

# Container Images, Where To Find Them and How To Build Them

## The Mighty Hub: Using Docker Hub Registry Images

<http://hub.docker.com>

```
docker image ls
```

```
docker pull nginx
```

```
docker pull nginx:1.11.9
```

```
docker pull nginx:1.11
```

```
docker pull nginx:1.11.9-alpine
```

```
docker image ls
```

## Images and Their Layers: Discover the Image Cache

```
docker image ls
```

```
docker history nginx:latest
```

```
docker history mysql
```

```
docker image inspect nginx
```

## Image Tagging and Pushing to Docker Hub

```
docker image tag -- help
```

```
docker image ls
```

```
docker pull mysql/mysql-server
```

```
docker image ls
```

```
docker pull nginx:mainline
```

```
docker image ls
```

```
docker image tag nginx bretfisher/nginx
```

```
docker image tag --help
```

```
docker image ls
```

```
docker image push bretfisher/nginx
```

```
docker --help
```

```
docker login
```

```
cat .docker/config.json
```

```
docker image push bretfisher/nginx
```

```
docker image push bretfisher/nginx bretfisher/nginx:testing
```

```
docker image ls
```

```
docker image push bretfisher/nginx:testing
```

```
docker image ls
```

```
## Building Images: The Dockerfile Basics
```

```
cd dockerfile-sample-1
```

```
vim Dockerfile
```

```
## Building Images: Running Docker Builds
```

```
docker image build -t customnginx .
```

```
docker image ls
```

```
docker image build -t customnginx .
```

```
## Building Images: Extending Official Images
```

```
cd dockerfile-sample-2
```

```
vim Dockerfile
```

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

```
docker image build -t nginx-with-html .
```

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

```
docker image ls
```

```
docker image tag --help
```

```
docker image tag nginx-with-html:latest bretfisher/nginx-with-html:latest
```

```
docker image ls
```

```
docker push
```

```
## Assignment Answers: Build Your Own Dockerfile and Run Containers From It
```

```
cd dockerfile-assignment-1
```

```
vim Dockerfile
```

```
docker build cmd
```

```
docker build -t testnode .
```

```
docker container run --rm -p 80:3000 testnode
```

```
docker images
```

```
docker tag --help
```

```
docker tag testnode bretfisher/testing-node
```

```
docker push --help
```

```
docker push bretfisher/testing-node
```

```
docker image ls
```

```
docker image rm bretfisher/testing-node
```

```
docker container run --rm -p 80:3000 bretfisher/testing-node
```