Oracle Enterprise Linux 6.9 Installation

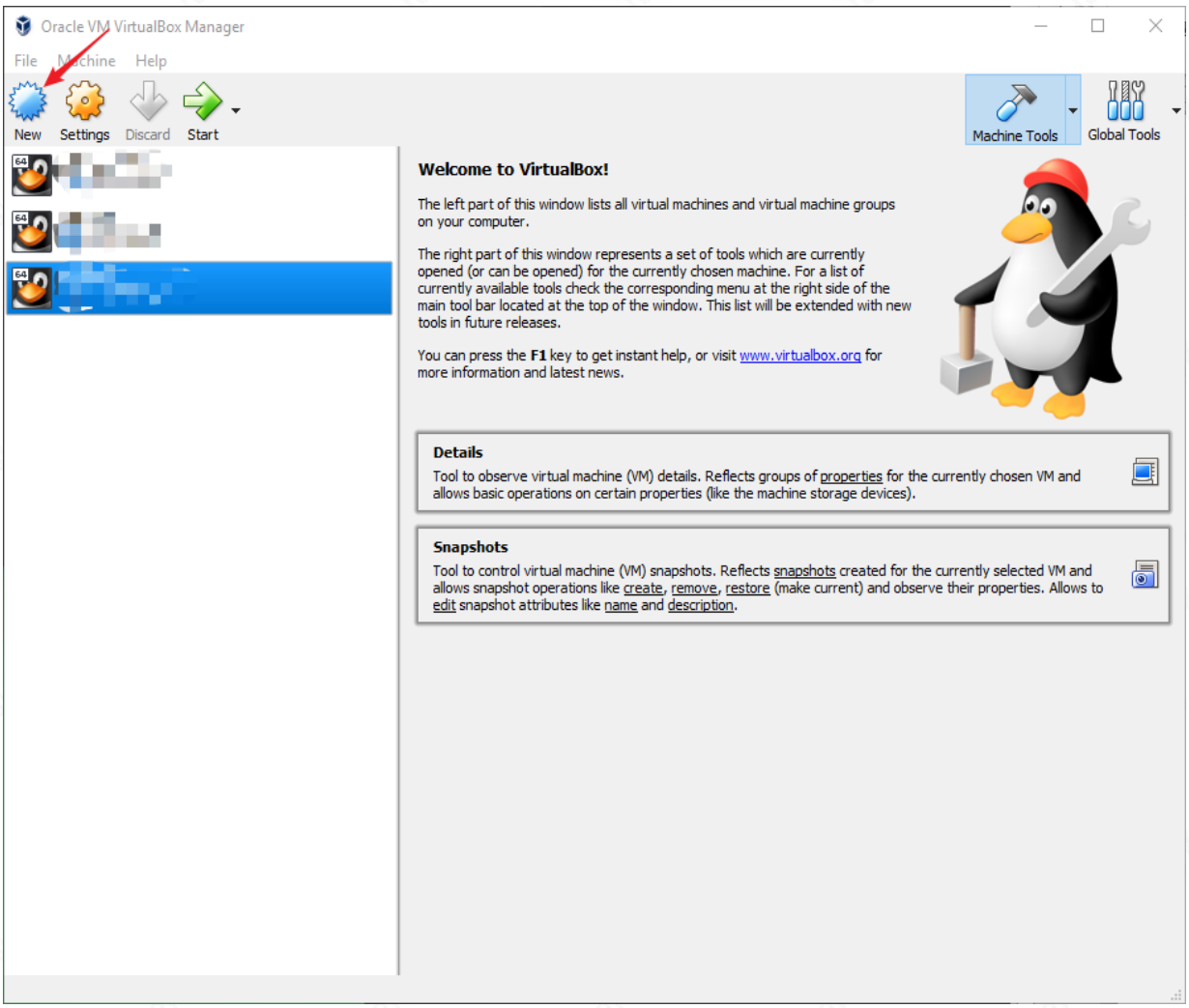
Oracle VirtualBox is used for the installation. The installation is for an Oracle Database installation later on. This installation is not meant to be for a production environment but rather for a sandbox-test environment.

1. REQUIRED SOFTWARE

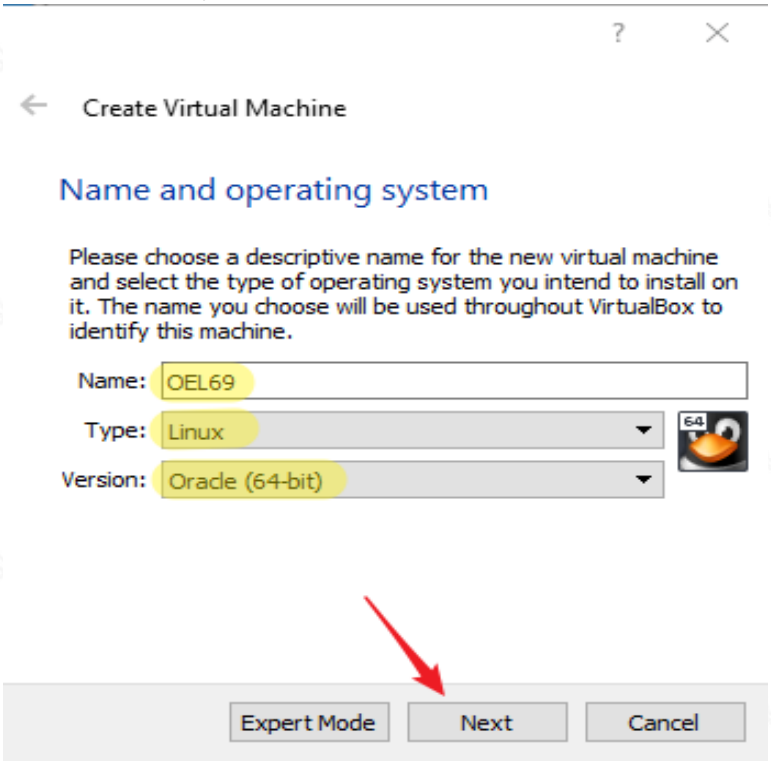
Hypervisor	Oracle VirtualBox 5.2.6
Terminal Emulator	Putty v0.63
X11 Display Server	Xming 6.9.0.31
Linux Image	OracleLinux-R6-U9-Server-x86_64-dvd.iso

2. CREATING A NEW VIRTUAL MACHINE

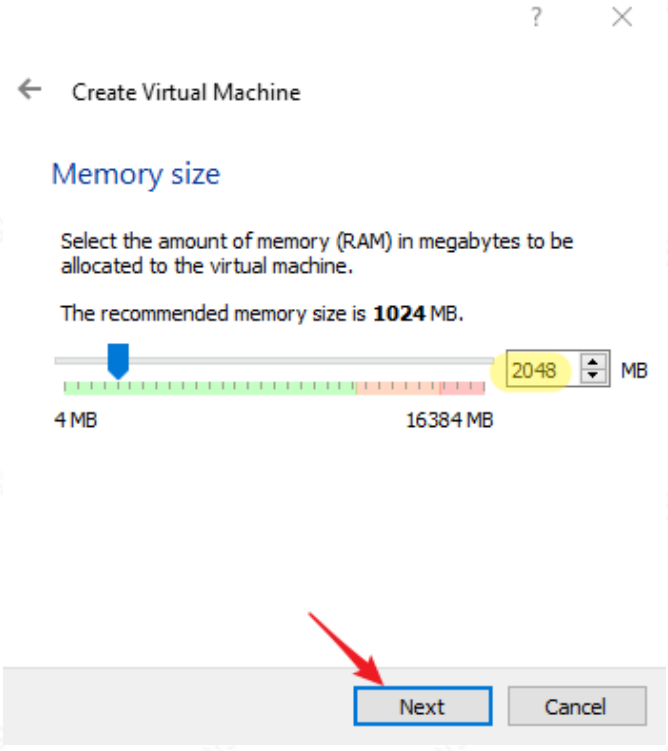
Run VirtualBox software and click "New"



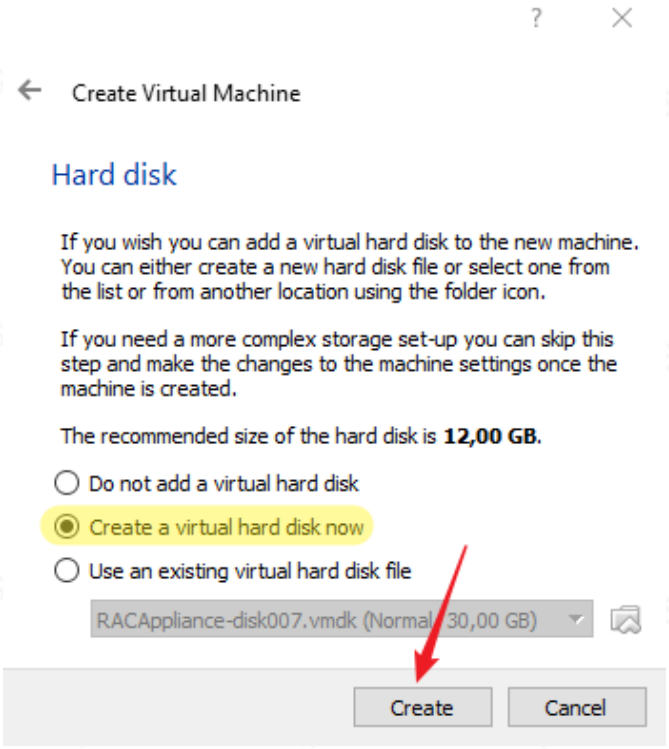
Give some name, select as follows and click "Next"



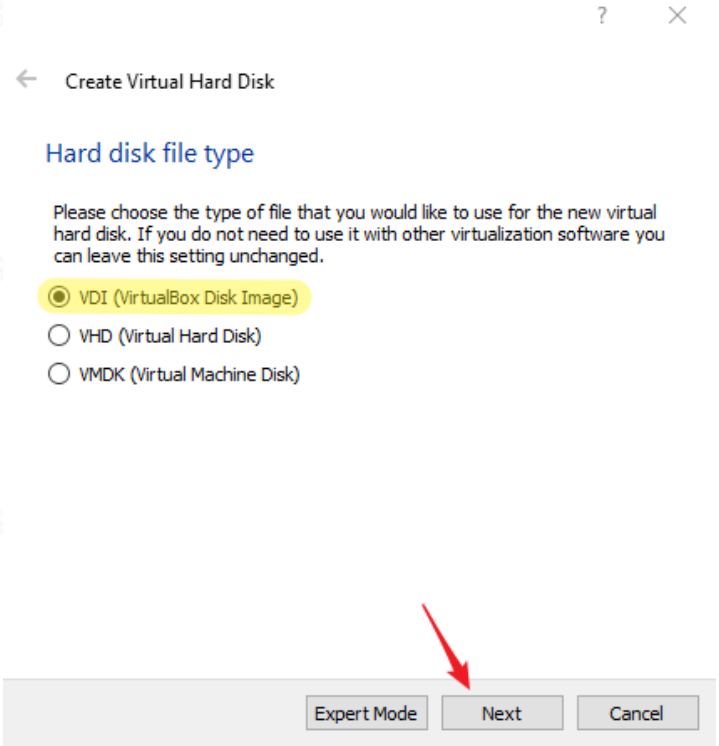
Arrange the total memory and click "Next"



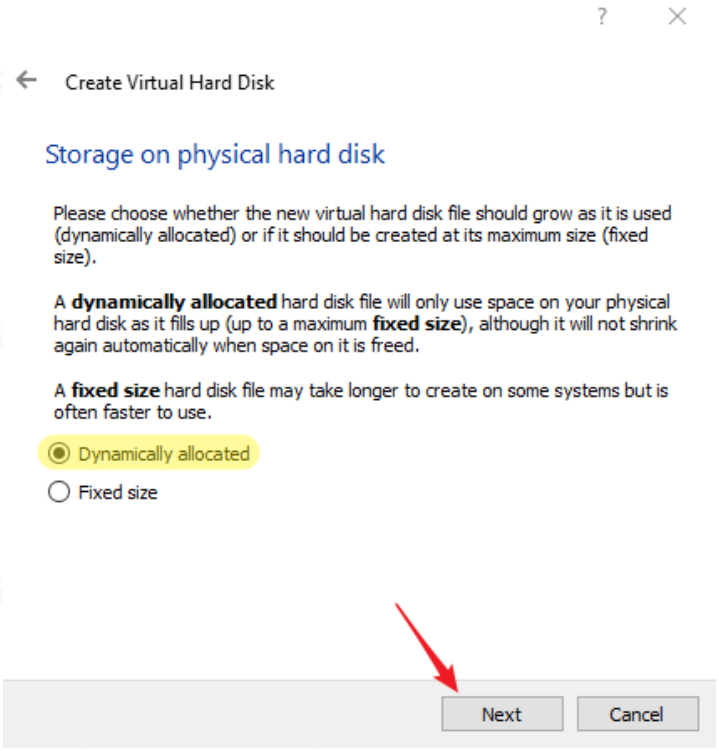
Select "Create a virtual hard disk now" and click "Create"



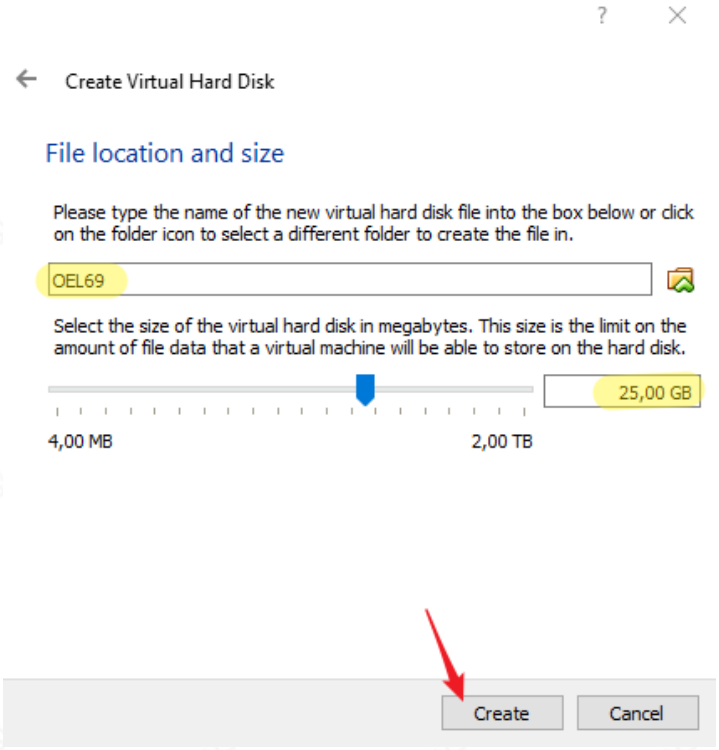
Select "VDI" as the hard disk file type and click "Next"



