DevOps 2019 training. Dennis Tikhomirov. 06/24/2019

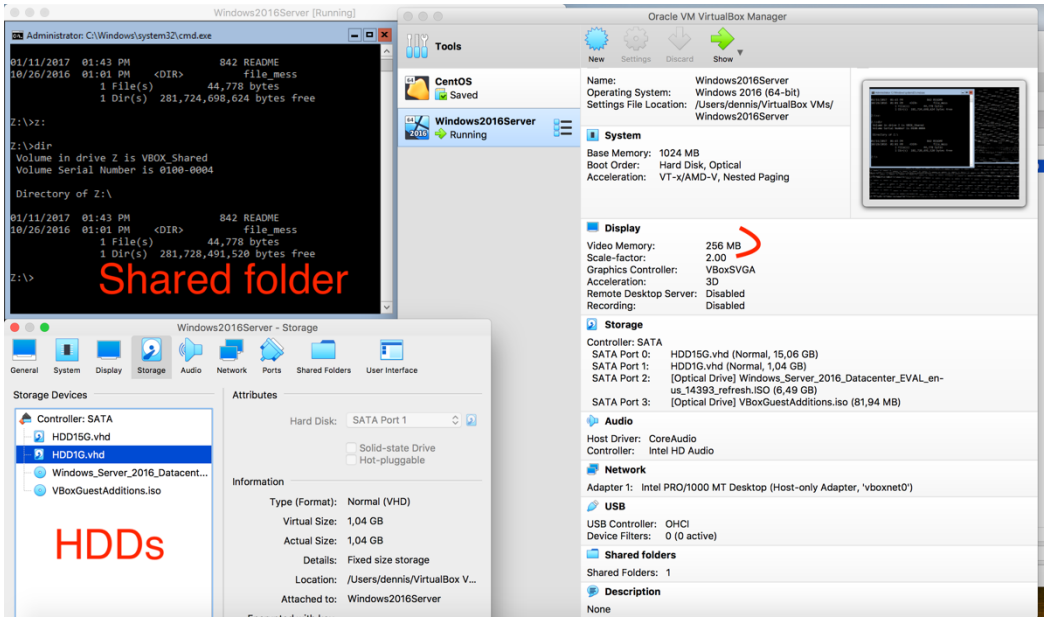
Homework.Task2.

1. Create a VM with Windows 2016 Server.

VBoxManage commands for configure and start VM:

```
VBoxManage createvm --name "Windows2016Server" —register
VBoxManage modifyvm " Windows2016Server " --memory 1024   //set RAM=1Gb
VBoxManage modifyvm " Windows2016Server " --cpus 1          // number of CPUs=1
vboxmanage modifyvm "Windows2016Server" --vram 256
VBoxManage storagectl " Windows2016Server " --name SATA --add sata.   // add SATA controller with name “SATA”

VBoxmanage storageattach "Windows2016Server" --storagectl SATA --type dvddrive –port 2 —medium /Users/dennis/epam/devops/Windows_Server_2016_Datacenter_EVAL_en-us_14393_refresh.ISO //attach DVD with Windows Server 2016 installation files

VBoxmanage storageattach " Windows2016Server " --storagectl SATA --type dvddrive --port 3 --medium /Users/dennis/epam/devops/VBoxGuestAdditions.iso          //add Guest Addition

VBoxmanage createmedium disk --filename "/Users/dennis/VirtualBox VMs/ Windows2016Server /HDD15GB.vhd" -size 15000 --format VHD                                    //create HDD image
vboxmanage storageattach " Windows2016Server " --storagectl SATA --port 0 --type hdd --medium "/Users/dennis/VirtualBox VMs/Windows2016Server/HDD15GB.vhd”      //attach HDD

VBoxmanage createmedium disk --filename "/Users/dennis/VirtualBox VMs/ Windows2016Server /HDD1GB.vhd" -size 1024 --format VHD                                    //create HDD image
vboxmanage storageattach " Windows2016Server " --storagectl SATA --port 0 --type hdd --medium "/Users/dennis/VirtualBox VMs/Windows2016Server/HDD1GB.vhd”      //attach HDD


vboxmanage modifyvm " Windows2016Server " --nic1 hostonly          //setup Host-only mode for Adapter1

vboxmanage startvm " Windows2016Server”                            //launch VM
```

Screenshot#1. Details tab for Win-2016



Notice!

