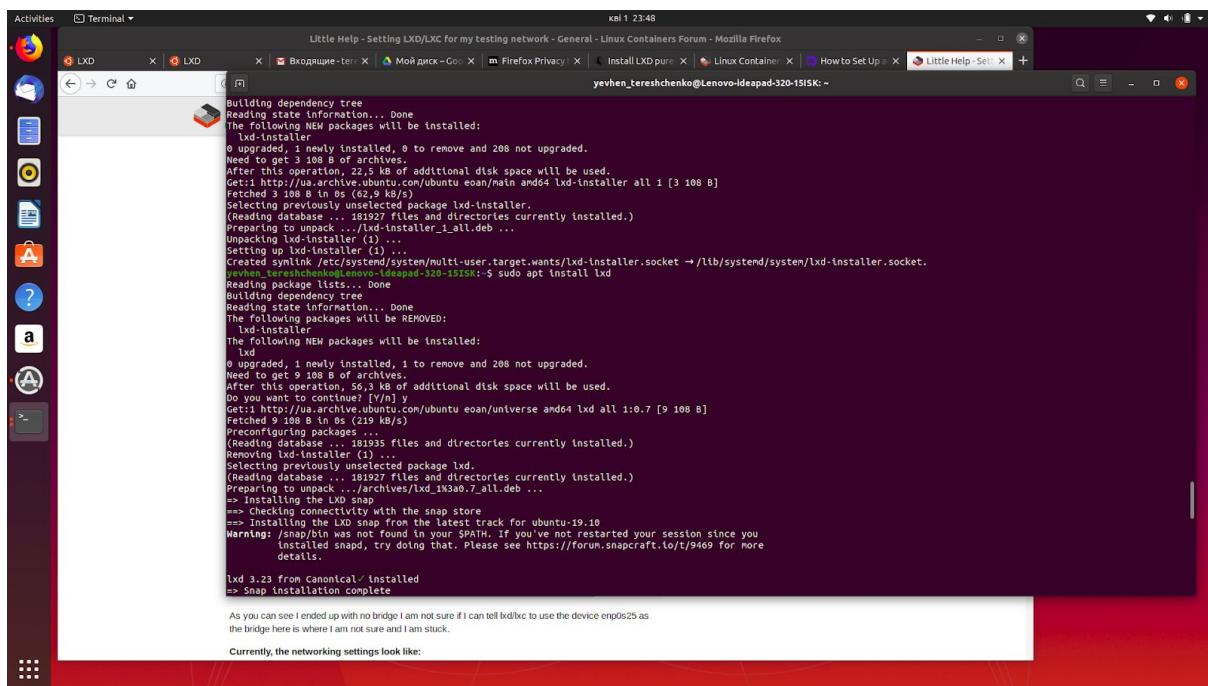
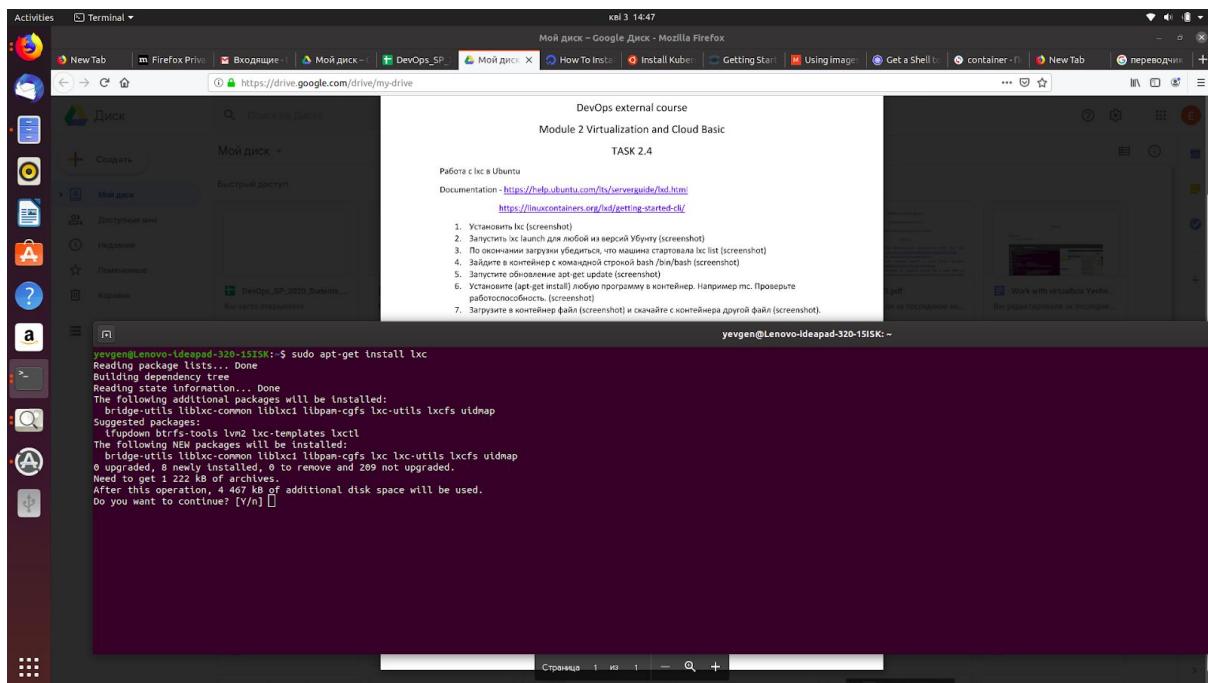


1. Work with lxc in Ubuntu

1.1 Install lxc and lxd



lxd init

```
Failed to stop lxd.socket: Unit lxd.socket not loaded.
Failed to stop lxd.service: Unit lxd.service not loaded.
Failed to stop lxd-containers.service: Unit lxd-containers.service not loaded.
Failed to disable unit: Unit lxd.socket does not exist.
Unpacking lxd (1:0.7) ...
Setting up lxd (1:0.7) ...
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:~$ sudo lxd init
Would you like to use lxd clustering? (yes/no) [default=no]: 
Do you want to configure a new storage pool? (yes/no) [default=yes]: 
Name of the new storage pool [default=default]: 
Name of the storage backend to use (dir, lvm, zfs, ceph, btrfs) [default=zfs]: 
For a local storage pool, would you like to use a block device? (yes/no) [default=no]: 
Size in GB of the new loop device (1GB minimum) [default=40GB]: 20
Would you like to connect to a MAAS server? (yes/no) [default=no]: 
Would you like to create a new local network bridge? (yes/no) [default=yes]: 
What should the bridge be called? [default=lxdbr0]: 
What IPv4 address should be used? (CIDR subnet notation, "auto" or "none") [default=auto]: 10.12.8.1
Invalid input: Invalid CIDR address: 10.12.8.1
What IPv4 address should be used? (CIDR subnet notation, "auto" or "none") [default=auto]: 10.12.8.0/24
Invalid input: Not a usable IPv4 address: 10.12.8.0/24
What IPv4 address should be used? (CIDR subnet notation, "auto" or "none") [default=auto]: 10.1.1.0/24
Invalid input: Not a usable IPv4 address: 10.1.1.0/24
What IPv4 address should be used? (CIDR subnet notation, "auto" or "none") [default=auto]: 10.1.1.0/255.255.255.0
Invalid input: Invalid CIDR address: 10.1.1.0/255.255.255.0
What IPv4 address should be used? (CIDR subnet notation, "auto" or "none") [default=auto]: "10.1.1.0/24"
Invalid input: Invalid CIDR address: "10.1.1.0/24"
What IPv4 address should be used? (CIDR subnet notation, "auto" or "none") [default=auto]: "10.1.1.1/24"
Invalid input: Invalid CIDR address: "10.1.1.1/24"
What IPv4 address should be used? (CIDR subnet notation, "auto" or "none") [default=auto]: 10.0.200.1/24
Would you like LXD to NAT IPv4 traffic on your bridge? [default=yes]: yes
What port should LXD bind to (port 8443 is recommended) [default=8443]: 
Would you like LXD to be available over the network? (yes/no) [default=no]: yes
Address to bind LXD to (not including port) [default=all]: 
Port to bind LXD to [default=8443]: 
Trust password for new clients:
Again:
No password set, client certificates will have to be manually trusted.Would you like stale cached images to be updated automatically? (yes/no) [default=yes]
As you can see I ended up with no bridge. I am not sure if I can tell lxd to use the device enp0s25 as
the bridge here is where I am not sure and I am stuck.

Currently, the networking settings look like:
```