Select "Dynamically allocated" not to waste space on the host server

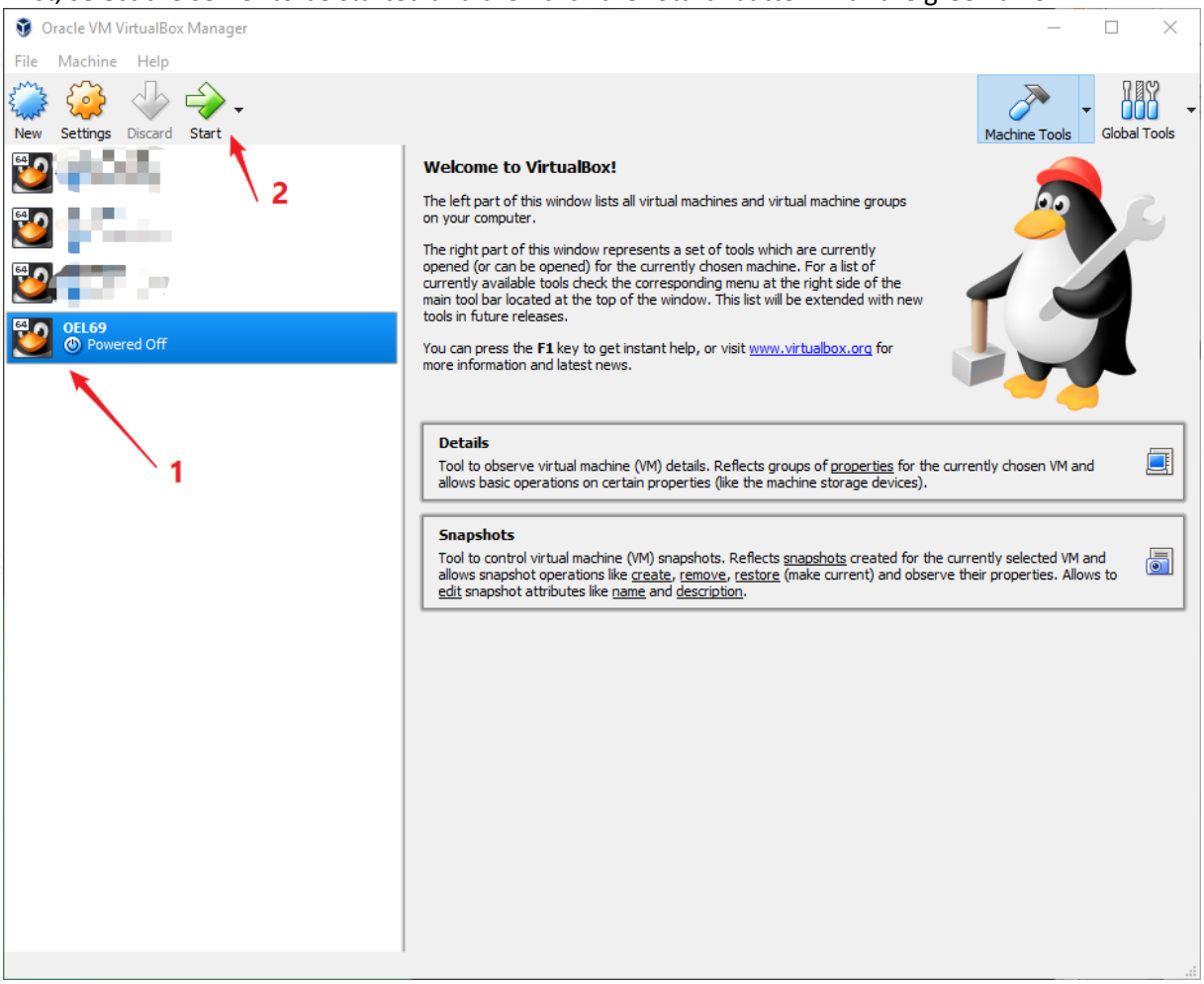


For a single instance Oracle database test server, 25GB of disk space is more than enough even if we are planning to use "File System" for datafiles instead of ASM.



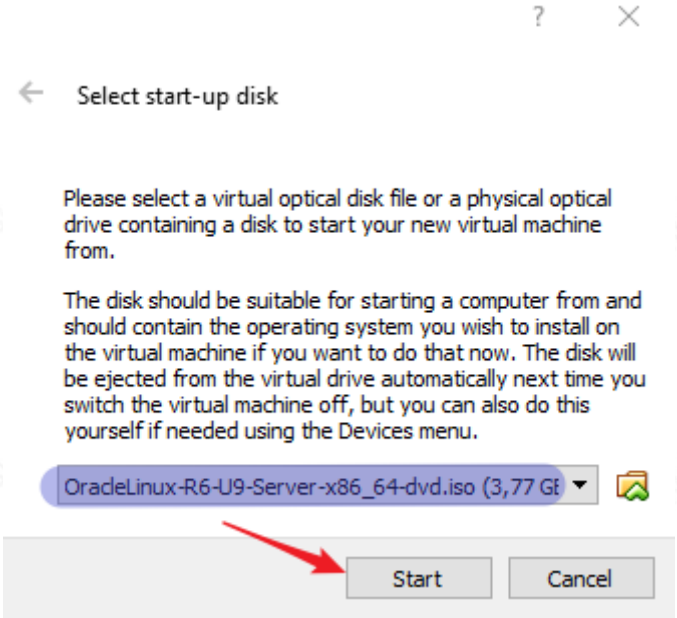
Start the server

First, select the server to be started and then click the "Start" button with the green arrow.



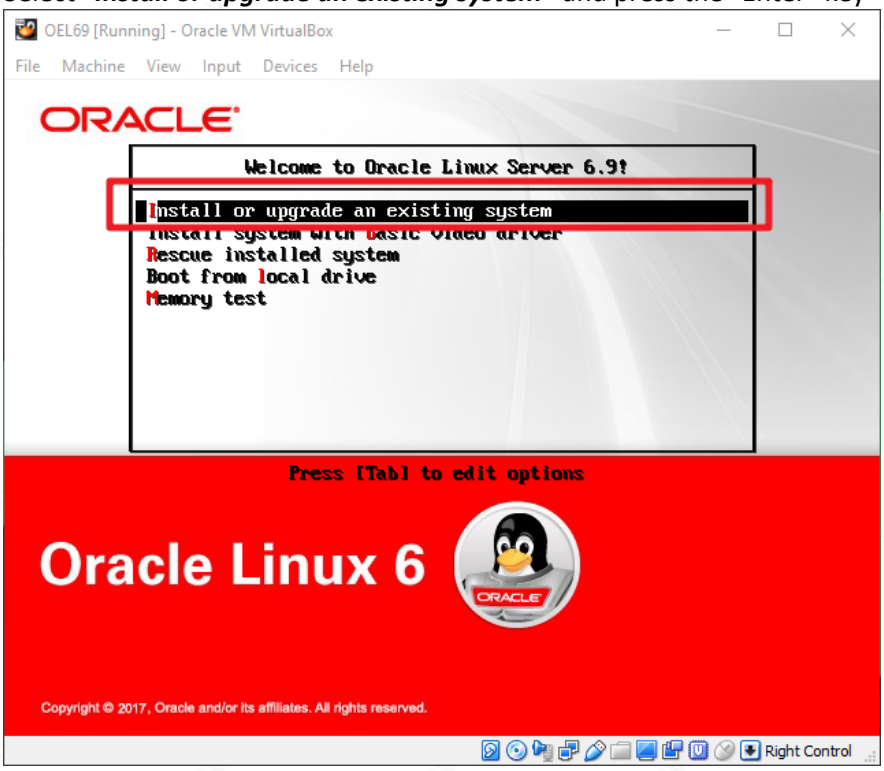
A dialog box will popup asking for the location of the iso file.

After selecting the iso file ***"OracleLinux-R6-U9-Server-x86_64-dvd"*** click "Start"

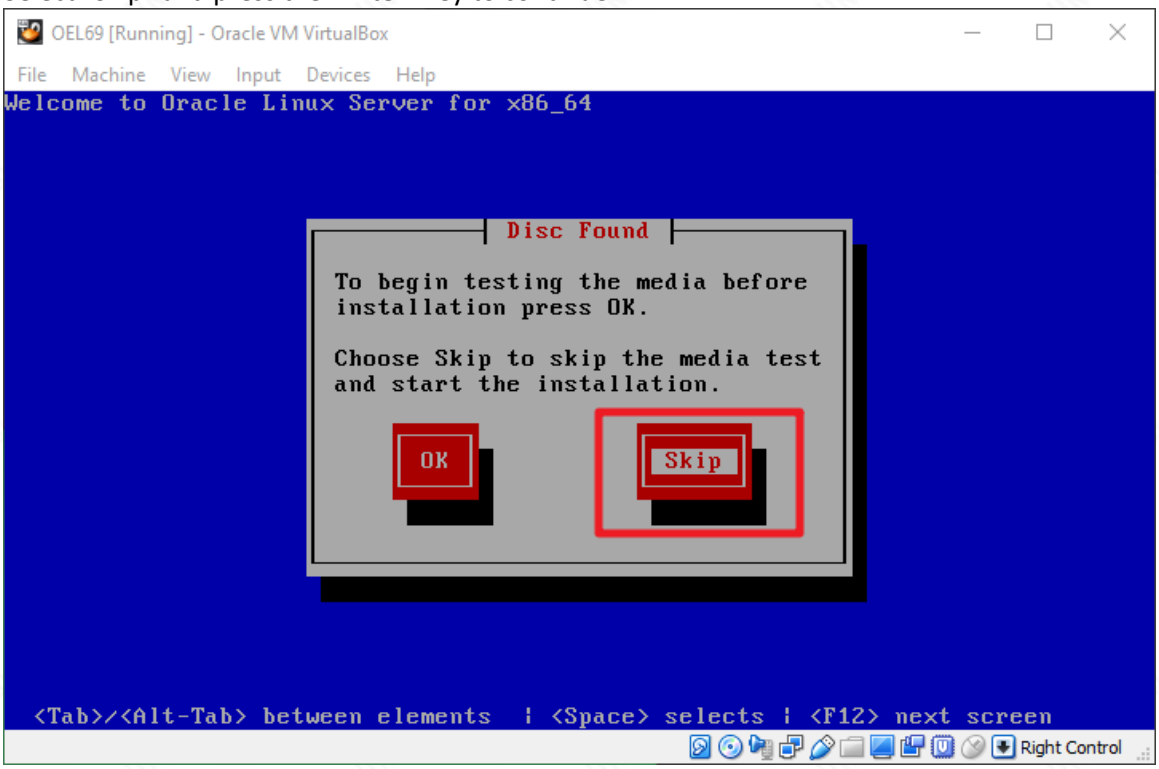


3. LINUX INSTALLATION

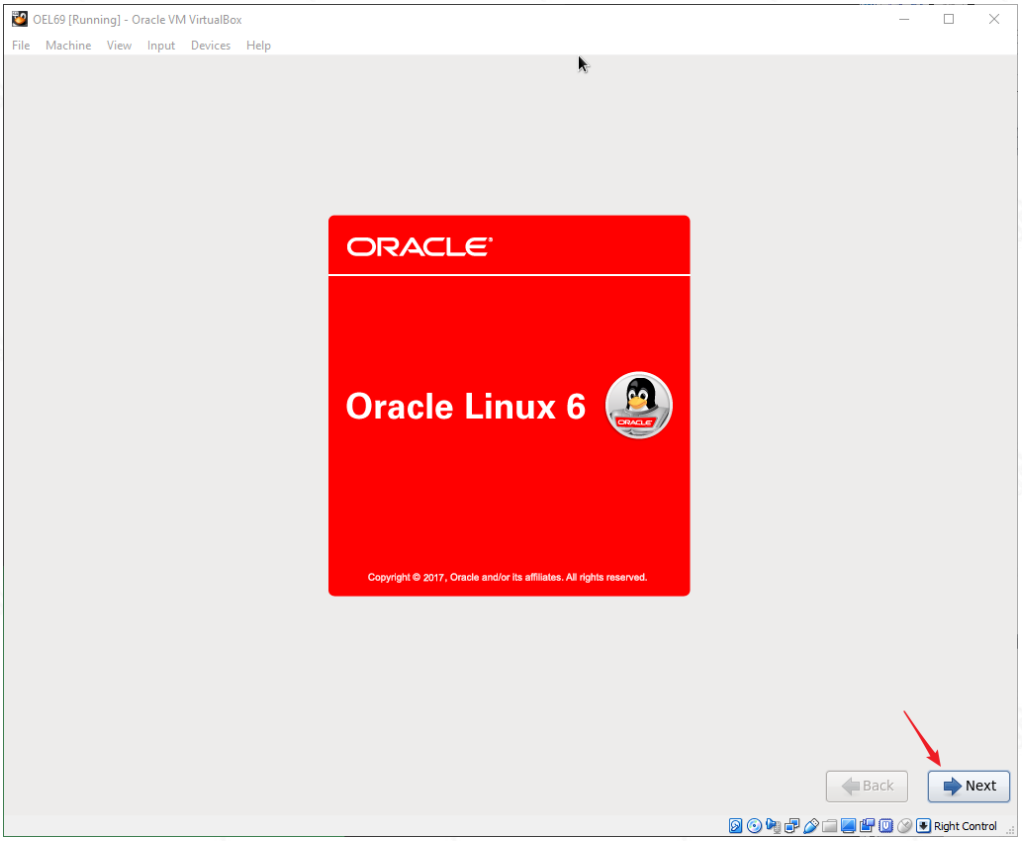
With the selection of the iso file in the previous step, the OS installation begins.
Select ***"Install or upgrade an existing system"*** and press the "Enter" key



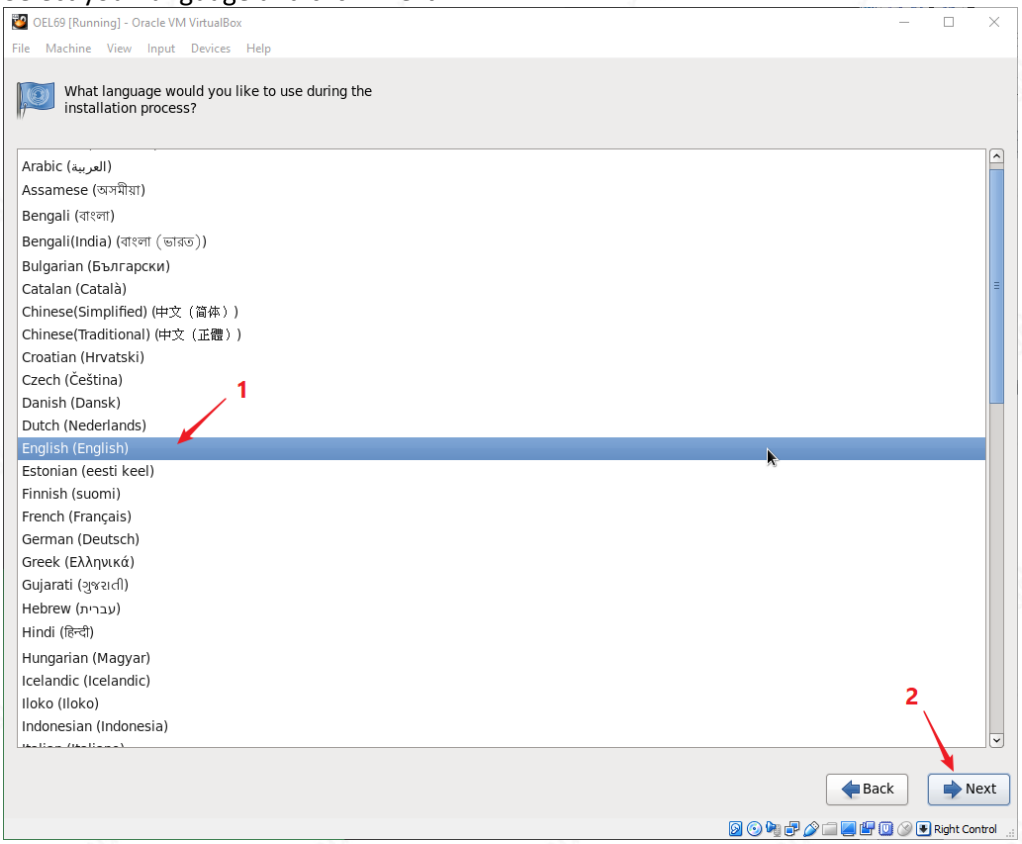
Select "Skip" and press the "Enter" key to continue.



