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Ордена Трудового Красного Знамени

федеральное государственное бюджетное образовательное учреждение
высшего образования

МОСКОВСКИЙ ТЕХНИЧЕСКИЙ УНИВЕРСИТЕТ СВЯЗИ И
ИНФОРМАТИКИ

Кафедра «Математической кибернетики и информационных технологий»

Основы DevOps

Лабораторная работа №1

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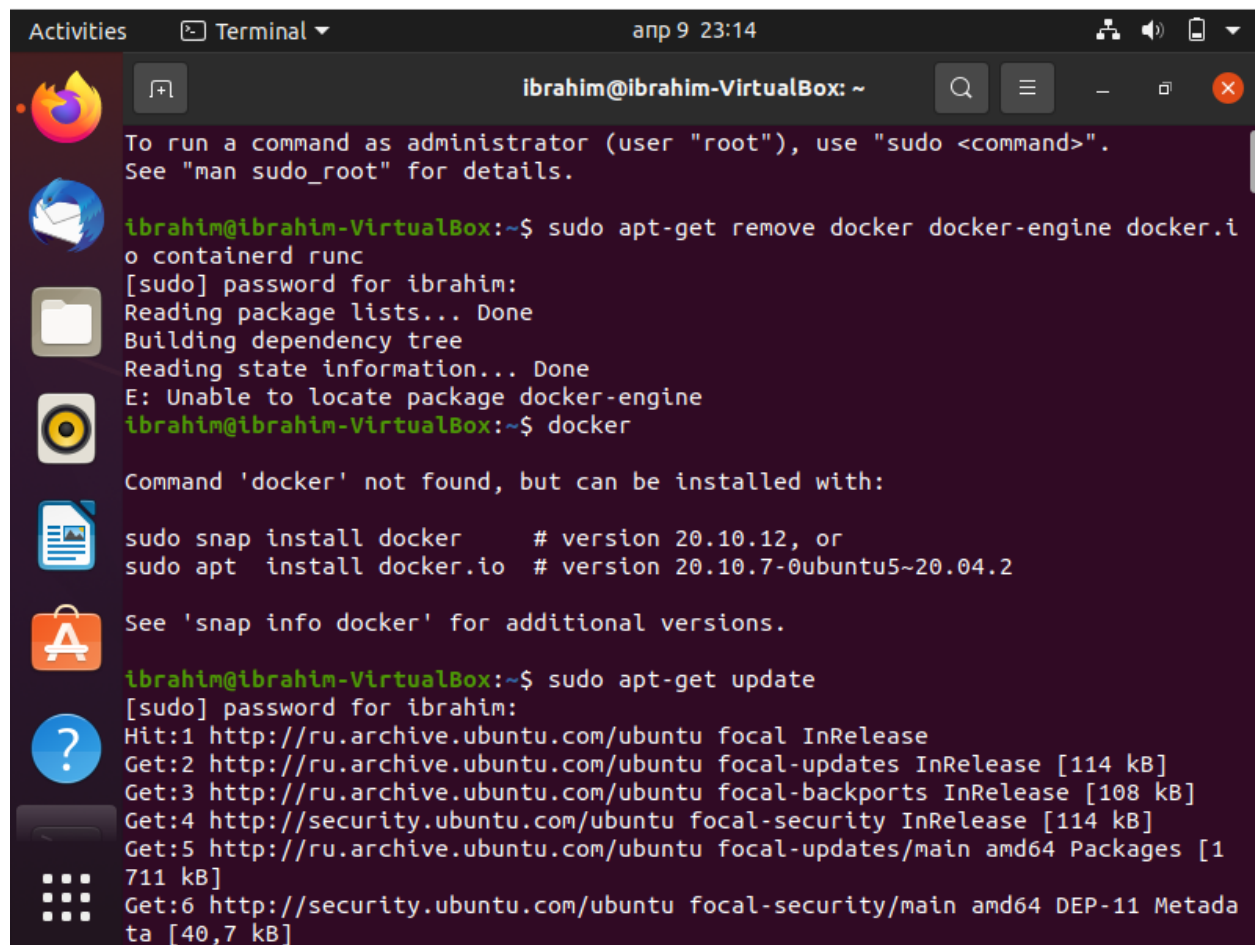
Иванов И.И.

Выполнение Установка Docker

Install using the repository

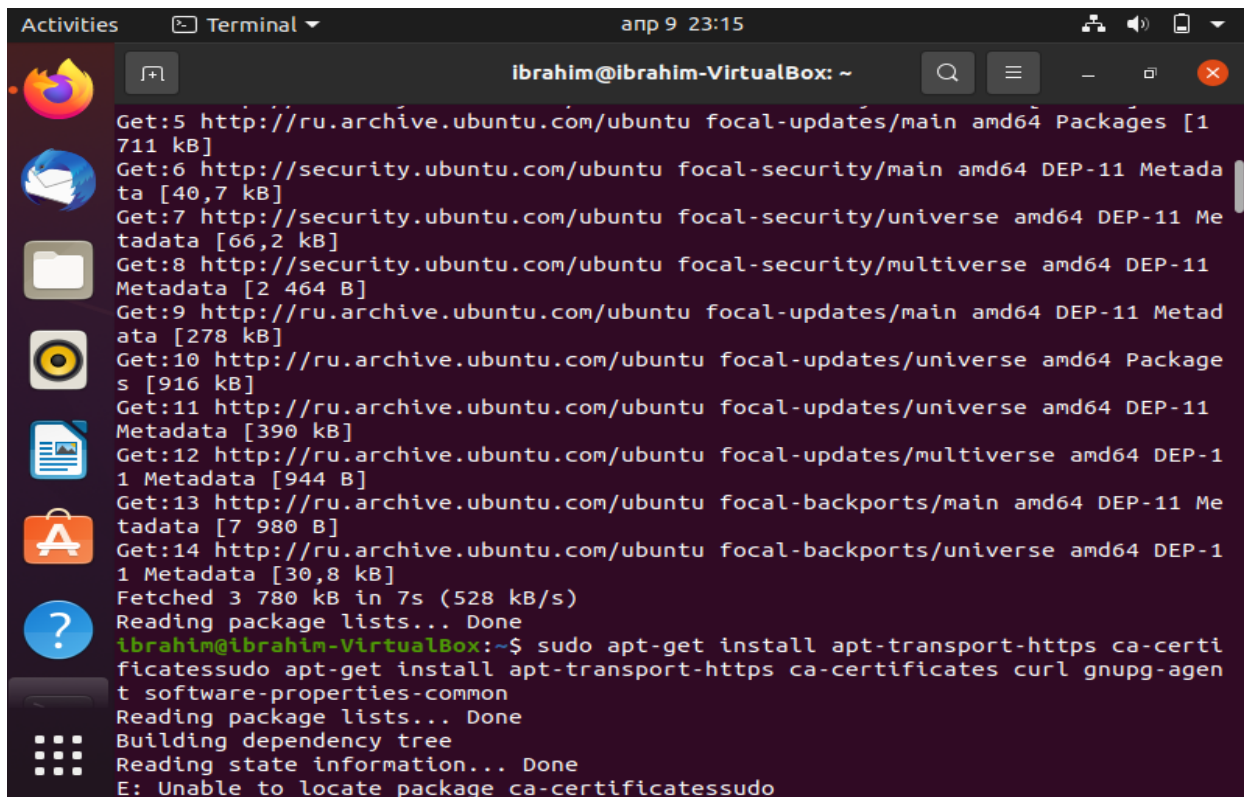
Команды для настройки репозитория Docker:

`sudo apt-get update`



```
ibrahim@ibrahim-VirtualBox: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get remove docker docker-engine docker.io  
containerd runc  
[sudo] password for ibrahim:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
E: Unable to locate package docker-engine  
ibrahim@ibrahim-VirtualBox:~$ docker  
  
Command 'docker' not found, but can be installed with:  
  
sudo snap install docker      # version 20.10.12, or  
sudo apt install docker.io    # version 20.10.7-0ubuntu5~20.04.2  
  
See 'snap info docker' for additional versions.  
  
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get update  
[sudo] password for ibrahim:  
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://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]  
Get:5 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1  
711 kB]  
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Metada  
ta [40,7 kB]
```

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



The screenshot shows a terminal window titled "ibrahim@ibrahim-VirtualBox: ~" with a dark background. The terminal output displays the progress of downloading package metadata from various Ubuntu repositories. It lists several "Get" operations for different components like focal-updates/main, focal-security/main, focal-security/universe, focal-security/multiverse, focal-updates/universe, focal-updates/multiverse, focal-backports/main, and focal-backports/universe. After fetching 3,780 kB in 7 seconds at 528 kB/s, it reads the package lists and then executes the command: `ibrahim@ibrahim-VirtualBox:~$ sudo apt-get install apt-transport-https ca-certificates curl gnupg-agent software-properties-common`. The subsequent steps shown are reading package lists, building the dependency tree, and reading state information, all of which are completed successfully. The final line of output is an error message: `E: Unable to locate package ca-certificatessudo`.

```
Get:5 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1
711 kB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Metada
ta [40,7 kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/universe amd64 DEP-11 Me
tadata [66,2 kB]
Get:8 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 DEP-11
Metadata [2 464 B]
Get:9 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 DEP-11 Metad
ata [278 kB]
Get:10 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Package
s [916 kB]
Get:11 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 DEP-11
Metadata [390 kB]
Get:12 http://ru.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 DEP-1
1 Metadata [944 B]
Get:13 http://ru.archive.ubuntu.com/ubuntu focal-backports/main amd64 DEP-11 Me
tadata [7 980 B]
Get:14 http://ru.archive.ubuntu.com/ubuntu focal-backports/universe amd64 DEP-1
1 Metadata [30,8 kB]
Fetched 3 780 kB in 7s (528 kB/s)
Reading package lists... Done
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get install apt-transport-https ca-certi
ficatessudo apt-get install apt-transport-https ca-certificates curl gnupg-agen
t software-properties-common
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Unable to locate package ca-certificatessudo
```

```
sudo apt-get install \  
    ca-certificates \  
    curl \  
    gnupg \  
    lsb-release
```

```
Activities  Terminal  anp 9 23:16
ibrahim@ibrahim-VirtualBox: ~
Reading package lists... Done
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get install apt-transport-https ca-certificatessudo apt-get install apt-transport-https ca-certificates curl gnupg-agent software-properties-common
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Unable to locate package ca-certificatessudo
E: Unable to locate package apt-get
E: Unable to locate package install
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get install \
> ca-certificates \
> curl \
> gnupg \
> lsb-release
Reading package lists... Done
Building dependency tree
Reading state information... Done
lsb-release is already the newest version (11.1.0ubuntu2).
lsb-release set to manually installed.
ca-certificates is already the newest version (20210119~20.04.2).
ca-certificates set to manually installed.
gnupg is already the newest version (2.2.19-3ubuntu2.1).
gnupg set to manually installed.
The following NEW packages will be installed:
  curl
0 upgraded, 1 newly installed, 0 to remove and 108 not upgraded.
Need to get 161 kB of archives.
After this operation, 412 kB of additional disk space will be used.
```

