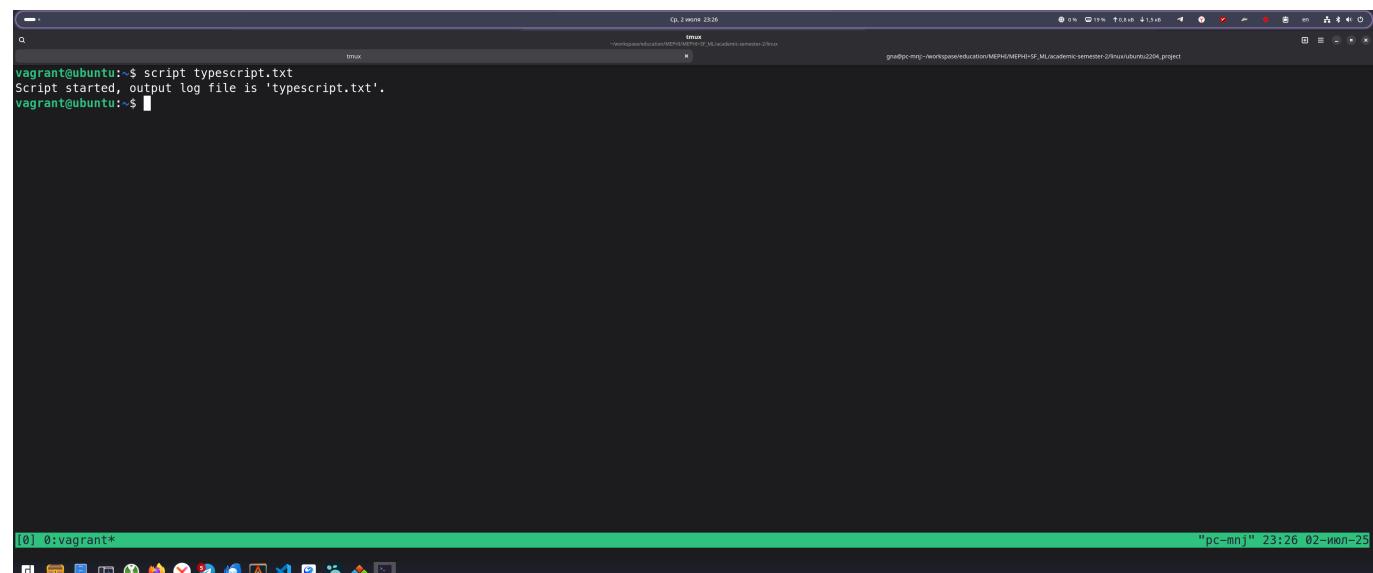
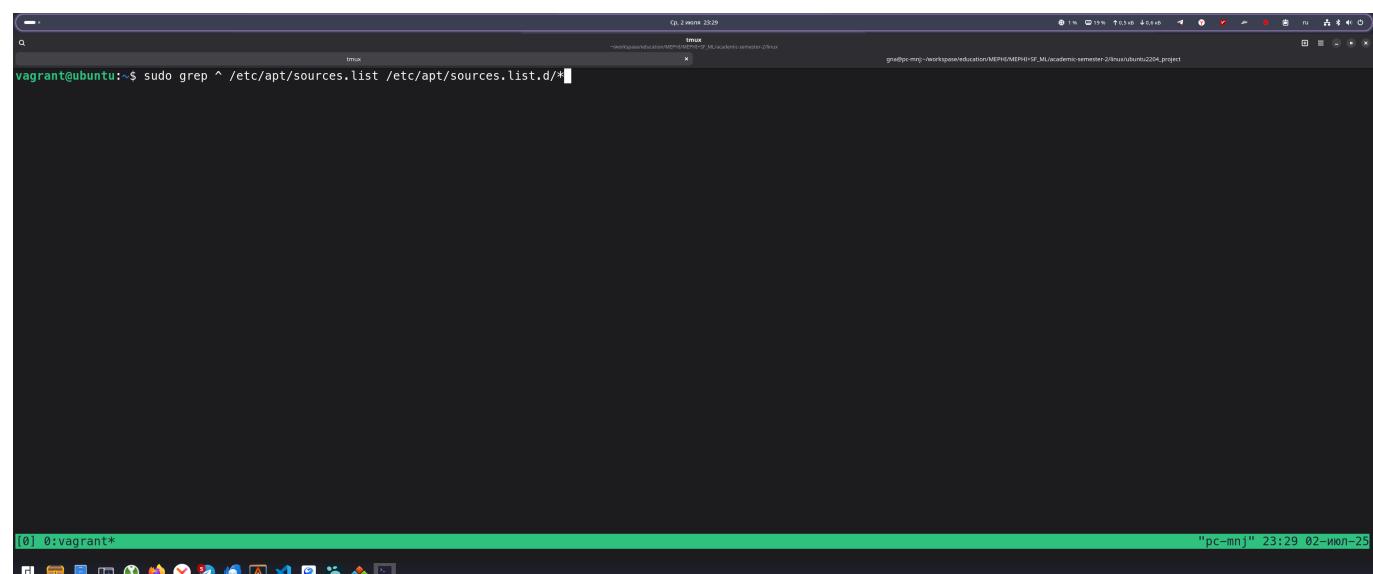


# Домашняя работа № 7

Выполнил: Груданов Николай Алексеевич



```
vagrant@ubuntu:~$ script typescript.txt
Script started, output log file is 'typescript.txt'.
vagrant@ubuntu:~$
```

```
vagrant@ubuntu:~$ sudo grep ^ /etc/apt/sources.list /etc/apt/sources.list.d/*
vagrant@ubuntu:~$
```

```
Cp 2 weiss 23:29 tmux ->/workspace/education/MEPHI/MEPHI-SF_ML/academic-semester-2/linux/ubuntu2204.project  
/etc/apt/sources.list:deb http://archive.ubuntu.com/ubuntu jammy universe  
/etc/apt/sources.list:# deb-src http://archive.ubuntu.com/ubuntu jammy universe  
/etc/apt/sources.list:deb http://archive.ubuntu.com/ubuntu jammy-updates universe  
/etc/apt/sources.list:# deb-src http://archive.ubuntu.com/ubuntu jammy-updates universe  
/etc/apt/sources.list:  
/etc/apt/sources.list:## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu  
/etc/apt/sources.list:## team, and may not be under a free licence. Please satisfy yourself as to  
/etc/apt/sources.list:## your rights to use the software. Also, please note that software in  
/etc/apt/sources.list:## multiverse WILL NOT receive any review or updates from the Ubuntu  
/etc/apt/sources.list:## security team.  
/etc/apt/sources.list:deb http://archive.ubuntu.com/ubuntu jammy multiverse  
/etc/apt/sources.list:# deb-src http://archive.ubuntu.com/ubuntu jammy multiverse  
/etc/apt/sources.list:deb http://archive.ubuntu.com/ubuntu jammy-updates multiverse  
/etc/apt/sources.list:# deb-src http://archive.ubuntu.com/ubuntu jammy-updates multiverse  
/etc/apt/sources.list:  
/etc/apt/sources.list:## N.B. software from this repository may not have been tested as  
/etc/apt/sources.list:## extensively as that contained in the main release, although it includes  
/etc/apt/sources.list:## newer versions of some applications which may provide useful features.  
/etc/apt/sources.list:## Also, please note that software in backports WILL NOT receive any review  
/etc/apt/sources.list:## or updates from the Ubuntu security team.  