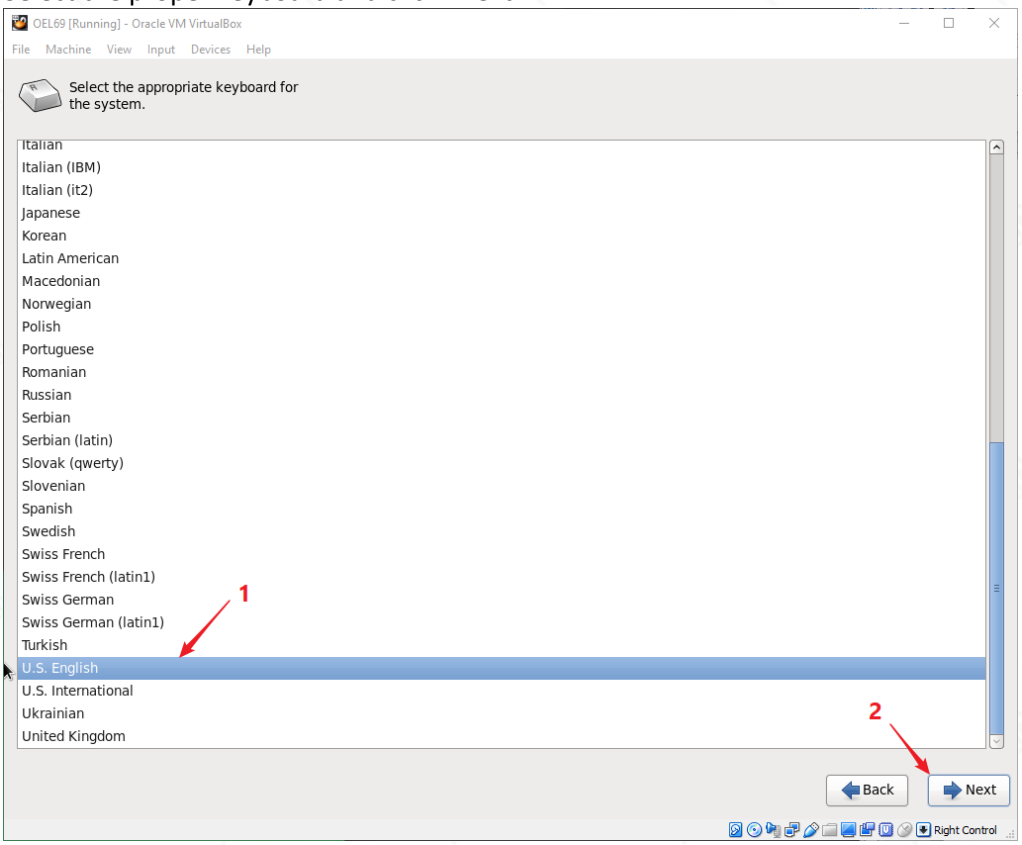
Click "Next"



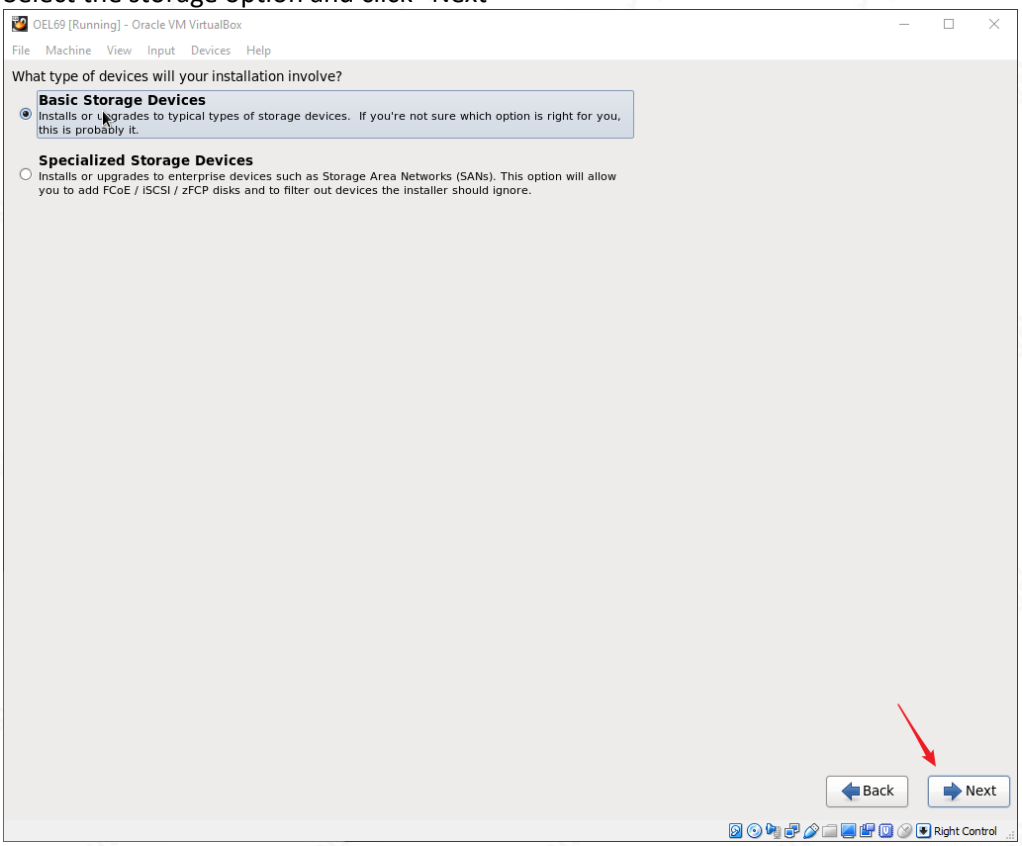
Select your language and click "Next"



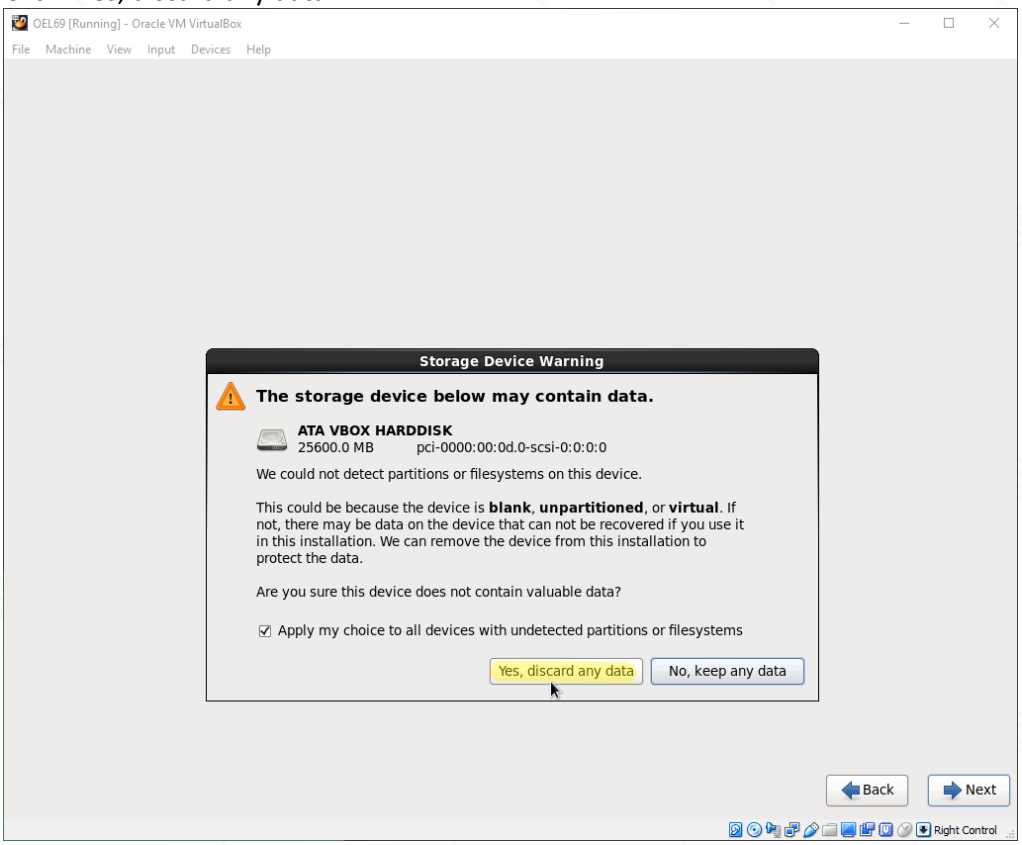
Select the proper keyboard and click "Next"



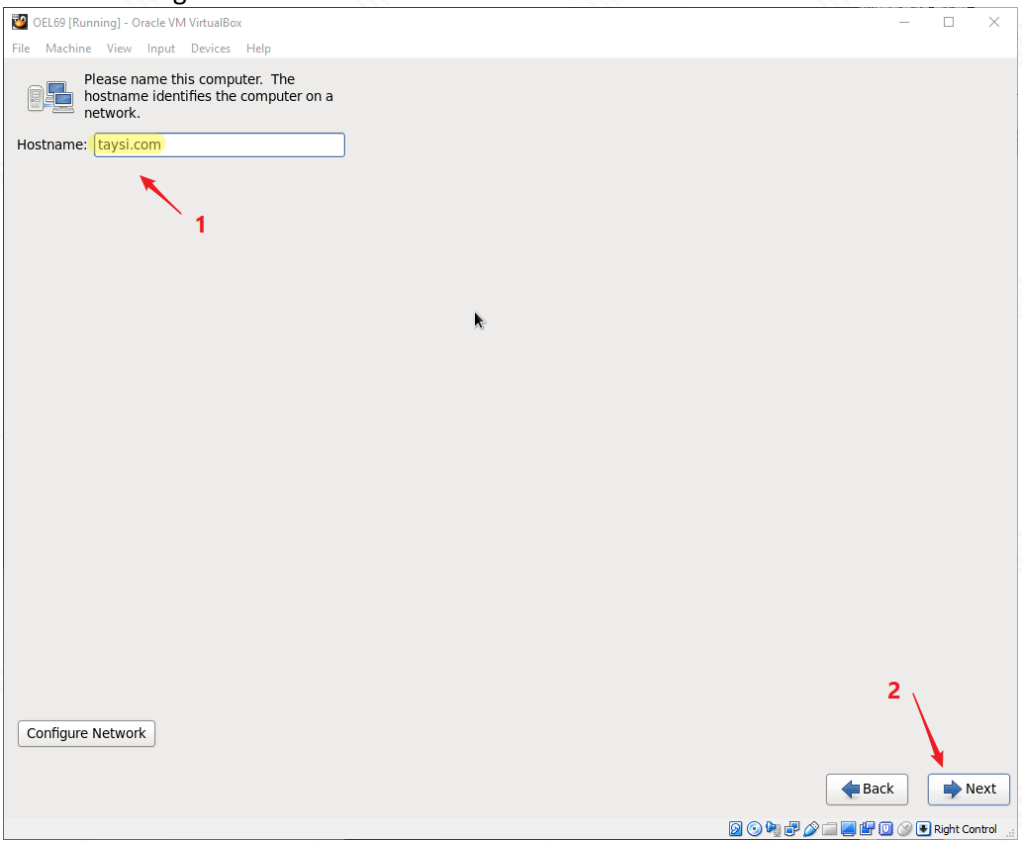
Select the storage option and click "Next"



