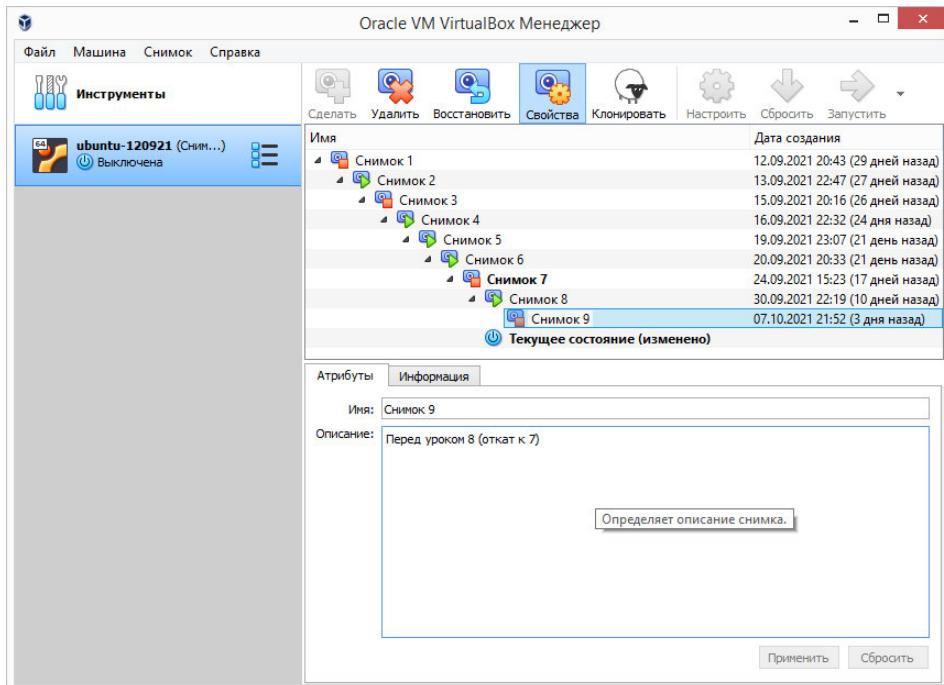


Практическое задание по уроку №8 «Введение в Docker»

1. Переустановить операционную систему, подключить репозиторий Docker.

Решение

- Чтобы не переустанавливать ОС делаем новый снимок с учетом отката к ранее имеющемуся (№ 7)



- Заходим в систему

```
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.4.0-88-generic x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/advantage

System information disabled due to load higher than 1.0

* Super-optimized for small spaces - read how we shrank the memory
  footprint of MicroK8s to make it the smallest full K8s around.

https://ubuntu.com/blog/microk8s-memory-optimisation

98 updates can be installed immediately.
1 of these updates is a security update.
To see these additional updates run: apt list --upgradable

Last login: Tue Oct  5 14:25:08 UTC 2021 from 192.168.0.15 on pts/1
No mail.

stoamper@ubuntu-server:~$ ip a
stoamper@ubuntu-server:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:d0:90:17 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.19/24 brd 192.168.0.255 scope global dynamic enp0s3
        valid_lft 14337sec preferred_lft 14337sec
    inet6 fe80::a00:27ff:fed0:9017/64 scope link
        valid_lft forever preferred_lft forever
stoamper@ubuntu-server:~$ _
```

- Перед установкой Docker необходимо поставить некоторые пакеты для работы по протоколу HTTPS. Для этого вводим команду sudo apt update (идет процесс установки)...

```

root@ubuntu-server: ~
58 kB]
Get:6 http://ru.archive.ubuntu.com/ubuntu focal-updates/main Translation-en [265 kB]
Get:7 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [14.4 kB]
Get:8 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [865 kB]
Get:9 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [185 kB]
Get:10 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [19.2 kB]
Get:11 http://ru.archive.ubuntu.com/ubuntu focal-security/main amd64 Packages [909 kB]
Get:12 http://ru.archive.ubuntu.com/ubuntu focal-security/main Translation-en [173 kB]
Get:13 http://ru.archive.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [8,820 B]
Get:14 http://ru.archive.ubuntu.com/ubuntu focal-security/universe amd64 Packages [643 kB]
Get:15 http://ru.archive.ubuntu.com/ubuntu focal-security/universe Translation-en [103 kB]
Get:16 http://ru.archive.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [12.5 kB]
99% [14 Packages store 0 B]

```

- ...и sudo apt-get install apt-transport-https ca-certificates curl gnupg-agent software-properties-common -y

```

root@ubuntu-server: ~
[865 kB]
Get:9 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [185 kB]
Get:10 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [19.2 kB]
Get:11 http://ru.archive.ubuntu.com/ubuntu focal-security/main amd64 Packages [909 kB]
Get:12 http://ru.archive.ubuntu.com/ubuntu focal-security/main Translation-en [173 kB]
Get:13 http://ru.archive.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [8,820 B]
Get:14 http://ru.archive.ubuntu.com/ubuntu focal-security/universe amd64 Packages [643 kB]
Get:15 http://ru.archive.ubuntu.com/ubuntu focal-security/universe Translation-en [103 kB]
Get:16 http://ru.archive.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [12.5 kB]
Fetched 4,784 kB in 3s (1,464 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
84 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@ubuntu-server:~# sudo apt-get install apt-transport-https ca-certificates curl gnupg-agent software-properties-common -y

```

- Начался процесс установки

```

root@ubuntu-server: ~
Get:5 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpg-agent amd64 2.2.19-3ubuntu2.1 [232 kB]
Get:6 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpg amd64 2.2.19-3ubuntu2.1 [483 kB]
Get:7 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpgconf amd64 2.2.19-3ubuntu2.1 [124 kB]
Get:8 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 gnupg-110n amd64 2.2.19-3ubuntu2.1 [51.7 kB]
Get:9 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 gnupg all 2.2.19-3ubuntu2.1 [259 kB]
Get:10 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpgsm amd64 2.2.19-3ubuntu2.1 [217 kB]
Get:11 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpgv amd64 2.2.19-3ubuntu2.1 [199 kB]
Get:12 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 apt-transport-https all 2.0.6 [4,680 B]
Get:13 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 gnupg-agent all 2.2.19-3ubuntu2.1 [5,232 B]
Get:14 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 software-properties-common all 0.98.9.5 [10.6 kB]
Get:15 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 python3-software-properties all 0.98.9.5 [25.1 kB]
Fetched 2,609 kB in 1s (1,750 kB/s)