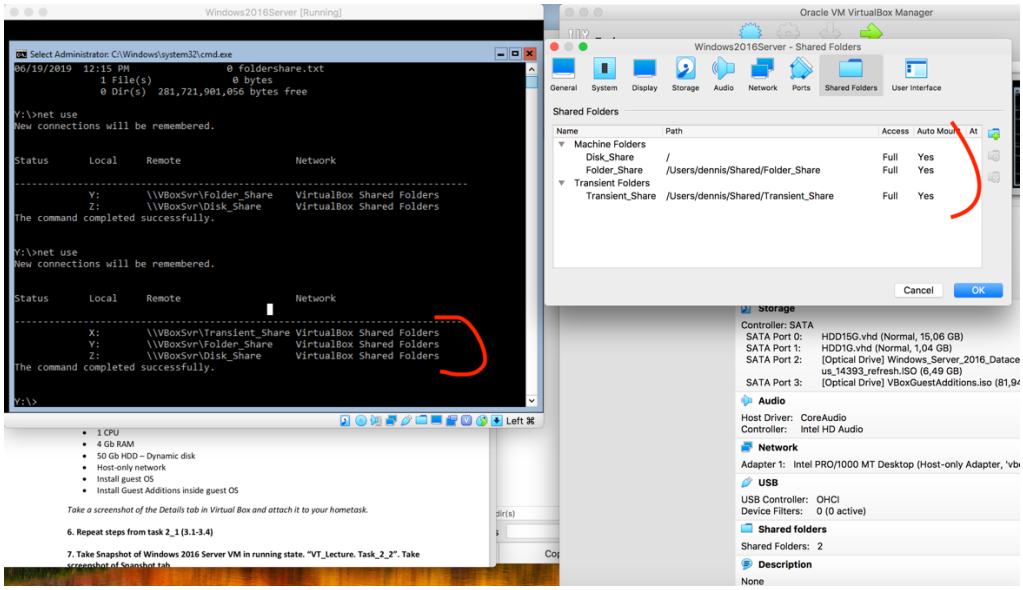
I couldn't allocate VRAM more than 256Mb on MacBook Pro, HighSierra.

```
Denniss-MacBook-Pro:~ dennis$ VBoxManage modifyvm "Windows2016Server" --vram 256
Denniss-MacBook-Pro:~ dennis$ VBoxManage modifyvm "Windows2016Server" --vram 512
VBoxManage: error: Invalid VRAM size: 512 MB (must be in range [0, 256] MB)
VBoxManage: error: Details: code NS_ERROR_INVALID_ARG (0x80070057), component SessionMachine, interfa
ce IMachine, callee nsISupports
VBoxManage: error: Context: "COMSETTER(VRAMSize)(ValueUnion.u32)" at line 620 of file VBoxManageModif
yVM.cpp
Denniss-MacBook-Pro:~ dennis$
```

There isn't a limitation for VRAM in VM documentation https://docs.oracle.com/cd/E97728_01/E97727/html/settings-display.html but looks like 256Mb is the upper limit https://askubuntu.com/questions/587083/virtualbox-how-to-increase-video-memory

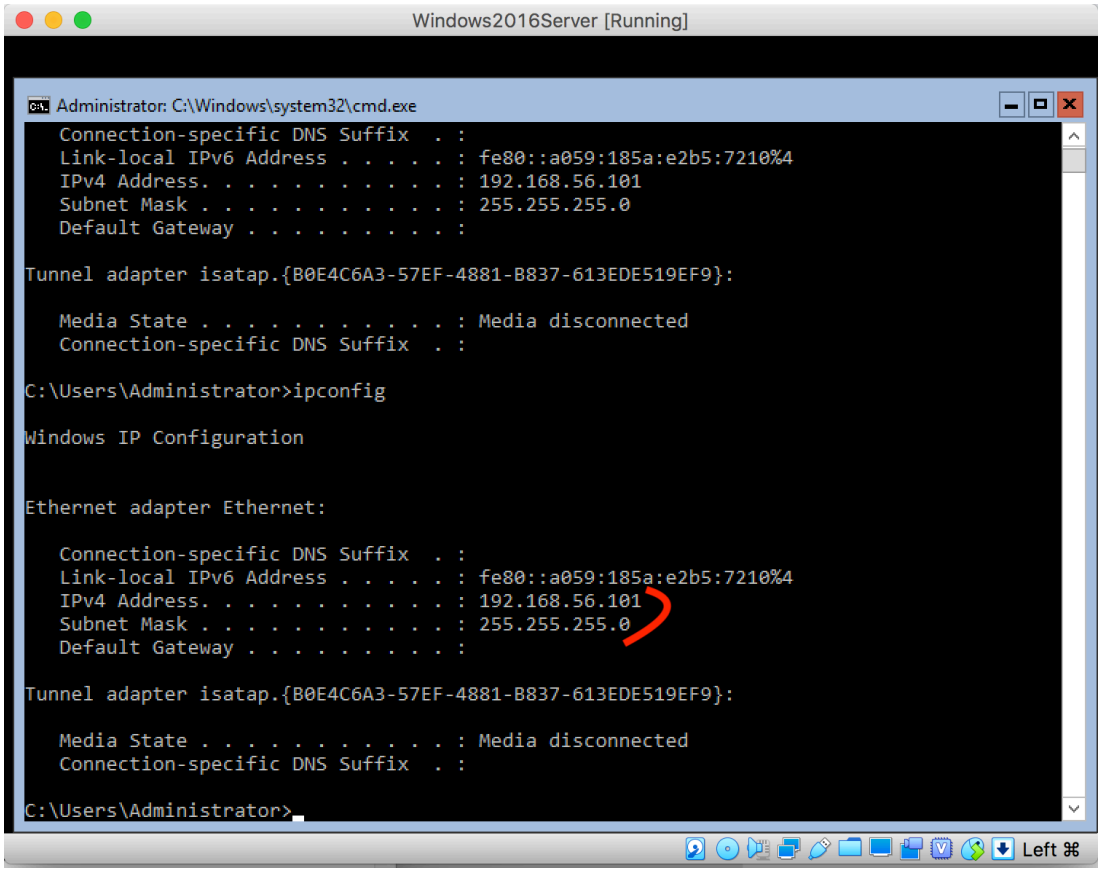
2. Create three shared folders and map them into guest.