curl -fsSL <https://download.docker.com/linux/ubuntu.gpg> | sudo apt-key add -

sudo apt-key fingerprint 0EBFCD88

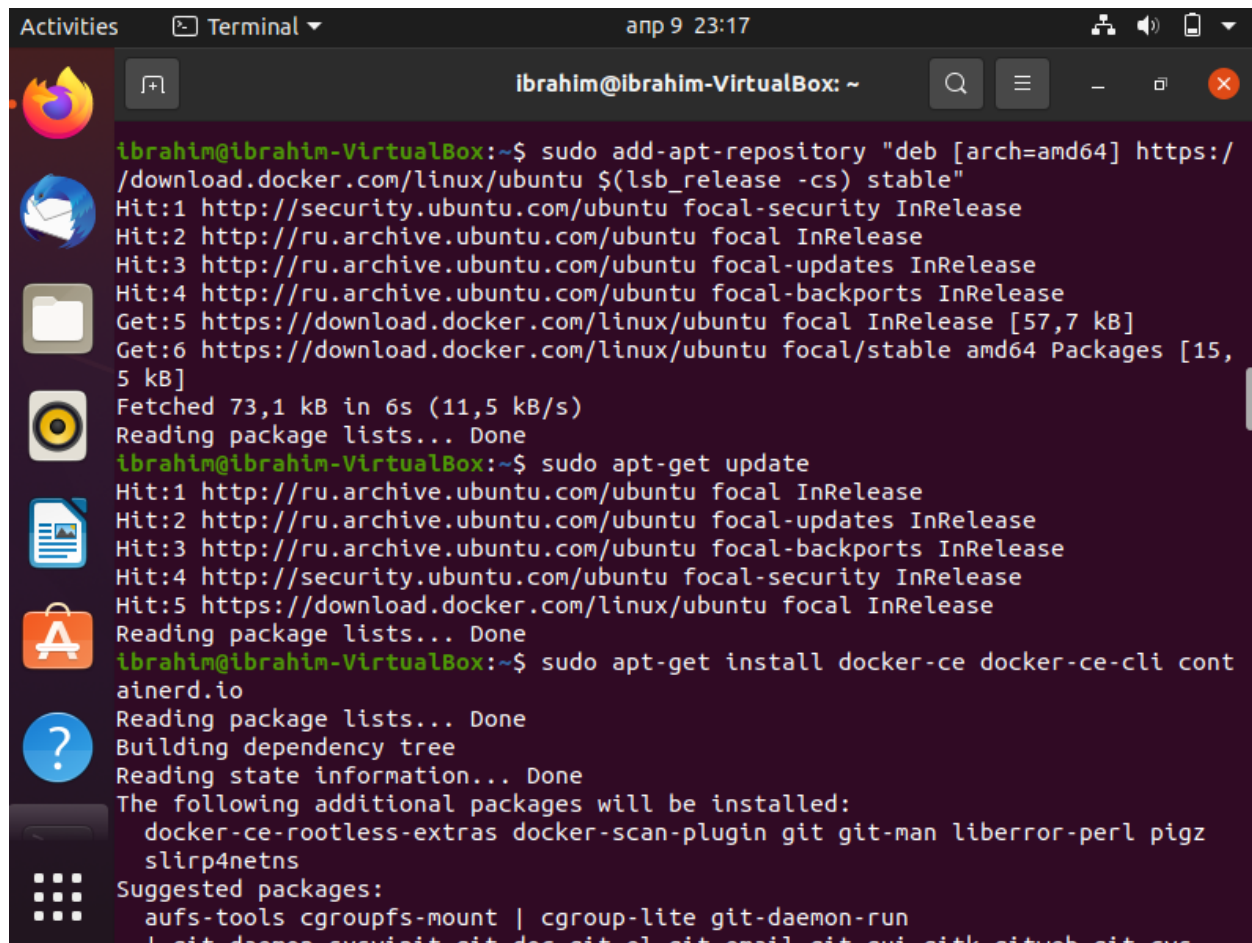
```
Activities  Terminal  anp 9 23:17
ibrahim@ibrahim-VirtualBox: ~
...
curl
0 upgraded, 1 newly installed, 0 to remove and 108 not upgraded.
Need to get 161 kB of archives.
After this operation, 412 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 curl amd64 7.68.0-1ubuntu2.7 [161 kB]
Fetched 161 kB in 1s (288 kB/s)
Selecting previously unselected package curl.
(Reading database ... 177760 files and directories currently installed.)
Preparing to unpack .../curl_7.68.0-1ubuntu2.7_amd64.deb ...
Unpacking curl (7.68.0-1ubuntu2.7) ...
Setting up curl (7.68.0-1ubuntu2.7) ...
Processing triggers for man-db (2.9.1-1) ...
ibrahim@ibrahim-VirtualBox:~$ curl -fsSL https://download.docker.com/linux/ubu...
.. | sudo apt-key add -
curl: (22) The requested URL returned error: 404
gpg: no valid OpenPGP data found.
ibrahim@ibrahim-VirtualBox:~$ curl -fsSL https://download.docker.com/linux/ubun...
tu/gpg | sudo apt-key add -
OK
ibrahim@ibrahim-VirtualBox:~$ sudo apt-key fingerprint 0EBFCD88
pub  rsa4096 2017-02-22 [SCEA]
     9DC8 5822 9FC7 DD38 854A  E2D8 8D81 803C 0EBF CD88
uid          [ unknown] Docker Release (CE deb) <docker@docker.com>
sub  rsa4096 2017-02-22 [S]

ibrahim@ibrahim-VirtualBox:~$ sudo add-apt-repository "deb [arch=amd64] https://...
/download.docker.com/linux/ubuntu $(lsb_release -cs) stable"
```