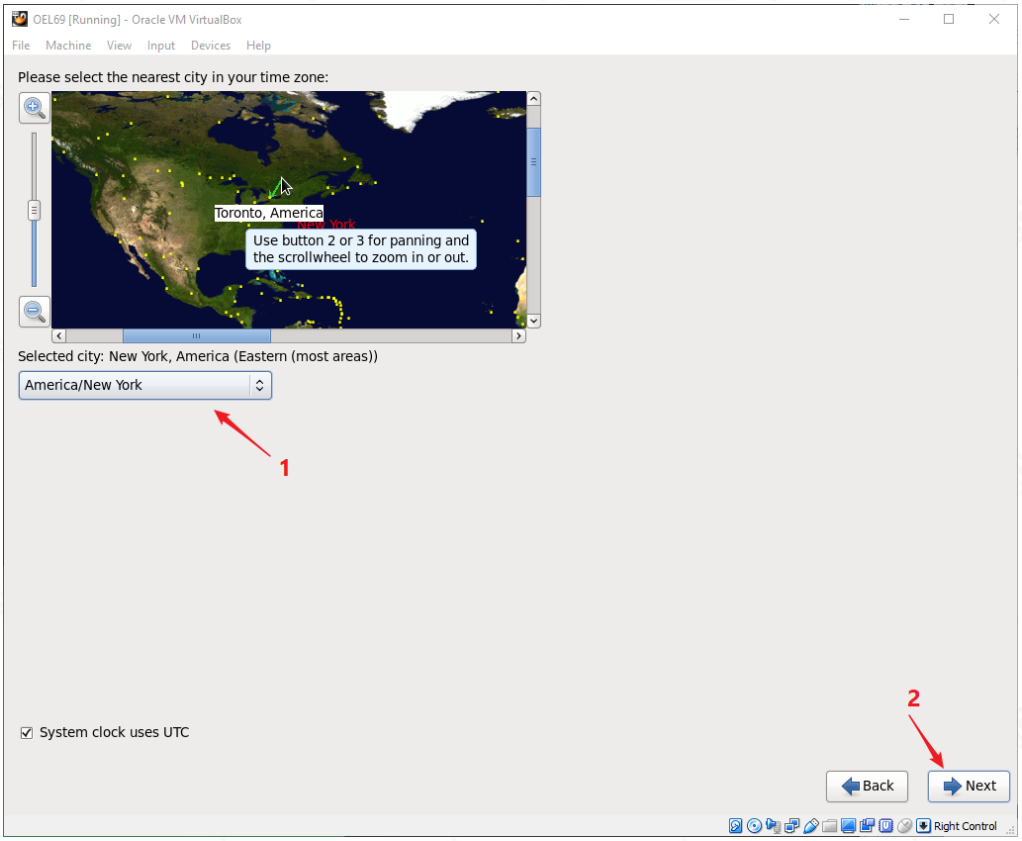
Click "Yes, discard any data"



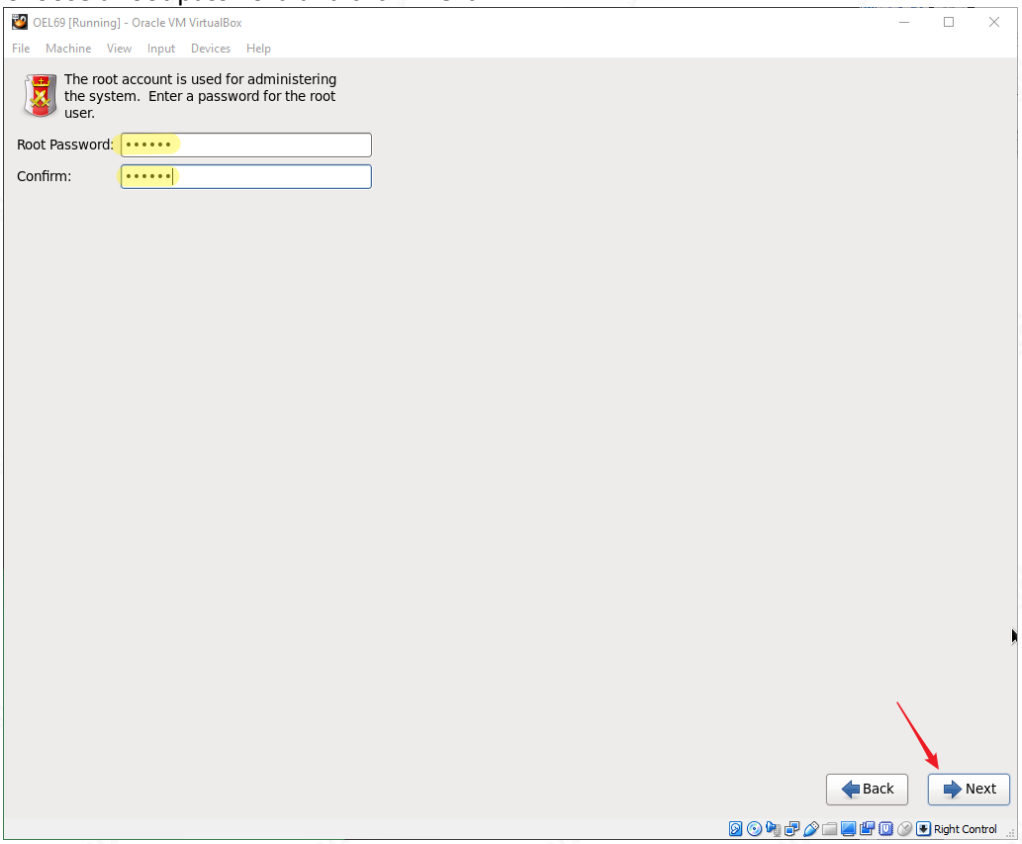
Enter a hostname and then click "Next"
Network configuration will be done later in the documentation.



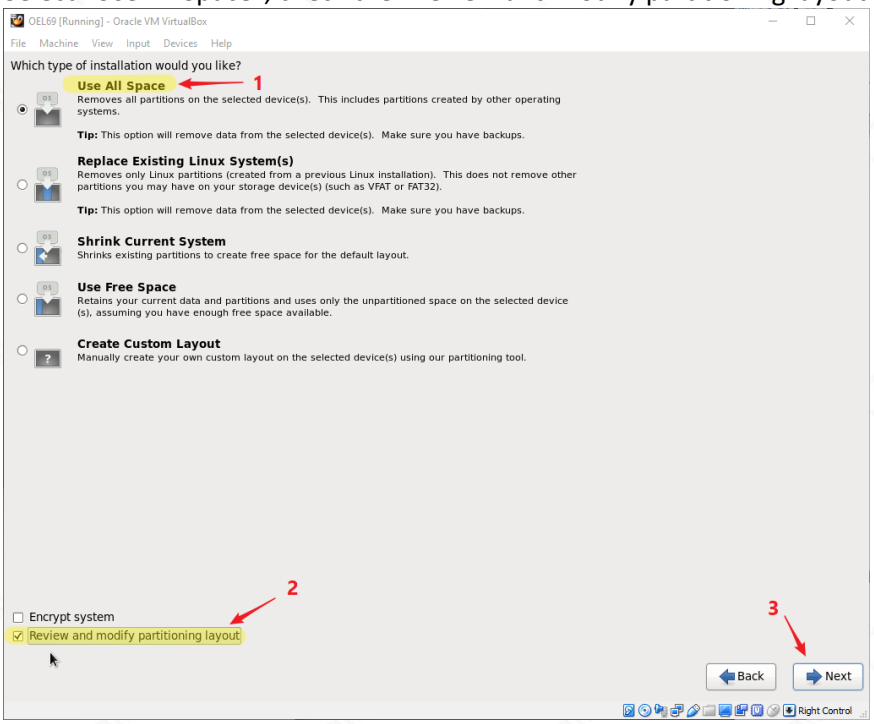
Select the time-zone and then click "Next"



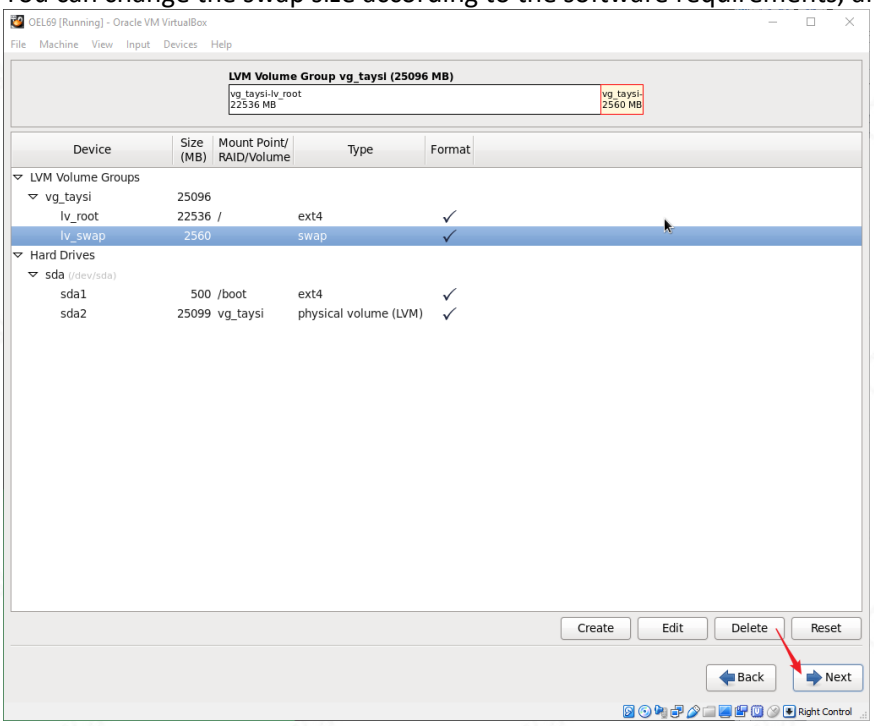
Choose a root password and click "Next"



Select "Use All Space", check the "Review and modify partitioning layout" option, and click "Next".



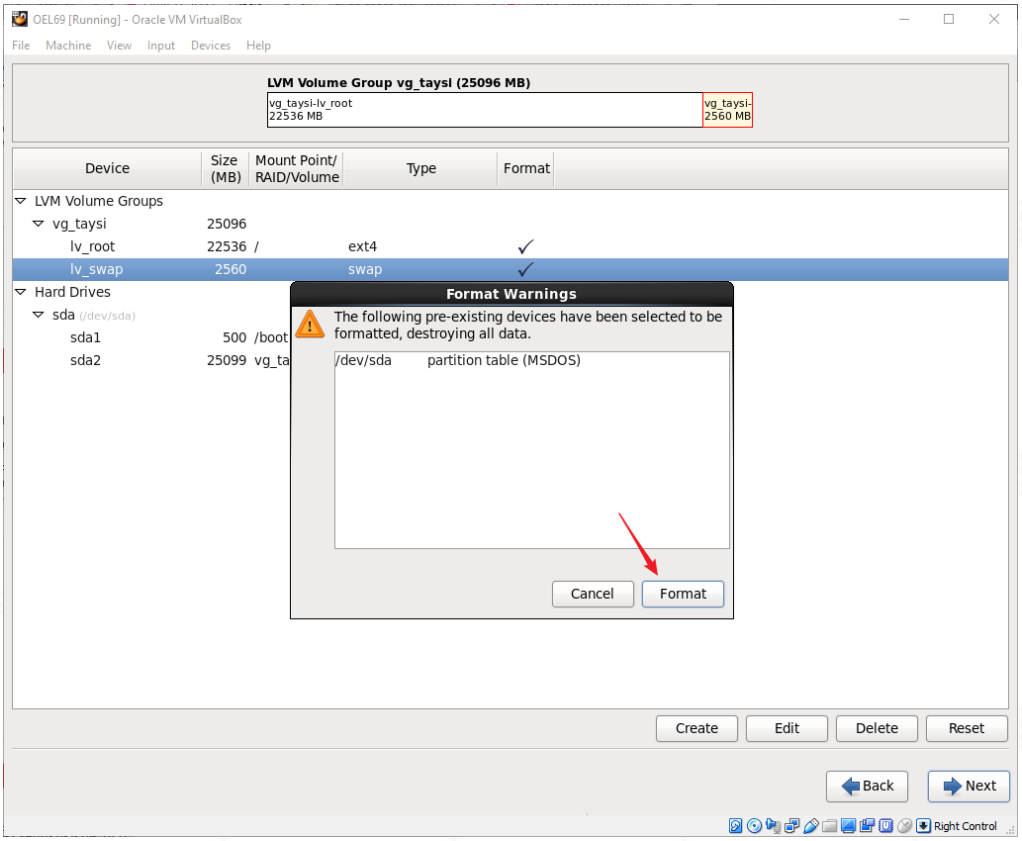
You can change the swap size according to the software requirements, and click "Next".



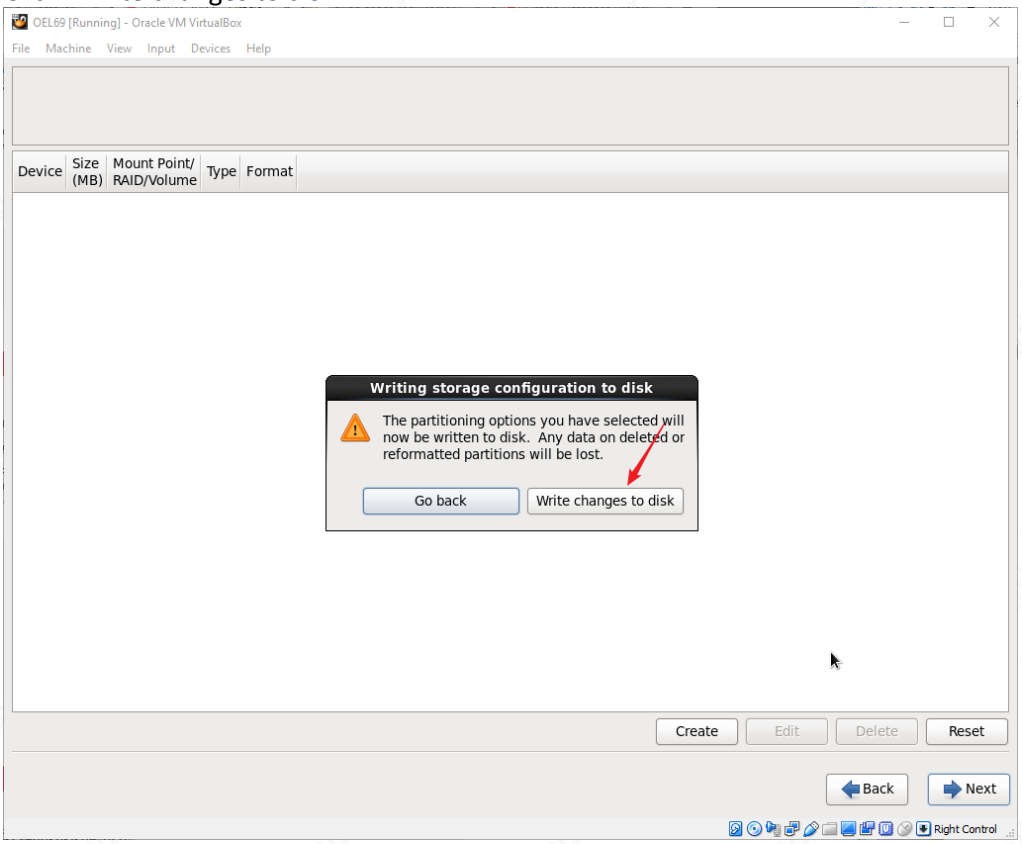
Oracle 11g requires the following swap spaces. For other versions you can check preinstallation tasks in database installation guide. You can also ignore any swap space warnings since this is a test installation.

