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Github Link: https://github.com/simjunheng/OTOT-A1

INSTRUCTIONS FOR TASK A1.1

Step 1: Create a Dockerfile with the following contents in the app folder.

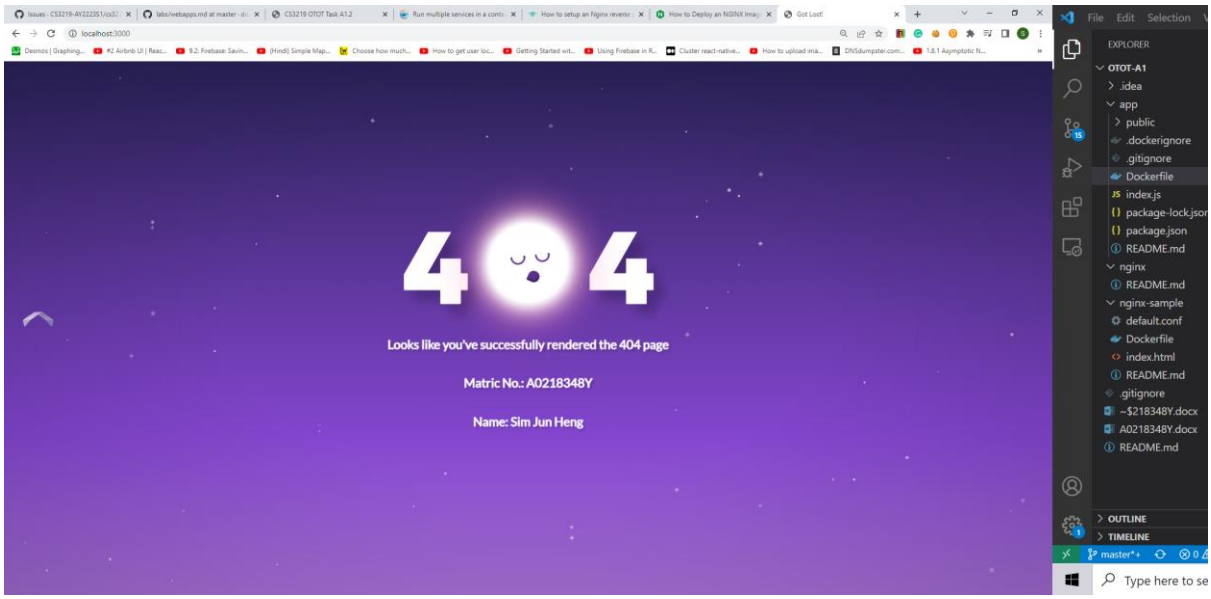
```
# Base image with node.js and NPM installed
FROM node:16

# Bundle app source
# Ensure that package.json and package-lock.json is copied
COPY . .

# Install all the modules and their dependencies listed in package.json
RUN npm install

# Binds my application to port 8080
EXPOSE 8080

# Start my application
CMD [ "node", "index.js" ]
```

Step 2: Run the command **cd app**

Step 3: Run the command **docker build -t simjunheng/myfirstapp .**

Step 4: Run the command **docker run -p 3000:8080 --name myfirstapp simjunheng/myfirstapp**

Step 5: Go to your browser, type localhost:3000 in your url and you should see the following webpage.