```

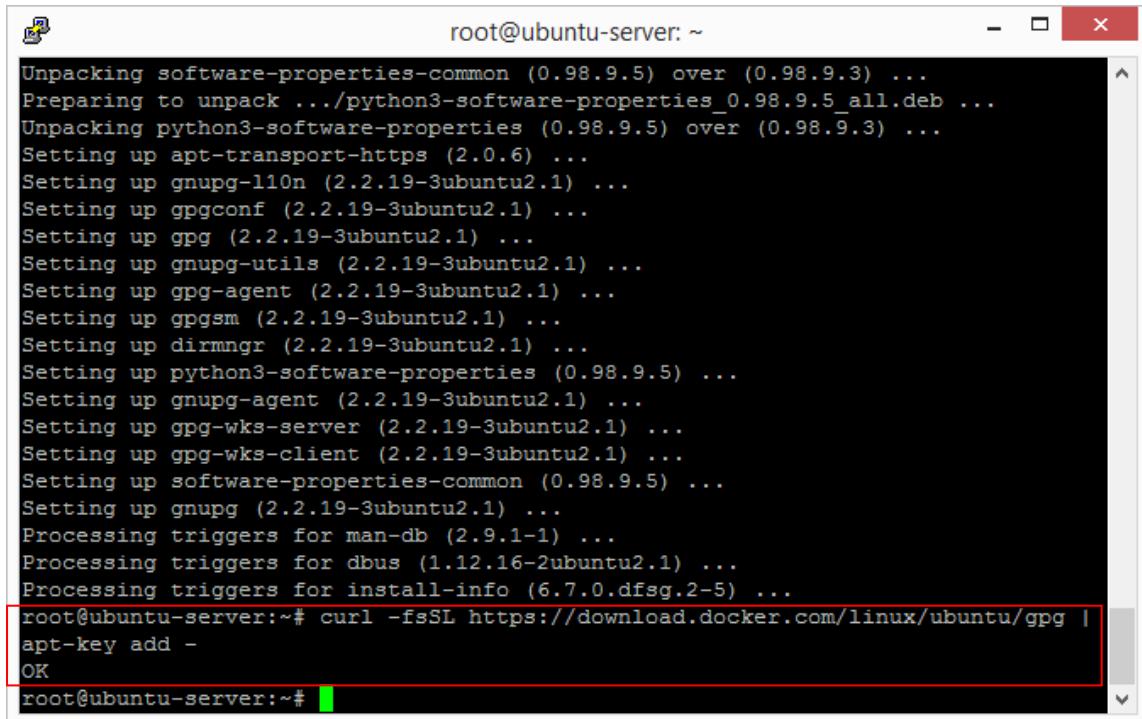
- Вводим команду curl -fsSL <https://download.docker.com/linux/ubuntu/gpg> | apt-key add - для добавления ключа репозитория

```

root@ubuntu-server: ~
Unpacking gnupg-agent (2.2.19-3ubuntu2.1) ...
Preparing to unpack .../software-properties-common_0.98.9.5_all.deb ...
Unpacking software-properties-common (0.98.9.5) over (0.98.9.3) ...
Preparing to unpack .../python3-software-properties_0.98.9.5_all.deb ...
Unpacking python3-software-properties (0.98.9.5) over (0.98.9.3) ...
Setting up apt-transport-https (2.0.6) ...
Setting up gnupg-110n (2.2.19-3ubuntu2.1) ...
Setting up gpgconf (2.2.19-3ubuntu2.1) ...
Setting up gpg (2.2.19-3ubuntu2.1) ...
Setting up gnupg-utils (2.2.19-3ubuntu2.1) ...
Setting up gpg-agent (2.2.19-3ubuntu2.1) ...
Setting up gpgsm (2.2.19-3ubuntu2.1) ...
Setting up dirmngr (2.2.19-3ubuntu2.1) ...
Setting up python3-software-properties (0.98.9.5) ...
Setting up gnupg-agent (2.2.19-3ubuntu2.1) ...
Setting up gpg-wks-server (2.2.19-3ubuntu2.1) ...
Setting up gpg-wks-client (2.2.19-3ubuntu2.1) ...
Setting up software-properties-common (0.98.9.5) ...
Setting up gnupg (2.2.19-3ubuntu2.1) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for dbus (1.12.16-2ubuntu2.1) ...
Processing triggers for install-info (6.7.0.dfsg.2-5) ...
root@ubuntu-server:~# curl -fsSL https://download.docker.com/linux/ubuntu/gpg | apt-key add -

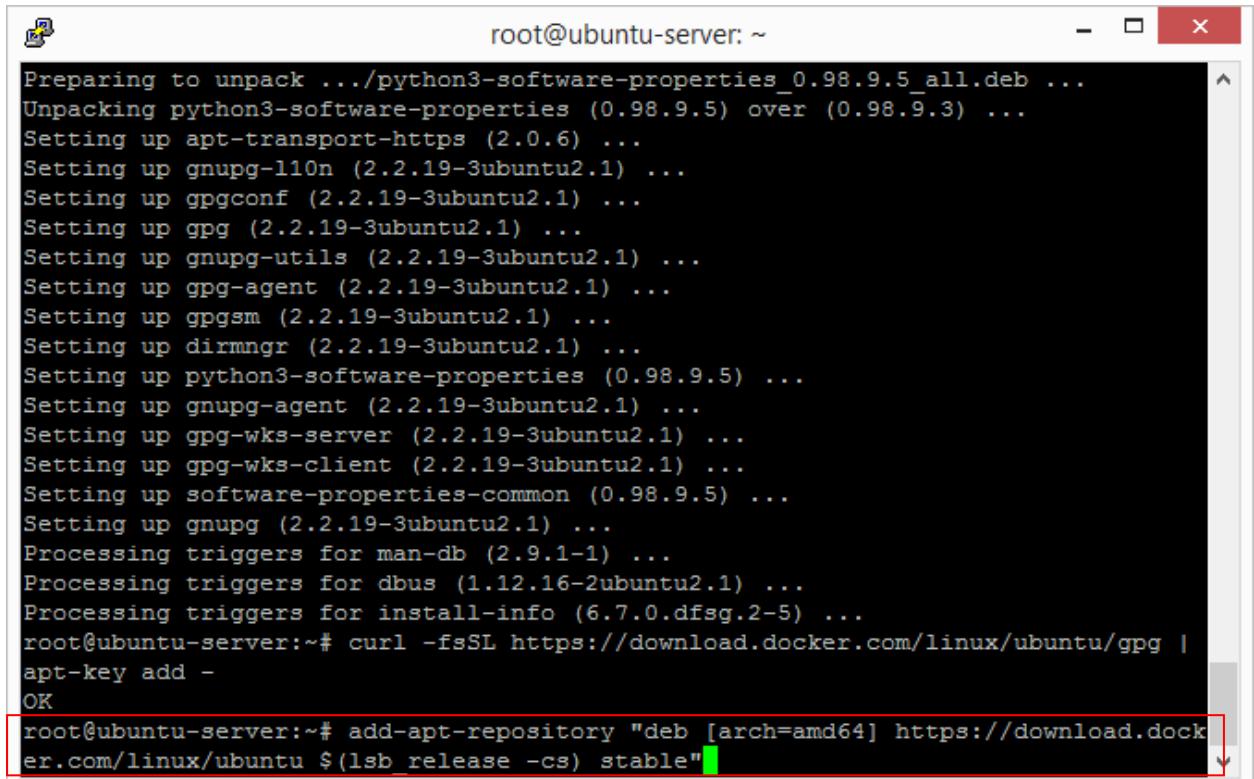
```

- Ключ добавлен



```
root@ubuntu-server:~ Unpacking software-properties-common (0.98.9.5) over (0.98.9.3) ... Preparing to unpack .../python3-software-properties_0.98.9.5_all.deb ... Unpacking python3-software-properties (0.98.9.5) over (0.98.9.3) ... Setting up apt-transport-https (2.0.6) ... Setting up gnupg-l10n (2.2.19-3ubuntu2.1) ... Setting up gpgconf (2.2.19-3ubuntu2.1) ... Setting up gpg (2.2.19-3ubuntu2.1) ... Setting up gnupg-utils (2.2.19-3ubuntu2.1) ... Setting up gpg-agent (2.2.19-3ubuntu2.1) ... Setting up gpgsm (2.2.19-3ubuntu2.1) ... Setting up dirmngr (2.2.19-3ubuntu2.1) ... Setting up python3-software-properties (0.98.9.5) ... Setting up gnupg-agent (2.2.19-3ubuntu2.1) ... Setting up gpg-wks-server (2.2.19-3ubuntu2.1) ... Setting up gpg-wks-client (2.2.19-3ubuntu2.1) ... Setting up software-properties-common (0.98.9.5) ... Setting up gnupg (2.2.19-3ubuntu2.1) ... Processing triggers for man-db (2.9.1-1) ... Processing triggers for dbus (1.12.16-2ubuntu2.1) ... Processing triggers for install-info (6.7.0.dfsg.2-5) ... root@ubuntu-server:~# curl -fsSL https://download.docker.com/linux/ubuntu/gpg | apt-key add - OK root@ubuntu-server:~#
```