Screenshot#2. Shared folders.

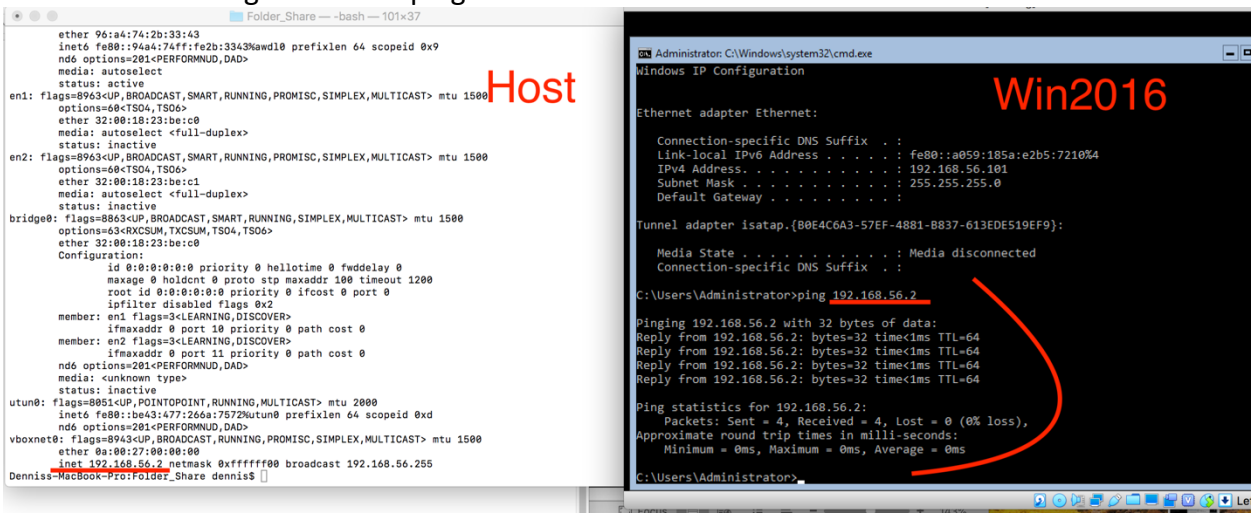


3. Guest Networking.

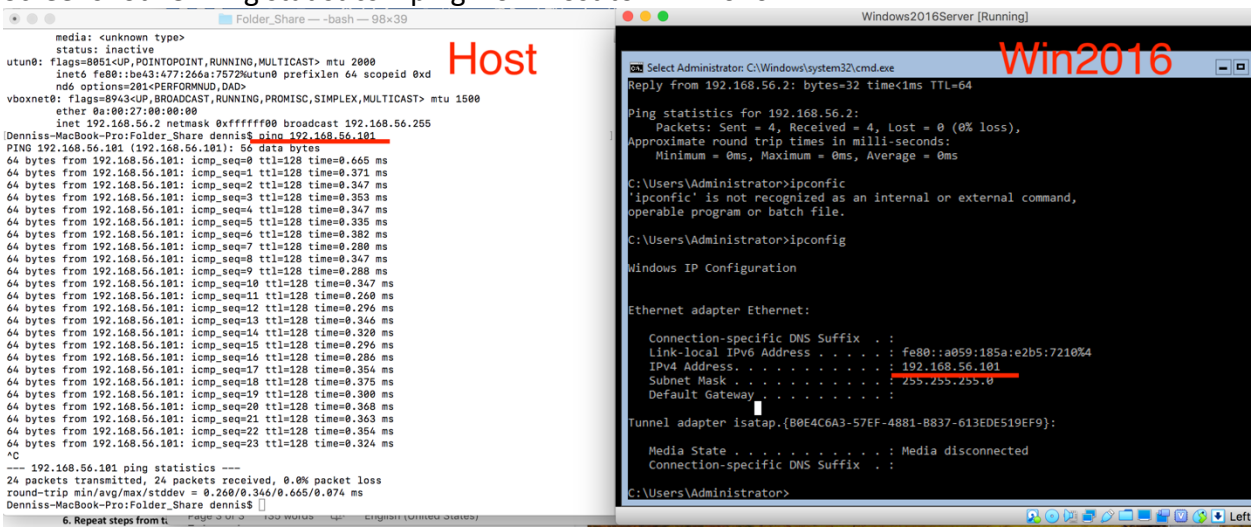
Screenshot#3. IP settings of Windows2016Server VM



Screenshot #4. Ping statistics – ping from Win-2016 to host.



