

## Домашнее задание к уроку 2 - Docker

**Step 1: Choose an Amazon Machine Image (AMI)**

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Quick Start

My AMIs

AWS Marketplace

Community AMIs

☐ Free tier only

**Amazon Linux 2 AMI (HVM, SSD Volume Type) - ami-074cce78125f09d61 (64-bit x86) / ami-01019fb8b29b5dc5d (64-bit Arm)**

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is now under maintenance only mode and has been removed from this wizard.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

**macOS Big Sur 11.6 - ami-0c84d9da210c1110b**

The macOS Big Sur AMI is an EBS-backed, AWS-supported image. This AMI includes the AWS Command Line Interface, Command Line Tools for Xcode, Amazon SSM Agent, and Homebrew. The AWS Homebrew Tap includes the latest versions of multiple AWS packages included in the AMI.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

**macOS Catalina 10.15.7 - ami-080f3de7a1a857505**

The macOS Catalina AMI is an EBS-backed, AWS-supported image. This AMI includes the AWS Command Line Interface, Command Line Tools for Xcode, Amazon SSM Agent, and Homebrew. The AWS Homebrew Tap includes the latest versions of multiple AWS packages included in the AMI.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

**macOS Mojave 10.14.6 - ami-03eaea00119db6a8f**

The macOS Mojave AMI is an EBS-backed, AWS-supported image. This AMI includes the AWS Command Line Interface, Command Line Tools for Xcode, Amazon SSM Agent, and Homebrew. The AWS Homebrew Tap includes the latest versions of multiple AWS packages included in the AMI.

**Step 2: Choose an Instance Type**

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance families Current generation Show/Hide Columns

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, ~, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	t2	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.medium	2	4	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.large	2	8	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.xlarge	4	16	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.2xlarge	8	32	EBS only	Yes	Up to 5 Gigabit	Yes

Cancel Previous Review and Launch Next: Configure Instance Details

Launch instance xGet Docker | Dockerfile referCompose file | Explore Docker

us-east-2.console.aws.amazon.com257 отзыбов

awsServicesSearch for services, features, marketplace products, and docs [Alt+S]tolstykovOhioSupport

1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. Review

### Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

⚠

**Improve your instances' security. Your security group, launch-wizard-1, is open to the world.**

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.

You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

▼

AMI Details

Edit AMI

ⓘ

**Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-00399ec92321828f5**

Free tier eligible

Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).

Root Device Type: ebsVirtualization type: hvm

▼

Instance Type

Edit instance type

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	-	1	1	EBS only	-	Low to Moderate