- Подключаем репозиторий с помощью команды add-apt-repository "deb [arch=amd64] <https://download.docker.com/linux/ubuntu> \$(lsb_release -cs) stable"



```
root@ubuntu-server:~ Unpacking python3-software-properties (0.98.9.5) over (0.98.9.3) ... Setting up apt-transport-https (2.0.6) ... Setting up gnupg-l10n (2.2.19-3ubuntu2.1) ... Setting up gpgconf (2.2.19-3ubuntu2.1) ... Setting up gpg (2.2.19-3ubuntu2.1) ... Setting up gnupg-utils (2.2.19-3ubuntu2.1) ... Setting up gpg-agent (2.2.19-3ubuntu2.1) ... Setting up gpgsm (2.2.19-3ubuntu2.1) ... Setting up dirmngr (2.2.19-3ubuntu2.1) ... Setting up python3-software-properties (0.98.9.5) ... Setting up gnupg-agent (2.2.19-3ubuntu2.1) ... Setting up gpg-wks-server (2.2.19-3ubuntu2.1) ... Setting up gpg-wks-client (2.2.19-3ubuntu2.1) ... Setting up software-properties-common (0.98.9.5) ... Setting up gnupg (2.2.19-3ubuntu2.1) ... Processing triggers for man-db (2.9.1-1) ... Processing triggers for dbus (1.12.16-2ubuntu2.1) ... Processing triggers for install-info (6.7.0.dfsg.2-5) ... root@ubuntu-server:~# curl -fsSL https://download.docker.com/linux/ubuntu/gpg | apt-key add - OK root@ubuntu-server:~# add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable"
```

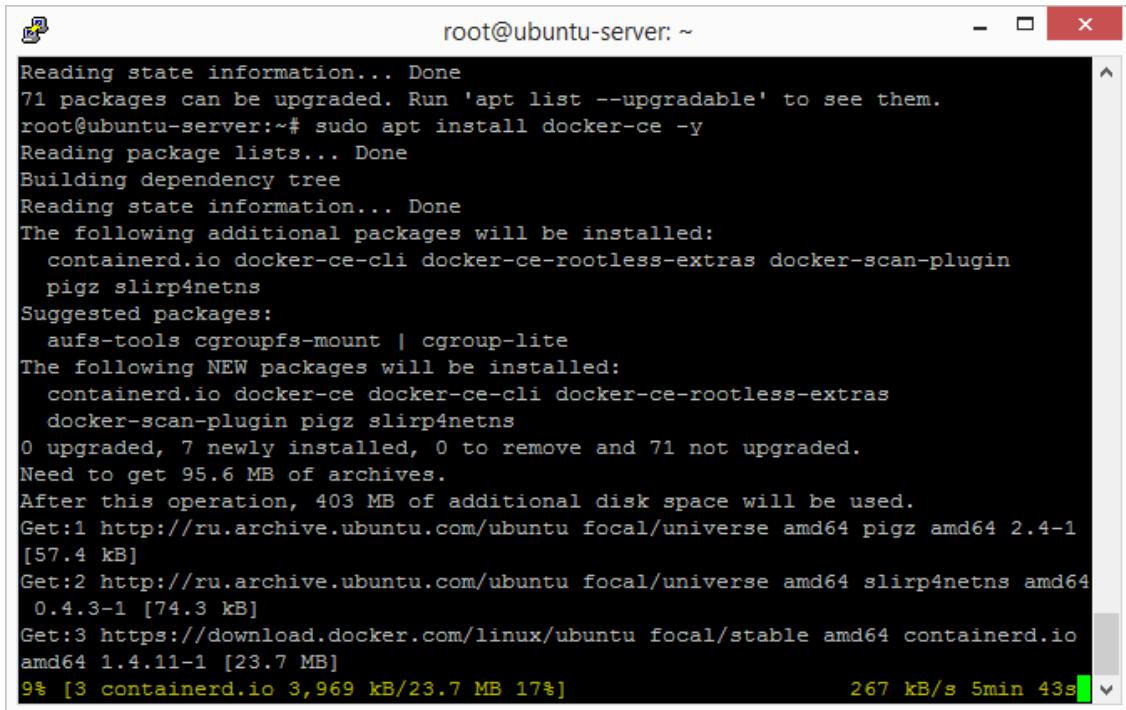
- Процесс подключения запустился

```
root@ubuntu-server:~  
Setting up dirmngr (2.2.19-3ubuntu2.1) ...  
Setting up python3-software-properties (0.98.9.5) ...  
Setting up gnupg-agent (2.2.19-3ubuntu2.1) ...  
Setting up gpg-wks-server (2.2.19-3ubuntu2.1) ...  
Setting up gpg-wks-client (2.2.19-3ubuntu2.1) ...  
Setting up software-properties-common (0.98.9.5) ...  
Setting up gnupg (2.2.19-3ubuntu2.1) ...  
Processing triggers for man-db (2.9.1-1) ...  
Processing triggers for dbus (1.12.16-2ubuntu2.1) ...  
Processing triggers for install-info (6.7.0.dfsg.2-5) ...  
root@ubuntu-server:~# curl -fsSL https://download.docker.com/linux/ubuntu/gpg |  
apt-key add -  
OK  
root@ubuntu-server:~# add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable"  
Hit:1 http://ru.archive.ubuntu.com/ubuntu focal InRelease  
Hit:2 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease  
Hit:3 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease  
Hit:4 http://ru.archive.ubuntu.com/ubuntu focal-security InRelease  
Get:5 https://download.docker.com/linux/ubuntu focal InRelease [57.7 kB]  
Get:6 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages [11.6 kB]  
Fetched 69.3 kB in 1s (80.9 kB/s)
```