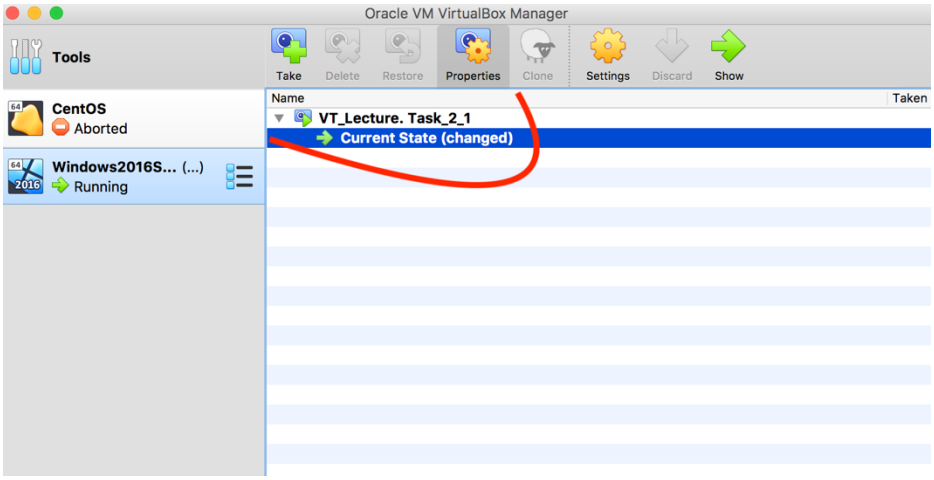
Screenshot #5. Ping statistics – ping from host to Win-2016



4. Take a Snapshot of this VM in running state. Name it "VT_Lecture. Task_2_1". Take screenshot of Snapshot tab

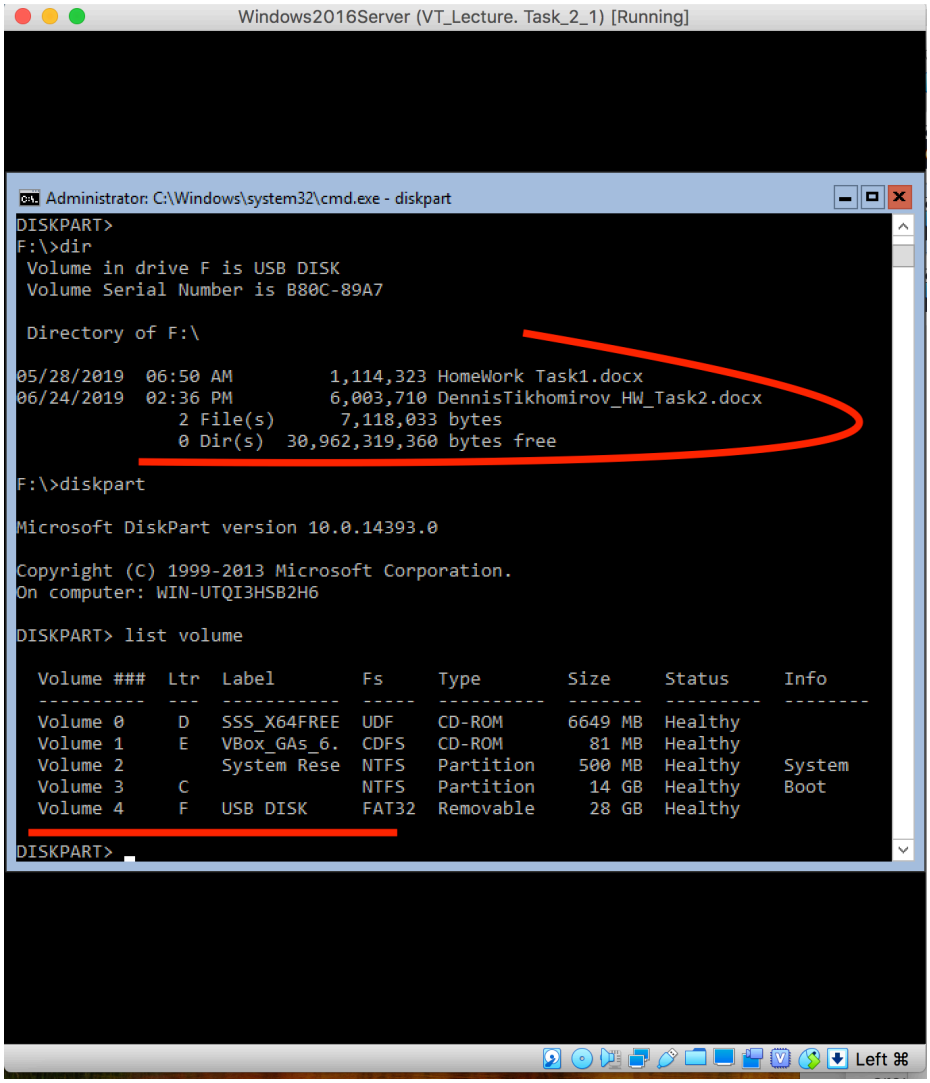
Command: `vboxmanage snapshot "Windows2016Server" take ""VT_Lecture. Task_2_1"`