RAM	Swap Space
Between 1 GB and 2 GB	1.5 times the size of the RAM
Between 2 GB and 16 GB	Equal to the size of the RAM
More than 16 GB	16 GB

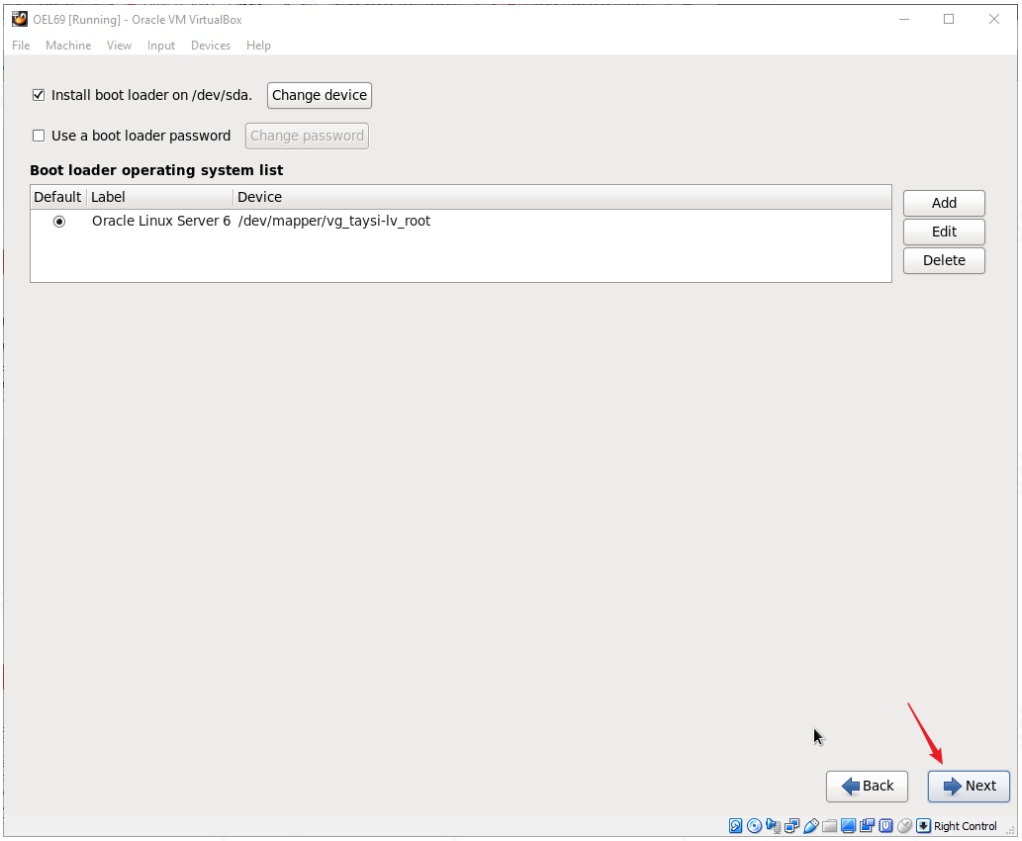
Click "Format"



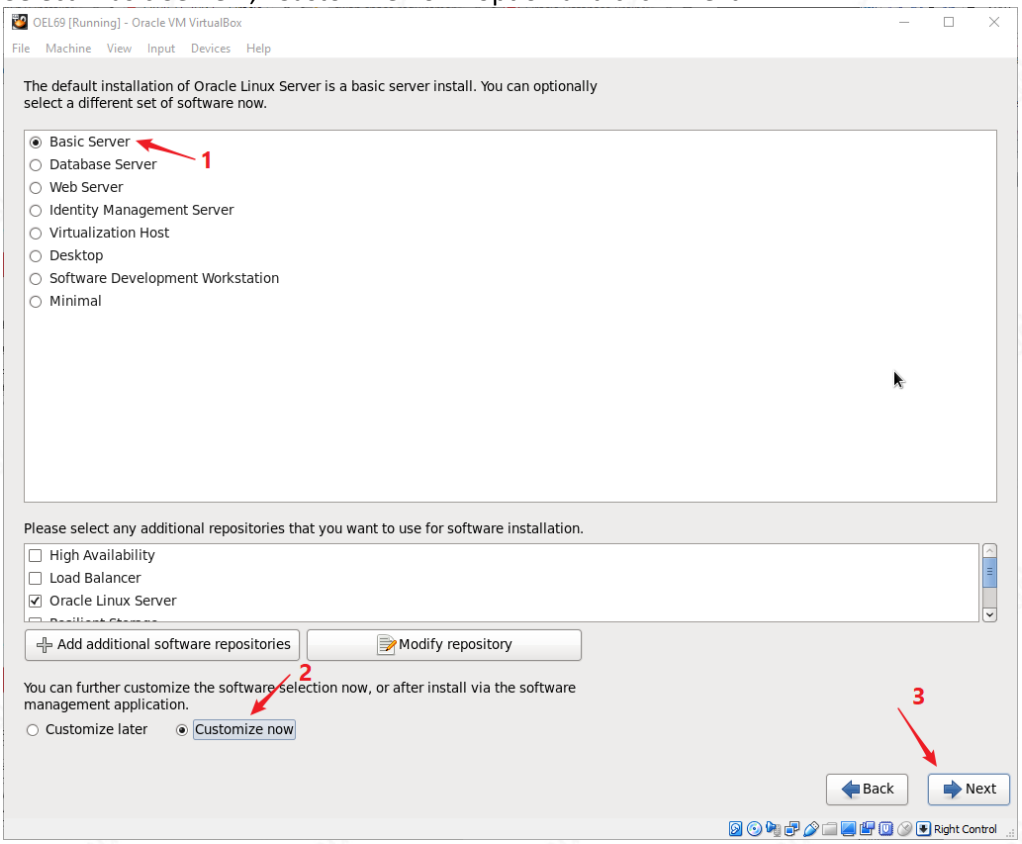
Click "Write changes to disk"



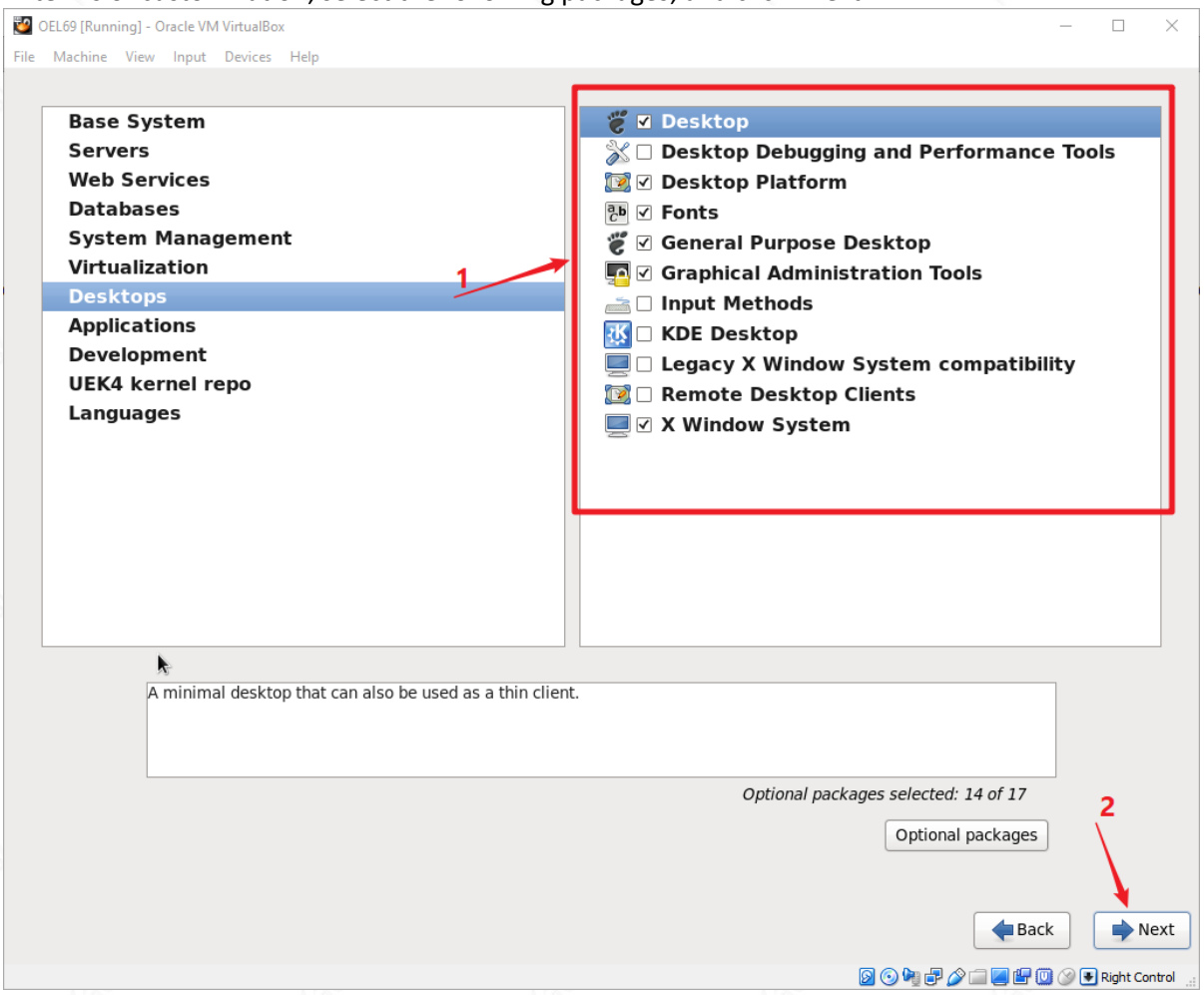
Click "Next"



Select "Basic Server", "Customize now" option and click "Next"

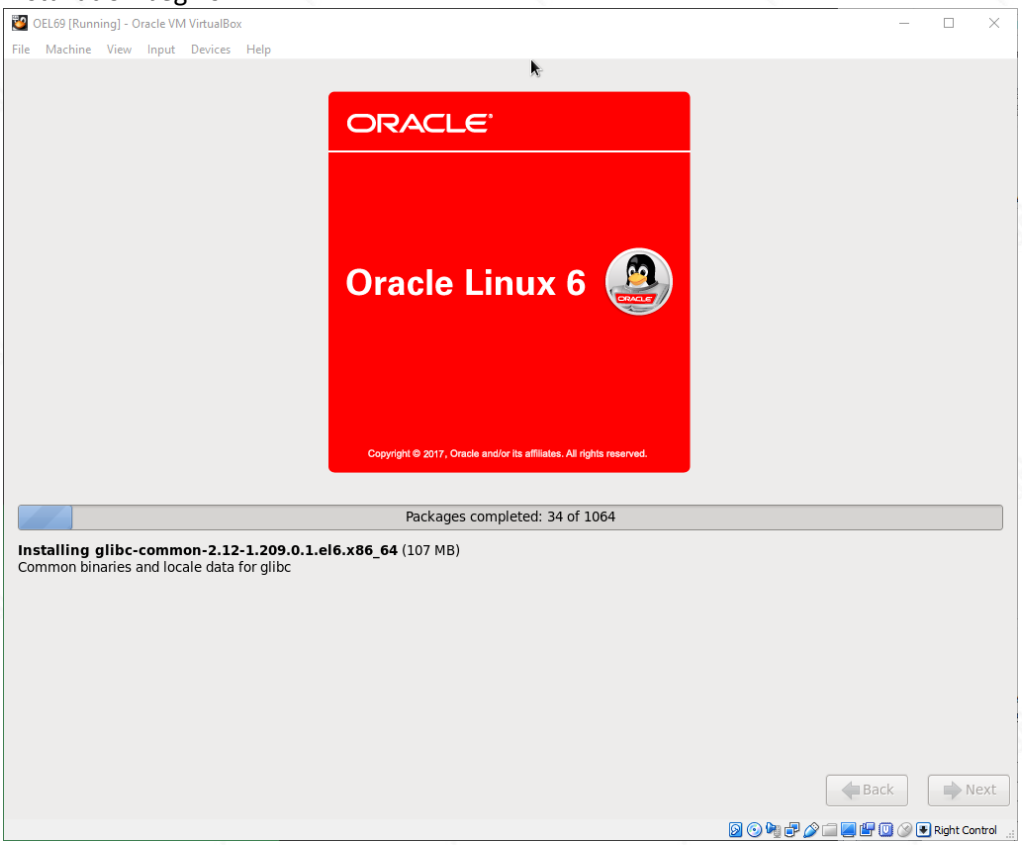


In terms of customization, select the following packages, and click "Next"

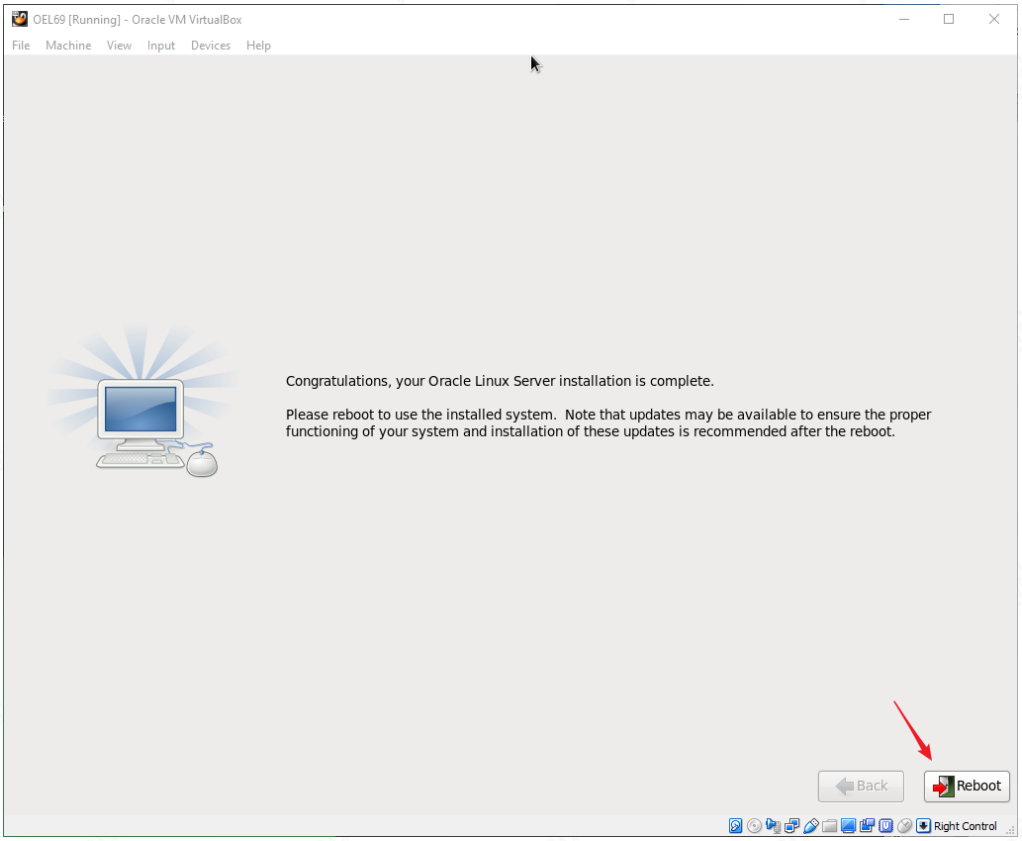


- Base System > Base
- Base System > Compatibility libraries
- Base System > Hardware monitoring utilities
- Base System > Large Systems Performance
- Base System > Network file system client
- Base System > Performance Tools
- Base System > Perl Support
- Servers > Server Platform
- Servers > System administration tools
- Desktops > Desktop
- Desktops > Desktop Platform
- Desktops > Fonts
- Desktops > General Purpose Desktop
- Desktops > Graphical Administration Tools
- Desktops > Input Methods
- Desktops > X Window System
- Applications > Internet Browser
- Development > Additional Development
- Development > Development Tools

