

Задание №1

Подключить репозиторий с nginx любым удобным способом, установить nginx и потом удалить nginx, используя утилиту dpkg.

```

Vlad@gb-server:~$ sudo apt install curl gnupg2 ca-certificates 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 (20210119~20.04.1).
ca-certificates set to manually installed.
curl is already the newest version (7.68.0-1ubuntu2.5).
curl set to manually installed.
The following NEW packages will be installed:
  gnupg2
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 4584 B of archives.
After this operation, 51.2 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/universe amd64 gnupg2 all 2.2.19-3ubuntu2.1 [4584 B]
Fetched 4584 B in 1s (7284 B/s)
Selecting previously unselected package gnupg2.
(Reading database ... 114263 files and directories currently installed.)
Preparing to unpack .../gnupg2_2.2.19-3ubuntu2.1_all.deb ...
Unpacking gnupg2 (2.2.19-3ubuntu2.1) ...
Setting up gnupg2 (2.2.19-3ubuntu2.1) ...
Processing triggers for man-db (2.9.1-1) ...
Vlad@gb-server:~$ echo "deb http://nginx.org/packages/ubuntu `lsb_release -cs` nginx" \
> | sudo tee /etc/apt/sources.list.d/nginx.list
deb http://nginx.org/packages/ubuntu focal nginx
Vlad@gb-server:~$
Vlad@gb-server:~$ curl -o /tmp/nginx_signing.key https://nginx.org/keys/nginx_signing.key
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 1561 100 1561    0     0 1763    0 --:--:-- --:--:-- --:--:-- 1763
Vlad@gb-server:~$ gpg --dry-run --quiet --import --import-options import-show /tmp/nginx_signing.key
gpg: keyblock resource '/home/vlad/.gnupg/pubring.kbx': No such file or directory
pub rsa2048 2011-08-19 [SC] [expires: 2024-06-14]
5738FD683DBFC641079A6ABAF58D827BD9BF62
uid          nginx signing key <signing-key@nginx.com>
Vlad@gb-server:~$
Vlad@gb-server:~$ sudo mv /tmp/nginx_signing.key /etc/apt/trusted.gpg.d/nginx_signing.asc
Vlad@gb-server:~$ sudo apt install nginx
Reading package lists... Done
Building dependency tree
```

```

Vlad@gb-server:~$ ll /etc/nginx/
total 72
drwxr-xr-x  7 root root 4096 Apr 20 12:14 ./
drwxr-xr-x 99 root root 4096 Apr 20 12:14 ../
drwxr-xr-x  2 root root 4096 Apr 20 12:14 conf.d/
-rw-r--r--  1 root root 1077 Feb  4 2019 fastcgi.conf
-rw-r--r--  1 root root 1007 Feb  4 2019 fastcgi_params
-rw-r--r--  1 root root 2837 Feb  4 2019 koi-utf
-rw-r--r--  1 root root 2223 Feb  4 2019 koi-win
-rw-r--r--  1 root root 5231 Apr 21 2020 mime.types
lrwxrwxrwx  1 root root    22 Oct 29 09:59 modules -> /usr/lib/nginx/modules/
drwxr-xr-x  2 root root 4096 Apr 20 12:11 modules-enabled/
-rw-r--r--  1 root root 643 Oct 29 09:59 nginx.conf
-rw-r--r--  1 root root 480 Feb  4 2019 proxy_params
-rw-r--r--  1 root root 636 Feb  4 2019 scgi_params
drwxr-xr-x  2 root root 4096 Apr 20 11:57 sites-available/
drwxr-xr-x  2 root root 4096 Apr 20 11:57 sites-enabled/
drwxr-xr-x  2 root root 4096 Apr 20 11:57 snippets/
-rw-r--r--  1 root root 664 Feb  4 2019 uwsgi_params
-rw-r--r--  1 root root 3610 Apr 21 2020 win-utf
Vlad@gb-server:~$ sudo service nginx status
● nginx.service - nginx - high performance web server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: inactive (dead) since Tue 2021-04-20 12:10:35 UTC; 8min ago
     Docs: http://nginx.org/en/docs/
   Main PID: 3016 (code=exited, status=0/SUCCESS)

Apr 20 11:57:09 gb-server systemd[1]: Starting A high performance web server and a reverse proxy server...
Apr 20 11:57:10 gb-server systemd[1]: Started A high performance web server and a reverse proxy server.
Apr 20 12:10:35 gb-server systemd[1]: Stopping A high performance web server and a reverse proxy server...
Apr 20 12:10:35 gb-server systemd[1]: nginx.service: Succeeded.
Apr 20 12:10:35 gb-server systemd[1]: Stopped A high performance web server and a reverse proxy server.
Vlad@gb-server:~$ nginx -v
nginx version: nginx/1.18.0
Vlad@gb-server:~$ sudo dpkg -P nginx
(Reading database ... 114319 files and directories currently installed.)
Removing nginx (1.18.0-2~focal) ...
Purging configuration files for nginx (1.18.0-2~focal) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for systemd (245.4-4ubuntu3.6) ...
Vlad@gb-server:~$ sudo apt autoremove
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