Screenshot #6. Snapshot tab for Win-2016



5. Mount a USB flash drive with some files into the VM and copy these files inside

Screenshot#7. USB flash inside Win-2016



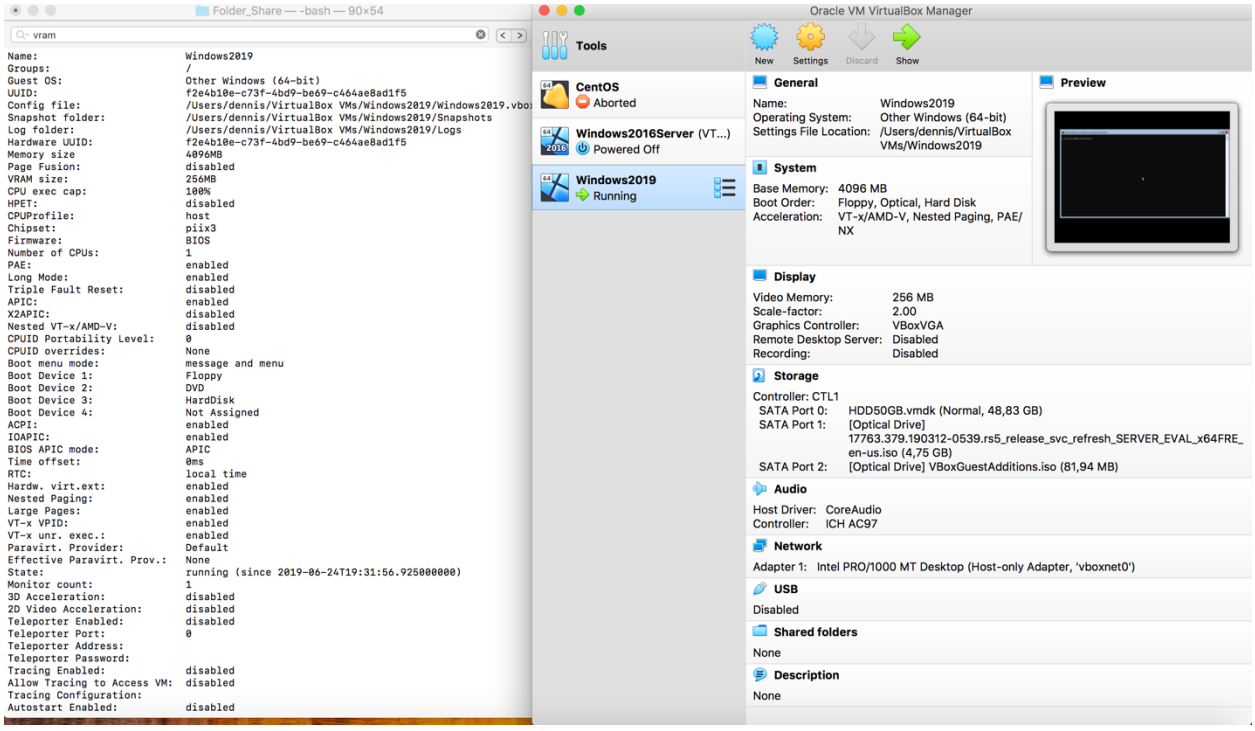
6. 2nd VM : Windows 2019 Server

6.1 Create a VM with Windows 2019 Server.

VBoxManage commands for configure and start VM:

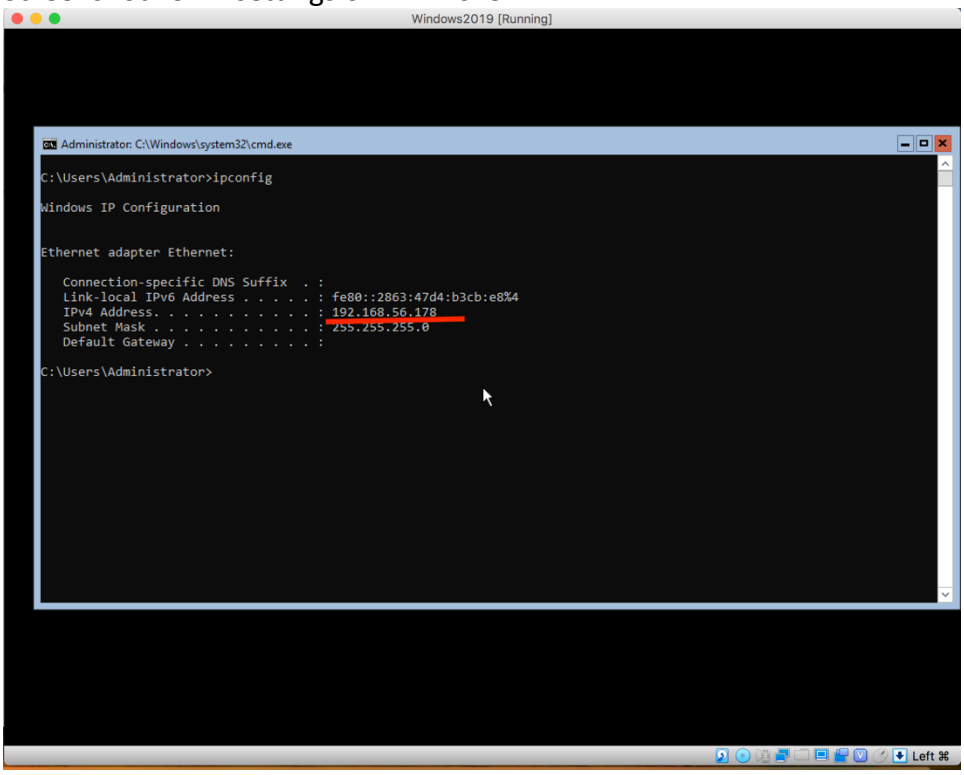
```
VBoxManage createvm --name "Win2019" —register
VBoxManage modifyvm "Windows2019" --memory 4096                    //set RAM=4Gb
VBoxManage modifyvm "Windows2019" --cpus 1                         // number of CPUs=1
VBoxManage storagectl "Windows2019" --name CTL1 --add sata         // add SATA controller with name “CTL1”

VBoxmanage storageattach "Windows2019" --storagectl CTL1 --type dvddrive --port  1 —medium
/Users/dennis/epam/devops/17763.379.190312-0539.rs5_release_svc_refresh_SERVER_EVAL_x64FRE_en-us.iso  //attach DVD
with Windows Server 2019 installation files

VBoxmanage storageattach "Windows2019" --storagectl CTL1 --type dvddrive --port 2 --medium
/Users/dennis/epam/devops/VBoxGuestAdditions.iso                   //add Guest Addition

VBoxmanage createmedium disk --filename "/Users/dennis/VirtualBox VMs/Windows2019/HDD50GB.vmdk" -size 50000 --
format VHD                                                         //create HDD image

vboxmanage storageattach "Windows2019" --storagectl CTL1 --port 0 --type hdd --medium "/Users/dennis/VirtualBox
VMs/Windows2019/HDD50GB.vmdk”                                      //attach HDD

vboxmanage modifyvm "Windows2019" --nic1 hostonly                  //setup Host-only mode for Adapter1

vboxmanage startvm "Windows2019"                                   //launch VM
```

Screenshot #8. Details tab for Win-2019



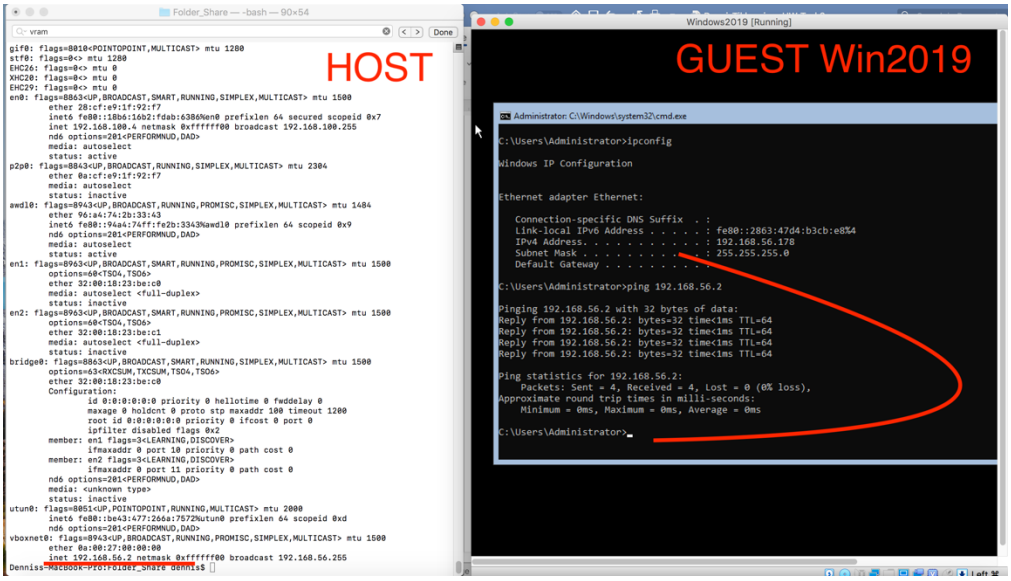
6.2 Find out IP settings of **Windows 2019 Server** VM

Screenshot #9. IP settings of Win-2019 .



