

# Section 8 - Build Images - The Dockerfile Basics

## 3 Extend Official Images

# docker build example - extend nginx image (1)

- In the following example we are going to use the files that are available in the `resources/dockerfile-sample-3` directory to build a custom Docker image.

```
cd resources/dockerfile-sample-3
# ls
Dockerfile
index.html
```

There are 2 files available:

- The Dockerfile which contains the instructions on how to build our custom image.
- The *index.html* file that will be copied in the custom image.

# docker build example - extend nginx image (2)

The [Dockerfile](#) of this example

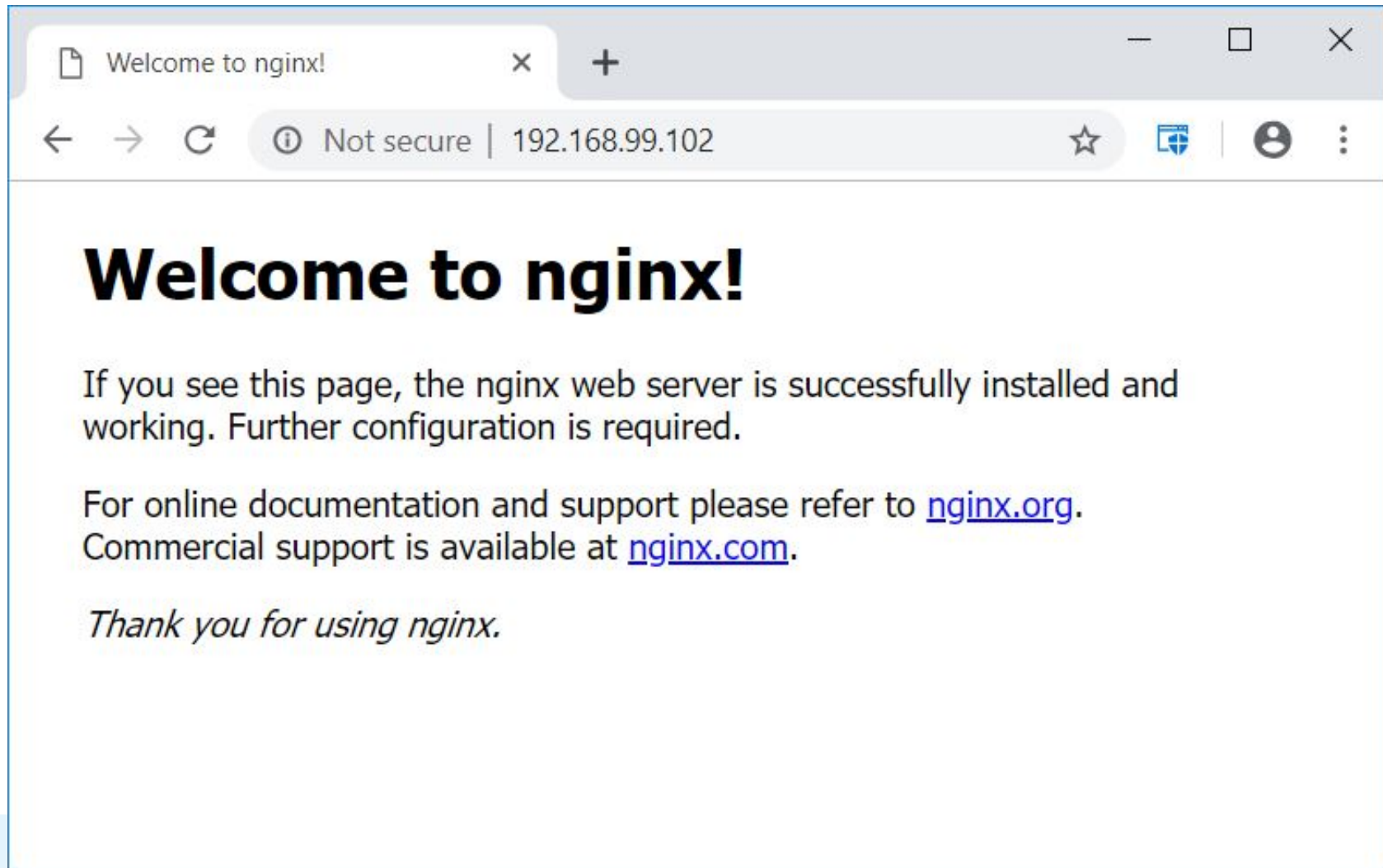
# docker build example - extend nginx image (3a)

- Lets see the default nginx index.html page before we build our own custom nginx image:

```
# docker container run -p 80:80 --rm nginx
```

Note that we have used the `--rm` option that will delete the container automatically once it is stopped.

# docker build example - extend nginx image (3b)



# docker build example - extend nginx image (3)

- Execute the `docker build` command to build out custom nginx Docker image:

```
# docker build -t nginx-with-custom-html .  
Sending build context to Docker daemon 3.584kB  
Step 1/3 : FROM nginx:latest  
---> 27a188018e18  
Step 2/3 : WORKDIR /usr/share/nginx/html  
---> Using cache  
---> ac75a6485581  
Step 3/3 : COPY index.html index.html  
---> 617ee5012490
```

# docker build example - extend nginx image (4)

- Execute the `docker container run` command to create a container from our custom image:

```
# docker container run -p 80:80 --rm nginx-with-custom-html
```



# docker build example - extend nginx image (5)

- Execute the `docker image ls` command to view the custom image that we have just created:

```
# docker image ls
```

REPOSITORY	TAG	IMAGE ID	CREATED
nginx-with-custom-html	latest	617ee5012490	5 minutes ago
gerassimos/private-repo1	test2	27a188018e18	12 minutes ago
nginx	1.15	27a188018e18	12 minutes ago
nginx	1.15.12	27a188018e18	12 minutes ago
nginx	latest	27a188018e18	12 minutes ago
...			



# docker build example - extend nginx image (5)

- Finally upload the custom image to the Docker Hub registry:

```
# docker image tag nginx-with-custom-html:latest gerassimos/nginx-with-cus

# docker image ls
REPOSITORY                                TAG                IMAGE ID
gerassimos/nginx-with-custom-html         latest            617ee5012490
nginx-with-custom-html                    latest            617ee5012490
...

# docker push gerassimos/nginx-with-custom-html:latest
7f31d0f5f5ee: Pushing [=====>] 4.096kB
fc4c9f8e7dac: Pushing [=====>] 3.584kB
912ed487215b: Preparing
5dacd731af1b: Preparing
```

# LAB

- Ref
- D\_S8\_L3\_Extend\_Official\_Images\_lab.md