- Процесс подключения завершился

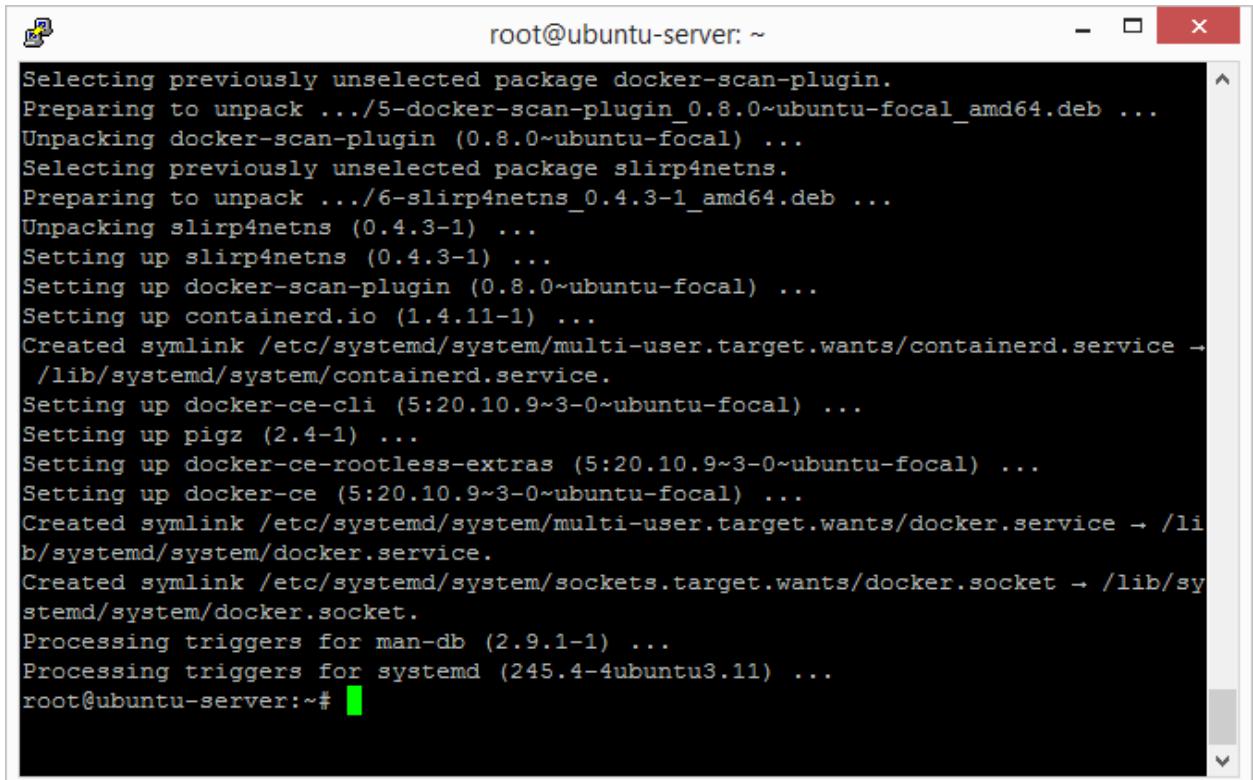
```
root@ubuntu-server:~# add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable"  
Hit:1 http://ru.archive.ubuntu.com/ubuntu focal InRelease  
Hit:2 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease  
Hit:3 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease  
Hit:4 http://ru.archive.ubuntu.com/ubuntu focal-security InRelease  
Get:5 https://download.docker.com/linux/ubuntu focal InRelease [57.7 kB]  
Get:6 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages [11.6 kB]  
Fetched 69.3 kB in 1s (80.9 kB/s)  
Reading package lists... Done  
root@ubuntu-server:~# sudo systemctl status docker  
Unit docker.service could not be found.  
root@ubuntu-server:~# sudo apt update  
Hit:1 http://ru.archive.ubuntu.com/ubuntu focal InRelease  
Hit:2 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease  
Hit:3 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease  
Hit:4 http://ru.archive.ubuntu.com/ubuntu focal-security InRelease  
Hit:5 https://download.docker.com/linux/ubuntu focal InRelease  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
71 packages can be upgraded. Run 'apt list --upgradable' to see them.  
root@ubuntu-server:~#
```

- Запустим обновление списка пакетов с помощью команды sudo apt update



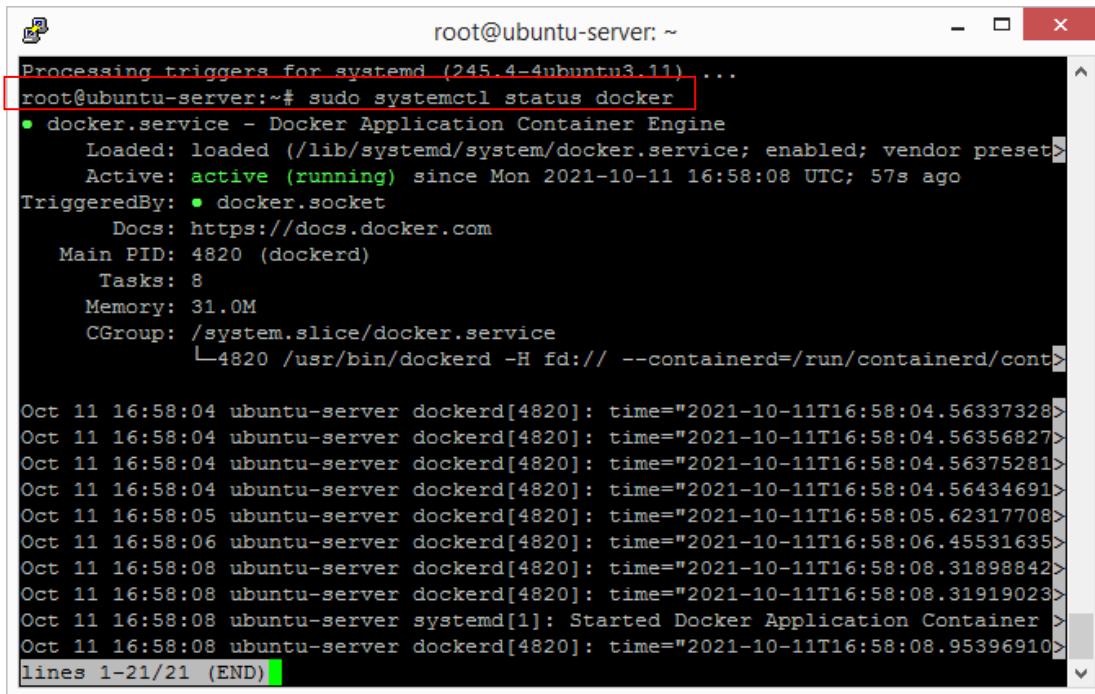
```
root@ubuntu-server: ~
Reading state information... Done
71 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@ubuntu-server:~# sudo apt install docker-ce -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  containerd.io docker-ce-cli docker-ce-rootless-extras docker-scan-plugin
  pigz slirp4netns
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite
The following NEW packages will be installed:
  containerd.io docker-ce docker-ce-cli docker-ce-rootless-extras
  docker-scan-plugin pigz slirp4netns
0 upgraded, 7 newly installed, 0 to remove and 71 not upgraded.
Need to get 95.6 MB of archives.
After this operation, 403 MB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 pigz amd64 2.4-1
[57.4 kB]
Get:2 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 slirp4netns amd64
  0.4.3-1 [74.3 kB]
Get:3 https://download.docker.com/linux/ubuntu focal/stable amd64 containerd.io
  amd64 1.4.11-1 [23.7 MB]
9% [3 containerd.io 3,969 kB/23.7 MB 17%] 267 kB/s 5min 43s
```

- Пакеты были обновлены. Установим пакет с помощью команды apt install docker-ce -y



```
root@ubuntu-server: ~
Selecting previously unselected package docker-scan-plugin.
Preparing to unpack .../5-docker-scan-plugin_0.8.0~ubuntu-focal_amd64.deb ...
Unpacking docker-scan-plugin (0.8.0~ubuntu-focal) ...
Selecting previously unselected package slirp4netns.
Preparing to unpack .../6-slirp4netns_0.4.3-1_amd64.deb ...
Unpacking slirp4netns (0.4.3-1) ...
Setting up slirp4netns (0.4.3-1) ...
Setting up docker-scan-plugin (0.8.0~ubuntu-focal) ...
Setting up containerd.io (1.4.11-1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service →
 /lib/systemd/system/containerd.service.
Setting up docker-ce-cli (5:20.10.9~3-0~ubuntu-focal) ...
Setting up pigz (2.4-1) ...
Setting up docker-ce-rootless-extras (5:20.10.9~3-0~ubuntu-focal) ...
Setting up docker-ce (5:20.10.9~3-0~ubuntu-focal) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /li
b/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/sy
stemd/system/docker.socket.
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for systemd (245.4-4ubuntu3.11) ...
root@ubuntu-server:~#
```