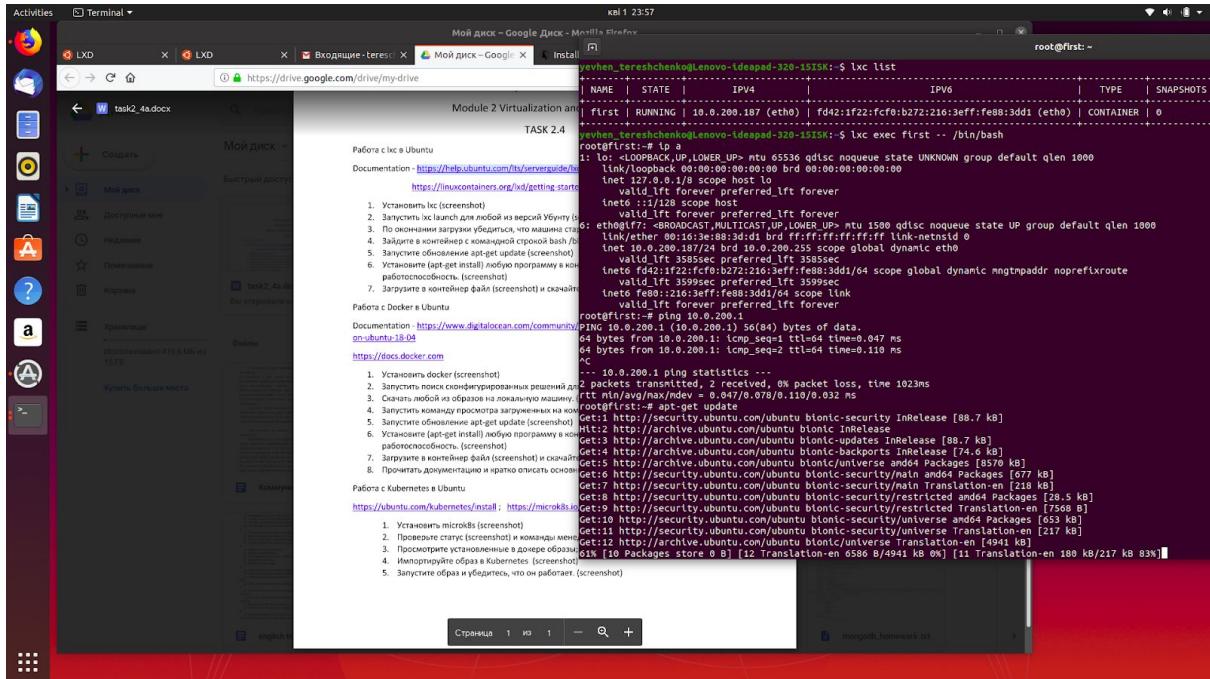
1.2 lxc launch Ubuntu

Создание и использование вашего контейнера

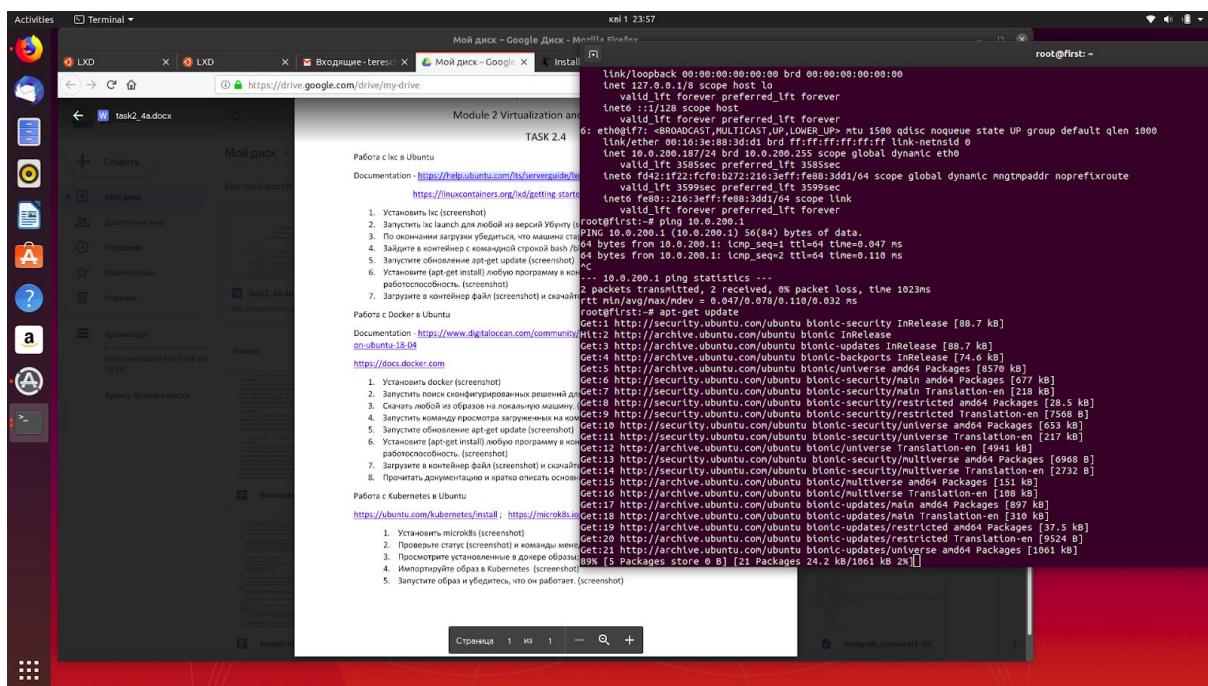
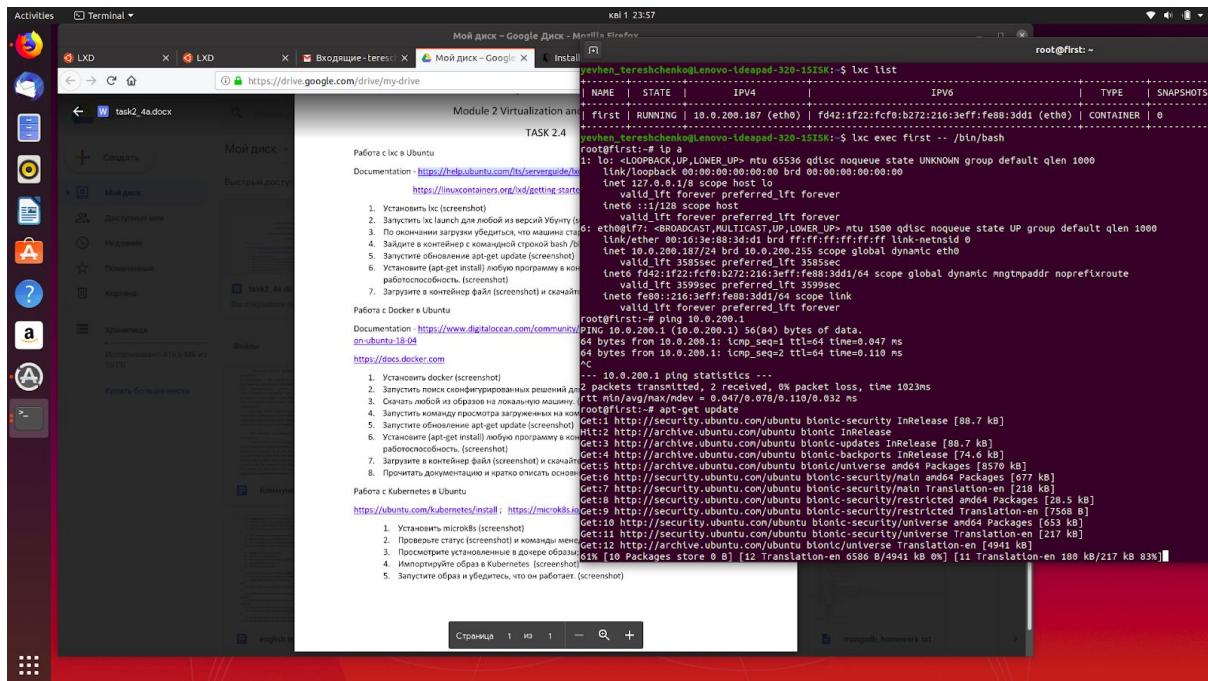
```
lxd image import <file> --alias my-alias
И запустить контейнер:
lxc launch my-alias my-container
Смотрите спецификации образов для подробной информации.

yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:~$ lxc network list
To start your first instance, try: lxc launch ubuntu:16.04
+-----+-----+-----+-----+
| NAME | TYPE | MANAGED | DESCRIPTION | USED BY |
+-----+-----+-----+-----+
| enp0s8 | physical | NO | | 0 |
| lxdbr0 | bridge | NO | | 0 |
| lxdbr0 | bridge | YES | | 0 |
| wlp2s0 | physical | NO | | 0 |
+-----+-----+-----+-----+
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:~$ lxc storage list
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:~$ lxc storage list
+-----+-----+-----+-----+
| NAME | DESCRIPTION | DRIVER | SOURCE | USED BY |
+-----+-----+-----+-----+
| default | | zfs | /var/snap/lxd/common/lxd/disks/default.img | 1 |
+-----+-----+-----+-----+
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:~$ lxc list
+-----+-----+-----+-----+
| NAME | STATE | IPV4 | IPV6 | TYPE | SNAPSHOTS |
+-----+-----+-----+-----+
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:~$ lxc launch ubuntu first
Creating first
The local image 'ubuntu' couldn't be found, trying 'ubuntu:' instead.
Starting first
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:~$ 
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:~$ lxc exec first -- /bin/bash
yevhen_tereshchenko@first:~$ 
```

