo.

After that I used the let's encrypt library that I got installed to be able to have HTTPS server. Then I had to update the config file for Nginx to include the certificates and the proxy server from the browser to the server.

Domain name

In order to use the ip address with the DNS, freenom.com was used to own a temporer domain name. The domain name is called hatemgithub.tk which I had to connect with DigitalOcean server ip address and had to change the name servers. The connection was established on both freenom.com and DigitalOcean; by setting up the domain and the A records.