/etc/apt/sources.list:deb http://archive.ubuntu.com/ubuntu jammy-backports main restricted universe multiverse  
/etc/apt/sources.list:# deb-src http://archive.ubuntu.com/ubuntu jammy-backports main restricted universe multiverse  
/etc/apt/sources.list:  
/etc/apt/sources.list:deb http://security.ubuntu.com/ubuntu jammy-security main restricted  
/etc/apt/sources.list:# deb-src http://security.ubuntu.com/ubuntu jammy-security main restricted  
/etc/apt/sources.list:deb http://security.ubuntu.com/ubuntu jammy-security universe  
/etc/apt/sources.list:# deb http://security.ubuntu.com/ubuntu jammy-security multiverse  
/etc/apt/sources.list:# deb-src http://security.ubuntu.com/ubuntu jammy-security multiverse  
grep: /etc/apt/sources.list.d/: No such file or directory  
vagrant@ubuntu:~$ [0] 0:vagrant* "pc-mnj" 23:29 02-июн-25  
File Icons
```

```
Cp 2 weiss 23:31 tmux ->/workspace/education/MEPHI/MEPHI-SF_ML/academic-semester-2/linux/ubuntu2204.project  
vagrant@ubuntu:~$ sudo apt list --installed | wc -l  
WARNING: apt does not have a stable CLI interface. Use with caution in scripts.  
596  
vagrant@ubuntu:~$ [0] 0:vagrant* "pc-mnj" 23:31 02-июн-25  
File Icons
```

```
Cp 2 weiss 23:32 tmux ->/workspace/education/MEPHI/MEPHI-SF_ML/academic-semester-2/linux/ubuntu2204.project  
vagrant@ubuntu:~$ sudo apt update  
[0] 0:vagrant* "pc-mnj" 23:31 02-июн-25  
File Icons
```

```
vagrant@ubuntu:~$ sudo apt update
Hit:1 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:3 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2707 kB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [2463 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [433 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [3855 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [693 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1218 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [300 kB]
Get:12 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [369 kB]
Get:13 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [3736 kB]
Get:14 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [674 kB]
Get:15 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [987 kB]
Get:16 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [213 kB]
Get:17 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [40.3 kB]
Get:18 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [8908 B]
Fetched 18.1 MB in 4s (4880 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
22 packages can be upgraded. Run 'apt list --upgradable' to see them.
vagrant@ubuntu:~$
```

```
[0] 0:vagrant* "pc-mnj" 23:32 02-июл-25
[1] 0:vagrant* "pc-mnj" 23:32 02-июл-25
```

```
vagrant@ubuntu:~$ sudo apt update
Hit:1 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:3 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2707 kB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [2463 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [433 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [3855 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [693 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1218 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [300 kB]
Get:12 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [369 kB]
Get:13 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [3736 kB]
Get:14 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [674 kB]
Get:15 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [987 kB]
Get:16 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [213 kB]
Get:17 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [40.3 kB]
Get:18 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [8908 B]
Fetched 18.1 MB in 4s (4880 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
22 packages can be upgraded. Run 'apt list --upgradable' to see them.
vagrant@ubuntu:~$ sudo apt list --installed | grep nmap
WARNING: apt does not have a stable CLI interface. Use with caution in scripts.