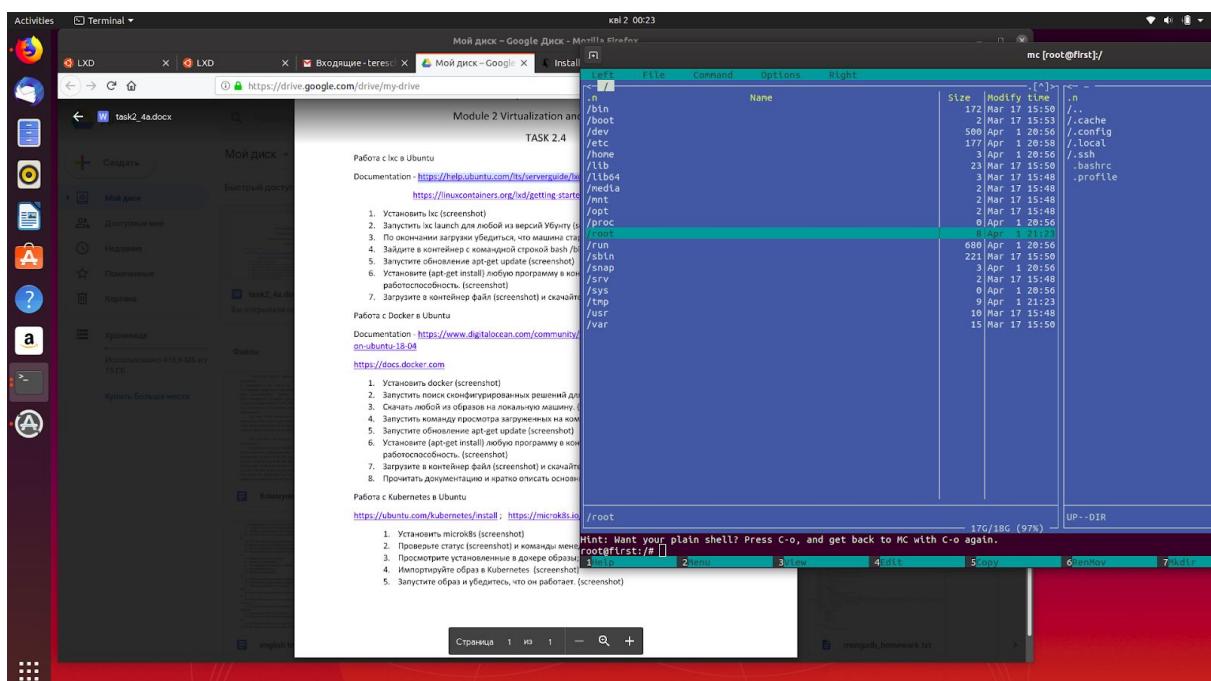
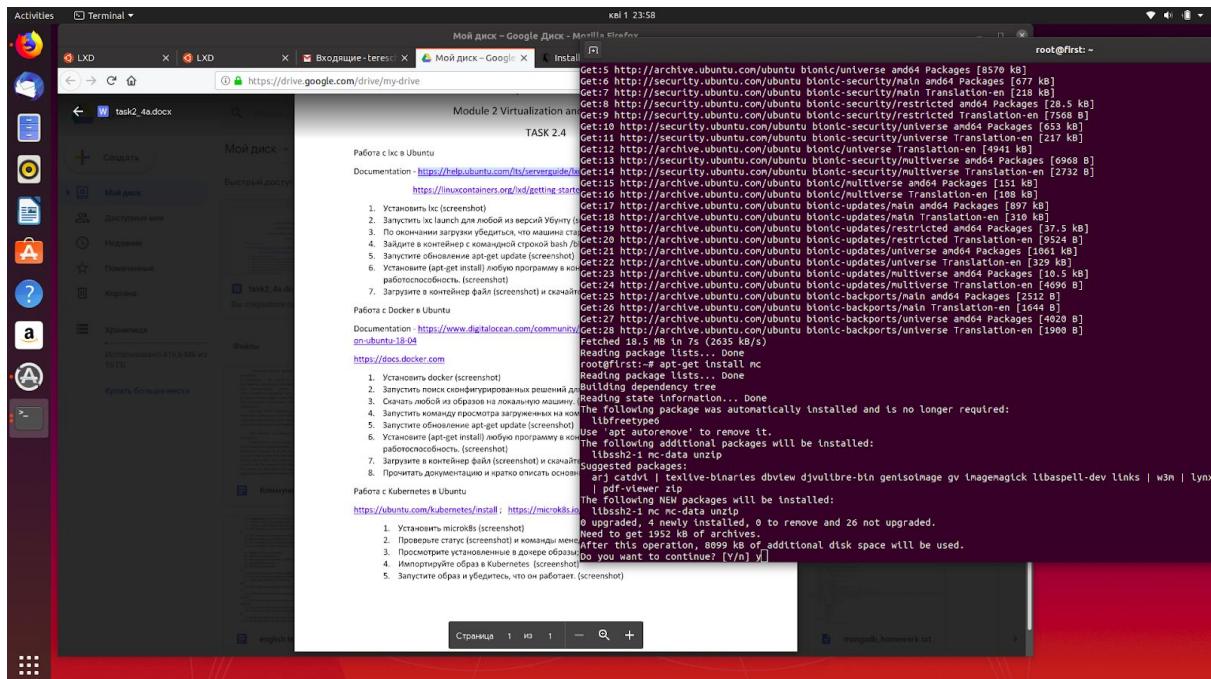
1.3 lxc list



1.4 Connect to container with bash /bin/bash



6 Install some program mc how example



7 Load file

Activities Terminal Мой диск – Google Диск - Mozilla Firefox

```
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:/media/yevhen_tereshchenko/4CE6-0F12/installOS$ lxc file push testfile.txt first/tmp/
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK:/media/yevhen_tereshchenko/4CE6-0F12/installOS$
```