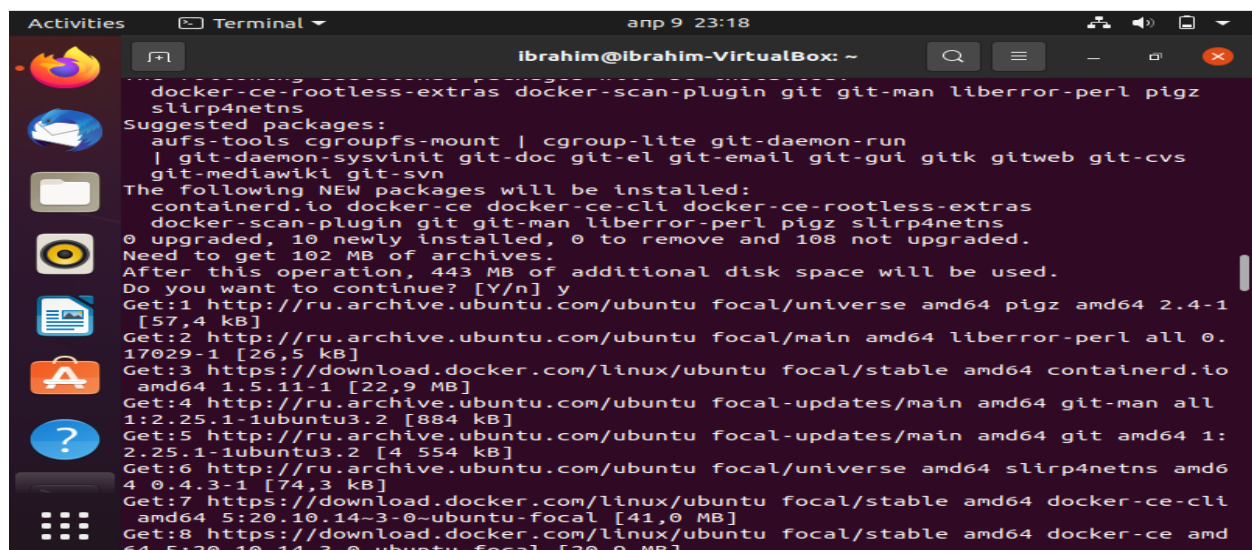
```
sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable"
```

```
sudo apt-get update
```

```
sudo apt-get install docker-ce docker-ce-cli containerd.io
```



```
ibrahim@ibrahim-VirtualBox: ~  
ibrahim@ibrahim-VirtualBox:~$ sudo add-apt-repository "deb [arch=amd64] https://  
/download.docker.com/linux/ubuntu $(lsb_release -cs) stable"  
Hit:1 http://security.ubuntu.com/ubuntu focal-security InRelease  
Hit:2 http://ru.archive.ubuntu.com/ubuntu focal InRelease  
Hit:3 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease  
Hit:4 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease  
Get:5 https://download.docker.com/linux/ubuntu focal InRelease [57,7 kB]  
Get:6 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages [15,  
5 kB]  
Fetched 73,1 kB in 6s (11,5 kB/s)  
Reading package lists... Done  
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get 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://security.ubuntu.com/ubuntu focal-security InRelease  
Hit:5 https://download.docker.com/linux/ubuntu focal InRelease  
Reading package lists... Done  
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get install docker-ce docker-ce-cli cont  
ainerd.io  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following additional packages will be installed:  
  docker-ce-rootless-extras docker-scan-plugin git git-man liberror-perl pigz  
  slirp4netns  
Suggested packages:  
  aufs-tools cgroupfs-mount | cgroup-lite git-daemon-run  
  | git-daemon-sysvinit git-doc git-el git-email git-gui gitk gitweb git-cvs
```



```
  docker-ce-rootless-extras docker-scan-plugin git git-man liberror-perl pigz  
  slirp4netns  
Suggested packages:  
  aufs-tools cgroupfs-mount | cgroup-lite git-daemon-run  
  | git-daemon-sysvinit git-doc git-el git-email git-gui gitk gitweb git-cvs  
  git-mediawiki git-svn  
The following NEW packages will be installed:  
  containerd.io docker-ce docker-ce-cli docker-ce-rootless-extras  
  docker-scan-plugin git git-man liberror-perl pigz slirp4netns  
0 upgraded, 10 newly installed, 0 to remove and 108 not upgraded.  
Need to get 102 MB of archives.  
After this operation, 443 MB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
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/main amd64 liberror-perl all 0.  
17029-1 [26,5 kB]  
Get:3 https://download.docker.com/linux/ubuntu focal/stable amd64 containerd.io  
amd64 1.5.11-1 [22,9 MB]  
Get:4 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 git-man all  
1:2.25.1-1ubuntu3.2 [884 kB]  
Get:5 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 git amd64 1:  
2.25.1-1ubuntu3.2 [4 554 kB]  
Get:6 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 slirp4netns amd6  
4 0.4.3-1 [74,3 kB]  
Get:7 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce-cli  
amd64 5:20.10.14~3-0~ubuntu-focal [41,0 MB]  
Get:8 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce amd  
64 5:20.10.14~3-0~ubuntu-focal [20,9 MB]
```


