

## 1. Create an image from **not** optimized Dockerfile

```
FROM ubuntu:latest

RUN apt-get update

RUN apt-get -y upgrade

RUN apt install -y nginx

COPY index.html /var/www/html/

CMD ["nginx", "-g", "daemon off;"]
```

```
vladyslavpodkhaluzin@vladyslavpodkhaluzin:~/lesson4$ sudo docker build -t my-nginx:0.1 .
[+] Building 18.5s (11/11) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 196B
=> [internal] load metadata for docker.io/library/ubuntu:latest
=> [auth] library/ubuntu:pull token for registry-1.docker.io
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/5] FROM docker.io/library/ubuntu:latest@sha256:72297848456d5d37d1262630108ab308d3e9ec7ed1c3286a32fe09856619a782
=> => resolve docker.io/library/ubuntu:latest@sha256:72297848456d5d37d1262630108ab308d3e9ec7ed1c3286a32fe09856619a782
=> => sha256:a3f23b6e99cee41b8ffbd8a22d75728bb1f06af30fc79f533f27c096eda8993 424B / 424B
=> => sha256:c3d1a34325805c22bf44a5157224bcff58dc6a8868558c7746d6a2ea64eb191c 2.31kB / 2.31kB
=> => sha256:5b17151e9710ed47471b3928b05325fa4832121a395b9647b7e50d3993e17ce0 28.89MB / 28.89MB
=> => sha256:72297848456d5d37d1262630108ab308d3e9ec7ed1c3286a32fe09856619a782 6.69kB / 6.69kB
=> => extracting sha256:5b17151e9710ed47471b3928b05325fa4832121a395b9647b7e50d3993e17ce0
=> [internal] load build context
=> => transferring context: 285B
=> [2/5] RUN apt-get update
=> [3/5] RUN apt-get -y upgrade
=> [4/5] RUN apt install -y nginx
=> [5/5] COPY index.html /var/www/html/
=> exporting to image
=> => exporting layers
=> => writing image sha256:f1e4af6a79956d59a5a71f02883d9cc8d07d80ff0a29a1949d1810372b0c698
=> => naming to docker.io/library/my-nginx:0.1
vladyslavpodkhaluzin@vladyslavpodkhaluzin:~/lesson4$ ll
total 16
drwxr-xr-x 2 root root 4096 Feb 9 20:49 ./
drwxr-xr-x 8 vladyslavpodkhaluzin vladyslavpodkhaluzin 4096 Feb 9 20:46 ../
-rw-r--r-- 1 root root 157 Feb 9 20:48 Dockerfile
-rw-r--r-- 1 root root 246 Feb 9 20:49 index.html
vladyslavpodkhaluzin@vladyslavpodkhaluzin:~/lesson4$ ocker images
Command 'ocker' not found, did you mean:
  command 'docker' from snap docker (27.2.0)
  command 'docker' from deb docker.io (24.0.7-0ubuntu4.1)
  command 'docker' from deb podman-docker (4.9.3+ds1-1ubuntu0.2)
See 'snap info <snapname>' for additional versions.
vladyslavpodkhaluzin@vladyslavpodkhaluzin:~/lesson4$ sudo docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
my-nginx 0.1 f1e4af6a7999 About a minute ago 196MB
my-app latest 632d3dcf016d 3 hours ago 197MB
hello-world latest f1f77a0f96b7 2 weeks ago 5.2kB
gitea/gitea 1.22.6 071c5c0e37f4 8 weeks ago 177MB
nginx latest 0dff3f9967e3 2 months ago 197MB
postgres 14 0ab8e2d50b0a 2 months ago 444MB
vladyslavpodkhaluzin@vladyslavpodkhaluzin:~/lesson4$ sudo docker images -ls
unknown shorthand flag: 'l' in -ls
See 'docker images --help'.
vladyslavpodkhaluzin@vladyslavpodkhaluzin:~/lesson4$
```

## 2. Create an image from optimized Dockerfile

```
RUN apt-get update && apt-get -y upgrade && apt install -y nginx

COPY index.html /var/www/html/

CMD ["nginx", "-g", "daemon off;"]
```

```

vladyslavpodkhalizhin@vladyslavpodkhalizhin:~/lesson4$ sudo docker build -t wpodkhalizhin/my-nginx:0.2 .
[+] Building 13.8s (9/9) FINISHED
=> [Internal] load build definition from Dockerfile
=> => transferring dockerfile: 192B
=> [Internal] load metadata for docker.io/library/ubuntu:latest
=> [auth] library/ubuntu:pull token for registry-1.docker.io
=> [Internal] load .dockerignore
=> => transferring context: 2B
=> CACHED [1/3] FROM docker.io/library/ubuntu:latest@sha256:72297848456d5d37d1262630108ab308d3e9ec7ed1c3286a32fe09856619a782
=> [Internal] load build context
=> => transferring context: 32B
=> [2/3] RUN apt-get update && apt-get -y upgrade && apt install -y nginx
=> [3/3] COPY index.html /var/www/html/
=> exporting to image
=> => exporting layers
=> => writing image sha256:fe0d1e48760c8db14fff9c9ff93b1d60b537368e9e630b8642ab8659594279c20
=> => naming to docker.io/wpodkhalizhin/my-nginx:0.2

```

### 3. Compare sizes of two images

```

vladyslavpodkhalizhin@vladyslavpodkhalizhin:~/lesson4$ sudo docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
wpodkhalizhin/my-nginx 0.2        fe0d1e48760c 25 seconds ago 194MB
my-nginx            0.1        f1e4af6a7999 12 hours ago   196MB
wpodkhalizhin/my-nginx 0.1        f1e4af6a7999 12 hours ago   196MB
my-app              latest     632d3dcf016d 15 hours ago   197MB
hello-world         latest     f1f77a0f96b7 2 weeks ago    5.2kB
gitea/gitea         1.22.6     071c5c0e37f4 8 weeks ago    177MB
nginx                latest     0dfff3f9967e3 2 months ago   197MB
postgres            14         0ab8e2d50b0a 2 months ago   444MB

```