```
vlad@gb-server:~  
vlad@gb-server:~$ nginx -v  
  
Command 'nginx' not found, but can be installed with:  
  
sudo apt install nginx-core # version 1.18.0-0ubuntu1, or  
sudo apt install nginx-extras # version 1.18.0-0ubuntu1  
sudo apt install nginx-full # version 1.18.0-0ubuntu1  
sudo apt install nginx-light # version 1.18.0-0ubuntu1  
  
vlad@gb-server:~$ ll /etc/nginx/  
ls: cannot access '/etc/nginx/': No such file or directory  
vlad@gb-server:~$
```

Задание №2

Установить пакет на свой выбор, используя snap.

```
Будь осторожен vlad@gb-server:~  
vlad@gb-server:~$ snap list  
Name      Version  Rev  Tracking    Publisher  Notes  
core18    20210309 1997  latest/stable canonical  base  
lxd       4.0.5    19647 4.0/stable/... canonical  -  
snapd     2.49.2   11588 latest/stable canonical  snapd  
vlad@gb-server:~$ sudo snap install gimp  
Download snap "gimp" (347) from channel "stable" 2% 330kB/s 12.4m  
^Z  
[1]+  Stopped                  sudo snap install gimp  
vlad@gb-server:~$ sudo snap install nodejs  
error: snap "nodejs" not found  
vlad@gb-server:~$ sudo snap install node  
error: This revision of snap "node" was published using classic confinement and thus may perform  
arbitrary system changes outside of the security sandbox that snaps are usually confined to,  
which may put your system at risk.  
  
If you understand and want to proceed repeat the command including --classic.  
vlad@gb-server:~$ sudo snap install node --classic  
node (14/stable) 14.16.1 from OpenJS Foundation (iojs) installed  
vlad@gb-server:~$ node -v  
v14.16.1  
vlad@gb-server:~$ snap list  
Name      Version  Rev  Tracking    Publisher  Notes  
core      16-2.49.2 10958 latest/stable canonical  core  
core18    20210309 1997  latest/stable canonical  base  
gimp      2.10.22   347  latest/stable snapcrafters -  
gnome-3-28-1004 3.28.0-19-g98f9e67.98f9e67 145 latest/stable canonical  -  
gtk-common-themes 0.1-50-gf7627e4 1514 latest/stable canonical  -  
kde-frameworks-5-core18 5.61.0 32 latest/stable kde  -  
lxd       4.0.5    19647 4.0/stable/... canonical  -  
node      14.16.1  4150 14/stable    iojs       classic  
snapd     2.49.2   11588 latest/stable canonical  snapd  
vlad@gb-server:~$
```

Задание №3

Настроить iptables: разрешить подключения только на 22-й и 80-й порты.

```
vlad@gb-server:~  
vlad@gb-server:~$ sudo iptables -L  
[sudo] password for vlad:  
Chain INPUT (policy DROP)  
target prot opt source destination  
ACCEPT all -- anywhere anywhere state RELATED,ESTABLISHED  
ACCEPT tcp -- anywhere anywhere tcp dpt:ssh  
ACCEPT tcp -- anywhere anywhere tcp dpt:http  
ACCEPT tcp -- anywhere anywhere tcp dpt:8000  
  
Chain FORWARD (policy ACCEPT)  
target prot opt source destination  
  
Chain OUTPUT (policy ACCEPT)  
target prot opt source destination  
ACCEPT all -- anywhere anywhere  
ACCEPT tcp -- anywhere anywhere tcp spt:8000  
vlad@gb-server:~$ sudo iptables -S  
-P INPUT DROP  
-P FORWARD ACCEPT  
-P OUTPUT ACCEPT  
-A INPUT -i lo -j ACCEPT  
-A INPUT -m state --state RELATED,ESTABLISHED -j ACCEPT  
-A INPUT -p tcp -m tcp --dport 22 -j ACCEPT  
-A INPUT -p tcp -m tcp --dport 80 -j ACCEPT  
-A INPUT -i enp0s3 -p tcp -m tcp --dport 8000 -j ACCEPT  
-A OUTPUT -o lo -j ACCEPT  
-A OUTPUT -o enp0s3 -p tcp -m tcp --sport 8000 -j ACCEPT  
vlad@gb-server:~$
```

```
vlad@gb-server:~  
vlad@gb-server:~$ python3 -m http.server  
Serving HTTP on 0.0.0.0 port 8000 (http://0.0.0.0:8000/) ...  
^C  
Keyboard interrupt received, exiting.  
vlad@gb-server:~$ python3 -m http.server  
Serving HTTP on 0.0.0.0 port 8000 (http://0.0.0.0:8000/) ...  
192.168.8.103 - - [20/Apr/2021 13:46:49] "GET / HTTP/1.1" 200 -
```