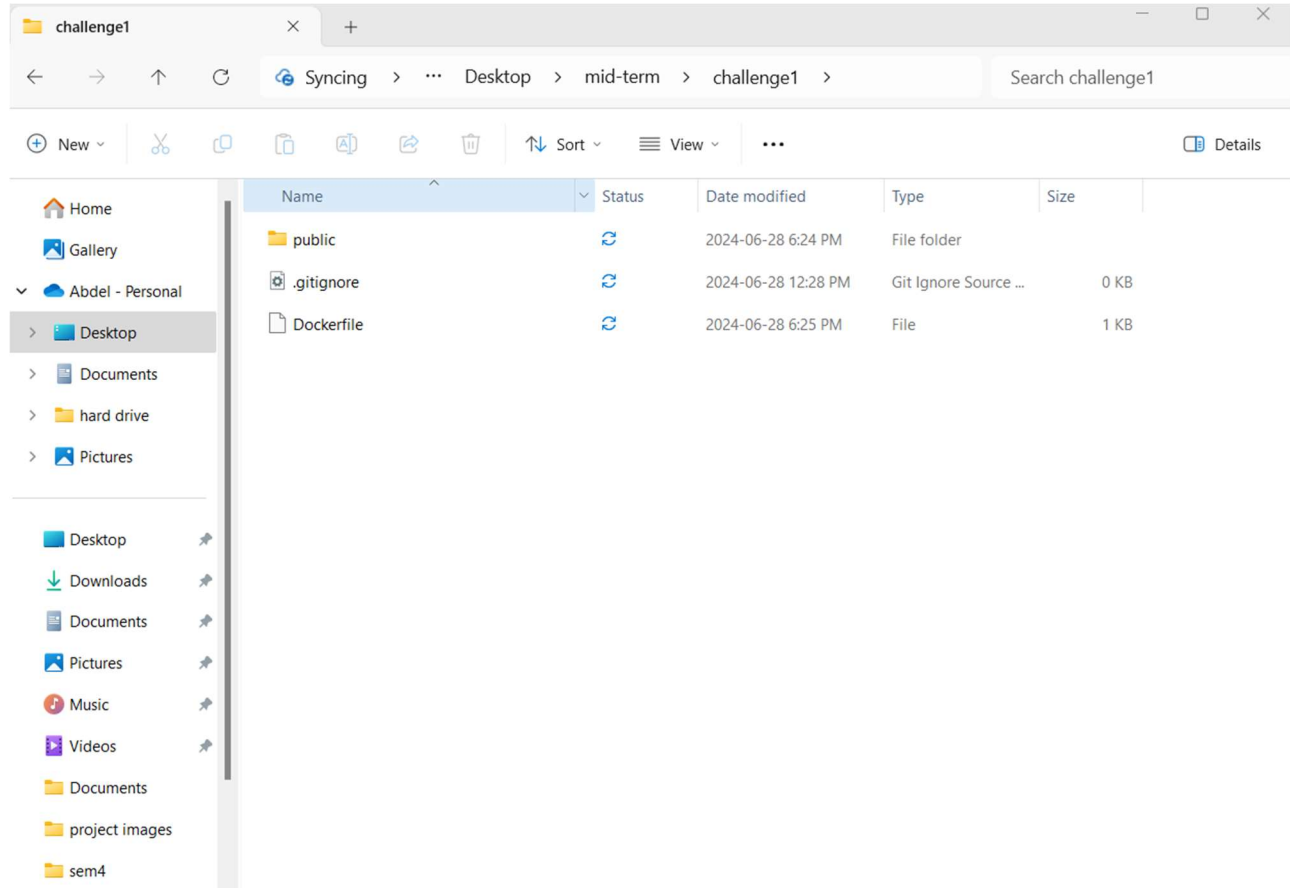


## Docker Challenge 1

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000891579  
June 28 2024

### Creating the File folder:



The creation of the folder once I had downloaded the template from the github repository. This was the basic folder structure that I imported into VS Code.

### The public folder contents:

 index	6/25/2024 8:27 PM	Chrome HTML Do...	1 KB
 styles	6/25/2024 8:30 PM	Cascading Style S...	1 KB

In the public folder I placed my HTML file, as well as a styles.css, purely because I wanted to experiment with having multiple files in the folder.