Activities Terminal anp 9 23:19

ibrahim@ibrahim-VirtualBox: ~

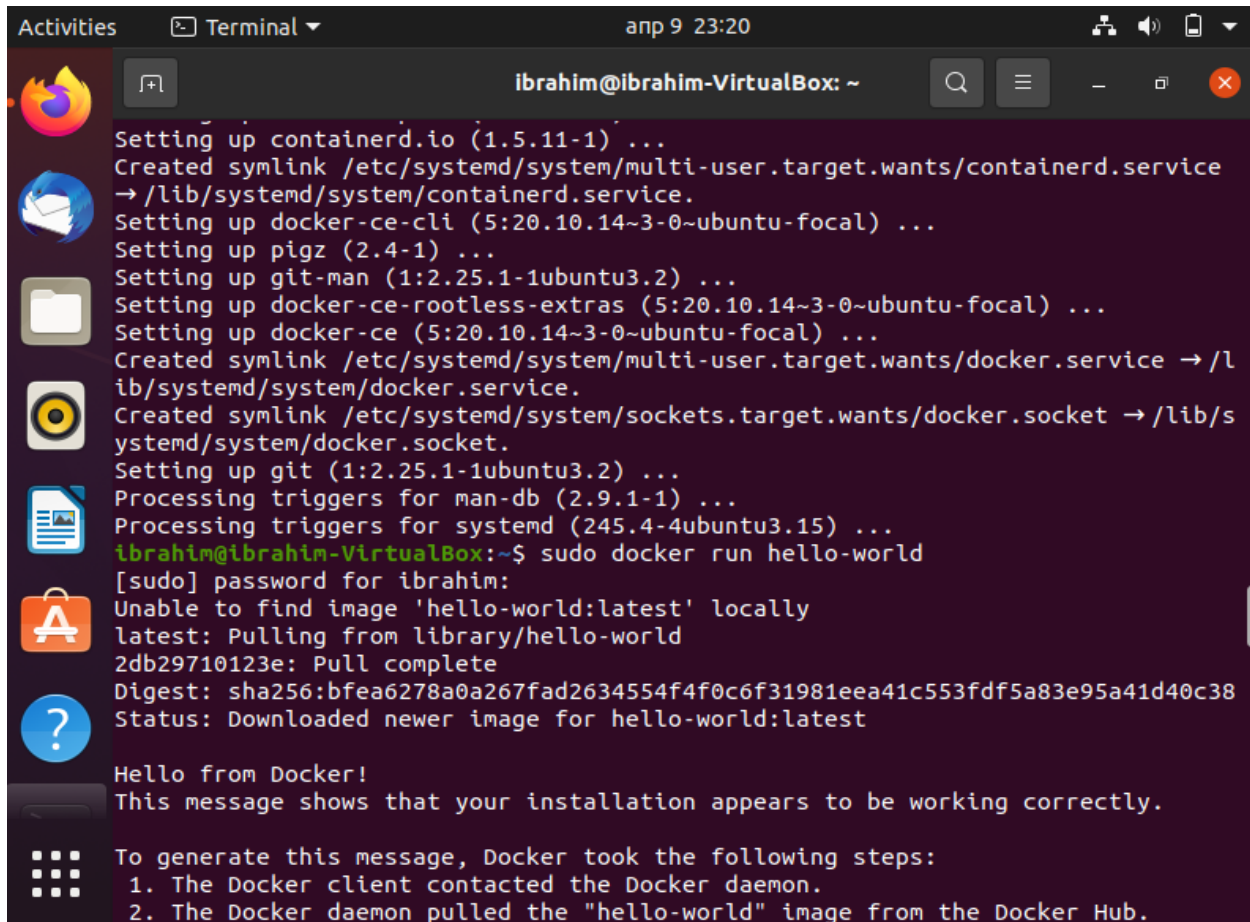
```
amd64 5:20.10.14~3-0~ubuntu-focal [41,0 MB]
Get:8 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce amd
64 5:20.10.14~3-0~ubuntu-focal [20,9 MB]
Get:9 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce-roo
tless-extras amd64 5:20.10.14~3-0~ubuntu-focal [7 932 kB]
Get:10 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-scan-
plugin amd64 0.17.0~ubuntu-focal [3 521 kB]
Fetched 102 MB in 21min 3s (80,6 kB/s)
Selecting previously unselected package pigz.
(Reading database ... 177767 files and directories currently installed.)
Preparing to unpack .../0-pigz_2.4-1_amd64.deb ...
Unpacking pigz (2.4-1) ...
Selecting previously unselected package containerd.io.
Preparing to unpack .../1-containerd.io_1.5.11-1_amd64.deb ...
Unpacking containerd.io (1.5.11-1) ...
Selecting previously unselected package docker-ce-cli.
Preparing to unpack .../2-docker-ce-cli_5%3a20.10.14~3-0~ubuntu-focal_amd64.deb
...
Unpacking docker-ce-cli (5:20.10.14~3-0~ubuntu-focal) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../3-docker-ce_5%3a20.10.14~3-0~ubuntu-focal_amd64.deb ...
Unpacking docker-ce (5:20.10.14~3-0~ubuntu-focal) ...
Selecting previously unselected package docker-ce-rootless-extras.
Preparing to unpack .../4-docker-ce-rootless-extras_5%3a20.10.14~3-0~ubuntu-foc
al_amd64.deb ...
Unpacking docker-ce-rootless-extras (5:20.10.14~3-0~ubuntu-focal) ...
Selecting previously unselected package docker-scan-plugin.
Preparing to unpack .../5-docker-scan-plugin_0.17.0~ubuntu-focal_amd64.deb ...
Unpacking docker-scan-plugin (0.17.0~ubuntu-focal) ...
Selecting previously unselected package liberror-perl
```

Activities Terminal anp 9 23:19

ibrahim@ibrahim-VirtualBox: ~

```
unpacking docker-ce-rootless-extras (5:20.10.14~3-0~ubuntu-focal) ...
Selecting previously unselected package docker-scan-plugin.
Preparing to unpack .../5-docker-scan-plugin_0.17.0~ubuntu-focal_amd64.deb ...
Unpacking docker-scan-plugin (0.17.0~ubuntu-focal) ...
Selecting previously unselected package liberror-perl.
Preparing to unpack .../6-liberror-perl_0.17029-1_all.deb ...
Unpacking liberror-perl (0.17029-1) ...
Selecting previously unselected package git-man.
Preparing to unpack .../7-git-man_1%3a2.25.1-1ubuntu3.2_all.deb ...
Unpacking git-man (1:2.25.1-1ubuntu3.2) ...
Selecting previously unselected package git.
Preparing to unpack .../8-git_1%3a2.25.1-1ubuntu3.2_amd64.deb ...
Unpacking git (1:2.25.1-1ubuntu3.2) ...
Selecting previously unselected package slirp4netns.
Preparing to unpack .../9-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 (0.17.0~ubuntu-focal) ...
Setting up liberror-perl (0.17029-1) ...
Setting up containerd.io (1.5.11-1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service
→ /lib/systemd/system/containerd.service.
Setting up docker-ce-cli (5:20.10.14~3-0~ubuntu-focal) ...
Setting up pigz (2.4-1) ...
Setting up git-man (1:2.25.1-1ubuntu3.2) ...
Setting up docker-ce-rootless-extras (5:20.10.14~3-0~ubuntu-focal) ...
Setting up docker-ce (5:20.10.14~3-0~ubuntu-focal) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /l
ib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/s
```

sudo docker run hello-world

A terminal window titled 'ibrahim@ibrahim-VirtualBox: ~' with a dark background and light text. The window shows the output of a Docker installation script, followed by the command 'sudo docker run hello-world'. The output indicates that the 'hello-world' image was pulled from Docker Hub and the container executed successfully, displaying 'Hello from Docker!' and a message about the installation steps.

```
Setting up containerd.io (1.5.11-1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service
→ /lib/systemd/system/containerd.service.
Setting up docker-ce-cli (5:20.10.14~3-0~ubuntu-focal) ...
Setting up pigz (2.4-1) ...
Setting up git-man (1:2.25.1-1ubuntu3.2) ...
Setting up docker-ce-rootless-extras (5:20.10.14~3-0~ubuntu-focal) ...
Setting up docker-ce (5:20.10.14~3-0~ubuntu-focal) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /l
ib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/s
ystemd/system/docker.socket.
Setting up git (1:2.25.1-1ubuntu3.2) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for systemd (245.4-4ubuntu3.15) ...
ibrahim@ibrahim-VirtualBox:~$ sudo docker run hello-world
[sudo] password for ibrahim:
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:bfea6278a0a267fad2634554f4f0c6f31981eea41c553fdf5a83e95a41d40c38
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.
```