- После установки с помощью команды sudo systemctl status docker проверяем статус (Active)



```
root@ubuntu-server:~ Processing triggers for systemd (245.4-4ubuntu3.11) ...
root@ubuntu-server:~# sudo systemctl status docker
● docker.service - Docker Application Container Engine
  Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
  Active: active (running) since Mon 2021-10-11 16:58:08 UTC; 57s ago
    TriggeredBy: ● docker.socket
      Docs: https://docs.docker.com
   Main PID: 4820 (dockerd)
     Tasks: 8
    Memory: 31.0M
      CGroup: /system.slice/docker.service
              └─4820 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/cont...
```

Oct 11 16:58:04 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:04.563373281" level=info msg="Starting containerd"
Oct 11 16:58:04 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:04.563568271" level=info msg="Starting containerd"
Oct 11 16:58:04 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:04.563752811" level=info msg="Starting containerd"
Oct 11 16:58:04 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:04.564346911" level=info msg="Starting containerd"
Oct 11 16:58:05 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:05.623177081" level=info msg="Starting containerd"
Oct 11 16:58:06 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:06.455316351" level=info msg="Starting containerd"
Oct 11 16:58:08 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:08.318988421" level=info msg="Starting containerd"
Oct 11 16:58:08 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:08.319190231" level=info msg="Starting containerd"
Oct 11 16:58:08 ubuntu-server systemd[1]: Started Docker Application Container Engine.
Oct 11 16:58:08 ubuntu-server dockerd[4820]: time="2021-10-11T16:58:08.953969101" level=info msg="Containerd has initialized successfully!"

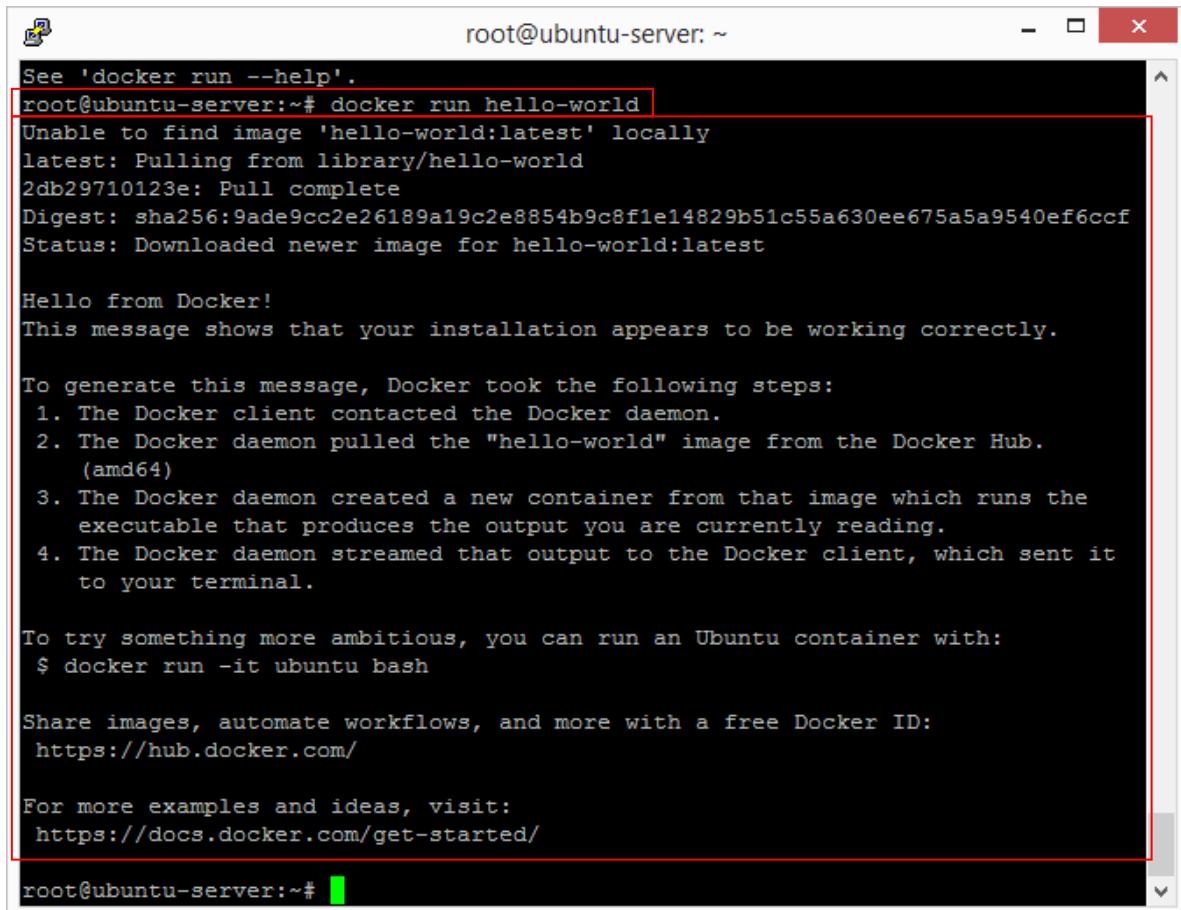
lines 1-21/21 (END)

- sf

2. Запустить контейнер с Ubuntu.

Решение

- Для запуска контейнера с Ubuntu введем команду docker run hello-world



```
root@ubuntu-server: ~
See 'docker run --help'.
root@ubuntu-server:~# docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:9ade9cc2e26189a19c2e8854b9c8f1e14829b51c55a630ee675a5a9540ef6ccf
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/
root@ubuntu-server:~#
```

3. Используя Dockerfile, собрать связку nginx + PHP-FPM в одном контейнере.