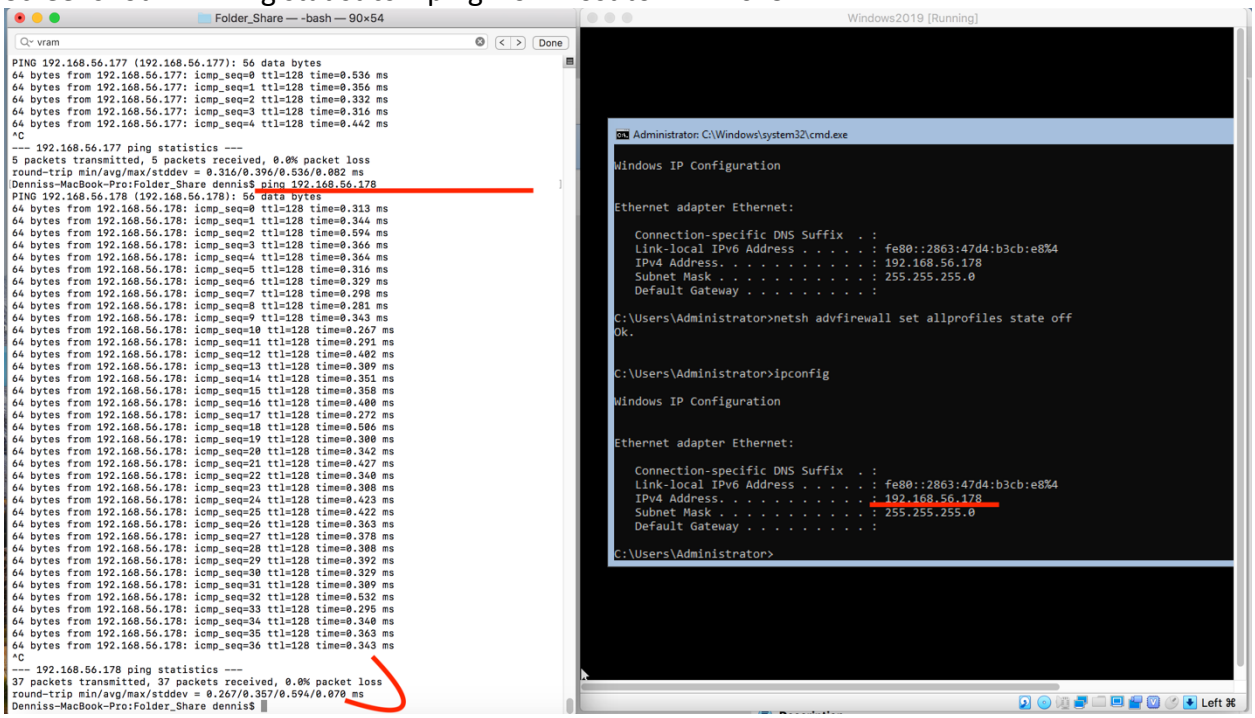
6.3 Ping statistic from Windows2019Server to host

Screenshot #10. Ping statistics – ping from Win-2019 to host



6.4 Ping statistic from host to Windows2019Server

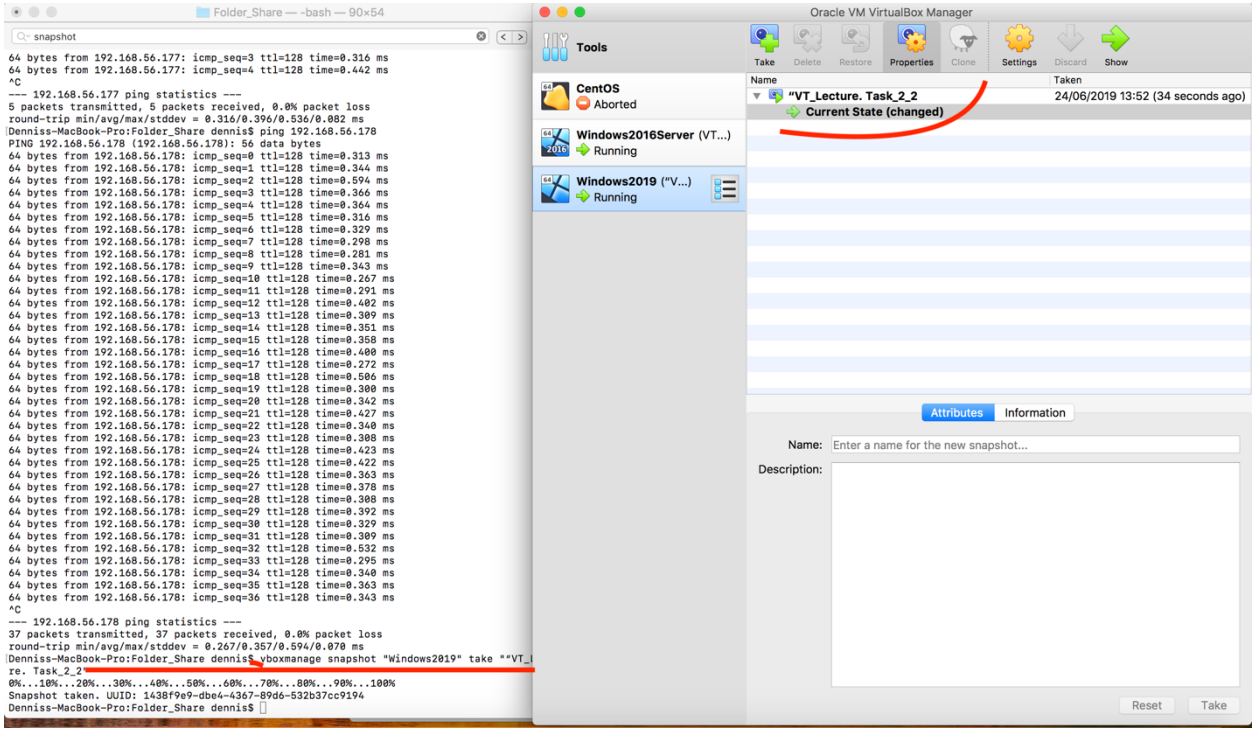
Screenshot #11. Ping statistics – ping from host to Win-2019