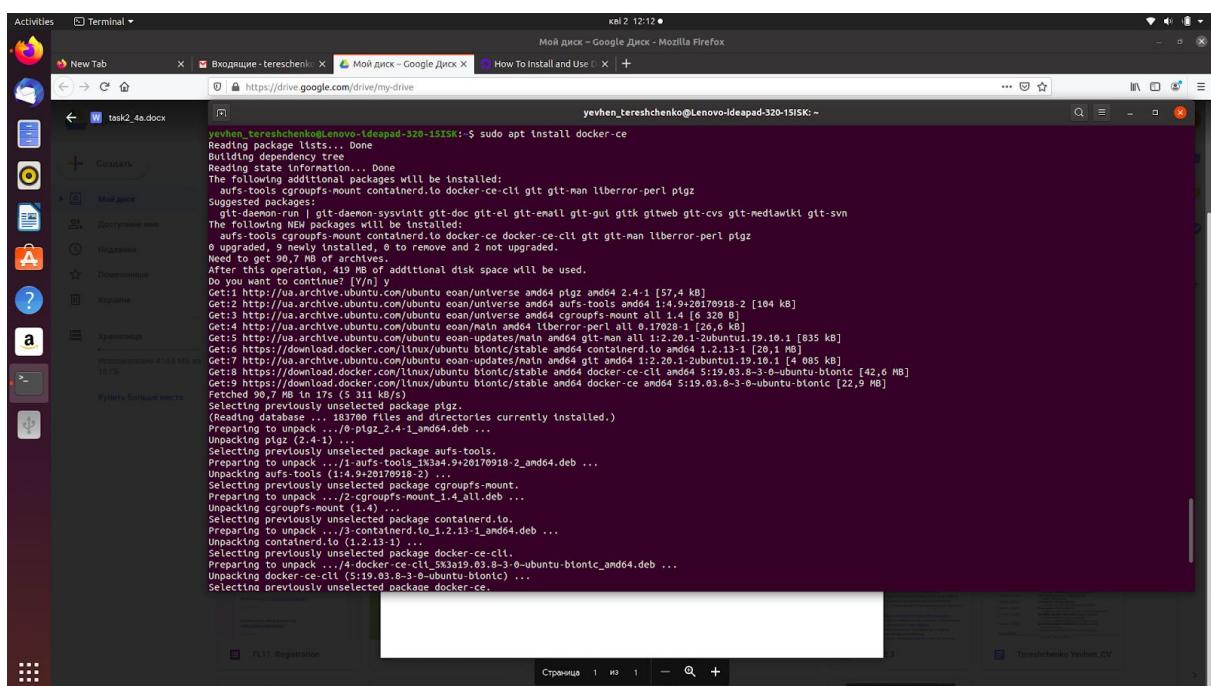
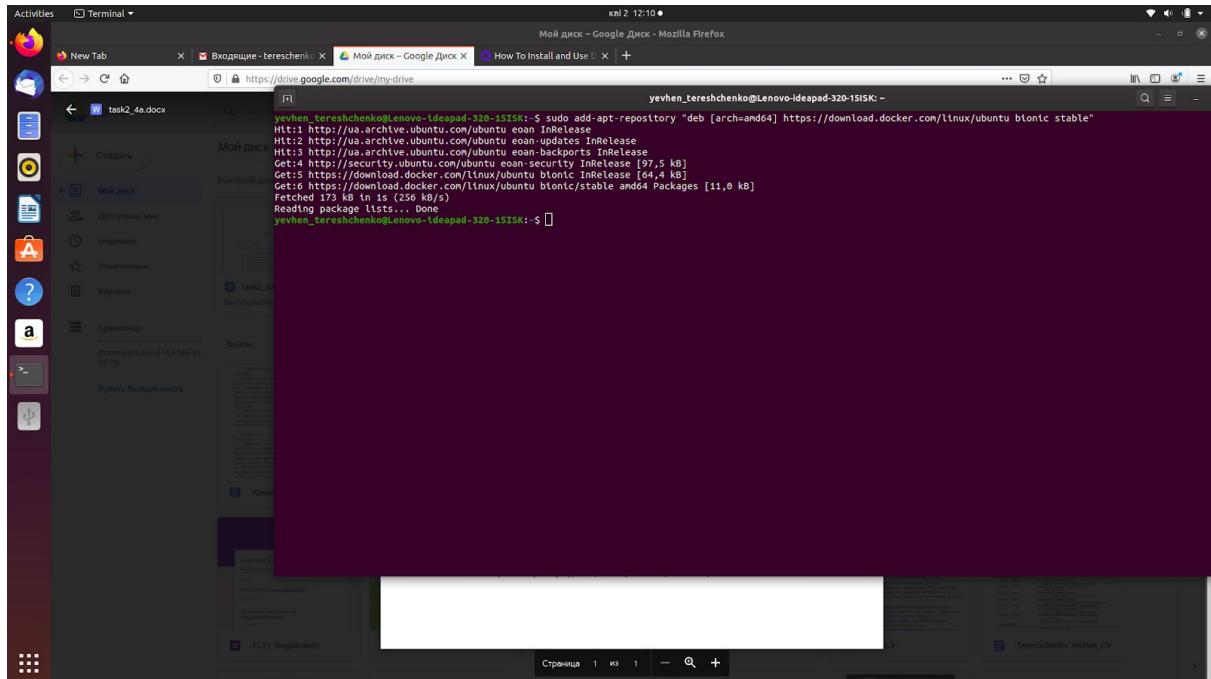
```
root@first:~# ls -la
total 12
drwxrwxrwt  2 root root  2 Apr  1 20:56 Test-unix
drwxrwxrwt  2 root root  2 Apr  1 20:56 X11-unix
drwxrwxrwt  2 root root  2 Apr  1 20:56 font-unix
drwxrwxrwt  2 root root  2 Apr  1 20:56 mc-root
drwxr----- 3 root root  3 Apr  1 20:56 systemd-private-6e80ea6ac6cc441b371e65f139919cc-systemd-resolved.service-x9ls0d
root@first:~# ls -la
total 12
drwxrwxrwt  9 root root  10 Apr  2 08:15 .
drwxrwxr-x 22 root root  22 Mar 17 15:53 ..
drwxrwxrwt  2 root root  2 Apr  1 20:56 X11-unix
drwxrwxrwt  2 root root  2 Apr  1 20:56 font-unix
drwxrwxrwt  2 root root  2 Apr  1 20:56 mc-root
drwxrwxrwt  2 root root  2 Apr  1 20:56 mc-root
drwxrwxrwt  2 root root  2 Apr  1 20:56 mc-root
drwxrwxrwt  2 root root  2 Apr  1 20:56 mc-root
drwxrwxrwt  2 root root  2 Apr  1 20:56 mc-root
drwxr----- 2 root root  2 Apr  1 21:23 mc-root
drwxr----- 3 root root  3 Apr  1 20:56 systemd-private-6e80ea6ac6cc441b371e65f139919cc-systemd-resolved.service-x9ls0d
-rw-r--r--  1 ubuntu ubuntu  0 Apr  2 08:15 testfile.txt
root@first:~#
```

Up load file

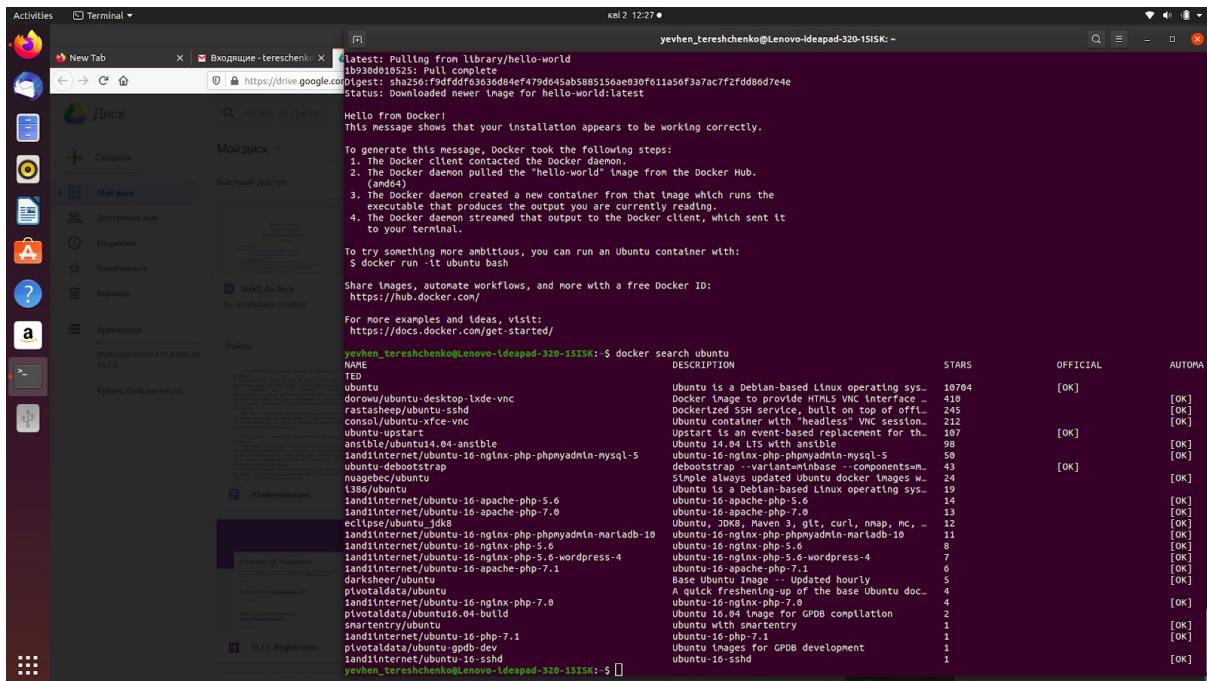
A screenshot of a Linux desktop environment, likely Ubuntu, showing a terminal window and a file browser window. The terminal window displays a series of file operations using the 'ls' command on a directory path: '/media/yevhen_tereshchenko/4CE6-0F12/installOS'. The operations include creating a directory ('mkdir'), listing files ('ls -la'), and pulling files from a remote location ('lxc file pull'). The file browser window shows a list of files and folders, including 'monopoly_HW_task.txt' in the foreground.