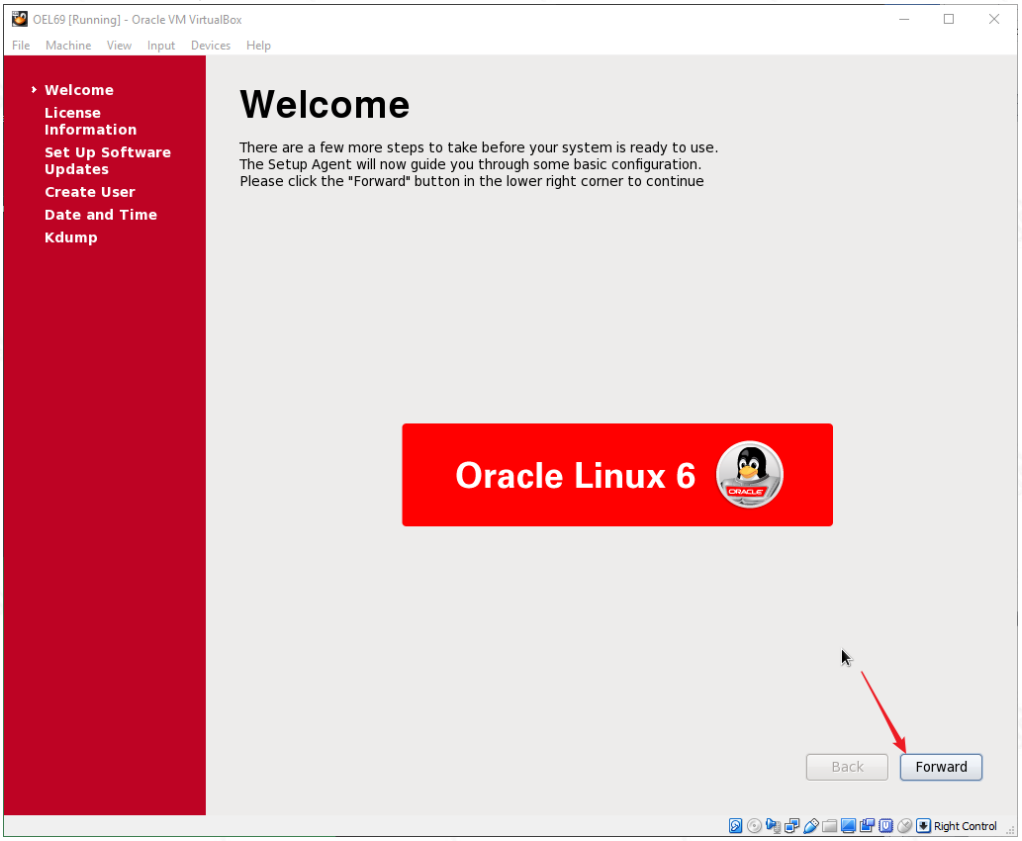
Installation begins...



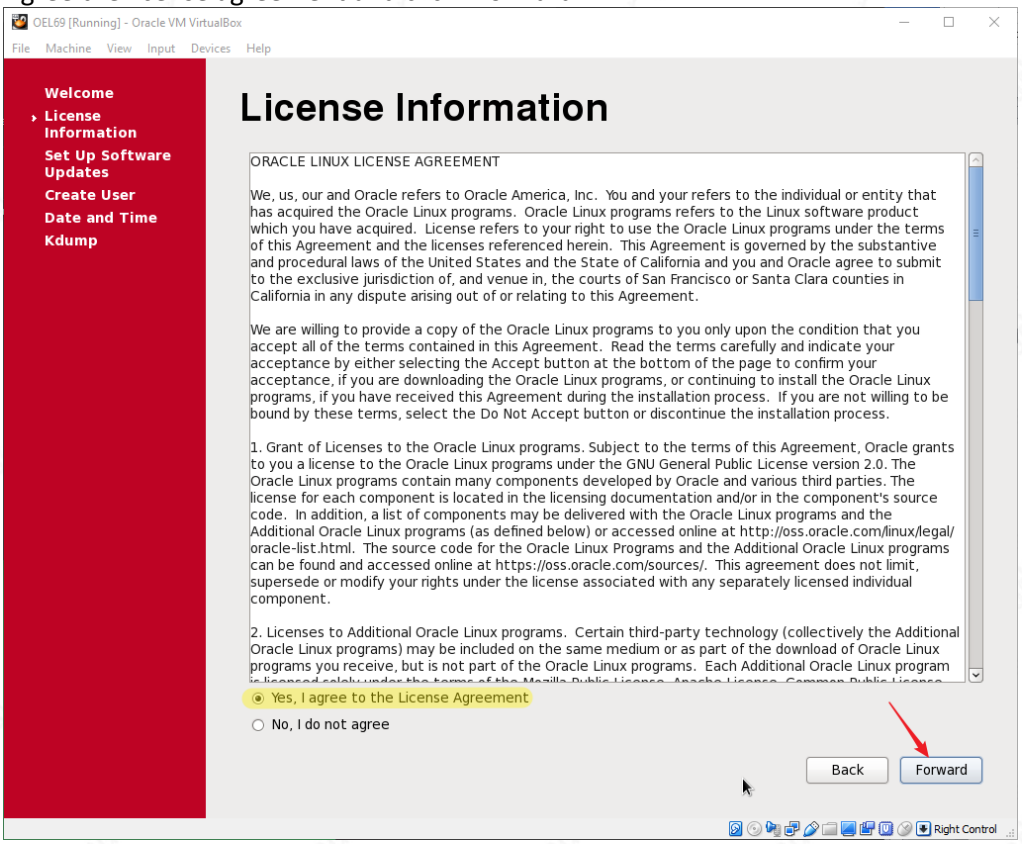
Click "Reboot"



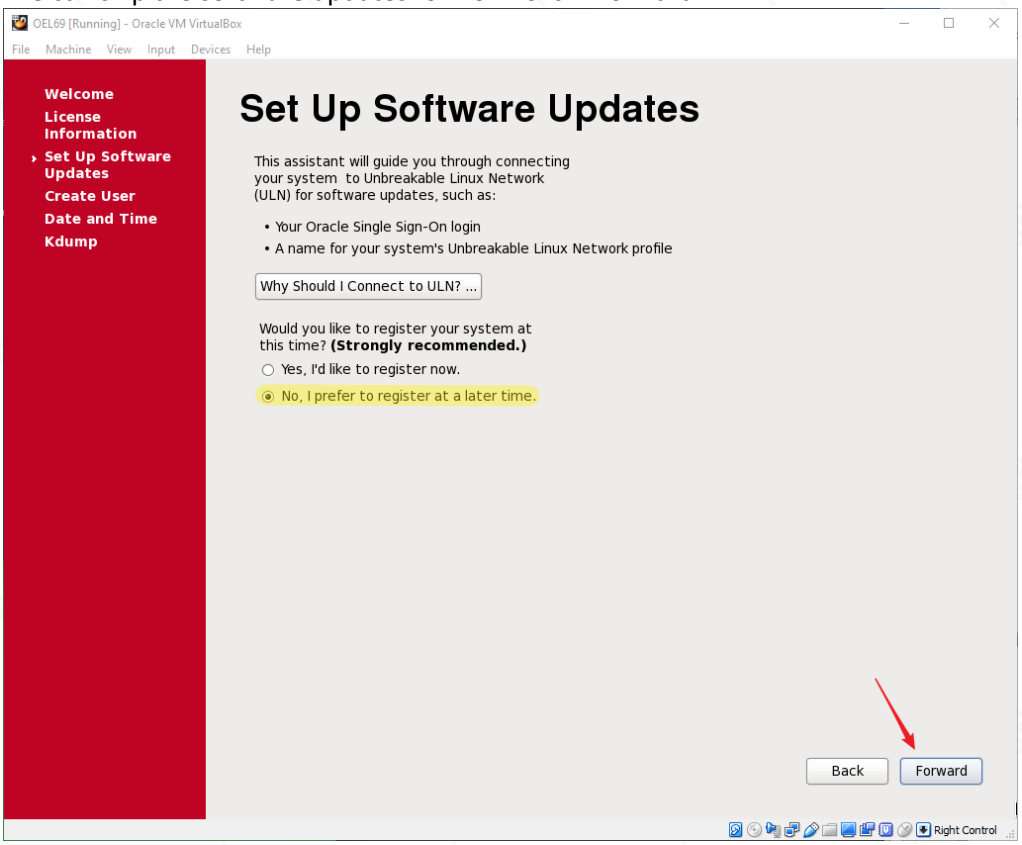
After the reboot, comes the Welcome screen. Click "Forward"



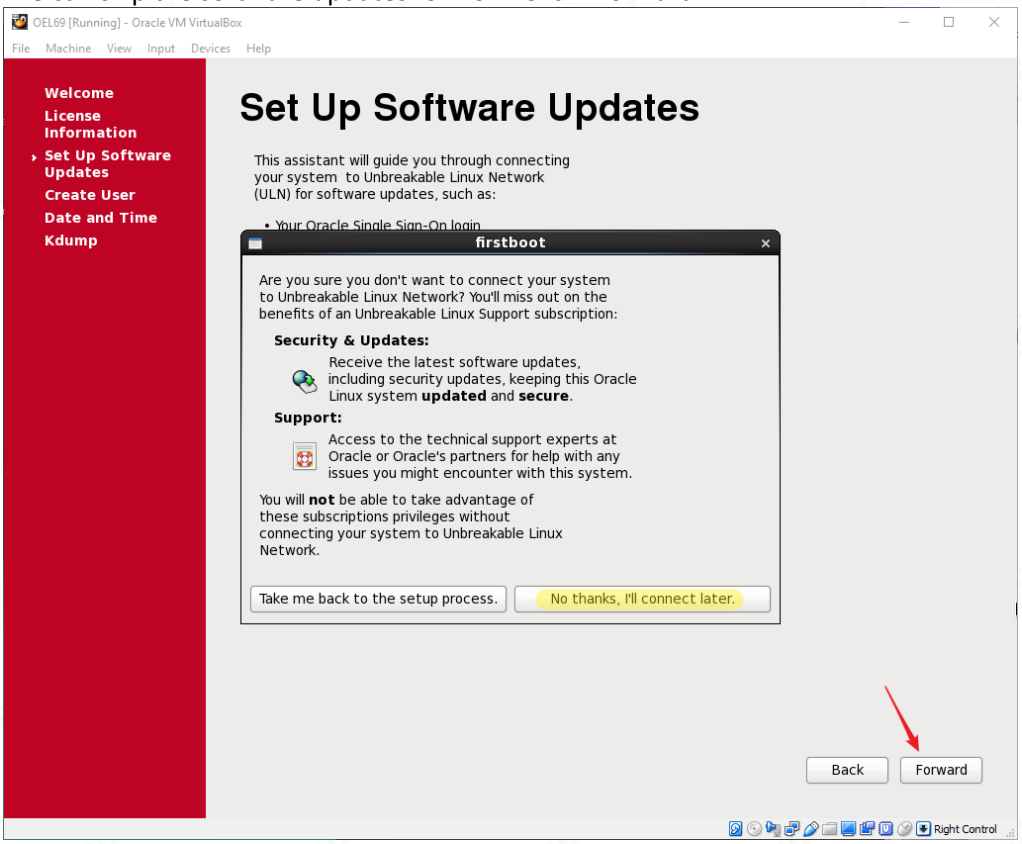
Agree the license agreement and click "Forward"



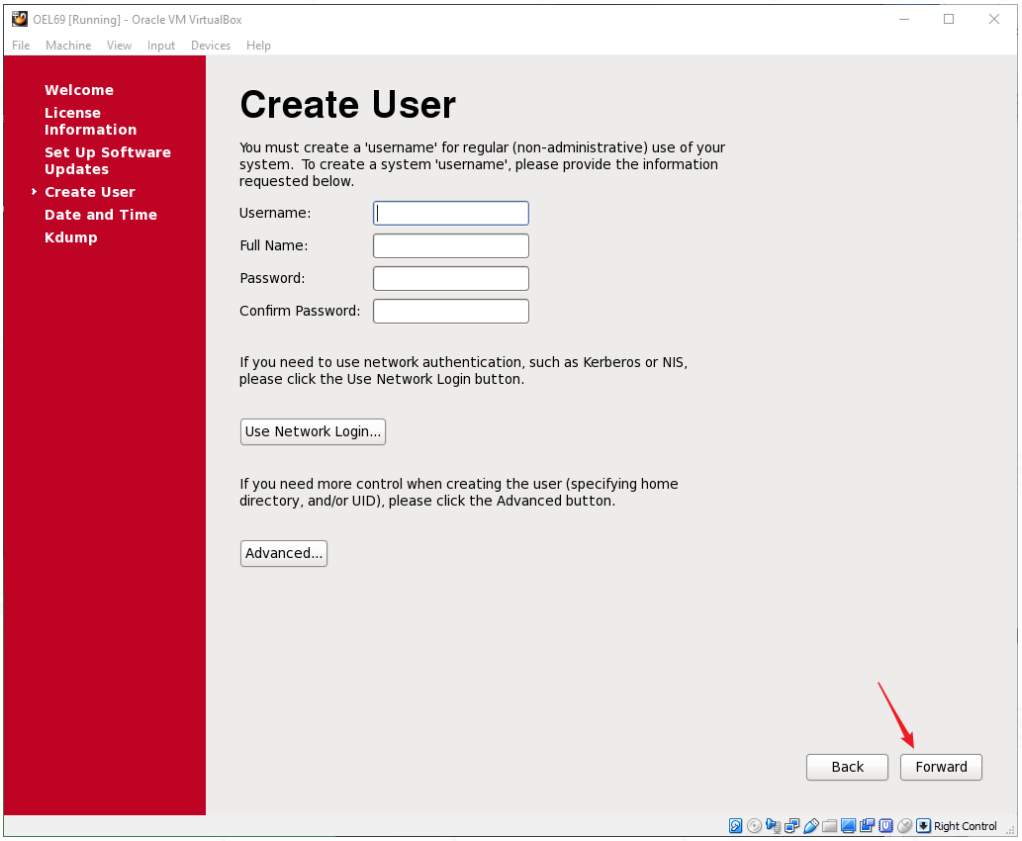
We can skip the software updates for now. Click "Forward"