Решение

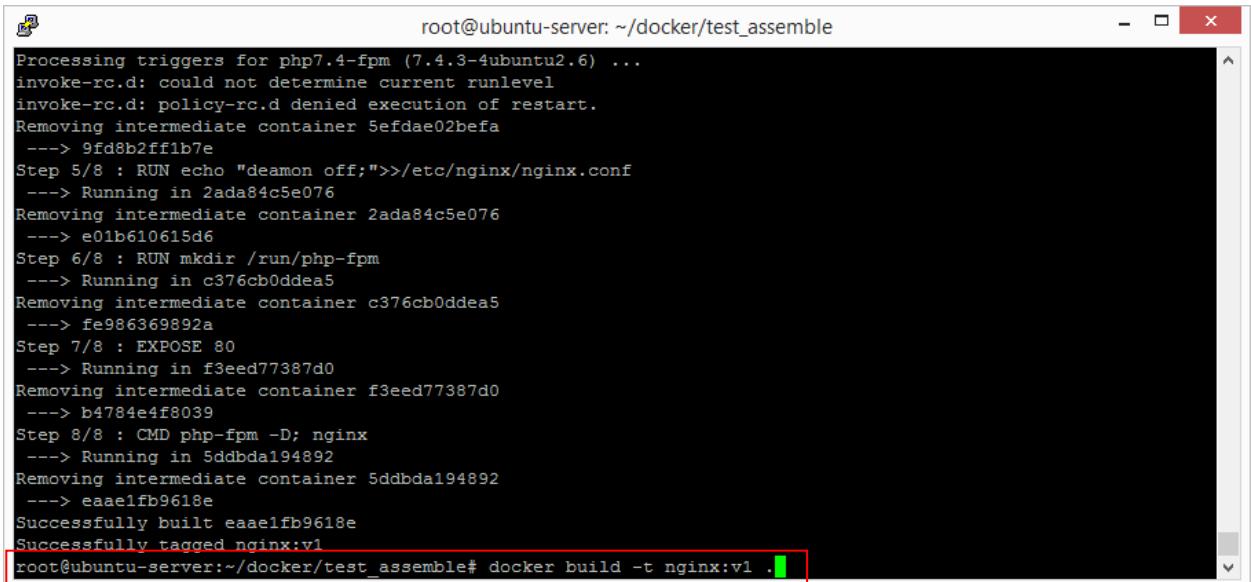
- Создаем директорию test_assemble, в которой будет размещен dockerfile, и переходим в нее

```
root@ubuntu-server: ~/docker/test_assemble
drwxr-xr-x 28 root root          960 Oct 11 16:58 run
lrwxrwxrwx  1 root root          8 Feb  1 2021 sbin -> usr/sbin
drwxr-xr-x 12 root root         4096 Oct  5 17:06 snap
drwxr-xr-x  2 root root         4096 Feb  1 2021 srv
-rw-----  1 root root 1300234240 Sep 12 06:28 swap.img
dr-xr-xr-x 13 root root          0 Oct 11 16:06 sys
drwxr-xr-x  3 root root         4096 Oct 11 17:22 test
drwxrwxrwt 12 root root         4096 Oct 11 17:01 tmp
drwxr-xr-x 14 root root         4096 Feb  1 2021 usr
drwxr-xr-x 14 root root         4096 Oct  5 15:15 var
root@ubuntu-server:/# rmdir test/
rmdir: failed to remove 'test/': Directory not empty
root@ubuntu-server:/# rm -R test/
root@ubuntu-server:/# cd root/
root@ubuntu-server:~# cd ..
root@ubuntu-server:/# cd opt/
root@ubuntu-server:/opt# ls -l
total 4
drwx--x--x 4 root root 4096 Oct 11 16:57 containerd
root@ubuntu-server:/opt# cd ,
-bash: cd: ,: No such file or directory
root@ubuntu-server:/opt# cd ..
root@ubuntu-server:/# cd /root/
root@ubuntu-server:~/# mkdir /root/docker/test_assemble
mkdir: cannot create directory '/root/docker/test_assemble': No such file or directory
root@ubuntu-server:~/# mkdir /root/docker/
root@ubuntu-server:~/# mkdir /root/docker/test_assemble/
root@ubuntu-server:~/# cd docker/test_assemble/
root@ubuntu-server:~/docker/test_assemble#
```

- Создаем в ней dockerfile и открываем с помощью редактора vi (команда vi Dockerfile). Внутри прописываем следующее содержимое:

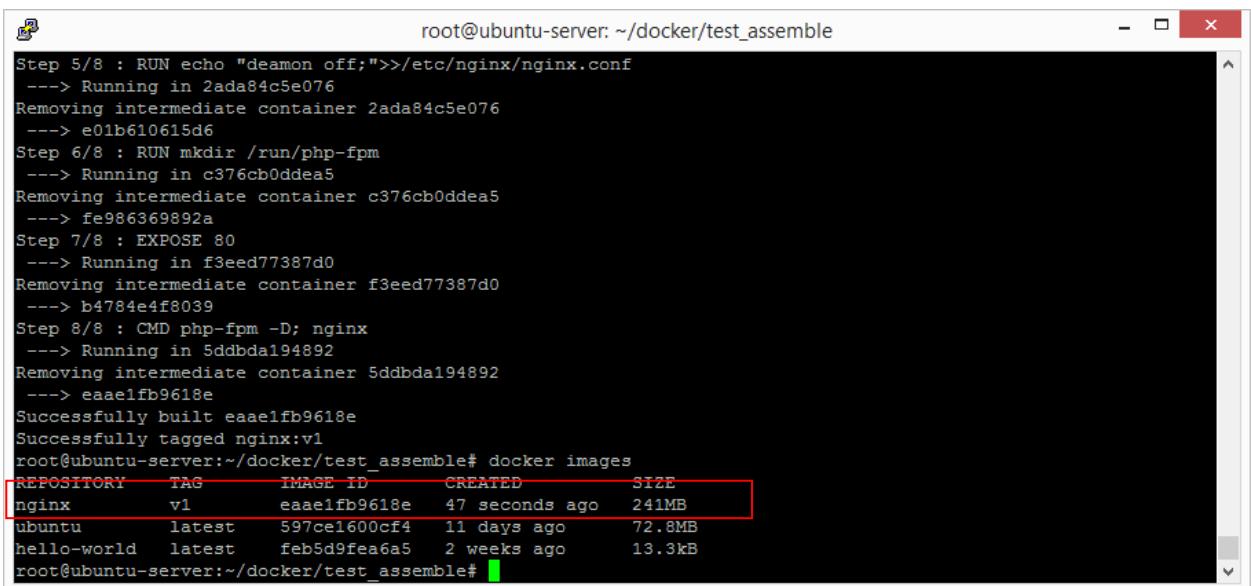
```
root@ubuntu-server: ~/docker/test_assemble
FROM ubuntu:latest
# владелец создаваемого образа
MAINTAINER stoamper
# обновление программного репозитория
RUN apt-get update
# установка пакетов nginx и php-fpm
RUN apt-get install -y nginx php-fpm
# запрет веб-серверу автоматически запускаться в качестве демона
RUN echo "deamon off;">>/etc/nginx/nginx.conf
# создание каталога для запуска php-fpm
RUN mkdir /run/php-fpm
# порт для работы веб-сервера
EXPOSE 80
# команда для запуска php-fpm и nginx
CMD php-fpm -D; nginx
```

- Запускаем сбоку nginx с помощью команды docker build –t nginx:v1 .



```
root@ubuntu-server:~/docker/test_assemble
Processing triggers for php7.4-fpm (7.4.3-4ubuntu2.6) ...
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of restart.
Removing intermediate container 5efdae02befa
--> 9fd8b2ff1b7e
Step 5/8 : RUN echo "deamon off;">>/etc/nginx/nginx.conf
--> Running in 2ada84c5e076
Removing intermediate container 2ada84c5e076
--> e01b610615d6
Step 6/8 : RUN mkdir /run/php-fpm
--> Running in c376cb0dde45
Removing intermediate container c376cb0dde45
--> fe986369892a
Step 7/8 : EXPOSE 80
--> Running in f3eed77387d0
Removing intermediate container f3eed77387d0
--> b4784e4f8039
Step 8/8 : CMD php-fpm -D; nginx
--> Running in 5ddbda194892
Removing intermediate container 5ddbda194892
--> eaae1fb9618e
Successfully built eaae1fb9618e
Successfully tagged nginx:v1
root@ubuntu-server:~/docker/test_assemble# docker build -t nginx:v1 .
```