vagrant@ubuntu:~$
```

```
[0] 0:vagrant* "pc-mnj" 23:32 02-июл-25
[1] 0:vagrant* "pc-mnj" 23:32 02-июл-25
```

```
vagrant@ubuntu:~$ sudo apt search nmap
[1] 0:vagrant* "pc-mnj" 23:33 02-июл-25
```

```

psad/jammy 2.4.6-2 amd64
  Port Scan Attack Detector

python-libmap-doc/jammy 0.7.2-1 all
  Python NMAP Library (common documentation)

python3-libmap/jammy 0.7.2-1 all
  Python 3 NMAP library

python3-nmap/jammy 0.6.1-1.1 all
  Python3 interface to the Nmap port scanner

python3-scapy/jammy 2.4.4-4ubuntu1 all
  Packet generator/sniffer and network scanner/discovery (Python 3)

samblaster/jammy 0.1.26-3 amd64
  marks duplicates, extracts discordant/split reads

tilemaker/jammy 2.0.0+ds-1 amd64
  Generates vector tiles from OpenStreetMap data

tophat-recondition/jammy 1.4-3 all
  post-processor for TopHat unmapped reads

xprobe/jammy 0.3-5 amd64
  Remote OS identification

xscreensaver-gl/jammy 5.45+dfsg1-2ubuntu1 amd64
  GL(Mesa) screen saver modules for screensaver frontends

vagrant@ubuntu:~$ [0] 0:vagrant* "pc-mnj" 23:33 02-июл-25

```

```

vagrant@ubuntu:~$ sudo apt info nmap

```

```

vagrant@ubuntu:~$ sudo apt info nmap
Package: nmap
Version: 7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1
Priority: extra
Section: universe/net
Origin: Ubuntu
Maintainer: Ubuntu Developers <ubuntu-devel-discuss@lists.ubuntu.com>
Original-Maintainer: Debian Security Tools <team+pkg-security@tracker.debian.org>
Bugs: https://bugs.launchpad.net/ubuntu/+filebug
Installed-Size: 4341 kB
Depends: nmap-common (>= 7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1), libc6 (>= 2.34), libgcc-s1 (>= 3.3.1), liblinear4 (>= 2.01+dfsg), liblua5.3-0, libpcap0.8 (>= 1.5.1), libpcre3, libssl3 (>= 3.0.0~alpha1), libstdc++6 (>= 11), lua-lpeg (>= 1.0.2), zlib1g (>= 1:1.1.4)
Suggests: ncat, ndiff, zemmap
Homepage: https://nmap.org/
Download-Size: 1731 kB
APT-Sources: http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages
Description: The Network Mapper
  Nmap is a utility for network exploration or security auditing. It
  supports ping scanning (determine which hosts are up), many port
  scanning techniques, version detection (determine service protocols
  and application versions listening behind ports), and TCP/IP
  fingerprinting (remote host OS or device identification). Nmap also
  offers flexible target and port specification, decoy/stealth scanning,
  sunRPC scanning, and more. Most Unix and Windows platforms are
  supported in both GUI and commandline modes. Several popular handheld
  devices are also supported, including the Sharp Zaurus and the iPAQ.

N: There is 1 additional record. Please use the '-a' switch to see it
vagrant@ubuntu:~$ [0] 0:vagrant* "pc-mnj" 23:33 02-июл-25

```

```
vagrant@ubuntu:~$ sudo apt install nmap
```

[0] 0:vagrant\* "pc-mnj" 23:34 02-июл-25

```
Selecting previously unselected package lua-lpeg:amd64.
Preparing to unpack .../3-lua-lpeg_1.0.2-1_amd64.deb ...
Unpacking lua-lpeg:amd64 (1.0.2-1) ...
Selecting previously unselected package nmap-common.
Preparing to unpack .../4-nmap-common_7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1_all.deb ...
Unpacking nmap-common (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...
Selecting previously unselected package nmap.
Preparing to unpack .../5-nmap_7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1_amd64.deb ...
Unpacking nmap (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...
Setting up lua-lpeg:amd64 (1.0.2-1) ...
Setting up libblas3:amd64 (3.10.0-2ubuntu1) ...
update-alternatives: using /usr/lib/x86_64-linux-gnublas/libblas.so.3 to provide /usr/lib/x86_64-linux-gnu/libblas.so.3 (libblas.so.3-x86_64-linux-gnu) in auto mode
Setting up nmap-common (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...
Setting up liblLua5.3-0:amd64 (5.3.6-1build1) ...
Setting up liblinear4:amd64 (2.3.0+dfsg-5) ...