▼

Security Groups

Edit security groups

Security group name

launch-wizard-1

Description

launch-wizard-1 created 2021-10-20T01:06:09.157+03:00

Type ⓘ	Protocol ⓘ	Port Range ⓘ	Source ⓘ	Description ⓘ
SSH	TCP	22	0.0.0.0/0	

▶

Instance Details

Edit instance details

▶

Storage

Edit storage

▶

Taags

Edit tags

Cancel

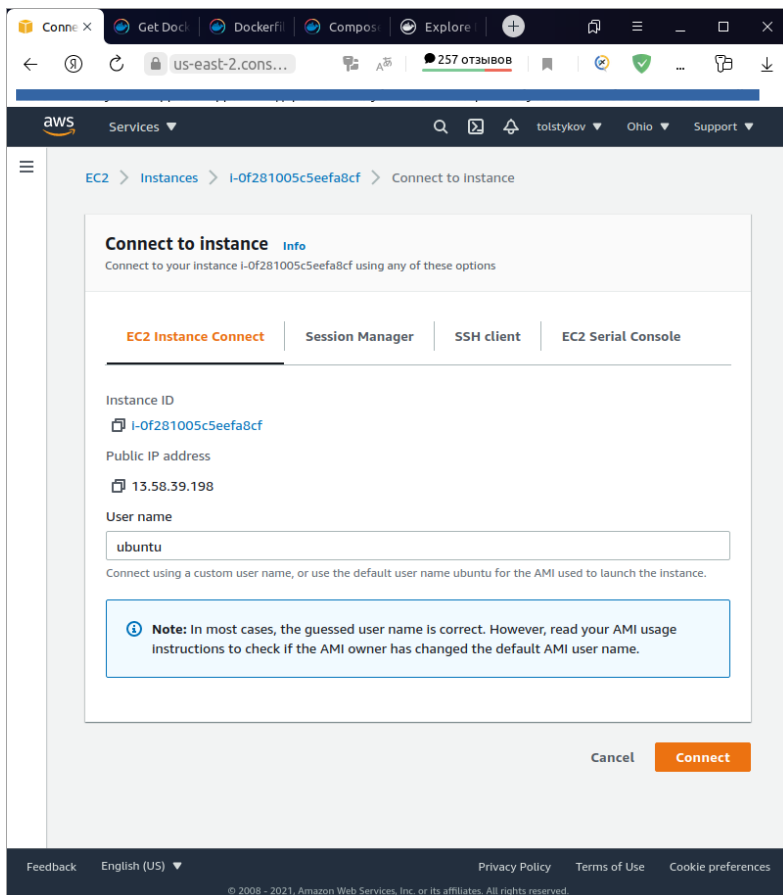
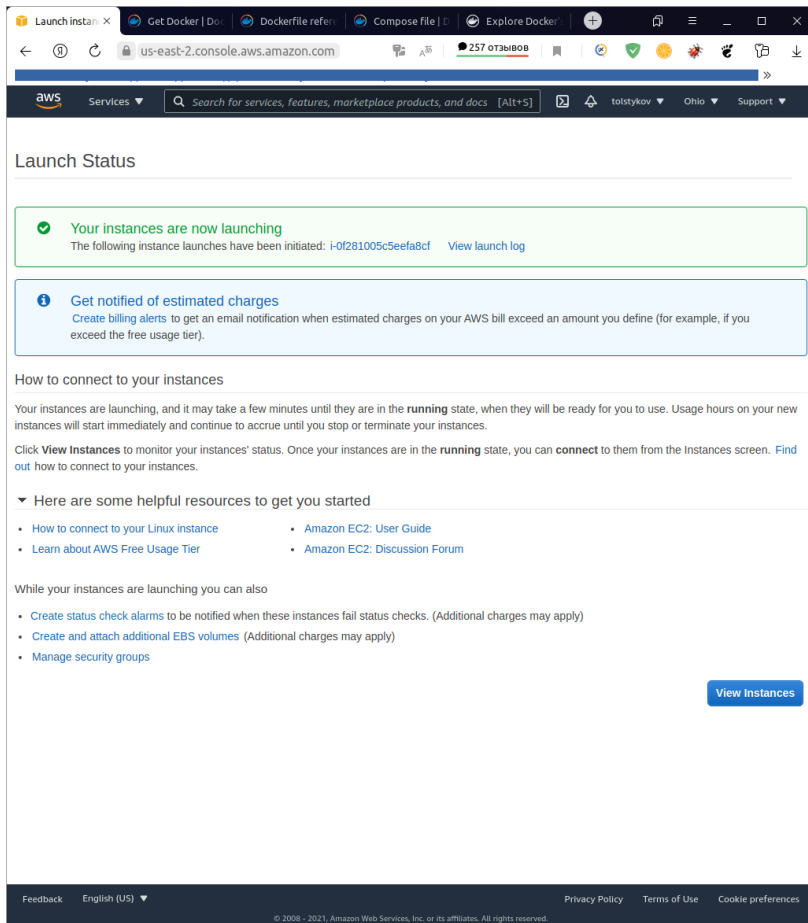
Previous