Docker

```
ibrahim@ibrahim-VirtualBox: ~  
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/  
  
ibrahim@ibrahim-VirtualBox:~$ docker  
  
Usage:  docker [OPTIONS] COMMAND  
  
A self-sufficient runtime for containers  
  
Options:  
  --config string      Location of client config files (default  
                        "/home/ibrahim/.docker")  
  -c --context string   Name of the context to use to connect to the
```

```

ibrahim@ibrahim-VirtualBox: ~$ docker

Usage:  docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Options:
  --config string      Location of client config files (default
                        "/home/ibrahim/.docker")
  -C, --context string Name of the context to use to connect to the
                        daemon (overrides DOCKER_HOST env var and
                        default context set with "docker context use")
  -D, --debug          Enable debug mode
  -H, --host list      Daemon socket(s) to connect to
  -l, --log-level string Set the logging level
                        ("debug"|"info"|"warn"|"error"|"fatal")
                        (default "info")
  --tls               Use TLS; implied by --tlsverify
  --tlscacert string  Trust certs signed only by this CA (default
                        "/home/ibrahim/.docker/ca.pem")
  --tlscert string    Path to TLS certificate file (default
                        "/home/ibrahim/.docker/cert.pem")
  --tlskey string     Path to TLS key file (default
                        "/home/ibrahim/.docker/key.pem")
  --tlsverify        Use TLS and verify the remote
  -v, --version       Print version information and quit

Management Commands:
  app*               Docker App (Docker Inc., v0.9.1-beta3)

```



```
Activities Terminal anp 9 23:22
ibrahim@ibrahim-VirtualBox: ~

Management Commands:
app*      Docker App (Docker Inc., v0.9.1-beta3)
builder   Manage builds
buildx*    Docker Buildx (Docker Inc., v0.8.1-docker)
config     Manage Docker configs
container  Manage containers
context    Manage contexts
image      Manage images
manifest   Manage Docker image manifests and manifest lists
network    Manage networks
node       Manage Swarm nodes
plugin     Manage plugins
scan*      Docker Scan (Docker Inc., v0.17.0)
secret     Manage Docker secrets
service    Manage services
stack      Manage Docker stacks
swarm      Manage Swarm
system     Manage Docker
trust      Manage trust on Docker images
volume     Manage volumes

Commands:
attach     Attach local standard input, output, and error streams to a running container
build      Build an image from a Dockerfile
commit     Create a new image from a container's changes
cp         Copy files/folders between a container and the local filesystem
create     Create a new container

Activities Terminal anp 9 23:23
ibrahim@ibrahim-VirtualBox: ~

pause      Pause all processes within one or more containers
port        List port mappings or a specific mapping for the container
ps          List containers
pull        Pull an image or a repository from a registry
push        Push an image or a repository to a registry
rename      Rename a container
restart     Restart one or more containers
rm          Remove one or more containers
rmi         Remove one or more images
run         Run a command in a new container
save        Save one or more images to a tar archive (streamed to STDOUT by default)
search      Search the Docker Hub for images
start       Start one or more stopped containers
stats       Display a live stream of container(s) resource usage statistics
stop        Stop one or more running containers
tag         Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
top         Display the running processes of a container
unpause     Unpause all processes within one or more containers
update      Update configuration of one or more containers
version     Show the Docker version information
wait        Block until one or more containers stop, then print their exit codes

Run 'docker COMMAND --help' for more information on a command.

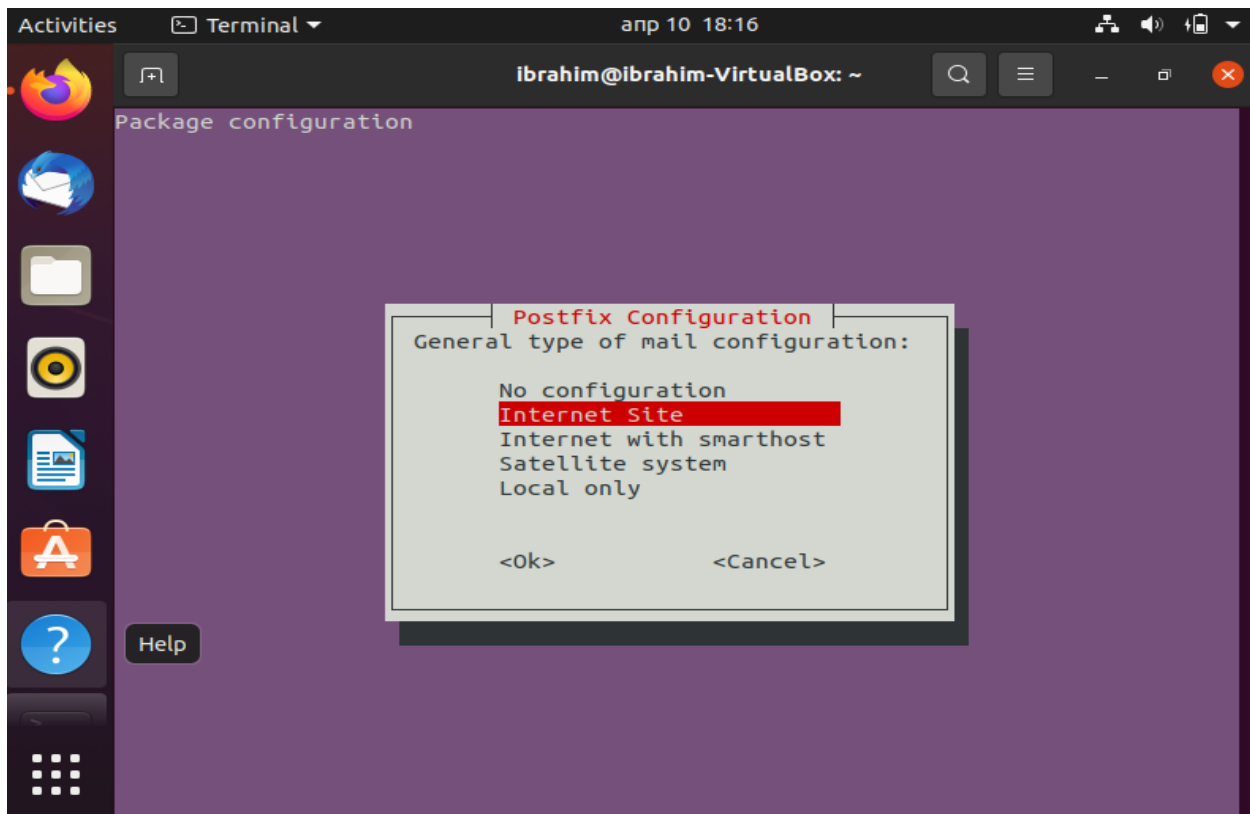
To get more help with docker, check out our guides at https://docs.docker.com/guides/
ibrahim@ibrahim-VirtualBox:~$
```

