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CECS 327 Project 0

Demo Link

This project was a basic tutorial to basic commands of setting up and using Docker containers. This report will cover the creation of 2 containers, one for a Python application and another for a NGINX web server.

Python Application (Brandon + William)

app.py

```
print("Hello, Docker! This is my first containerized app.")
```

dockerfile

```
FROM python:3.9-slim
WORKDIR /app
COPY app.py .
CMD ["python", "app.py"]
```

With these two files, we ran the 2 commands:

1. docker build -t my-python-app .
    a. builds the docker container named my-python-app
2. docker run my-python-app
    a. runs the docker container named my-python-app

Which produces the output:

```
brandon on arch in ~/Code/CECS-327/docker v3.13.1 took 9s162ms
❯ docker run my-python-app
Hello, Docker! This is my first containerized app.
```

Web Server (Brandon + William)

index.html

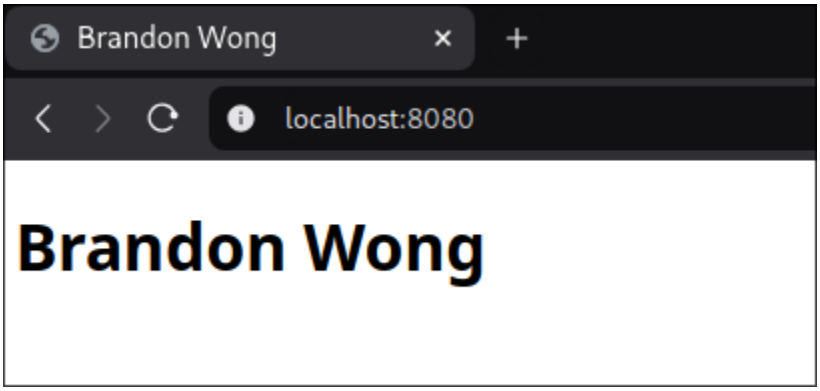
```
<!DOCTYPE html>
<html>
<head>
   <title>Brandon Wong</title>
</head>
<body>
   <h1>Brandon Wong</h1>
</body>
</html>
```

Using this HTML file, we will host it with an NGINX server.

Run the commands:

1. Docker pull nginx:latest
    a. Retrieves the latest version of NGINX
2. docker run -d -p 8080:80 -v $(pwd)/index.html:/usr/share/nginx/html/index.html nginx:latest
    a. Runs the web server with the provided HTML file

Then, visit http://localhost:8080 via a browser, which produces the webpage:



Challenges and solutions:

No challenges as this was a basic tutorial to Docker usage.