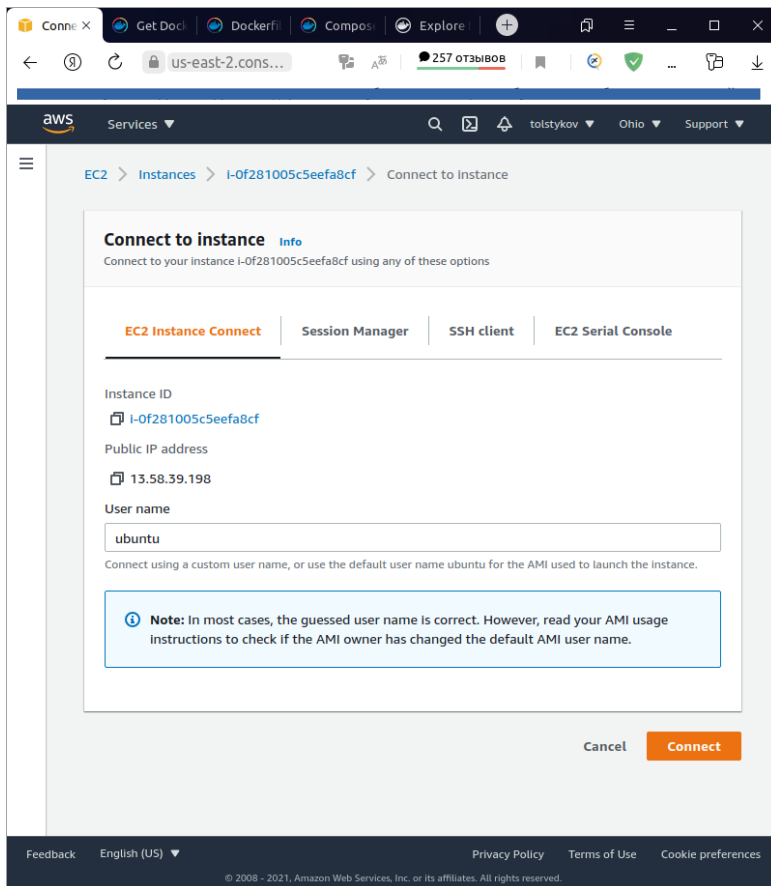
Launch

FeedbackEnglish (US) ▼

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```
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.4.0-1045-aws x86_64)

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

System information as of Wed Oct 20 17:54:05 UTC 2021

System load:  0.0               Processes:            105
Usage of /:   19.6% of 7.69GB   Users logged in:     0
Memory usage: 20%              IPv4 address for eth0: 172.31.32.162
Swap usage:   0%

* Ubuntu Pro delivers the most comprehensive open source security and
  compliance features.

  https://ubuntu.com/aws/pro

1 update can be applied immediately.
To see these additional updates run: apt list --upgradable