2. Work with Docker in Ubuntu

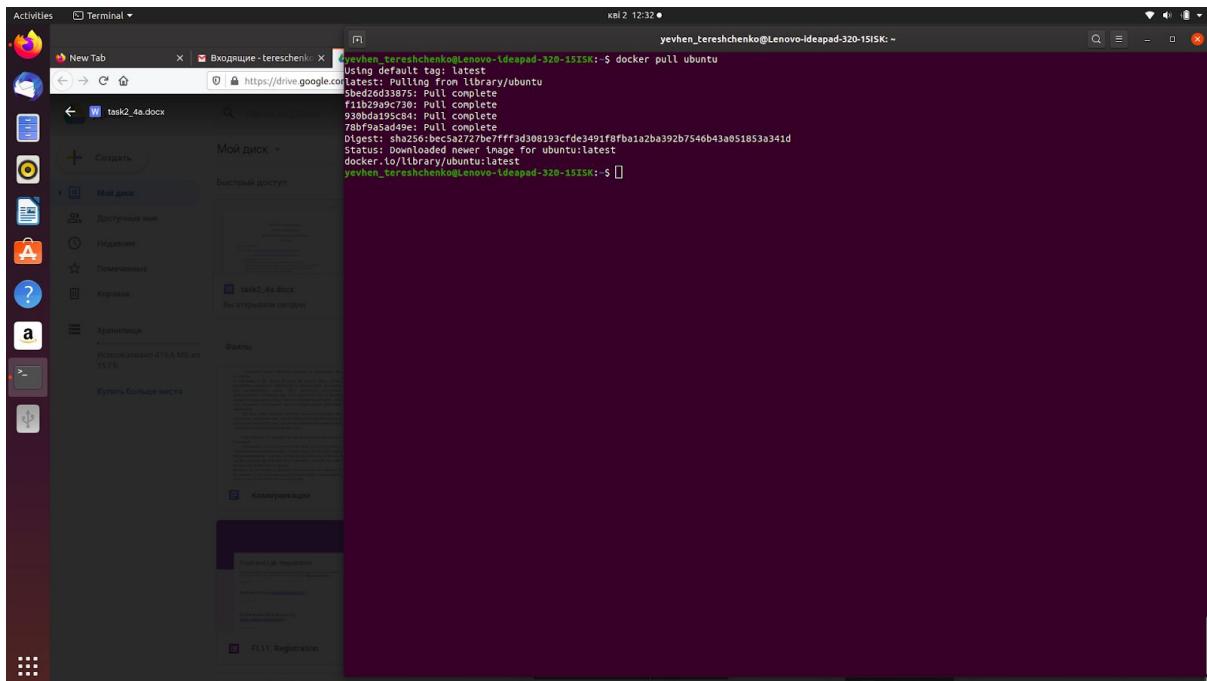
2.1 Install docker



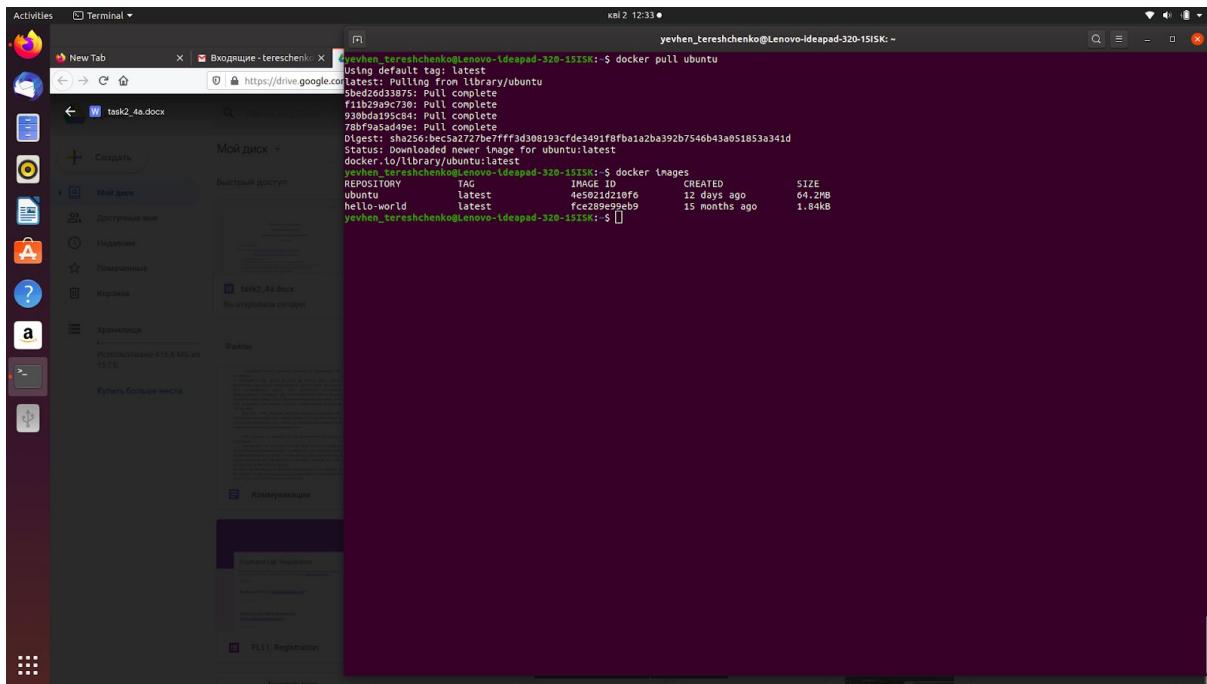
2.3 Search ubuntu design



