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Department of Education
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Division of Pasig City
STA LUCIA HIGH SCHOOL
City of Pasig

DepED
DEPARTMENT OF EDUCATION

Technical-Vocational and Livelihood Track
Information and Communications Technology (ICT) Strand

Grade **12**

Computer Systems Servicing NC II

QUARTER 1

LO 1: SET UP USER ACCESS

SELF- LEARNING MODULE 5:
Installing Network Operating System (NOS) in a Virtual Machine

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COC 3 : SET UP COMPUTER SERVERS

EXPECTATION

After completing the lesson the learners should be able to:
A. understand the use of VMware in installing NOS as Virtual Machine;
B. demonstrate the process of installing and uninstalling NOS from the VMware
C. give importance of installing NOS using VMware as ICT/CSS student

PRE–TEST

Directions: Read each statement below carefully. Write **T** if the statement is correct and **F** if not in the space provided before each number.

_____1. You cannot shut your computer down without selecting one of the options or typing comment from the shutdown event tracker.
_____2. Pressing Ctrl+G provides access to input directly inside the VM
_____3. After pressing Start button, then switch user, combo keys of CTRL+ALT+DELETE will appear
_____4. You can log on two accounts (user and admin) at a time
_____5. By pressing Ctrl+Alt keys to return to your physical machine.
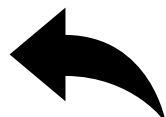
RECAP

CHRONOLOGY

Directions: Arrange the following steps in installing and uninstalling VMware Workstation 12 in chronological order from A to E.

_____ 1. Execute the VMware application file (exe).
_____ 2. To uninstall the software, select vmware workstation from the list of programs and select uninstall.
_____ 3. From the control panel, click RMB and click change. Wait until uninstallation process is finished. Delete the default folder of virtual machine completely
_____ 4. Press the license button and enter license key from the crack folder and paste it into the textbox, then press finish.
_____ 5. Wait for the process until to finish the installation.

LESSON

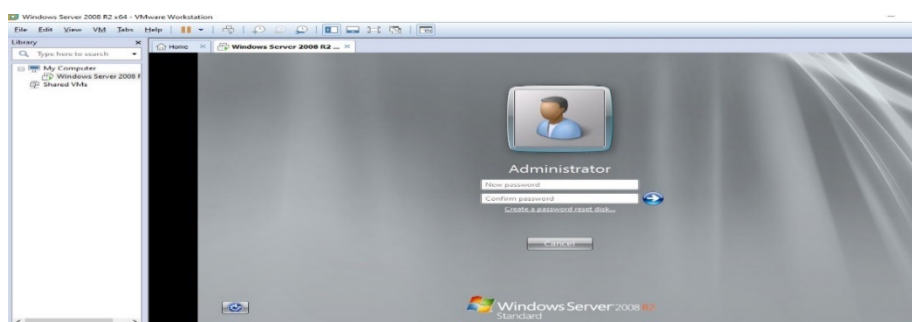## Installing Network Operating System (NOS) in a Virtual Machine

Introduction

In our previous discussion, virtualization software allows you to run two or more operating systems using only one PC. So it's like two (or more) computers in one. One is physical, and the others are virtual.

A virtual network connects virtual machines and devices, no matter their location, using software. In a physical network, layer 2 and 3 functions of the OSI model happen within physical switches and routers. Plus, physical network interface cards (NIC) and network adapters are used to connect computers and servers to the network. Virtual networking shifts these and other activities to software. A software application, called a virtual switch or vSwitch, controls and directs communication between the existing physical network and virtual parts of the network, like virtual machines. And a virtual network adapter allows computers and VMs to connect to a network, including making it possible for all the machines on a local area network (LAN) to connect to a larger network.

Illustration below shows a Network Operating System (NOS) installed in a virtual machine (vm).

How to install Network Operating System (NOS) in a Virtual Machine (VM)?

The following are the steps in installing Network Operating System (NOS) in a virtual machine: **NOTE:** Always disconnect from the internet while using VMware.
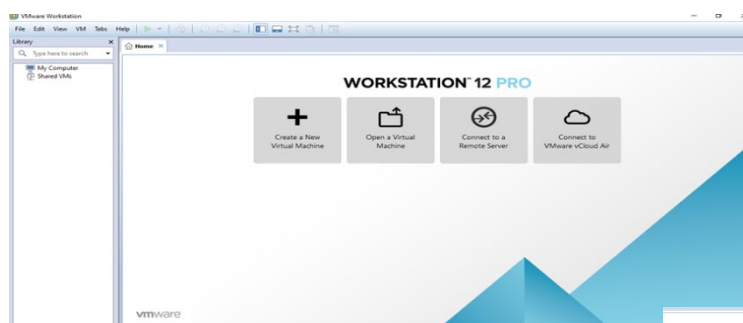

