Assisted Practice:

4.2 Push an Image to Docker Hub

```
C:\Users\ADMIN\Docker>mkdir docker_python

C:\Users\ADMIN\Docker>cd docker_python/
```

```
C:\Users\ADMIN\Docker\docker_python>notepad Dockerfile
```

Dockerfile - Notepad
File Edit Format View Help
```
FROM python
WORKDIR /app
ADD . /app
RUN pip install -r requirements.txt
EXPOSE 80
ENV NAME world
CMD ["python", "app.py"]
```

```
C:\Users\ADMIN\Docker\docker_python>notepad app.py
```

app - Notepad
File Edit Format View Help
```
from flask import Flask
import os
import socket
app = Flask(__name__)@app.route("/")def hello():
    html = "<h3>Hello {name}!</h3>" \
        "<b>Hostname:</b> {hostname}<br/>"
    return html.format(name=os.getenv("NAME", "world"), hostname=socket.gethostname())
if __name__ == "__main__":
app.run(host='0.0.0.0', port=80)
```

```
C:\Users\ADMIN\Docker\docker_python>notepad requirements.txt
```

requirements - Notepad
File Edit Format View Help
```
Flask
```

```
C:\Users\ADMIN\Docker\docker_python>dir /a /od /t:w
 Volume in drive C has no label.
 Volume Serial Number is 6618-89B3

 Directory of C:\Users\ADMIN\Docker\docker_python

27-07-2023  05:38 PM                137 Dockerfile.txt
27-07-2023  05:43 PM                366 app.py
27-07-2023  05:44 PM    <DIR>          ..
27-07-2023  05:44 PM    <DIR>          .
27-07-2023  05:44 PM                  5 requirements.txt
               3 File(s)            508 bytes
               2 Dir(s)   9,898,139,648 bytes free
```

```
C:\Users\ADMIN\Docker\docker_python>docker images
REPOSITORY      TAG       IMAGE ID       CREATED            SIZE
phpcode         latest    4c8fb1b2f77c   About an hour ago  276MB

C:\Users\ADMIN\Docker\docker_python>docker build -t docker_python -f C:\Users\ADMIN\Docker\Dockerfile C:\Users\ADMIN\Docker\docker_python
```

```
[+] Building 0.0s (0/0)
[+] Building 38.9s (12/12) FINISHED
 => [internal] load .dockerignore
 => => transferring context: 2B
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 574B
 => [internal] load metadata for docker.io/library/ubuntu:latest
 => [internal] load build context
 => => transferring context: 25B
 => [1/7] FROM docker.io/library/ubuntu:latest@sha256:0bced47fffa3361afa981854fcabcd4577cd43cebbb808cea2b1f33a3dd7f508
 => CACHED [2/7] RUN apt-get update -y
 => CACHED [3/7] RUN apt-get install -y git curl apache2 php libapache2-mod-php php-mysql
 => CACHED [4/7] RUN rm -rf /var/www/html/*
 => [5/7] ADD src /var/www/html/
 => [6/7] RUN a2enmod rewrite
 => [7/7] RUN chown -R www-data:www-data /var/www/html
 => exporting to image
 => => exporting layers
 => => writing image sha256:2ce7de9e24b501431107a9ec0d0fed7fa8977a577eb7c88f064bb6d936742d87
 => => naming to docker.io/library/docker_python

What's Next?
  View summary of image vulnerabilities and recommendations → docker scout quickview

C:\Users\ADMIN\Docker\docker_python>docker images
REPOSITORY      TAG       IMAGE ID       CREATED            SIZE
docker_python   latest    2ce7de9e24b5   About a minute ago  276MB
phpcode         latest    4c8fb1b2f77c   2 hours ago        276MB
```

```
C:\Users\ADMIN\Docker\docker_python>docker run -d --name docker_python -p 80:80 docker_python
```

```
C:\Users\ADMIN\Docker\docker_python>curl http://localhost:80
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<html>
 <head>
  <title>Index of /</title>
 </head>
 <body>
<h1>Index of /</h1>
  <table>
   <tr><th valign="top"><img src="/icons/blank.gif" alt="[ICO]"></th><th><a href="?C=N;O=D">Name</a></th><th><a href="?C=M;O=A">Last modified</a></th><th><a href="?C=S;O=A">Size</a></th><th><a href="?C=D;O=A">Description</a></th></tr>
   <tr><th colspan="5"><hr></th></tr>
   <tr><th colspan="5"><hr></th></tr>
</table>
<address>Apache/2.4.52 (Ubuntu) Server at localhost Port 80</address>
</body></html>
```