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

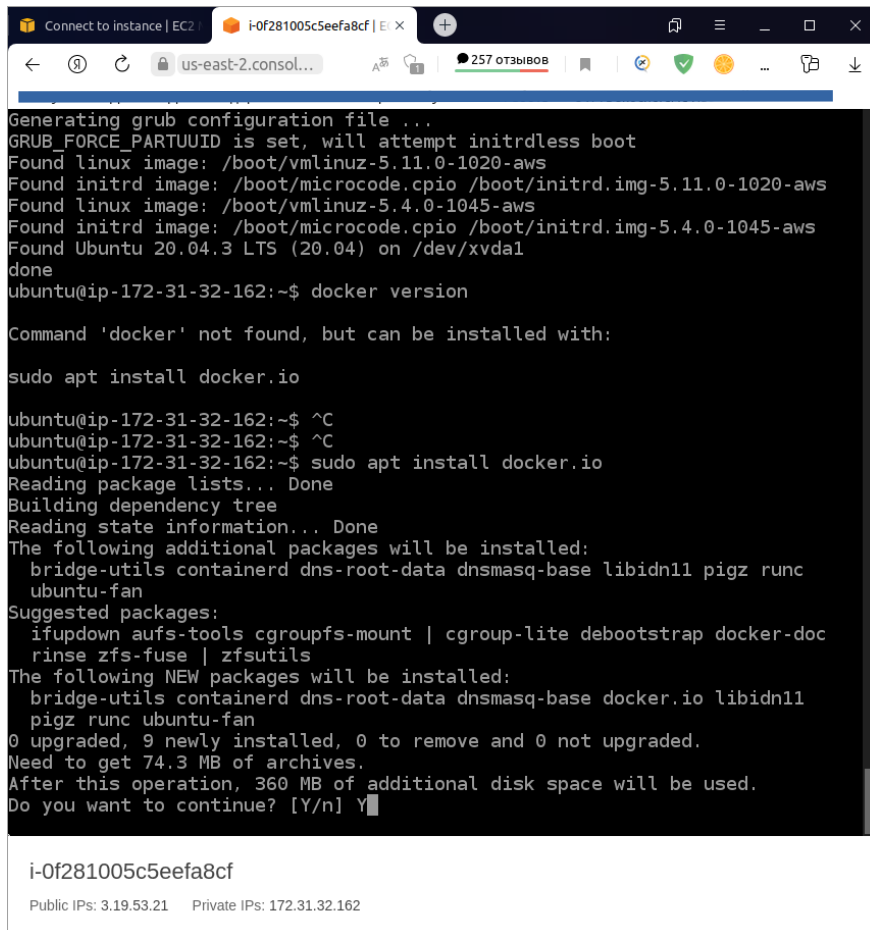
Last login: Tue Oct 19 22:21:44 2021 from 3.16.146.2
ubuntu@ip-172-31-32-162:~$
```

```
118 packages can be upgraded. Run 'apt list --upgradable' to  
ubuntu@ip-172-31-32-162:~$ docker version
```

```
Command 'docker' not found, but can be installed with:
```

```
sudo apt install docker.io
```

```
ubuntu@ip-172-31-32-162:~$
```



The screenshot shows a web browser window with the address bar displaying "us-east-2.console...". The browser tabs include "Connect to instance | EC2..." and "i-0f281005c5eefa8cf | E...". The main content area shows a terminal session with the following text:

```
Generating grub configuration file ...  
GRUB_FORCE_PARTUUID is set, will attempt initrdless boot  
Found linux image: /boot/vmlinuz-5.11.0-1020-aws  
Found initrd image: /boot/microcode.cpio /boot/initrd.img-5.11.0-1020-aws  
Found linux image: /boot/vmlinuz-5.4.0-1045-aws  
Found initrd image: /boot/microcode.cpio /boot/initrd.img-5.4.0-1045-aws  
Found Ubuntu 20.04.3 LTS (20.04) on /dev/xvda1  
done  
ubuntu@ip-172-31-32-162:~$ docker version  
  
Command 'docker' not found, but can be installed with:  
  
