

Урок 8. Введение в Docker

1. Переустановить операционную систему, подключить репозиторий Docker.

Я откатил изменения к предыдущему снимку системы

Установил пакеты, необходимые для работы apt по протоколу HTTPS:

```
user1@ubuntu-server:~$ sudo su root
root@ubuntu-server:/home/user1# apt-get install ca-certificates curl gnupg lsb-release
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Unable to locate package ca-certificates
root@ubuntu-server:/home/user1# curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --de
are/keyrings/docker-archive-keyring.gpg
root@ubuntu-server:/home/user1# echo \
> "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] ht
ocker.com/linux/ubuntu \
> $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
root@ubuntu-server:/home/user1#
root@ubuntu-server:/home/user1# sudo apt-get update
Hit:1 http://ru.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:3 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:4 http://ru.archive.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:5 https://download.docker.com/linux/ubuntu focal InRelease [57.7 kB]
Get:6 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1,785 kB]
Get:7 http://ru.archive.ubuntu.com/ubuntu focal-updates/main Translation-en [329 kB]
Get:8 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [15.1 kB]
Get:9 http://ru.archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [971 kB]
Get:10 http://ru.archive.ubuntu.com/ubuntu focal-updates/restricted Translation-en [138 kB]
Get:11 http://ru.archive.ubuntu.com/ubuntu focal-updates/restricted amd64 c-n-f Metadata [528 B]
Get:12 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [920 kB]
```

Добавил ключ репозитория:

```
root@ubuntu-server:/home/user1# curl -fsSL https://download.docker.com/linux/ubuntu/gpg | apt-key add -
OK
root@ubuntu-server:/home/user1# add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/u
> $(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
Hit:5 https://download.docker.com/linux/ubuntu focal InRelease
Reading package lists... Done
W: Target Packages (stable/binary-amd64/Packages) is configured multiple times in /etc/apt/sources.list:
sources.list.d/docker.list:1
W: Target Packages (stable/binary-all/Packages) is configured multiple times in /etc/apt/sources.list:50
sources.list.d/docker.list:1
W: Target Translations (stable/i18n/Translation-en_US) is configured multiple times in /etc/apt/sources.
/apt/sources.list.d/docker.list:1
W: Target Translations (stable/i18n/Translation-en) is configured multiple times in /etc/apt/sources.lis
t/sources.list.d/docker.list:1
```

```

root@ubuntu-server:/home/user1# 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 117 not upgraded.
Need to get 101 MB of archives.
After this operation, 421 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 1.6.4-1 [28.1 MB]
Get:4 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce-cli amd64 5:20.10.15~3-0~ubu
MB]
Get:5 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce amd64 5:20.10.15~3-0~ubuntu-

```

Установил Docker

2. Запустить контейнер с Ubuntu.

```

root@ubuntu-server:/home/user1# docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS          NAMES
root@ubuntu-server:/home/user1# sudo docker run ubuntu
Unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
125a6e411906: Pull complete
Digest: sha256:26c68657ccce2cb0a31b330cb0be2b5e108d467f641c62e13ab40cbec258c68d
Status: Downloaded newer image for ubuntu:latest
root@ubuntu-server:/home/user1# sudo docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS          NAMES
7d77ff50ed0f   ubuntu        "bash"                  12 seconds ago Exited (0) 11 seconds ago          fervent_kilby
root@ubuntu-server:/home/user1#

```

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

Создал Dockerfile

```

FROM ubuntu:latest
MAINTAINER Sergey
RUN apt-get update
RUN apt-get install nginx -y
RUN apt-get install php-fpm -y
EXPOSE 80
CMD /usr/sbin/nginx -g "daemon off:"

```

```

root@ubuntu-server:/home/user1# sudo docker build -t nginx-php .
Sending build context to Docker daemon 914.9kB
Step 1/7 : FROM ubuntu:latest
----> d2e4e1f51132
Step 2/7 : MAINTAINER Sergey
----> Using cache
----> 27493e77a74c
Step 3/7 : RUN apt-get update
----> Using cache
----> 0a293ccc70c4
Step 4/7 : RUN apt-get install nginx -y
----> Using cache
----> ebfc0d526a44
Step 5/7 : RUN apt-get install php-fpm -y
----> Running in d81a398e29cc
Reading package lists...
Building dependency tree...
Reading state information...

```

Столкнулся с такой проблемой, что надо выбрать регион. А как?

```

debconf: (TERM is not set, so the dialog frontend is not usable.)
debconf: falling back to frontend: Readline
Configuring tzdata
-----

Please select the geographic area in which you live. Subsequent configuration
questions will narrow this down by presenting a list of cities, representing
the time zones in which they are located.

    1. Africa    3. Antarctica  5. Arctic    7. Atlantic  9. Indian    11. US
    2. America  4. Australia  6. Asia      8. Europe    10. Pacific  12. Etc
Geographic area: Europe
8

```

Запустил контейнер

```

root@ubuntu-server:/home/user1# docker run -d --name nginx-php -p 80:80 ubuntu:latest
d6a115c5f516286138b4d866d0b4da6cb541ca1a6eaccc06d8f85b7945258b7a
root@ubuntu-server:/home/user1#

```

```

root@ubuntu-server:/home/user1# sudo docker ps -a

```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
d6a115c5f516	ubuntu:latest	"bash"	About a minute ago	Exited (0) About a minute ago		nginx-php
7d77ff50ed0f	ubuntu	"bash"	17 minutes ago	Exited (0) 17 minutes ago		fervent_kilby

```

root@ubuntu-server:/home/user1#

```