Docker Compose

```
Activities Terminal Пн 13:30 ibrahim@ibrahim-VirtualBox: ~/hello-world
File Edit View Search Terminal Help
Selecting previously unselected package runc.
(Reading database ... 128580 files and directories currently installed.)
Preparing to unpack .../runc_1.0.1-0ubuntu2~18.04.1_amd64.deb ...
Unpacking runc (1.0.1-0ubuntu2~18.04.1) ...
Selecting previously unselected package containerd.
Preparing to unpack .../containerd_1.5.5-0ubuntu3~18.04.2_amd64.deb ...
Unpacking containerd (1.5.5-0ubuntu3~18.04.2) ...
Selecting previously unselected package docker.io.
Preparing to unpack .../docker.io_20.10.7-0ubuntu5~18.04.3_amd64.deb ...
Unpacking docker.io (20.10.7-0ubuntu5~18.04.3) ...
Setting up runc (1.0.1-0ubuntu2~18.04.1) ...
Setting up containerd (1.5.5-0ubuntu3~18.04.2) ...
Setting up docker.io (20.10.7-0ubuntu5~18.04.3) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
ibrahim@ibrahim-VirtualBox:~$ sudo curl -L https://github.com/docker/compose/
releases/download/1.21.2/docker-compose-`uname -s`-`uname -m` -o /usr/local/bin
/docker-compose
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100  664    100  664    0     0    353      0  0:00:01  0:00:01 --:--:--   353
100 10.3M    100 10.3M    0     0   810k      0  0:00:13  0:00:13 --:--:--  870k
ibrahim@ibrahim-VirtualBox:~$ sudo chmod +x /usr/local/bin/docker-compose
ibrahim@ibrahim-VirtualBox:~$ docker-compose --version
docker-compose version 1.21.2, build a133471
ibrahim@ibrahim-VirtualBox:~$ mkdir hello-world
ibrahim@ibrahim-VirtualBox:~$ cd hello-world
```


Установка Gitlab

```
Activities Terminal anp 10 20:24
ibrahim@ibrahim-VirtualBox: ~
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get update
[sudo] password for ibrahim:
Hit:1 http://ru.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
G Files http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:4 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Hit:5 https://download.docker.com/linux/ubuntu focal InRelease
Fetched 336 kB in 1s (271 kB/s)
Reading package lists... Done
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get install
Reading package lists... Done
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 23 not upgraded.
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get install -y curl openssh-server ca-ce
rtificates tzdata perl
Reading package lists... Done
Building dependency tree
Reading state information... Done
ca-certificates is already the newest version (20210119~20.04.2).
curl is already the newest version (7.68.0-1ubuntu2.7).
openssh-server is already the newest version (1:8.2p1-4ubuntu0.4).
perl is already the newest version (5.30.0-9ubuntu0.2).
perl set to manually installed.
tzdata is already the newest version (2022a-0ubuntu0.20.04).
tzdata set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 23 not upgraded.
ibrahim@ibrahim-VirtualBox:~$ sudo apt-get install -y postfix
Reading package lists... Done
```



Войти в Gitlab

localhost/users/sign_in



GitLab

A complete DevOps platform

GitLab is a single application for the entire software development lifecycle. From project planning and source code management to CI/CD, monitoring, and security.

This is a self-managed instance of GitLab.

Username or email

root

Password

.....

☒ Remember me

[Forgot your password?](#)

Sign in

 GitLab

Menu

Search GitLab

9

Projects

New proje

Your projects 2

Starred projects 0

Explore projects

Explore topics

Filter by name...

Name

All

Personal

G

ibrahim / gitlabinstall

Owner

★ 0

🔗 0

Updated 9 hours

Gitlab-Runner

Admin Area > Runners

Online runners

1 online

Offline runners

0 offline

Stale runners

0 stale

All 1

Instance 1

Group 0

Project 0

Register an instan

Search or filter results...

Created da

Status	Runner ID	Version	IP Address	Jobs	Tags	Last contact
online	#1 (_JM4Pm5B) 12831db2cafa shared	14.7.0	172.20....	0		1 minute ago