sudo apt install docker.io  
  
ubuntu@ip-172-31-32-162:~$ ^C  
ubuntu@ip-172-31-32-162:~$ ^C  
ubuntu@ip-172-31-32-162:~$ sudo apt install docker.io  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following additional packages will be installed:  
  bridge-utils containerd dns-root-data dnsmasq-base libidn11 pigz runc  
  ubuntu-fan  
Suggested packages:  
  ifupdown aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-doc  
  rinse zfs-fuse | zfsutils  
The following NEW packages will be installed:  
  bridge-utils containerd dns-root-data dnsmasq-base docker.io libidn11  
  pigz runc ubuntu-fan  
0 upgraded, 9 newly installed, 0 to remove and 0 not upgraded.  
Need to get 74.3 MB of archives.  
After this operation, 360 MB of additional disk space will be used.  
Do you want to continue? [Y/n] Y
```

Below the terminal output, the instance ID "i-0f281005c5eefa8cf" is displayed, followed by the public and private IP addresses: "Public IPs: 3.19.53.21 Private IPs: 172.31.32.162".

Connect to instance | EC2 | i-0f281005c5eefa8cf | E

us-east-2.console... 257 ОТЗЫВОВ

Setting up pigz (2.4-1) ...  
Setting up containerd (1.5.2-0ubuntu1~20.04.3) ...  
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /lib/systemd/system/containerd.service.  
Setting up docker.io (20.10.7-0ubuntu1~20.04.2) ...  
Adding group `docker' (GID 119) ...  
Done.  
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/systemd/system/docker.service.  
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/systemd/system/docker.socket.  
Setting up dnsmasq-base (2.80-1.1ubuntu1.4) ...  
Setting up ubuntu-fan (0.12.13) ...  
Created symlink /etc/systemd/system/multi-user.target.wants/ubuntu-fan.service → /lib/systemd/system/ubuntu-fan.service.  
Processing triggers for systemd (245.4-4ubuntu3.13) ...  
Processing triggers for man-db (2.9.1-1) ...  
Processing triggers for dbus (1.12.16-2ubuntu2.1) ...  
Processing triggers for libc-bin (2.31-0ubuntu9.2) ...  
ubuntu@ip-172-31-32-162:~\$ docker version  
Client:  
Version: 20.10.7  
API version: 1.41  
Go version: go1.13.8  
Git commit: 20.10.7-0ubuntu1~20.04.2  
Built: Fri Oct 1 14:07:06 2021  
OS/Arch: linux/amd64  
Context: default  
Experimental: true  
Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get http://%2Fvar%2Frun%2Fdocker.sock/v1.24/version: dial unix /var/run/docker.sock: connect: permission denied  
ubuntu@ip-172-31-32-162:~\$

i-0f281005c5eefa8cf  
Public IPs: 3.19.53.21 Private IPs: 172.31.32.162

```
command 'dot' from deb graphviz (2.42.2-3build2)
command 'hot' from deb hopenpgp-tools (0.22-2build2)
command 'jot' from deb athena-jot (9.0-7)
```

Try: sudo apt install <deb name>

```
ubuntu@ip-172-31-32-162:~$ var/run/docker.sock: Post http://%2Fvar%2Frun%2Fdocker.sock/v1.24/images/create?fromI
```

```
-bash: var/run/docker.sock:: No such file or directory
```

```
ubuntu@ip-172-31-32-162:~$ Got permission denied while trying to connect to the Docker daemon socket at unix:///
```

Command 'Got' not found, did you mean:

```
command 'jot' from deb athena-jot (9.0-7)
command 'hot' from deb hopenpgp-tools (0.22-2build2)
command 'dot' from deb graphviz (2.42.2-3build2)
```

Try: sudo apt install <deb name>

```
ubuntu@ip-172-31-32-162:~$ var/run/docker.sock: Post http://%2Fvar%2Frun%2Fdocker.sock/v1.24/images/create?fromI
```

```
-bash: var/run/docker.sock:: No such file or directory
```

```
ubuntu@ip-172-31-32-162:~$ docker image ls
```

```
Got permission denied while trying to connect to the Docker daemon socket at unix:///
```

```
var/run/docker.sock: Get http://%2Fvar%2Frun%2Fdocker.sock/v1.24/images/json: dial unix /var/run/docker.sock: connect: permission denied
```

```
ubuntu@ip-172-31-32-162:~$ docker image ls
```

```
Got permission denied while trying to connect to the Docker daemon socket at unix:///p
```

```
://%2Fvar%2Frun%2Fdocker.sock/v1.24/images/json: dial unix /var/run/docker.sock: cond
```

```
ubuntu@ip-172-31-32-162:~$ ^C
```

```
ubuntu@ip-172-31-32-162:~$ ^C
```

```
ubuntu@ip-172-31-32-162:~$ █
```

i-0f281005c5eefa8cf

Public IPs: 3.19.26.1 Private IPs: 172.31.32.162