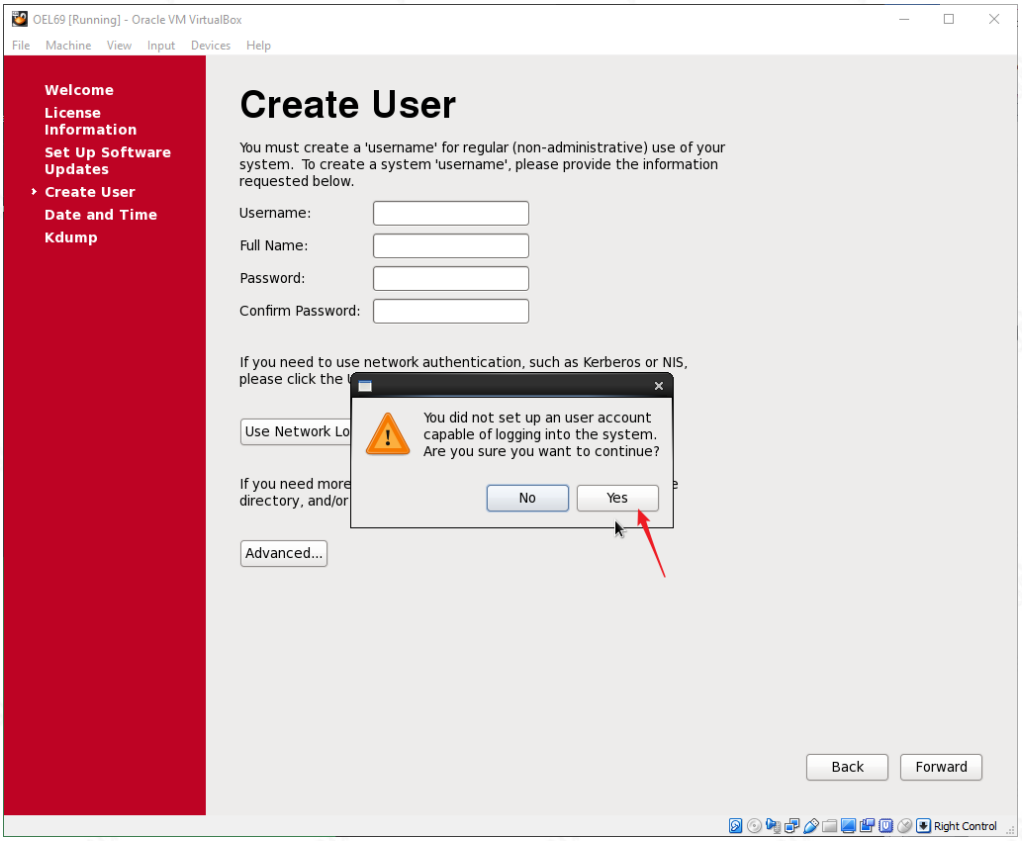
We can skip the software updates for now. Click "Forward"



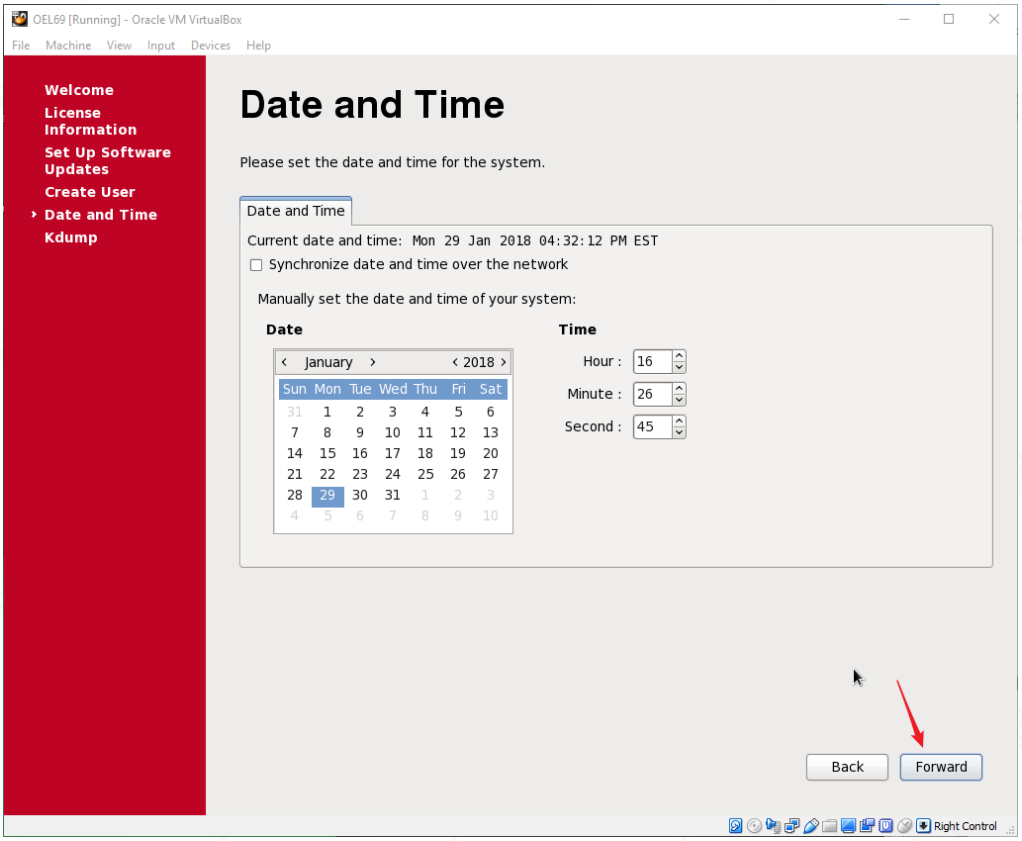
We do not need to create a user now. Click "Forward"



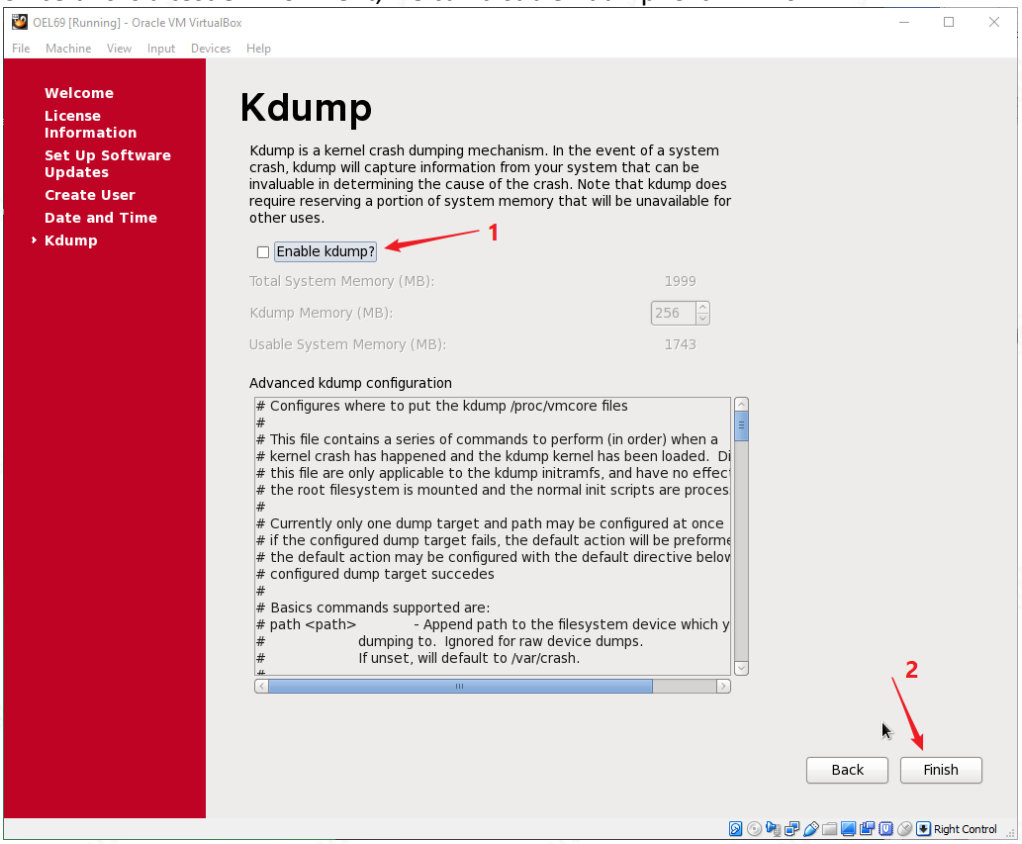
We do not need to create a user now. Click "Forward"



Set Date and Time and click "Forward"

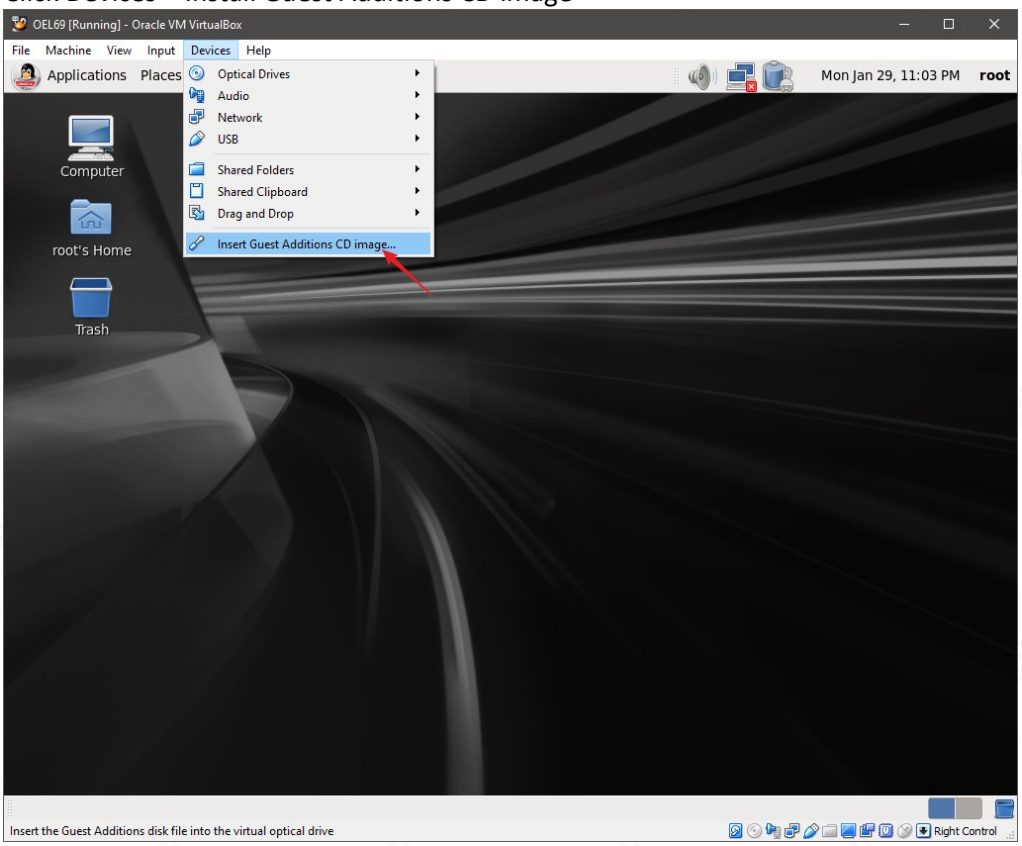


Since this is a test environment, we can disable Kdump. Click "Finish"