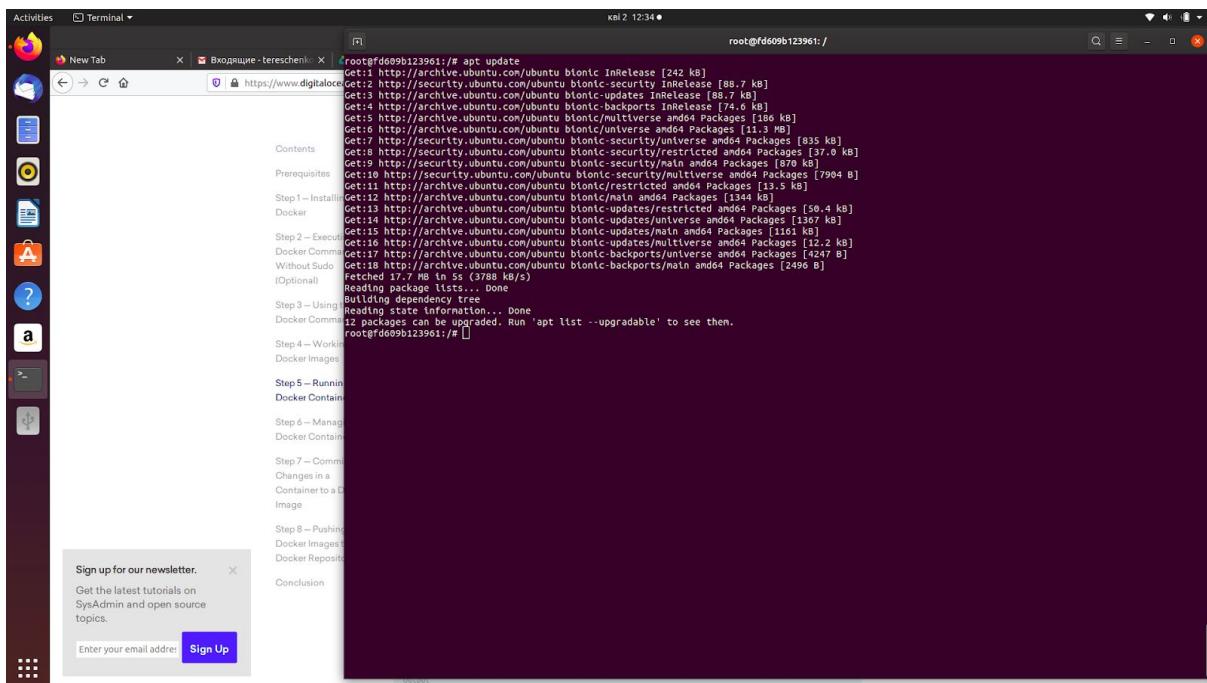
2.3 Load image to the host



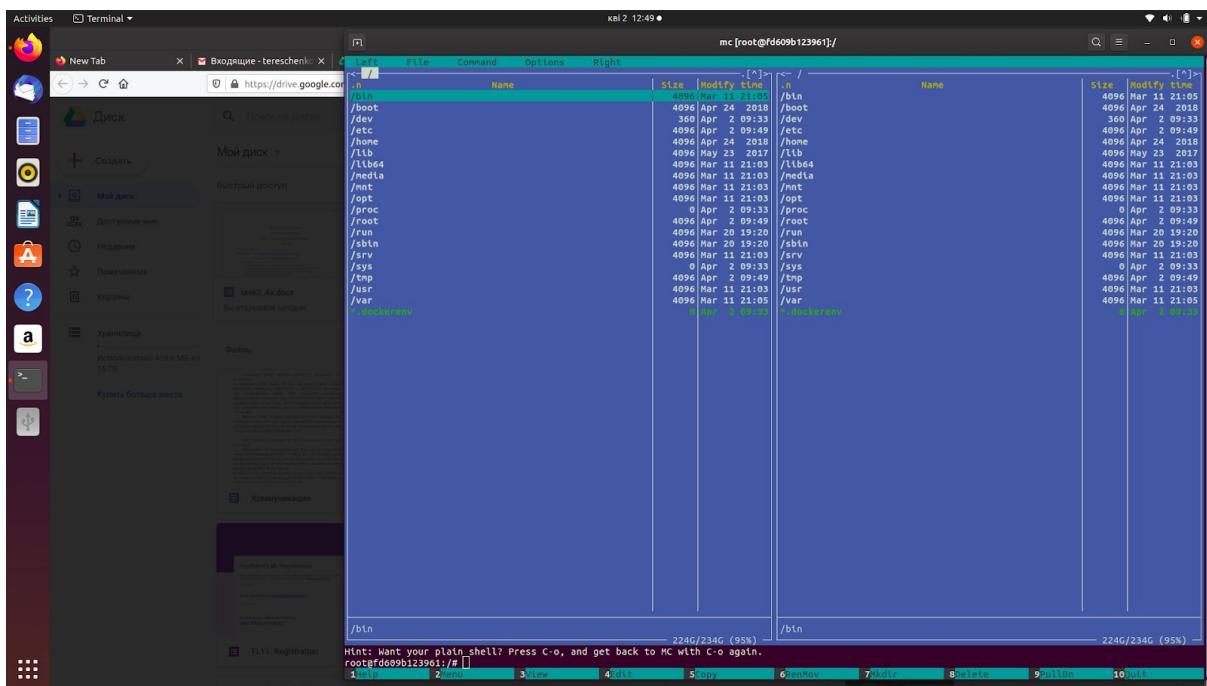
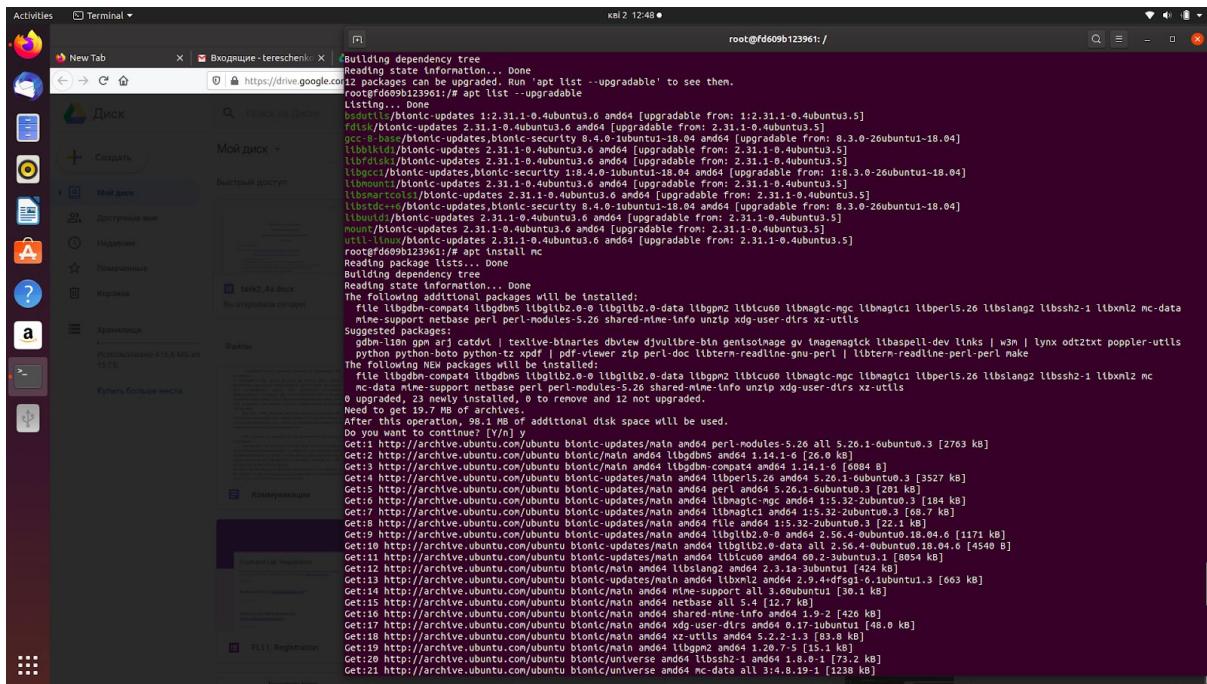
2.4 Show docker image



