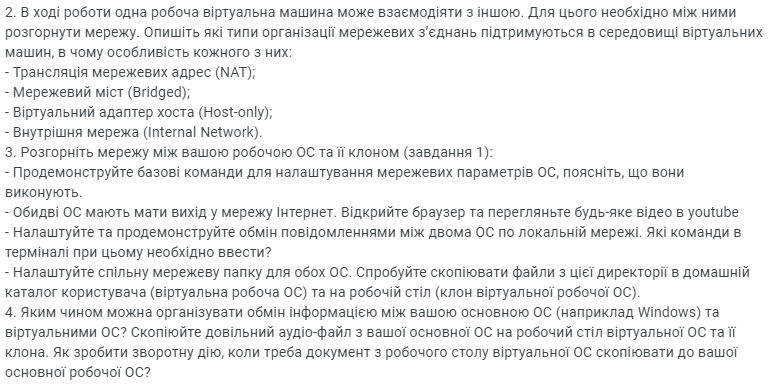
Створив Трощинський Ярослав



2. In the course of work, one working virtual machine can interact with the other. To do this, you need to deploy the network between them. Describe what types of network connections are supported in the environment of virtual machines, what is the peculiarity of each of them:

- broadcasting of network addresses (NAT);

- network bridge (bridged);

- host-only virtual adapter;

- Internal Network.

3. Expand the network between your working OS and its clone (Task 1):

- Demonstrate basic commands to set up network OS settings, explain what they are doing.

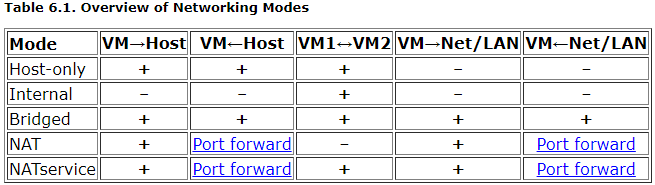
- Both OSs should have an internet. Open your browser and see any video on YouTube

- Set up and demonstrate messages between two OS on a local network. What commands in the terminal need to be introduced?

- Adjust the common network folder for both OS. Try copying the files from this directory to the user's home directory (virtual work OS) and on the desktop (virtual working OS clone).

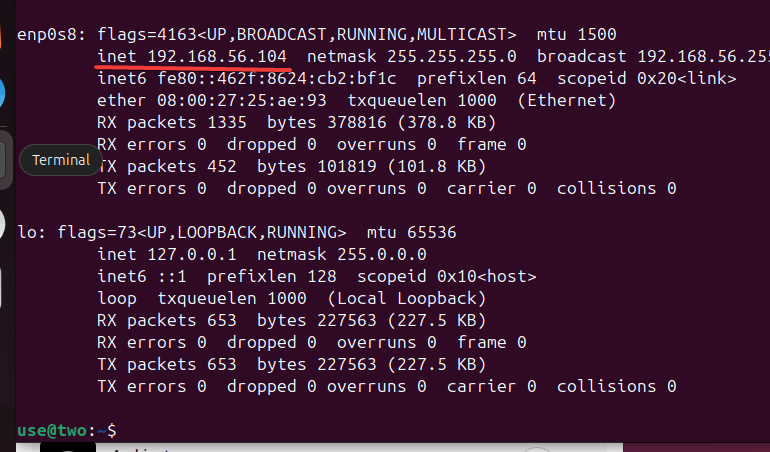
4. How can you organize information exchange between your basic OS (eg Windows) and virtual OS? Copy an arbitrary audio file from your main OS to the virtual OS desktop and its clone. How to do the reverse action when you need a document from the virtual desktop to copy to your main working OS?

2. To differences between all the types of connection I found a perfect table from [Virtualbox.org](https://www.virtualbox.org/manual/ch06.html#nichardware)