Установка Jenkins

```
javaexpress@javaexpress-VirtualBox:~$ sudo apt install openjdk-8-jdk
[sudo] password for javaexpress:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  ca-certificates-java fonts-dejavu-extra java-common libatk-wrapper-java libatk-wrapper-java-jni libice-dev
  libpthread-stubs0-dev libsm-dev libx11-dev libxau-dev libxcb1-dev libxdmcp-dev libxt-dev openjdk-8-jdk-headless
  openjdk-8-jre openjdk-8-jre-headless x11proto-core-dev x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
  default-jre libice-doc libsm-doc libx11-doc libxcb-doc libxt-doc openjdk-8-demo openjdk-8-source visualvm
 icedtea-8-plugin fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei fonts-wqy-zenhei
The following NEW packages will be installed:
  ca-certificates-java fonts-dejavu-extra java-common libatk-wrapper-java libatk-wrapper-java-jni libice-dev
  libpthread-stubs0-dev libsm-dev libx11-dev libxau-dev libxcb1-dev libxdmcp-dev libxt-dev openjdk-8-jdk
  openjdk-8-jdk-headless openjdk-8-jre openjdk-8-jre-headless x11proto-core-dev x11proto-dev xorg-sgml-doctools xtrans-dev
0 upgraded, 21 newly installed, 0 to remove and 10 not upgraded.
```

```
javaexpress@javaexpress-VirtualBox:~$ sudo apt install git
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  git-man liberror-perl
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-el git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn
The following NEW packages will be installed:
  git git-man liberror-perl
0 upgraded, 3 newly installed, 0 to remove and 10 not upgraded.
Need to get 5,464 kB of archives.
After this operation, 38.4 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://in.archive.ubuntu.com/ubuntu focal/main amd64 liberror-perl all 0.17029-1 [26.5 kB]
Get:2 http://in.archive.ubuntu.com/ubuntu focal/main amd64 git-man all 1:2.25.1-1ubuntu3 [884 kB]
Get:3 http://in.archive.ubuntu.com/ubuntu focal/main amd64 git amd64 1:2.25.1-1ubuntu3 [4,554 kB]
Fetched 5,464 kB in 2s (3,502 kB/s)
Selecting previously unselected package liberror-perl.
(Reading database ... 180779 files and directories currently installed.)
Preparing to unpack .../liberror-perl_0.17029-1_all.deb ...
Unpacking liberror-perl (0.17029-1) ...
Selecting previously unselected package git-man.
git version 2.25.1
javaexpress@javaexpress-VirtualBox:~$ sudo apt install maven
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libaopalliance-java libapache-pom-java libatinject-jsr330-api-java libcdi-api-java libcommons-cli-java libcommons-io-java
  libcommons-lang3-java libcommons-parent-java libgeronimo-annotation-1.3-spec-java libgeronimo-interceptor-3.0-spec-java
  libguava-java libguice-java libhawtjni-runtime-java libjansi-java libjansi-native-java libjsr305-java
  libmaven-parent-java libmaven-resolver-java libmaven-shared-utils-java libmaven3-core-java libplexus-cipher-java
  libplexus-classworlds-java libplexus-component-annotations-java libplexus-interpolation-java
  libplexus-sec-dispatcher-java libplexus-utils2-java libsisu-inject-java libsisu-plexus-java libslf4j-java
  libwagon-file-java libwagon-http-shaded-java libwagon-provider-api-java
Suggested packages:
  libaopalliance-java-doc libatinject-jsr330-api-java-doc libervlet3.1-java libcommons-io-java-doc
  libcommons-lang3-java-doc libasm-java libcglib-java libjsr305-java-doc libmaven-shared-utils-java-doc liblogback-java
  libplexus-cipher-java-doc libplexus-classworlds-java-doc libplexus-sec-dispatcher-java-doc libplexus-utils2-java-doc
  junit4 testing libcommons-logging-java liblog4j1.2-java
The following NEW packages will be installed:
  libaopalliance-java libapache-pom-java libatinject-jsr330-api-java libcdi-api-java libcommons-cli-java libcommons-io-java
  libcommons-lang3-java libcommons-parent-java libgeronimo-annotation-1.3-spec-java libgeronimo-interceptor-3.0-spec-java
  libguava-java libguice-java libhawtjni-runtime-java libjansi-java libjansi-native-java libjsr305-java
  libmaven-parent-java libmaven-resolver-java libmaven-shared-utils-java libmaven3-core-java libplexus-cipher-java
```

```

javaexpress@javaexpress-VirtualBox:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo apt-key add -
OK
javaexpress@javaexpress-VirtualBox:~$ sudo sh -c 'echo deb https://pkg.jenkins.io/debian-stable binary/ > /etc/apt/sources.l
st.d/jenkins.list'
javaexpress@javaexpress-VirtualBox:~$ sudo apt update
Hit:1 http://in.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://in.archive.ubuntu.com/ubuntu focal-updates InRelease
Ign:3 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:4 https://pkg.jenkins.io/debian-stable binary/ Release
Hit:5 http://in.archive.ubuntu.com/ubuntu focal-backports InRelease
Get:6 http://security.ubuntu.com/ubuntu focal-security InRelease [107 kB]
Fetched 107 kB in 1s (78.9 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
All packages are up to date.
javaexpress@javaexpress-VirtualBox:~$ sudo apt-get install jenkins
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  liblvm9
Use 'sudo apt autoremove' to remove it.
Unpacking daemon (0.6.4-1build2) ...
Selecting previously unselected package net-tools.
Preparing to unpack .../net-tools_1.60+git20180626.aebd88e-1ubuntu1_amd64.deb ...
Unpacking net-tools (1.60+git20180626.aebd88e-1ubuntu1) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.235.1_all.deb ...
Unpacking jenkins (2.235.1) ...
Setting up net-tools (1.60+git20180626.aebd88e-1ubuntu1) ...
Setting up daemon (0.6.4-1build2) ...
Setting up jenkins (2.235.1) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for systemd (245.4-4ubuntu3.1) ...
javaexpress@javaexpress-VirtualBox:~$ sudo systemctl status jenkins
● jenkins.service - LSB: Start Jenkins at boot time
   Loaded: loaded (/etc/init.d/jenkins; generated)
   Active: active (exited) since Sun 2020-07-12 22:38:43 IST; 58s ago
     Docs: man:systemd-sysv-generator(8)
    Tasks: 0 (limit: 2290)
   Memory: 0B
    CGroup: /system.slice/jenkins.service

Jul 12 22:38:41 javaexpress-VirtualBox systemd[1]: Starting LSB: Start Jenkins at boot time...
Jul 12 22:38:42 javaexpress-VirtualBox jenkins[17131]: Correct java version found

```

Getting Started

Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

Getting Started

Create First Admin User

Имя пользователя:

Пароль:

Повторите пароль:

Ф.И.О.:

Адрес электронной почты:

Jenkins 2.319.2

[Skip and continue as admin](#)

[Save and Continue](#)



Jenkins

ПОИСК



1



Ibrahim



ВЫХОД

Dashboard

- Создать Item
- Пользователи
- История сборок
- Настроить Jenkins
- My Views
- Lockable Resources
- New View

Очередь сборок

Очередь сборок пуста

Состояние сборщиков

1 В ожидании

[добавить описание](#)

Добро пожаловать в Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Create a job



Set up a distributed build

Set up an agent



Configure a cloud



[Learn more about distributed builds](#)