Setting up nmap (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.10) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
```

vagrant@ubuntu:~\$ [0] 0:vagrant\* "pc-mnj" 23:34 02-июл-25

```
vagrant@ubuntu:~$ sudo dpkg-query -L nmap
```

[0] 0:vagrant\* "pc-mnj" 23:34 02-июл-25

```
/usr/share/man/it  
/usr/share/man/it/man1  
/usr/share/man/it/man1/nmap.1.gz  
/usr/share/man/ja  
/usr/share/man/ja/man1  
/usr/share/man/ja/man1/nmap.1.gz  
/usr/share/man/man1  
/usr/share/man/man1/nmap.1.gz  
/usr/share/man/man1/ping.1.gz  
/usr/share/man/p1  
/usr/share/man/p1/man1  
/usr/share/man/p1/man1/nmap.1.gz  
/usr/share/man/pt  
/usr/share/man/pt/man1  
/usr/share/man/pt/man1/nmap.1.gz  
/usr/share/man/pt_BR  
/usr/share/man/pt_BR/man1  
/usr/share/man/pt_BR/man1/nmap.1.gz  
/usr/share/man/ro  
/usr/share/man/ro/man1  
/usr/share/man/ro/man1/nmap.1.gz  
/usr/share/man/ru  
/usr/share/man/ru/man1  
/usr/share/man/ru/man1/nmap.1.gz  
/usr/share/man/sk  
/usr/share/man/sk/man1  
/usr/share/man/sk/man1/nmap.1.gz  
/usr/share/man/zh  
/usr/share/man/zh/man1  
/usr/share/man/zh/man1/nmap.1.gz  
vagrant@ubuntu:~$ [0] 0:vagrant* "pc-mnj" 23:34 02-июл-25
```

```
vagrant@ubuntu:~$ sudo dpkg --remove nmap [0] 0:vagrant* "pc-mnj" 23:35 02-июл-25
```

```
vagrant@ubuntu:~$ sudo dpkg --remove nmap  
(Reading database ... 94740 files and directories currently installed.)  
Removing nmap (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...  
Processing triggers for man-db (2.10.2-1) ...  
vagrant@ubuntu:~$ [0] 0:vagrant* "pc-mnj" 23:36 02-июл-25
```

```
vagrant@ubuntu:~$ sudo dpkg --remove nmap
(Reading database ... 94740 files and directories currently installed.)
Removing nmap (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...
Processing triggers for man-db (2.10.2-1) ...
vagrant@ubuntu:~$ sudo apt autoremove nmap
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Package 'nmap' is not installed, so not removed
The following packages will be REMOVED:
  libblas3 liblinear4 liblua5.3-0 lua-lpeg nmap-common
0 upgraded, 0 newly installed, 5 to remove and 22 not upgraded.
After this operation, 22.5 MB disk space will be freed.
Do you want to continue? [Y/n] Y
(Reading database ... 94713 files and directories currently installed.)
Removing liblinear4:amd64 (2.3.0+dfsg-5) ...
Removing libblas3:amd64 (3.10.0-2ubuntu1) ...
Removing liblua5.3-0:amd64 (5.3.6-1build1) ...
Removing lua-lpeg:amd64 (1.0.2-1) ...
Removing nmap-common (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.10) ...
vagrant@ubuntu:~$
```

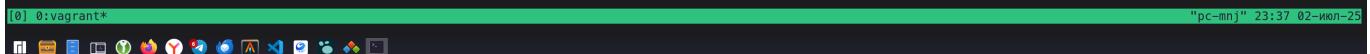
```
[0] 0:vagrant* "pc-mnj" 23:36 02-июл-25
[1] 0:vagrant* "pc-mnj" 23:37 02-июл-25
```

```
vagrant@ubuntu:~$ sudo apt update
[0] 0:vagrant* "pc-mnj" 23:37 02-июл-25
```

```
vagrant@ubuntu:~$ sudo apt update
Hit:1 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Hit:3 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:5 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2708 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [433 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1219 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [301 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [47,1 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [12,0 kB]
Fetched 4848 kB in 1s (4125 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
22 packages can be upgraded. Run 'apt list --upgradable' to see them.