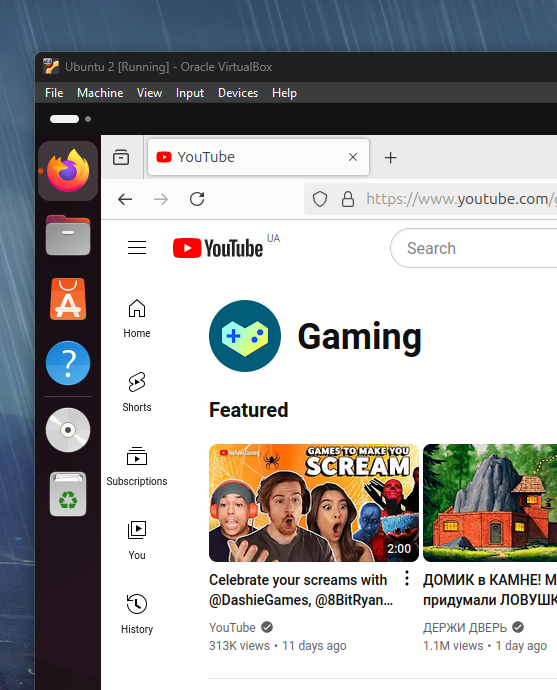
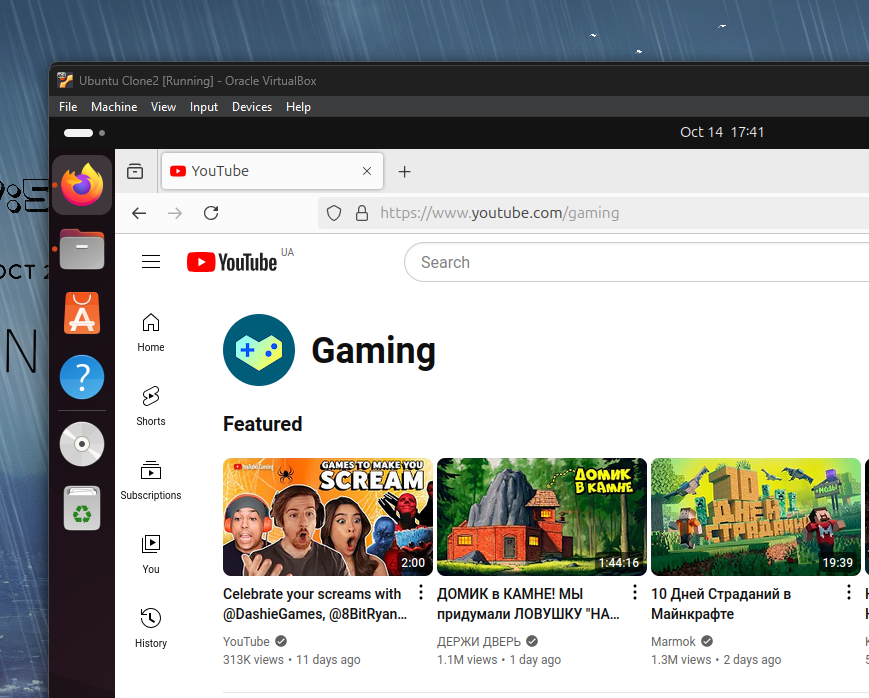


Bridged connection is really good for amateur use of virtual machines, because it is

the fastest connection among this, but for our situation will be suitable a combo of NAT and Host-only as second adapter device.

3. To get IP address we need to use command “ifconfig”, and we will get this result where I underlined needed info

After that I opened youtube on both VMs

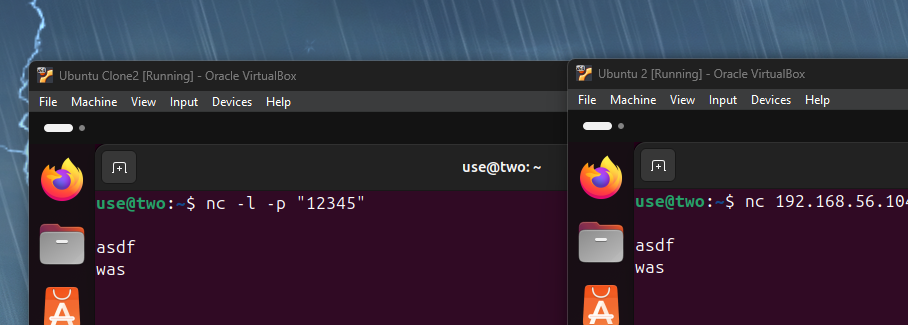


To do a transferring of messages between VMs I used commands

nc -l -p “12345” – on the first VM

nc 192.168.56.104 12345 – on the second

From now on if you type something on one of the two VMs you can see the message on both of them



To make a Shared folder I created a folder 456

After that I changed its sharing properties to “Everyone Read/Write”, and chose this folder for both of VMs as sharing one with “auto-mounting” box checked. Now we can access this folder from any of VMs using this command

sudo open /media/sf\_456/

To transfer files we just need to throw something in this folder and it will be accessible from any OS, using this method we can even share files between VMs.

4. To make a file transfer from the main OS to VM we just need to move files to the shared folder, and it will be accessible on the virtual OS, and it also works vice versa. On linux we do not have a media player, but we do have a app center, so installing one won't be a problem. Personally, I chose a VLC media player, from my experiments we could have even easily downloaded it without app center, using command

sudo apt install vlc

And to transfer an audio we could just install it on main OS and transfer it to the shared folder, so we could listen to it on any of our VMs.