2.5 Start update



2.6 Install any program in container. How example mc



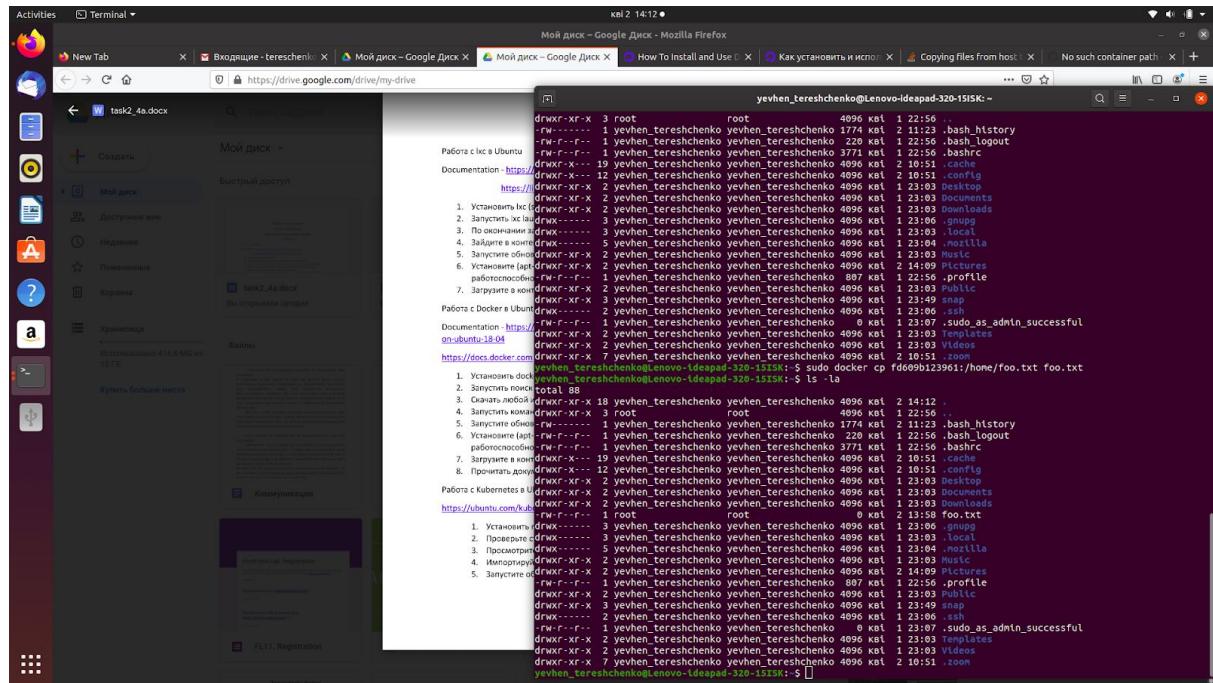
2.6 Load in container file

```
Activities Terminal ▾ No such container path - Issue #106 - markushst/docker-magento - GitHub - Mozilla Firefox
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~
Error: No such container path: 4e5021d210f6:/home
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~ docker ps
Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get http://<2>Fvar%2Frunk%2Fdocker.sock/v1.40/containers/json: dial unix /var/run/docker.sock: connect: permission denied
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~
CONTAINER ID        IMAGE               COMMAND             CREATED            STATUS              PORTS               NAMES
fdd09b123961        ubuntu              "/bin/bash"         About an hour ago   Up About an hour   infallible_davinci
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~ sudo docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED            STATUS              PORTS               NAMES
fdd09b123961        ubuntu              "/bin/bash"         About an hour ago   Up About an hour   infallible_davinci
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~ sudo docker cp foo.txt fdd09b123961:/home/foo.txt
yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~
```



```
Activities Terminal ▾ Входящие - tereshchenko ▾ https://drive.google.com/?link_group=update-alternatives: warning: skip creation of /usr/share/man/nan1/lzfgrep.1.gz because associated file /usr/share/man/nan1/xzgrep.1.gz (of link group lzma) doesn't exist
Setting up shared-mime-info (1.9-2) ...
Setting up libcurl4-openssl4 (7.54.0-1+deb9u14.1-6) ...
Setting up libl10n-2.0-0ubuntu1 (2.3.18-3ubuntu1) ...
Setting up libxdg-user-dirs (0.17-1ubuntu1) ...
Setting up netbase (5.4) ...
Setting up file (1:5.32-2ubuntu0.3) ...
Setting up libperl5.26-1md5 (5.26.1-0ubuntu0.3) ...
Setting up libtiff5 (4.0.9-1ubuntu0.1) ...
update-alternatives: using /usr/bin/tview to provide /usr/bin/tview (tview) in auto mode
update-alternatives: warning: /usr/bin/tview (tview) is not yet installed
update-alternatives: using /drwxr-xr-x 7 yevhen_tereshchenko yevhen_tereshchenko 4896 May 2 10:51 .zoom
update-alternatives: warning: /usr/bin/zenity (zenity) is not yet installed
update-alternatives: warning: /usr/bin/zenity (zenity) is not yet installed
Error: No such container path: 4e5021d210f6:/home
Setting up perl (5.26.1-0ubuntu0.3) ...
Processing triggers for libc-bin (2.27-3ubuntu1.15) ...
root@fdd09b123961: ~
Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get http://<2>Fvar%2Frunk%2Fdocker.sock/v1.40/containers/json: dial unix /var/run/docker.sock: connect: perm
root@fdd09b123961: ~ ls -la
total 88
drwxr-xr-x 1 root root 409 CONTAINER ID        IMAGE               COMMAND             CREATED            STATUS              PORTS               NAMES
drwxr-xr-x 1 root root 409 NAMES          fdd09b123961        ubuntu              "/bin/bash"         About an hour ago   Up About an hour   infallible_davinci
drwxr-xr-x 2 root root 409 NAMES          4e5021d210f6        ubuntu              "/bin/bash"         About an hour ago   Up About an hour   infallible_davinci
drwxr-xr-x 5 root root 409 yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~ sudo docker ps
drwxr-xr-x 1 root root 409 CONTAINER ID        IMAGE               COMMAND             CREATED            STATUS              PORTS               NAMES
drwxr-xr-x 1 root root 409 NAMES          fdd09b123961        ubuntu              "/bin/bash"         About an hour ago   Up About an hour   infallible_davinci
drwxr-xr-x 2 root root 409 NAMES          4e5021d210f6        ubuntu              "/bin/bash"         About an hour ago   Up About an hour   infallible_davinci
drwxr-xr-x 2 root root 409 yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~ sudo docker cp foo.txt fdd09b123961:/home/foo.txt
drwxr-xr-x 2 root root 409 yevhen_tereshchenko@Lenovo-ideapad-320-15ISK: ~
```