vagrant@ubuntu:~$
```

```
[0] 0:vagrant* "pc-mnj" 23:37 02-июл-25
```

```
vagrant@ubuntu:~$ sudo apt update
Hit:1 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Hit:3 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:5 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2708 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [433 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1219 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [301 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [47.1 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [12.0 kB]
Fetched 4848 kB in 1s (4125 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
22 packages can be upgraded. Run 'apt list --upgradable' to see them.
vagrant@ubuntu:~$ sudo apt-get install ca-certificates curl
```



```
vagrant@ubuntu:~$ sudo apt update
Hit:1 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Hit:3 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:5 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2708 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [433 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1219 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [301 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [47.1 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [12.0 kB]
Fetched 4848 kB in 1s (4125 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
22 packages can be upgraded. Run 'apt list --upgradable' to see them.
vagrant@ubuntu:~$ sudo apt-get install ca-certificates curl
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
ca-certificates is already the newest version (20240203~22.04.1).
ca-certificates set to manually installed.
curl is already the newest version (7.81.0-1ubuntu1.20).
curl set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 22 not upgraded.
0: upgraded, 0: newly installed, 0 to remove and 22 not upgraded.
vagrant@ubuntu:~$
```



```
vagrant@ubuntu:~$ sudo install -m 0755 -d /etc/apt/keyrings
vagrant@ubuntu:~$ sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ sudo chmod a=r /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ sudo ls -l /etc/apt/keyrings/docker.asc
-rw-r--r-- 1 root root 3817 Jul 2 20:39 /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$
```



```
Cp: 2 wechs 22:40
tmux -~/.vagrant.d/boxes/ubuntu2204/project
vagrant@ubuntu:~$ sudo install -m 0755 -d /etc/apt/keyrings
vagrant@ubuntu:~$ sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ sudo chmod a+r /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ sudo ls -l /etc/apt/keyrings/docker.asc
-rw-r--r-- 1 root root 3817 Jul 2 20:39 /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ echo "deb [arch=amd64 signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu jammy stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/n
ull
vagrant@ubuntu:~$
```

```
[0] 0:vagrant* "pc-mnj" 23:39 02-июн-25
[!]
[!]
[!]
```

```
Cp: 2 wechs 22:40
tmux -~/.vagrant.d/boxes/ubuntu2204/project
vagrant@ubuntu:~$ sudo install -m 0755 -d /etc/apt/keyrings
vagrant@ubuntu:~$ sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ sudo chmod a+r /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ sudo ls -l /etc/apt/keyrings/docker.asc
-rw-r--r-- 1 root root 3817 Jul 2 20:39 /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ echo "deb [arch=amd64 signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu jammy stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/n
ull
vagrant@ubuntu:~$ sudo apt update
Get:1 https://download.docker.com/linux/ubuntu jammy InRelease [48.8 kB]
Hit:2 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:3 https://download.docker.com/linux/ubuntu jammy/stable amd64 Packages [51.9 kB]
Hit:4 http://archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:5 http://archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:6 http://security.ubuntu.com/ubuntu jammy-security InRelease
Fetched 101 kB in 0s (378 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
22 packages can be upgraded. Run 'apt list --upgradable' to see them.
vagrant@ubuntu:~$
```

```
[0] 0:vagrant* "pc-mnj" 23:40 02-июн-25
[!]
[!]
[!]