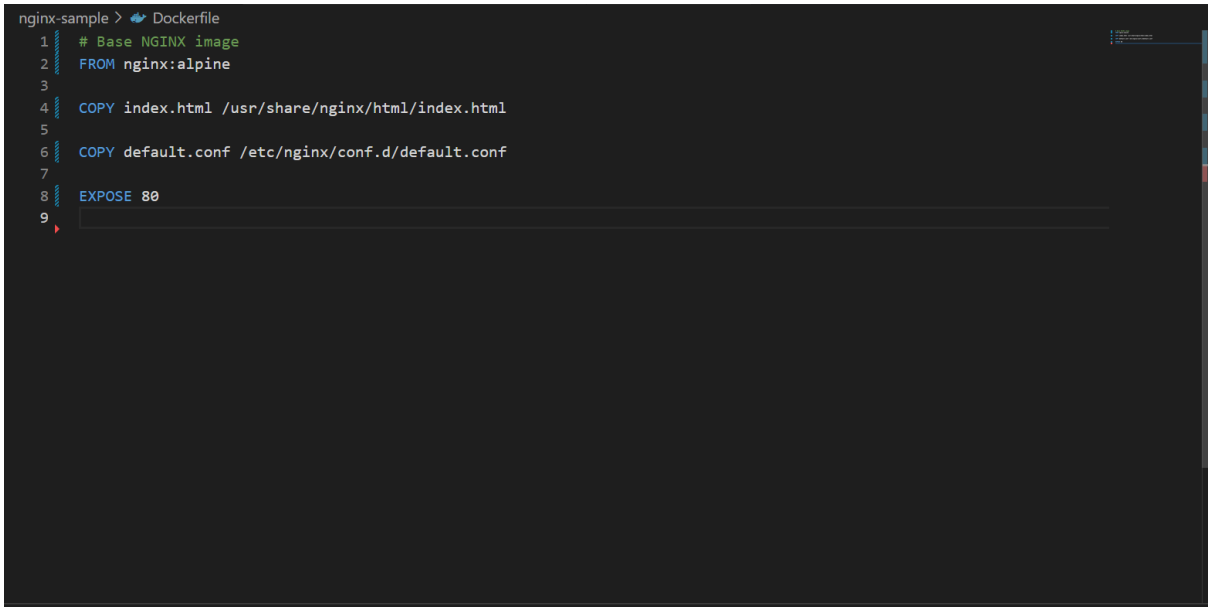


INSTRUCTIONS FOR TASK A1.2

Step 1: Create default.conf file with the following contents in the nginx-sample folder

```
server {
    listen       80;
    listen  [::]:80;
    server_name  localhost;

    #access_log  /var/log/nginx/host.access.log  main;

    location / {
        root   /usr/share/nginx/html;
        index  index.html index.htm;
    }

    #error_page  404              /404.html;

    # redirect server error pages to the static page /50x.html
    #
    error_page   500 502 503 504  /50x.html;
    location = /50x.html {
        root   /usr/share/nginx/html;
    }
}
```

Step 2: Create a Dockerfile with the following contents in the nginx-sample folder

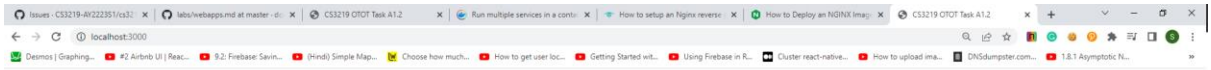


Step 3: Run the command **cd nginx-sample**

Step 4: Run the command **docker build -t simjunheng/nginx-sample .**

Step 5: Run the command **docker run -p 3000:80 --name nginx-sample simjunheng/nginx-sample**

Step 6: Go to your browser, type localhost:3000 in your url and you should see the following webpage.

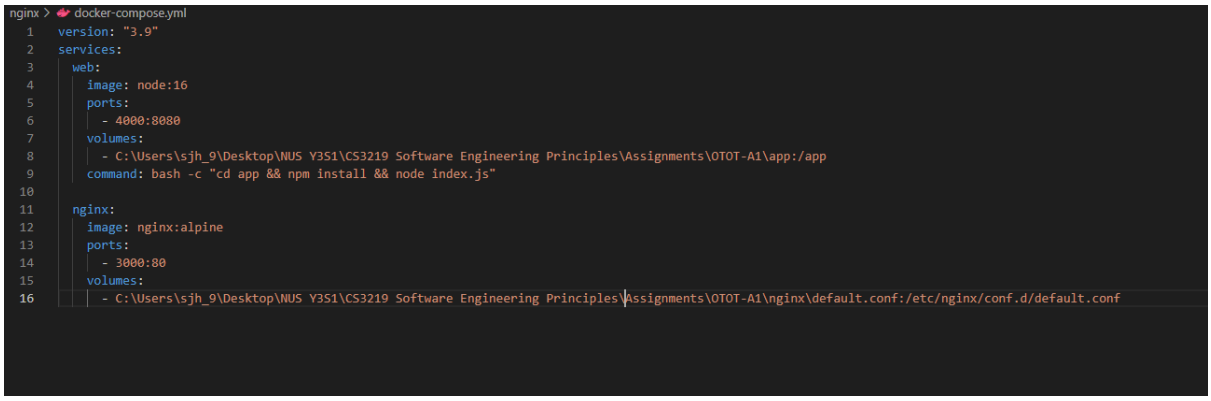


Nginx reverse proxy server listening on port 80 for incoming HTTP request.