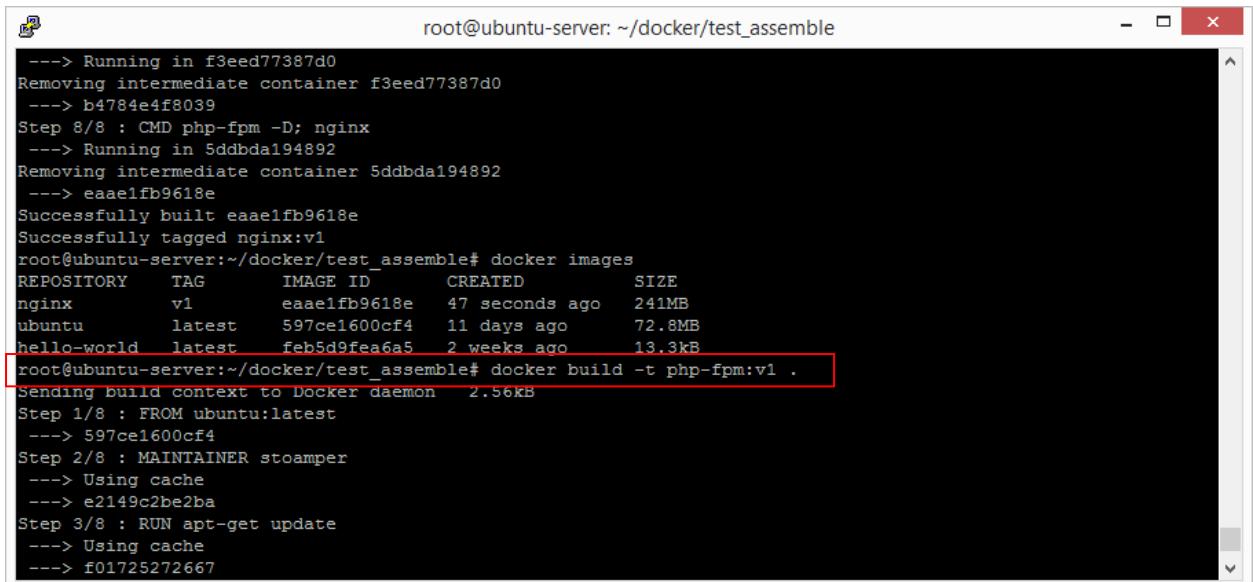
- Проверяем, что данный образ появился



REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
nginx	v1	eaae1fb9618e	47 seconds ago	241MB
ubuntu	latest	597ce1600cf4	11 days ago	72.8MB
hello-world	latest	feb5d9fea6a5	2 weeks ago	13.3kB

```
root@ubuntu-server:~/docker/test_assemble# docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
nginx           v1       eaae1fb9618e   47 seconds ago   241MB
ubuntu          latest   597ce1600cf4   11 days ago   72.8MB
hello-world     latest   feb5d9fea6a5   2 weeks ago   13.3kB
root@ubuntu-server:~/docker/test_assemble#
```

- Запускаем сборку php-fpm с помощью команды docker build -t php-fpm:v1 .

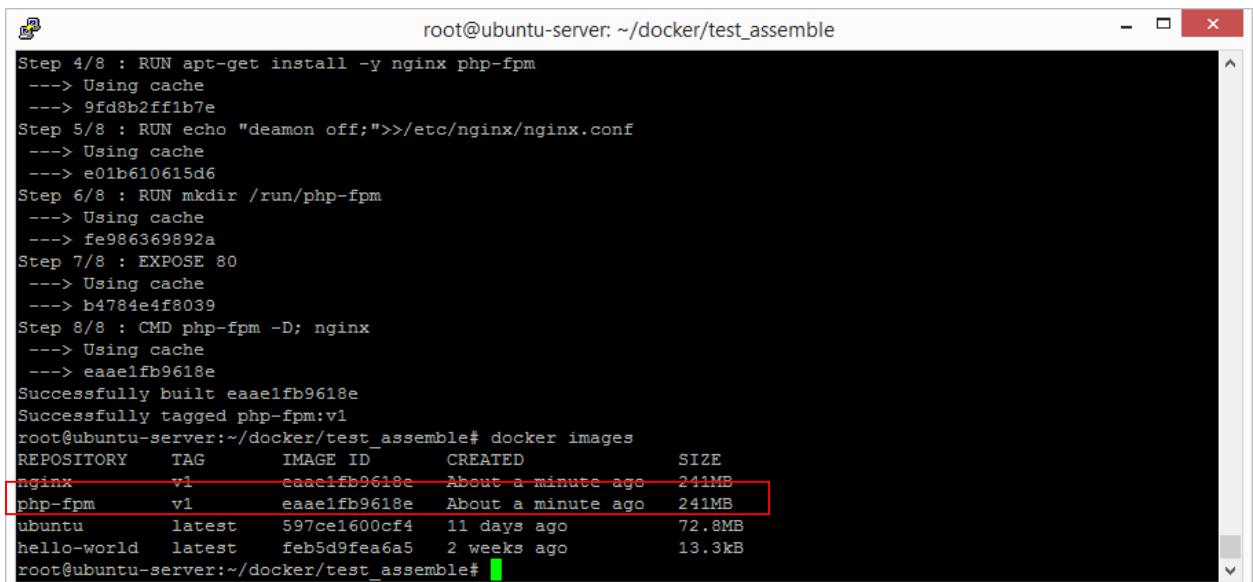


```

root@ubuntu-server:~/docker/test_assemble
--> Running in f3eed77387d0
Removing intermediate container f3eed77387d0
--> b4784e4f8039
Step 8/8 : CMD php-fpm -D; nginx
--> Running in 5ddbdal94892
Removing intermediate container 5ddbdal94892
--> eaae1fb9618e
Successfully built eaae1fb9618e
Successfully tagged nginx:v1
root@ubuntu-server:~/docker/test_assemble# docker images
REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
nginx           v1           eaae1fb9618e   47 seconds ago  241MB
ubuntu          latest        597ce1600cf4   11 days ago   72.8MB
hello-world     latest        feb5d9fea6a5    2 weeks ago   13.3kB
root@ubuntu-server:~/docker/test_assemble# docker build -t php-fpm:v1 .
Sending build context to Docker daemon 2.56kB
Step 1/8 : FROM ubuntu:latest
--> 597ce1600cf4
Step 2/8 : MAINTAINER stoamper
--> Using cache
--> e2149c2be2ba
Step 3/8 : RUN apt-get update
--> Using cache
--> f01725272667

```

- Проверяем, что данный образ появился

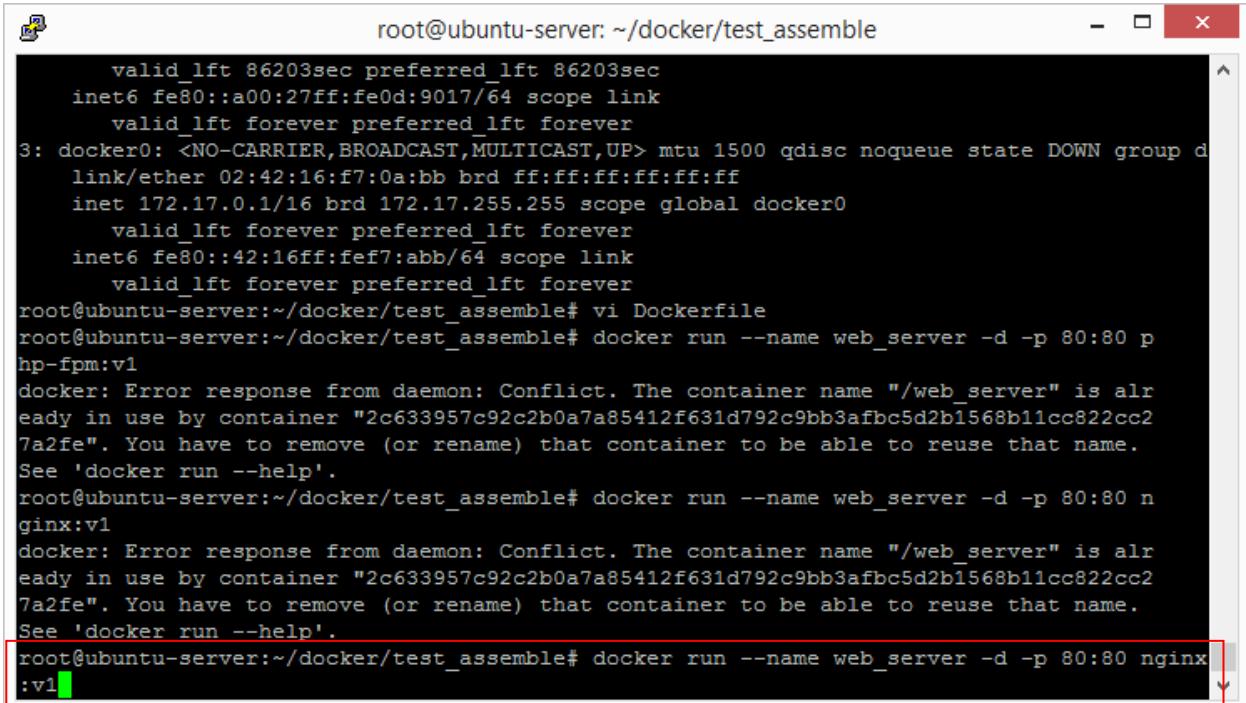


```

root@ubuntu-server:~/docker/test_assemble
Step 4/8 : RUN apt-get install -y nginx php-fpm
--> Using cache
--> 9fd8b2ff1b7e
Step 5/8 : RUN echo "deamon off;">>/etc/nginx/nginx.conf
--> Using cache
--> e01b610615d6
Step 6/8 : RUN mkdir /run/php-fpm
--> Using cache
--> fe986369892a
Step 7/8 : EXPOSE 80
--> Using cache
--> b4784e4f8039
Step 8/8 : CMD php-fpm -D; nginx
--> Using cache
--> eaae1fb9618e
Successfully built eaae1fb9618e
Successfully tagged php-fpm:v1
root@ubuntu-server:~/docker/test_assemble# docker images
REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
nginx           v1           eaae1fb9618e   About a minute ago  241MB
php-fpm          v1           eaae1fb9618e   About a minute ago  241MB
ubuntu          latest        597ce1600cf4   11 days ago   72.8MB
hello-world     latest        feb5d9fea6a5    2 weeks ago   13.3kB
root@ubuntu-server:~/docker/test_assemble#