```

```
Cp: 2 wechs 22:40
tmux -~/.vagrant.d/boxes/ubuntu2204/project
vagrant@ubuntu:~$ sudo chmod a+r /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ sudo ls -l /etc/apt/keyrings/docker.asc
-rw-r--r-- 1 root root 3817 Jul 2 20:39 /etc/apt/keyrings/docker.asc
vagrant@ubuntu:~$ echo "deb [arch=amd64 signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu jammy stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/n
ull
vagrant@ubuntu:~$ sudo apt update
Get:1 https://download.docker.com/linux/ubuntu jammy InRelease [48.8 kB]
Hit:2 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:3 https://download.docker.com/linux/ubuntu jammy/stable amd64 Packages [51.9 kB]
Hit:4 http://archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:5 http://archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:6 http://security.ubuntu.com/ubuntu jammy-security InRelease
Fetched 101 kB in 0s (378 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
22 packages can be upgraded. Run 'apt list --upgradable' to see them.
vagrant@ubuntu:~$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  docker-ce-rootless-extras libltdl7 libslirp0 pigz slirp4netns
Suggested packages:
  cgroupfs-mount | cgroup-lite docker-model-plugin
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-rootless-extras docker-compose-plugin libltdl7 libslirp0 pigz slirp4netns
0 upgraded, 10 newly installed, 0 to remove and 22 not upgraded.
Need to get 103 MB of archives.
After this operation, 429 MB of additional disk space will be used.
Do you want to continue? [Y/n] [
```

```
[0] 0:vagrant* "pc-mnj" 23:40 02-июн-25
[!]
[!]
[!]
```

```

Selecting previously unselected package slirp4netns.
Preparing to unpack .../9-slirp4netns_1.0.1-2_amd64.deb ...
Unpacking slirp4netns (1.0.1-2) ...
Setting up docker-buildx-plugin (0.25.0-1~ubuntu.22.04~jammy) ...
Setting up containerd.io (1.7.27-1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /lib/systemd/system/containerd.service.
Setting up docker-ce-clients (5:28.3.0-1~ubuntu.22.04~jammy) ...
Setting up libltdl7:amd64 (2.4.6-15build2) ...
Setting up docker-ce-cli (5:28.3.0-1~ubuntu.22.04~jammy) ...
Setting up libslirp0:amd64 (4.6.1-1build1) ...
Setting up pigz (2.6-1) ...
Setting up docker-ce-rootless-extras (5:28.3.0-1~ubuntu.22.04~jammy) ...
Setting up slirp4netns (1.0.1-2) ...
Setting up docker-ce (5:28.3.0-1~ubuntu.22.04~jammy) ...
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.
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.10) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
vagrant@ubuntu:~$ [0] 0:vagrant* "pc-mnj" 23:41 02-июл-25

```

```

vagrant@ubuntu:~$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
e6590344b1a5: Pull complete
Digest: sha256:940c619fb418f9b2b1b63e25d8861f9cc1b46e3fc8b018ccfe8b78f19b8cc4f
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/
vagrant@ubuntu:~$ [0] 0:vagrant* "pc-mnj" 23:41 02-июл-25

```

```

vagrant@ubuntu:~$ sudo cp /etc/apt/sources.list /etc/apt/sources.list.backup
[0] 0:vagrant* "pc-mnj" 23:42 02-июл-25

```

```
vagrant@ubuntu:~$ sudo sed -i 's#http://archive.ubuntu.com/ubuntu#http://mirror.yandex.ru/ubuntu#g' /etc/apt/sources.list
```

```
[0] 0:vagrant* "pc-mnj" 23:57 02-июл-25
[0] 0:vagrant* "pc-mnj" 23:58 02-июл-25
## review or updates from the Ubuntu security team.
deb http://mirror.yandex.ru/ubuntu jammy universe
# deb-src http://mirror.yandex.ru/ubuntu jammy universe
deb http://mirror.yandex.ru/ubuntu jammy-updates universe
# deb-src http://mirror.yandex.ru/ubuntu jammy-updates universe

## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu
## team, and may not be under a free licence. Please satisfy yourself as to
## your rights to use the software. Also, please note that software in
## multiverse WILL NOT receive any review or updates from the Ubuntu
## security team.
deb http://mirror.yandex.ru/ubuntu jammy multiverse
# deb-src http://mirror.yandex.ru/ubuntu jammy multiverse
deb http://mirror.yandex.ru/ubuntu jammy-updates multiverse
# deb-src http://mirror.yandex.ru/ubuntu jammy-updates multiverse