7. Take Snapshot of Windows 2016 Server VM in running state. “VT_Lecture. Task_2_2”. Take screenshot of Snapshot tab

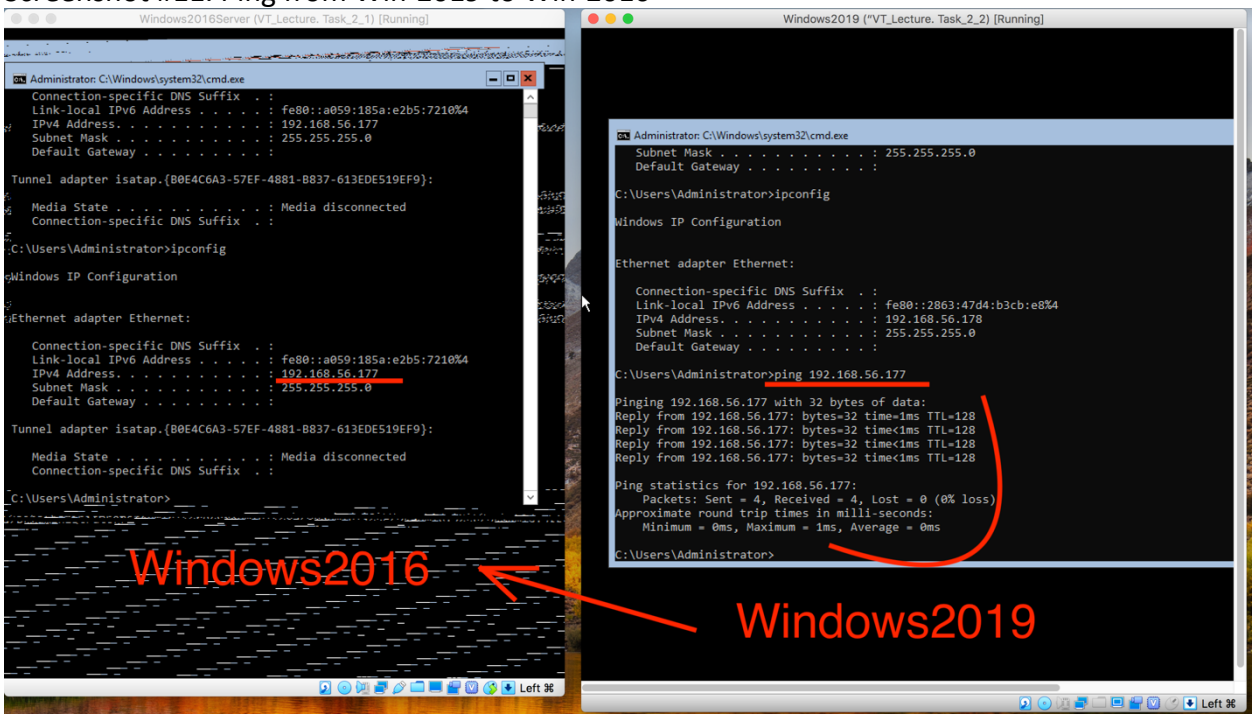
```
vboxmanage snapshot "Windows2019" take "“VT_Lecture. Task_2_2"
```

Screenshot #14. Snapshot tab for Win-2019



8. Ping Windows 2016 VM from Windows 2019 and vice versa

Screenshot #11. Ping from Win-2019 to Win-2016



Screenshot #12. Ping from Win-2016 to Win-2019