### The index file:

```
challenge1 > public > index.html > html > body
1  <!DOCTYPE html>
2  <html>
3  <head>
4  |   <title>Student Information</title>
5  </head>
6  <body>
7  |   <h1>Student Information</h1>
8  |   <p>Name: Abdel Mouzahir</p>
9  |
10 |   <p>Student ID: 000891579</p>
11 |
12 |   <p>Spring 2024 Operating Systems (CPSY-300-E)</p>
13 |
14 </body>
15 </html>
```

The index file was extremely basic. The header had the challenge name, and the <p> tags had my name and said id.

### The styles file:

```
public > # styles.css > p
1  p {color: darkblue; font-size: 20px; margin: 5px;}
```

The styles simply just changed the colour of my name and id to blue, changed the size, and the spacing between them

### The docker file:

```
index.html  Dockerfile x  Welcome  # styles.css
Dockerfile > ...
1  FROM nginx:alpine
2  COPY public /usr/share/nginx/html
3  *
```

The docker file simply used an NGinx (alpine was used to make the file smaller) and copied the contents of the public folder into the NGinx html.

### Docker build:

```
Start a build
PS C:\Users\mz-ab\OneDrive\Desktop\mid-term\challenge1> docker build -t my-simple-web-server .
[+] Building 0.2s (7/7) FINISHED                                docker:desktop-linux
=> [internal] load build definition from Dockerfile              0.0s
=> => transferring dockerfile: 202B                             0.0s
=> [internal] load metadata for docker.io/library/nginx:alpine  0.0s
=> [internal] load .dockerignore                                0.0s
=> => transferring context: 2B                                   0.0s
=> [internal] load build context                                0.0s
=> => transferring context: 454B                                 0.0s
=> CACHED [1/2] FROM docker.io/library/nginx:alpine            0.0s
=> [2/2] COPY public /usr/share/nginx/html                     0.0s
=> exporting to image                                           0.0s
=> => exporting layers                                          0.0s
=> => writing image sha256:3220dcee22f2ed1bcc8110000d9305296d0691db440bdf8945dc9599ddfc3 0.0s
=> => naming to docker.io/library/my-simple-web-server         0.0s
PS C:\Users\mz-ab\OneDrive\Desktop\mid-term\challenge1> 
```

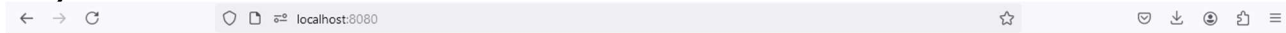
Now it was time to build the container. I used the command `docker build -t docker-challenge-1` to build the container. Once the container was built, we could run the container.

### Docker run:

```
PS C:\Users\mz-ab\OneDrive\Desktop\mid-term\challenge1> docker run -d -p 8080:80 my-simple-web-server 5dd07e3f261a7009bc2d31bc2aea95b911bca34dda085c054ab5b75bca9bd
```

Here I ran the container using '`docker run -d -p 8080:80 docker-challenge-1`'. This command ran the container on the host machine port 8080.

### Output:



### Student Information

Name: Abdel Mouzahir

Student ID: 000891579

Spring 2024 Operating Systems (CPSY-300-E)



### Docker Challenge 1

Name: Danny Horning

Sait ID: 000702974

Visiting the port 8080 localhost we can now see the HTML document as well as the simple styling changes

## **References**

<https://mav-rana.medium.com/containerize-a-simple-static-website-a381c5e49633>

[https://hub.docker.com/\\_/nginx](https://hub.docker.com/_/nginx)

[https://www.tutorialspoint.com/docker/docker\\_setting\\_nginx.htm](https://www.tutorialspoint.com/docker/docker_setting_nginx.htm)

[https://www.youtube.com/watch?v=pTFZFxd4hOI&ab\\_channel=ProgrammingwithMosh](https://www.youtube.com/watch?v=pTFZFxd4hOI&ab_channel=ProgrammingwithMosh)

<https://docs.docker.com/reference/cli/docker/image/build/>