

Assisted Practice:

4.3 Container Deployment Using Docker Swarm

```

C:\Users\ADMIN>cd Docker

C:\Users\ADMIN\Docker>docker build -t phpcode . -f Dockerfile
[+] Building 539.8s (12/12) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 574B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/ubuntu:latest
=> [1/7] FROM docker.io/library/ubuntu:latest@sha256:0bced47fffa3361afa981854fcabcd4577cd43cebbb808cea2b1f33a3d
=> => resolve docker.io/library/ubuntu:latest@sha256:0bced47fffa3361afa981854fcabcd4577cd43cebbb808cea2b1f33a3dd
=> => sha256:0bced47fffa3361afa981854fcabcd4577cd43cebbb808cea2b1f33a3dd7f508 1.13kB / 1.13kB
=> => sha256:b060fffe8e1561c9c3e6dea6db487b900100fc26830b9ea2ec966c151ab4c020 424B / 424B
=> => sha256:5a81c4b8502e4979e75bd8f91343b95b0d695ab67f241dbed0d1530a35bde1eb 2.30kB / 2.30kB
=> => sha256:3153aa388d026c26a2235e1ed0163e350e451f41a8a313e1804d7e1afb857ab4 29.53MB / 29.53MB
=> => extracting sha256:3153aa388d026c26a2235e1ed0163e350e451f41a8a313e1804d7e1afb857ab4
=> [internal] load build context
=> => transferring context: 153.37kB
=> [2/7] RUN apt-get update -y
=> [3/7] RUN apt-get install -y git curl apache2 php libapache2-mod-php php-mysql
=> [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 sha256:4c8fb1b2f77cd0c75d5de834723d0633922ca58ac72c22cd7fd319d4fa427a3a
=> => naming to docker.io/library/phpcode

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

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

```

C:\Users\ADMIN>cd Docker

C:\Users\ADMIN\Docker>docker swarm init
Swarm initialized: current node (nsekqf2upfe0n3gdbtuo8n84y) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-68d0a1zpewljagoxpv9m5xc6y9tbxgkyd8hzgti80psi1x7w9-98s4aariszmxzn0aty4glc712 192.168.65.4:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.

C:\Users\ADMIN\Docker>docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
79a4256486d3 phpcode "/usr/sbin/apache2 -..." 2 hours ago Up 4 minutes 0.0.0.0:80->80/tcp phpcode

C:\Users\ADMIN\Docker>docker service create -p 80:80 --name webserver phpcode
image phpcode:latest could not be accessed on a registry to record
its digest. Each node will access phpcode:latest independently,
possibly leading to different nodes running different
versions of the image.

psbp6z8sukzp9wbs92vmrf5g0
overall progress: 1 out of 1 tasks
1/1: running [=====>]
verify: Service converged

C:\Users\ADMIN\Docker>docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
fef903c9d2fe phpcode:latest "/usr/sbin/apache2 -..." 36 seconds ago Up 33 seconds 80/tcp webserver.1.7fqxwvr6v6x1g4mmwjpsodgkz
79a4256486d3 phpcode "/usr/sbin/apache2 -..." 2 hours ago Up 5 minutes 0.0.0.0:80->80/tcp phpcode
```

```
C:\Users\ADMIN\Docker>curl localhost
```

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
  <head>
```

```
    <meta charset="utf-8">
```

```
    <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
```

```
    <title>Simple PHP App</title>
```

```
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
    <link href="assets/css/bootstrap.min.css" rel="stylesheet">
```

```
    <style>body {margin-top: 40px; background-color: #333;}</style>
```

```
    <link href="assets/css/bootstrap-responsive.min.css" rel="stylesheet">
```

```
    <!--[if lt IE 9]><script src="http://html5shim.googlecode.com/svn/trunk/html5.js"></script><![endif]-->
```

```
  </head>
```

```
  <body>
```

```
    <div class="container">
```

```
      <div class="hero-unit">
```

```
        <h1>Simple PHP App</h1>
```

```
        <h2>Congratulations</h2>
```

```
        <p>Your PHP application is now running on a container in Docker Swarm</p>
```

```
        <p>The Kubernetes Docker container is running on fef903c9d2fe with PHP version 8.1.2-1ubuntu2.13.</p>
```