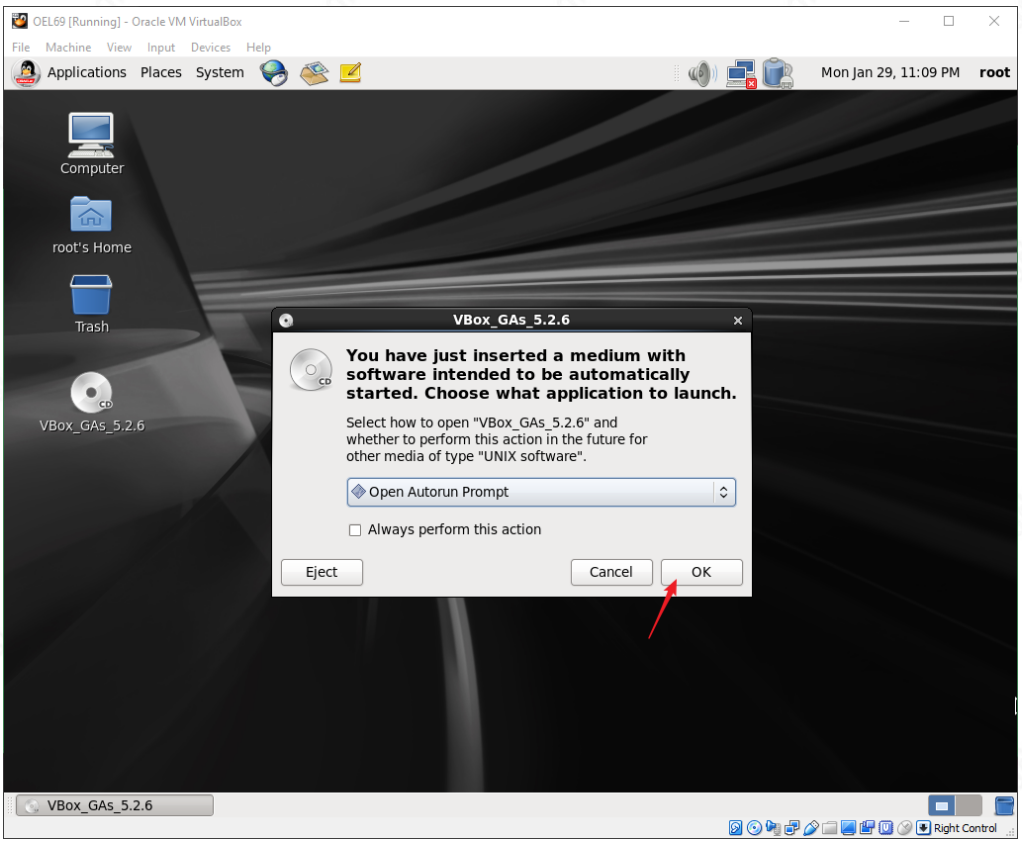


4. INSTALL GUEST ADDONS

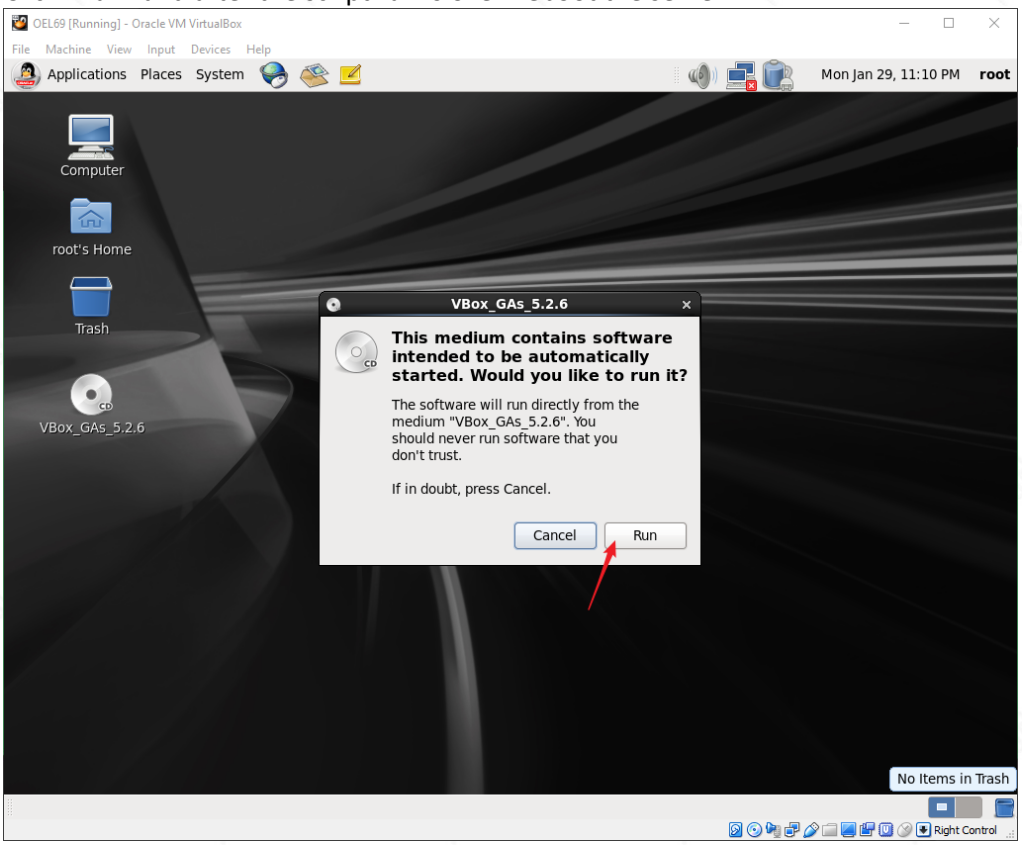
Click Devices > Install Guest Additions CD image



Click "OK"



Click "Run" and after the script run is over Reboot the server.



5. DISABLE FIREWALL

```
service iptables stop
chkconfig iptables off
```

Now, we should be able to connect with putty...

6. DISABLE SELINUX

Edit the /etc/selinux/config file.

```
# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
#     enforcing - SELinux security policy is enforced.
#     permissive - SELinux prints warnings instead of enforcing.
#     disabled - No SELinux policy is loaded.
SELINUX=disabled
# SELINUXTYPE= can take one of these two values:
#     targeted - Targeted processes are protected,
#     mls - Multi Level Security protection.
SELINUXTYPE=targeted
```

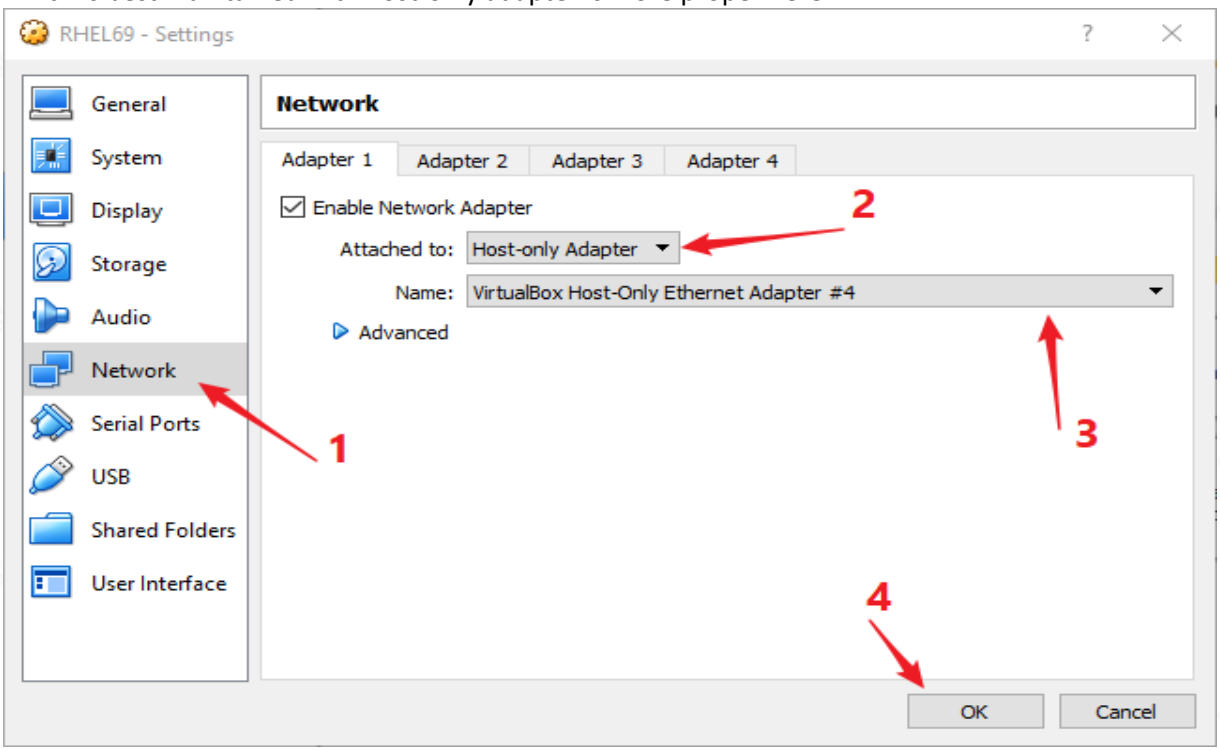
Either reboot or run the following command

```
setenforce disabled
```

7. NETWORK & PUTTY

First, shutdown the server.
Then go to the settings of the server

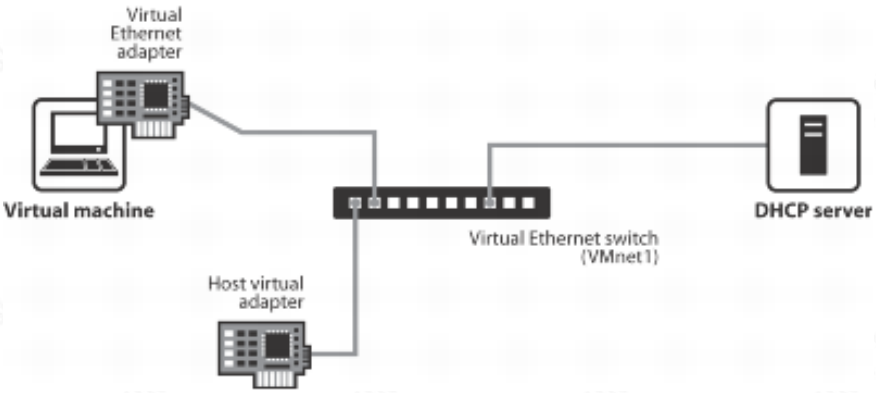
Select the Host-only adapter. For most of the tests (that do not require internet) host-only adapter works fine. Since I want to connect via Putty, I need connectivity with the host OS. I also don't want to change the IP of the guest everytime I connect the host OS to another network. So a static setting which is best maintained with host-only adapter is more proper here.



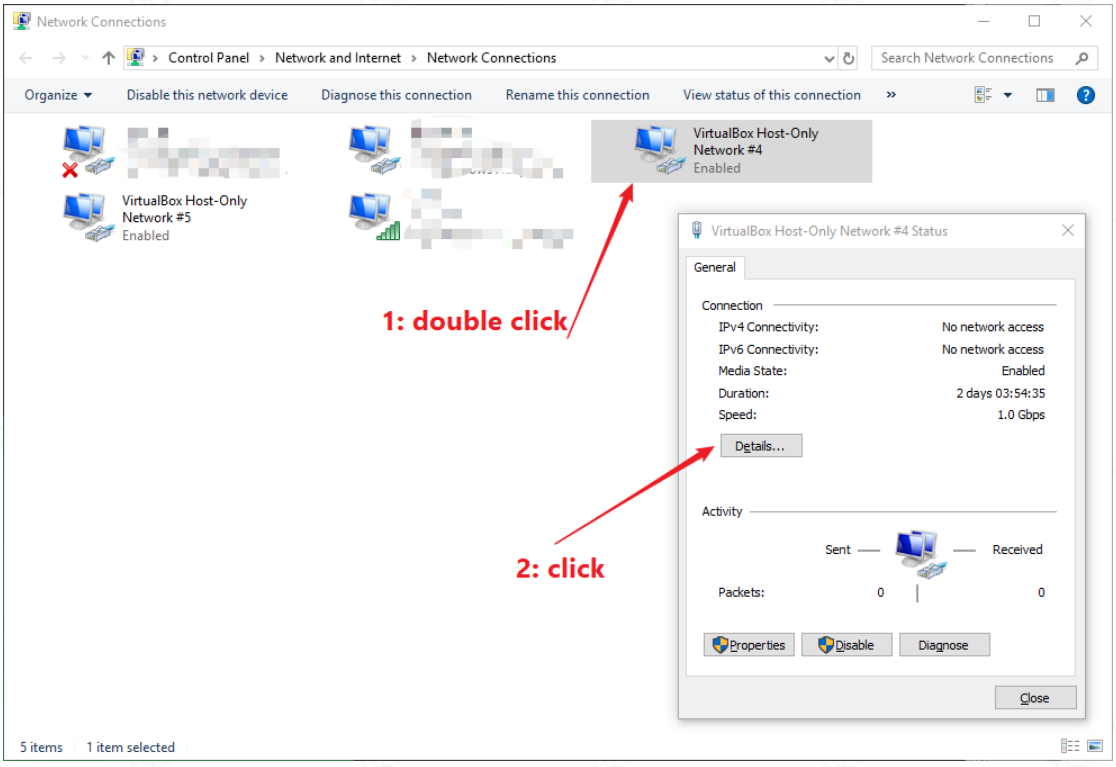
NETWORK TYPES SUMMARY

Bridged	Has a connection with the host Has a connection with the physical network Can connect to the internet
NAT	Does not have a connection with the host Does not have a connection with the physical network Can connect to the internet
Host-Only	Has a connection with the host Does not have a connection with the physical network Can NOT connect to the internet

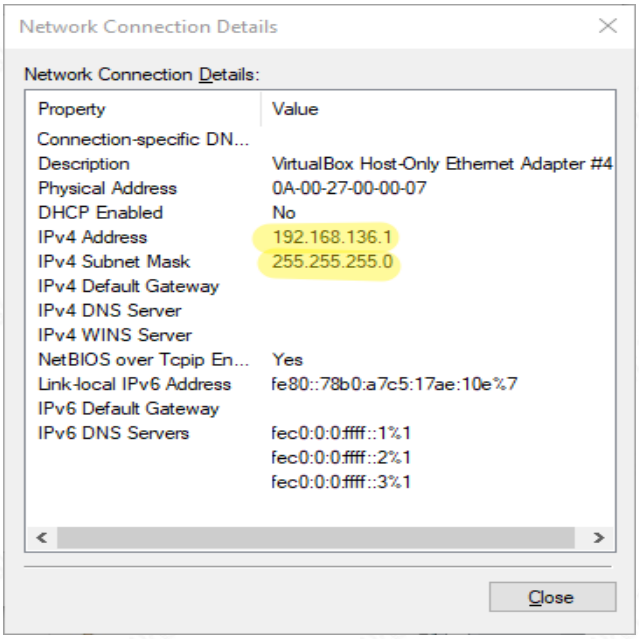
Host-only networking creates a network that is completely contained within the host computer.



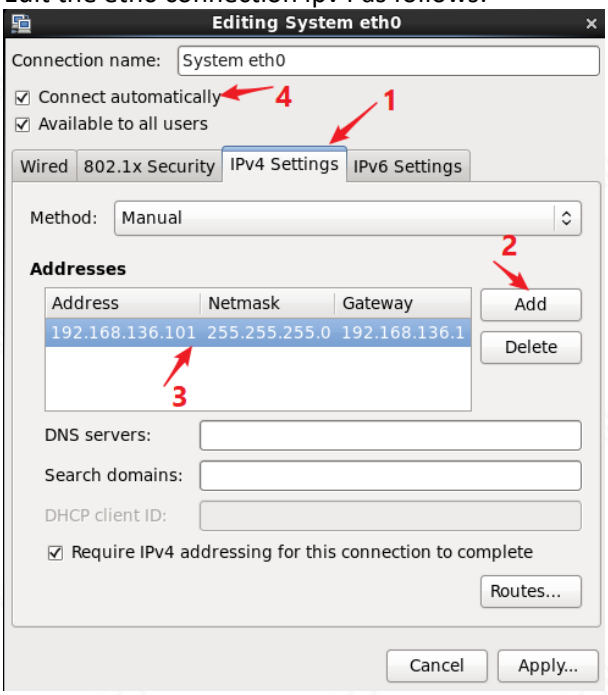
Open the “Network and Sharing Center” of the host machine (Windows in our case) Click the "Change adapter settings" Have a look at the connection details by double-clicking the "VirtualBox Host-Only Network #4" (The one that we have chosen in the previous step)



The highligted values below are important...
Note them down



On the Linux server go to System > Preferences > Network Connections.
Edit the eth0 connection ipv4 as follows:



Restart the network service

```
service network restart
```

Now you can also connect using Putty.