2.7 Upload from container file

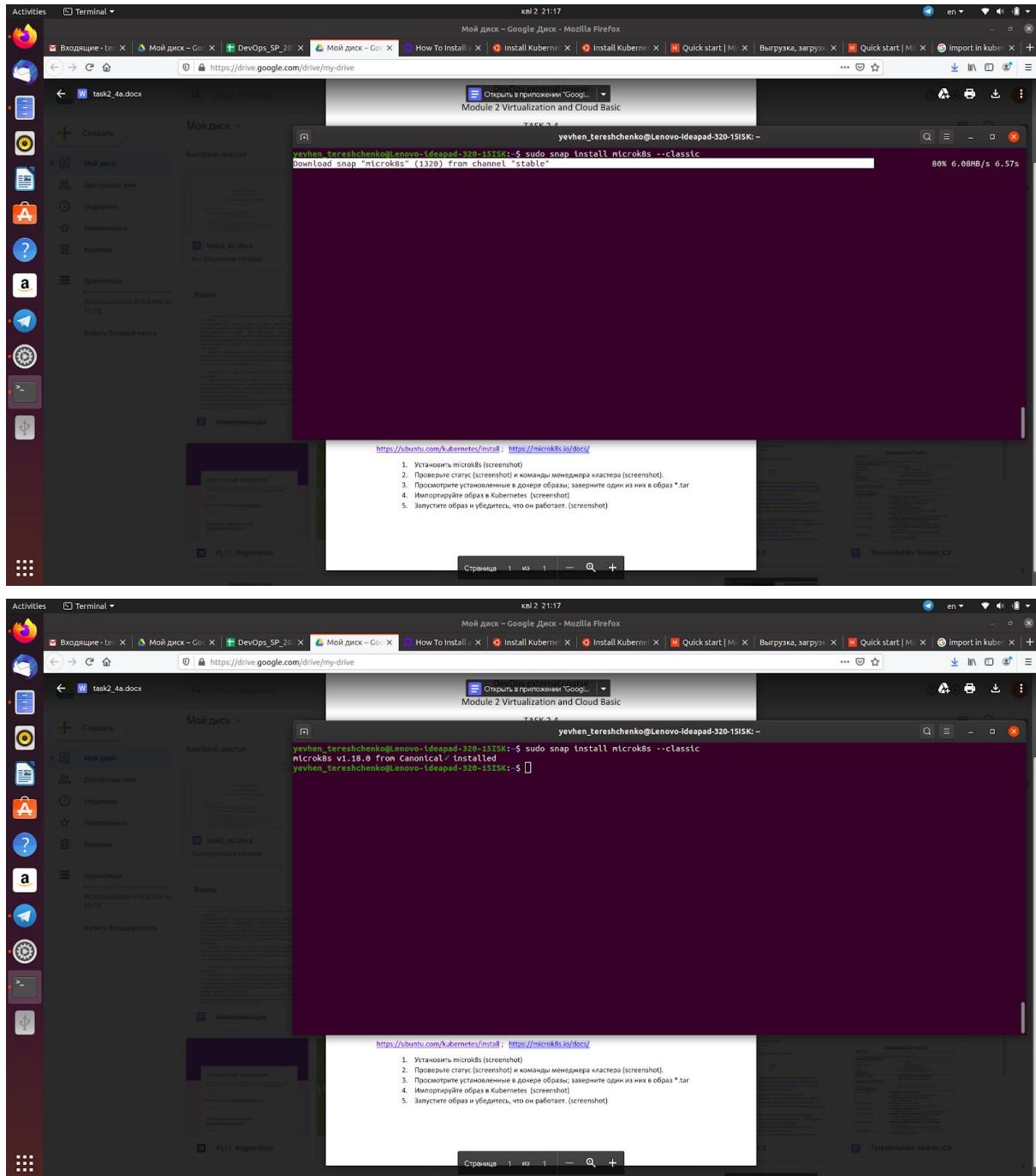


2.8. Seven major command of docker.

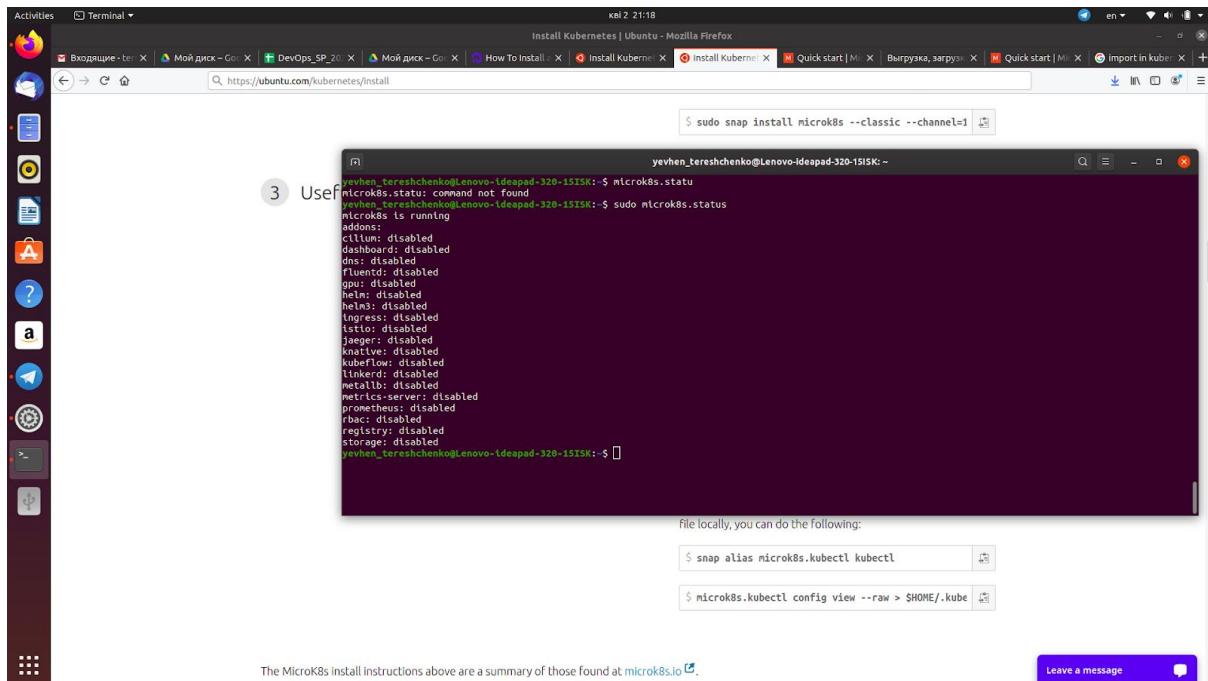
1. search - search the Docker Hub for images
2. images - list images
3. start - start one or more stopped containers
4. exec - run a command in a running container
5. pull and push - pull and push an image or a repository from
6. import - import the contents from a tarball to create a filesystem image
7. create - create a new container

3. Work with Kubernetes

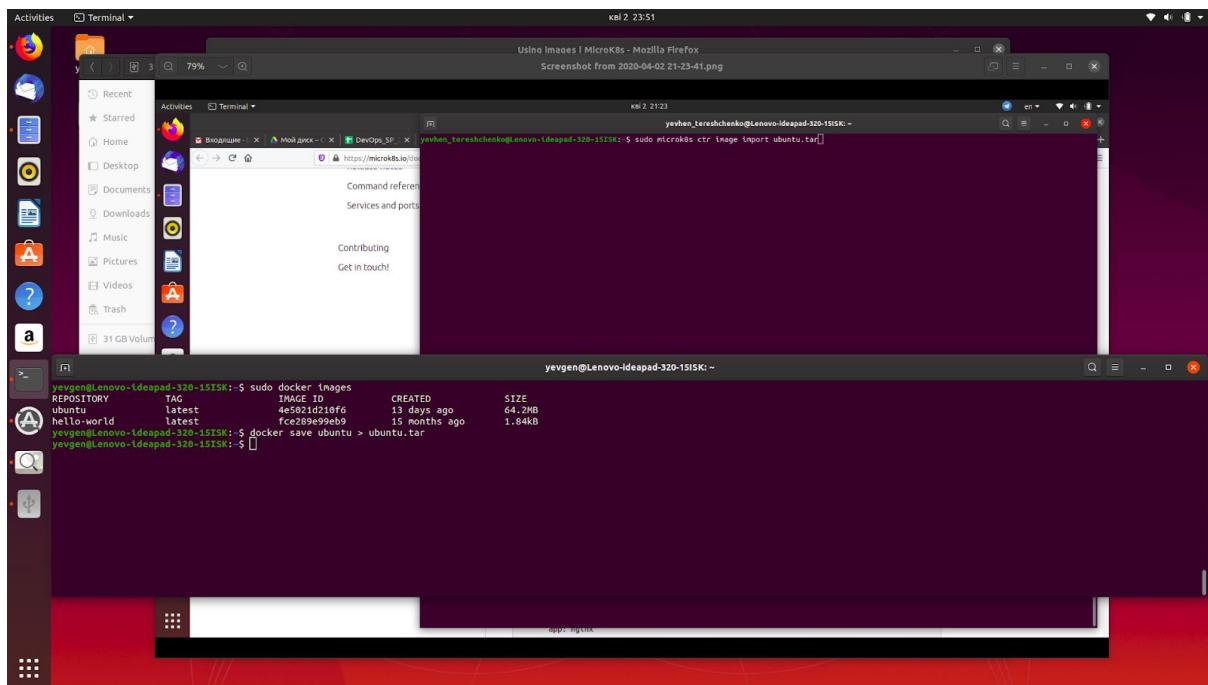
3.1 Install microk8s



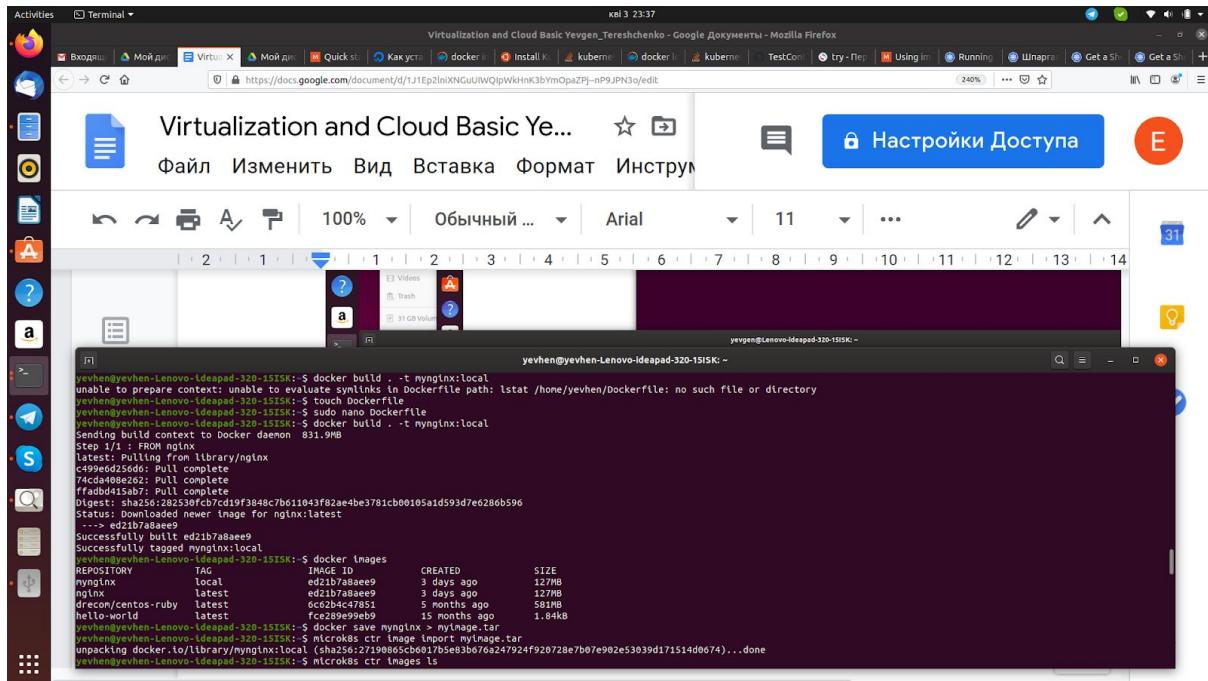
3.2 microk8s.status



3.3 List images into docker and convert it into *.tar



3.4. Import image into Kubernetes



3.5 Run images and complete that it works