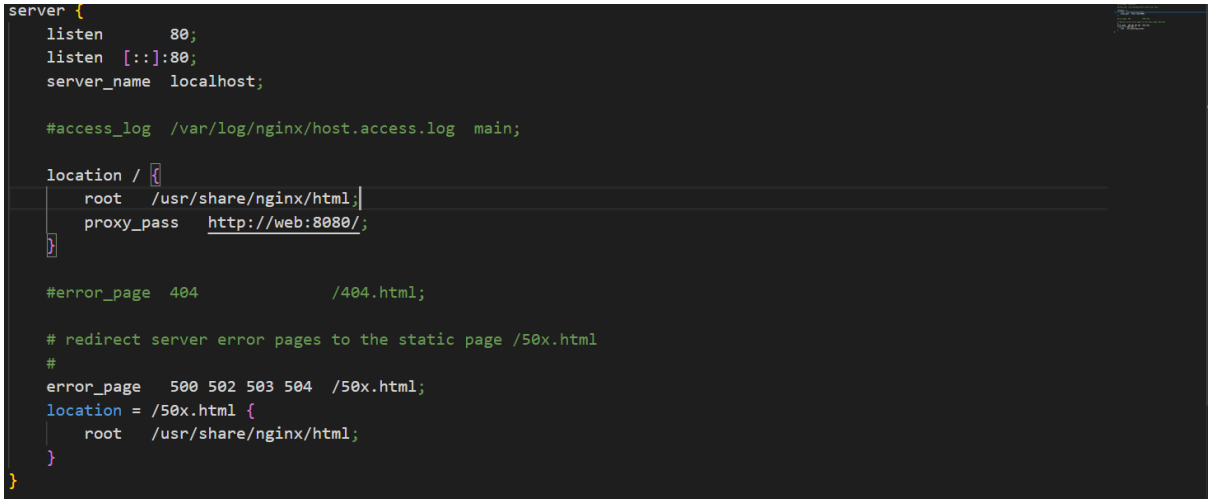
Done by: Sim Jun Heng

INSTRUCTIONS FOR TASK A1.3

Step 1: Create the docker-compose.yml file with the following contents under the nginx folder



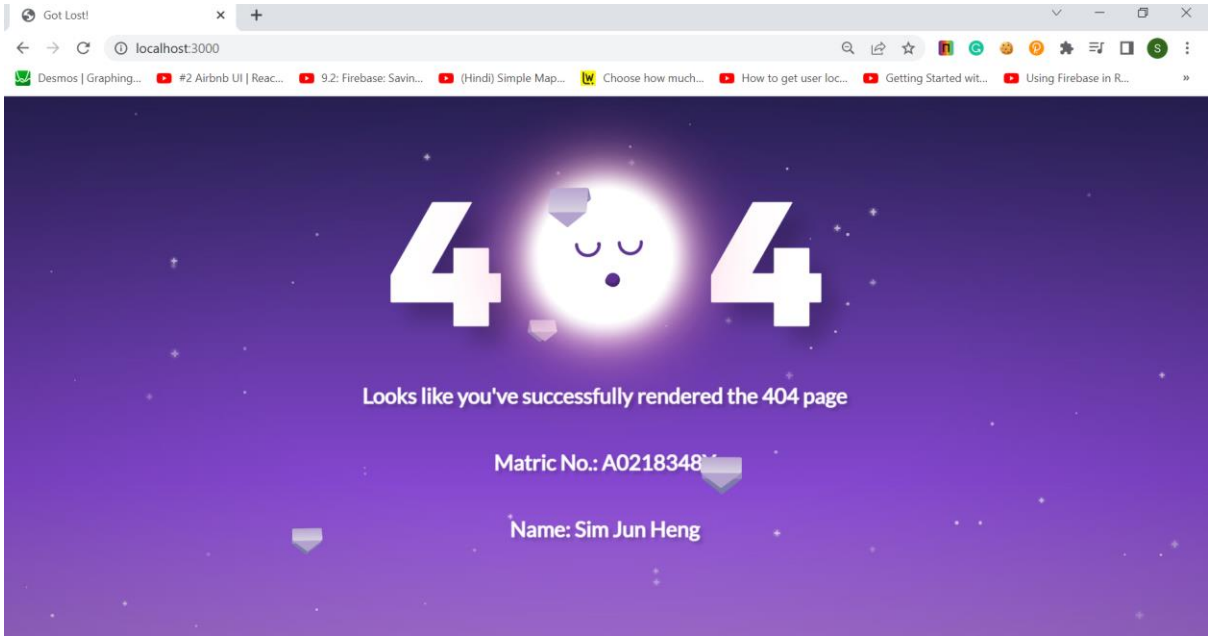
Step 2: Create the default.conf file with the following contents under the nginx folder



Step 3: Run the command **cd nginx**

Step 4: Run the command **docker compose up**

Step 5: Go to your browser, type localhost:3000 in your url and you should see the following webpage.



More explanation of how proxy works