```

- Запускаем контейнер из собранного образа

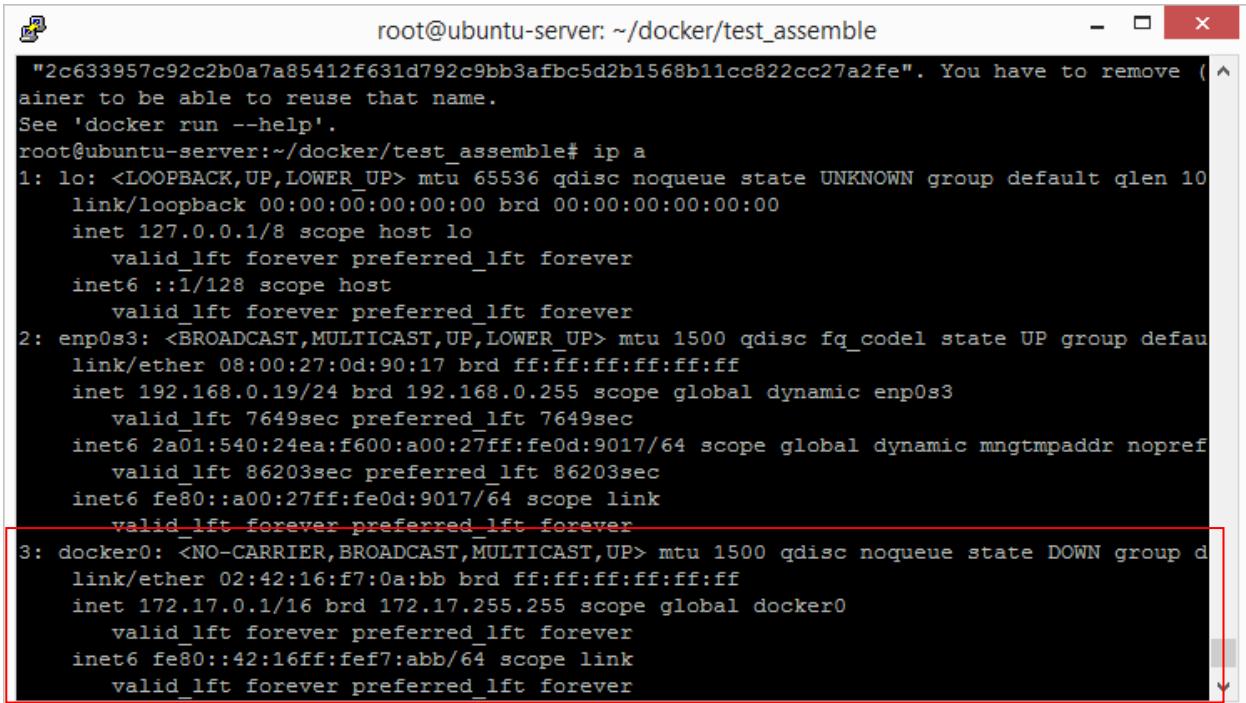


```

root@ubuntu-server: ~/docker/test_assemble
valid_lft 86203sec preferred_lft 86203sec
inet6 fe80::a00:27ff:fe0d:9017/64 scope link
    valid_lft forever preferred_lft forever
3: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group d
link/ether 02:42:16:f7:0a:bb brd ff:ff:ff:ff:ff:ff
inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
    valid_lft forever preferred_lft forever
inet6 fe80::42:16ff:fef7:abb/64 scope link
    valid_lft forever preferred_lft forever
root@ubuntu-server:~/docker/test_assemble# vi Dockerfile
root@ubuntu-server:~/docker/test_assemble# docker run --name web_server -d -p 80:80 p
hp-fpm:v1
docker: Error response from daemon: Conflict. The container name "/web_server" is alr
eady in use by container "2c633957c92c2b0a7a85412f631d792c9bb3afbc5d2b1568b11cc822cc2
7a2fe". You have to remove (or rename) that container to be able to reuse that name.
See 'docker run --help'.
root@ubuntu-server:~/docker/test_assemble# docker run --name web_server -d -p 80:80 n
ginx:v1
docker: Error response from daemon: Conflict. The container name "/web_server" is alr
eady in use by container "2c633957c92c2b0a7a85412f631d792c9bb3afbc5d2b1568b11cc822cc2
7a2fe". You have to remove (or rename) that container to be able to reuse that name.
See 'docker run --help'.
root@ubuntu-server:~/docker/test_assemble# docker run --name web_server -d -p 80:80 nginx
:vi

```

- Проверяем с помощью ip a



```

root@ubuntu-server: ~/docker/test_assemble
"2c633957c92c2b0a7a85412f631d792c9bb3afbc5d2b1568b11cc822cc27a2fe". You have to remove (a
ainer to be able to reuse that name.
See 'docker run --help'.
root@ubuntu-server:~/docker/test_assemble# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 10
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
        inet6 ::1/128 scope host
            valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group defau
link/ether 08:00:27:0d:90:17 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.19/24 brd 192.168.0.255 scope global dynamic enp0s3
        valid_lft 7649sec preferred_lft 7649sec
        inet6 2a01:540:24ea:f600:a00:27ff:fe0d:9017/64 scope global dynamic mngtmpaddr nopref
            valid_lft 86203sec preferred_lft 86203sec
    inet6 fe80::a00:27ff:fe0d:9017/64 scope link
        valid_lft forever preferred_lft forever
3: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group d
link/ether 02:42:16:f7:0a:bb brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
        valid_lft forever preferred_lft forever
    inet6 fe80::42:16ff:fef7:abb/64 scope link
        valid_lft forever preferred_lft forever

```