## N.B. software from this repository may not have been tested as
## extensively as that contained in the main release, although it includes
## newer versions of some applications which may provide useful features.
## Also, please note that software in backports WILL NOT receive any review
## or updates from the Ubuntu security team.
deb http://mirror.yandex.ru/ubuntu jammy-backports main restricted universe multiverse
# deb-src http://mirror.yandex.ru/ubuntu jammy-backports main restricted universe multiverse

deb http://security.ubuntu.com/ubuntu jammy-security main restricted
# deb-src http://security.ubuntu.com/ubuntu jammy-security main restricted
deb http://security.ubuntu.com/ubuntu jammy-security universe
# deb-src http://security.ubuntu.com/ubuntu jammy-security universe
deb http://security.ubuntu.com/ubuntu jammy-security multiverse
# deb-src http://security.ubuntu.com/ubuntu jammy-security multiverse
vagrant@ubuntu:~$
```

```
[0] 0:vagrant* "pc-mnj" 23:58 02-июл-25
Get:13 http://mirror.yandex.ru/ubuntu jammy/universe Translation-en [5652 kB]
Get:14 http://mirror.yandex.ru/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:15 http://mirror.yandex.ru/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:16 http://mirror.yandex.ru/ubuntu jammy/multiverse Translation-en [112 kB]
Get:17 http://mirror.yandex.ru/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:18 http://mirror.yandex.ru/ubuntu jammy-updates/main amd64 Packages [2708 kB]
Get:19 http://mirror.yandex.ru/ubuntu jammy-updates/main Translation-en [433 kB]
Get:20 http://mirror.yandex.ru/ubuntu jammy-updates/main amd64 c-n-f Metadata [18.5 kB]
Get:21 http://mirror.yandex.ru/ubuntu jammy-updates/restricted amd64 Packages [3855 kB]
Get:22 http://mirror.yandex.ru/ubuntu jammy-updates/restricted Translation-en [693 kB]
Get:23 http://mirror.yandex.ru/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [676 B]
Get:24 http://mirror.yandex.ru/ubuntu jammy-updates/universe amd64 Packages [1219 kB]
Get:25 http://mirror.yandex.ru/ubuntu jammy-updates/universe Translation-en [301 kB]
Get:26 http://mirror.yandex.ru/ubuntu jammy-updates/universe amd64 c-n-f Metadata [28.7 kB]
Get:27 http://mirror.yandex.ru/ubuntu jammy-updates/multiverse amd64 Packages [47.1 kB]
Get:28 http://mirror.yandex.ru/ubuntu jammy-updates/multiverse Translation-en [12.0 kB]
Get:29 http://mirror.yandex.ru/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [592 B]
Get:30 http://mirror.yandex.ru/ubuntu jammy-backports/main amd64 Packages [68.8 kB]
Get:31 http://mirror.yandex.ru/ubuntu jammy-backports/main Translation-en [11.4 kB]
Get:32 http://mirror.yandex.ru/ubuntu jammy-backports/main amd64 c-n-f Metadata [392 B]
Get:33 http://mirror.yandex.ru/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:34 http://mirror.yandex.ru/ubuntu jammy-backports/universe amd64 Packages [30.0 kB]
Get:35 http://mirror.yandex.ru/ubuntu jammy-backports/universe Translation-en [16.5 kB]
Get:36 http://mirror.yandex.ru/ubuntu jammy-backports/universe amd64 c-n-f Metadata [672 B]
Get:37 http://mirror.yandex.ru/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Fetched 32.4 MB in 4s (7946 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
22 packages can be upgraded. Run 'apt list --upgradable' to see them.
vagrant@ubuntu:~$
```