Fig 1. Open your VMware and click Create a New Virtual Machine

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Fig 2. A welcome screen will appear. Select TYPICAL as a type of configuration and click NEXT…
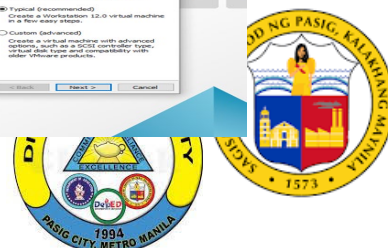
Fig 3. Select installerdisc image file (iso) as guest operating system. Click browse to locate your Network Operating System in this case, Window Server 2008 R2 iso file.
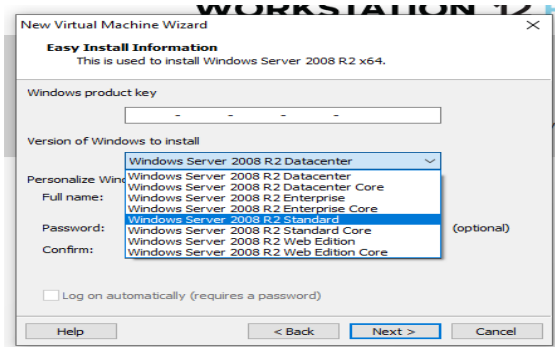

Fig. 4. Dropdown for the version of Windows Server 2008 R2 Standard.
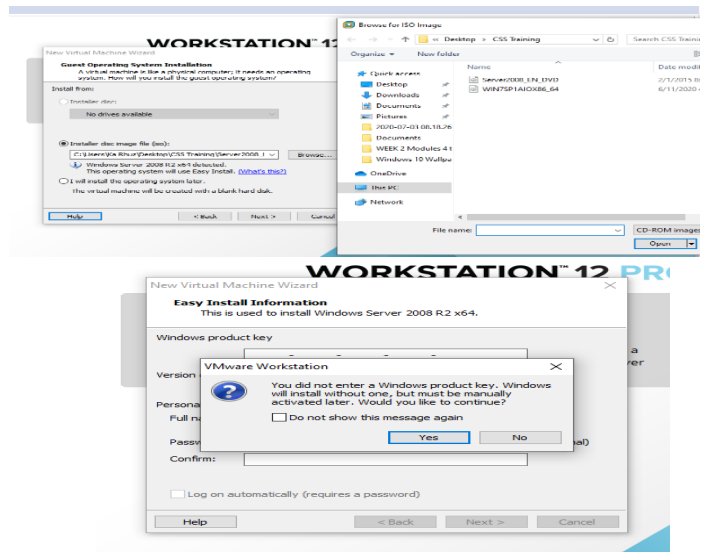
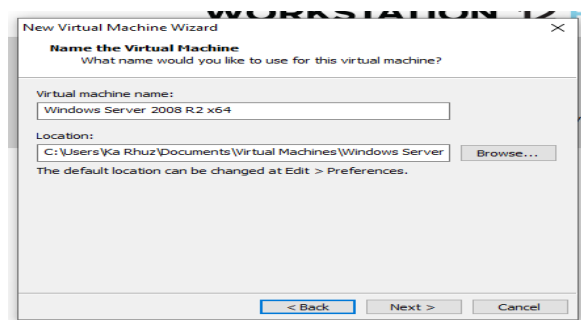Fig. 5. When ask for the product key, tick the checkbox and click NEXT

Fig.6. Remember the default location of your virtual machine.....NEXT...
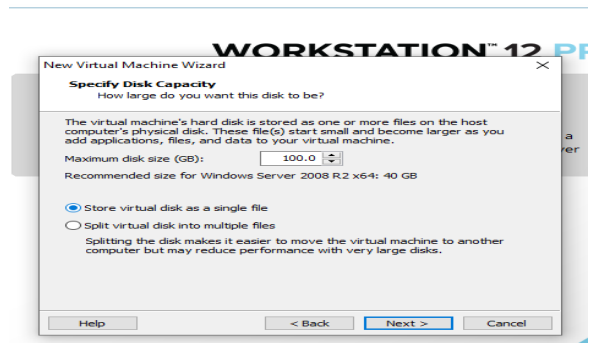
Fig 7. Specify the disk capacity of its maximum disk size from 40.0 to 100.0 GB. Select store virtualdisk as a singlefile..NEXT..

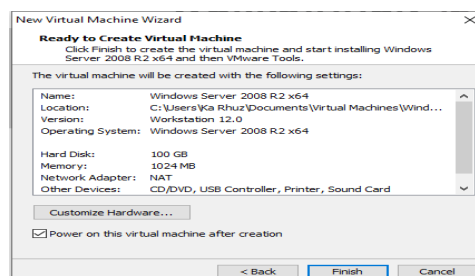Fig 8. Click finish to start Create ng your virtual machine.

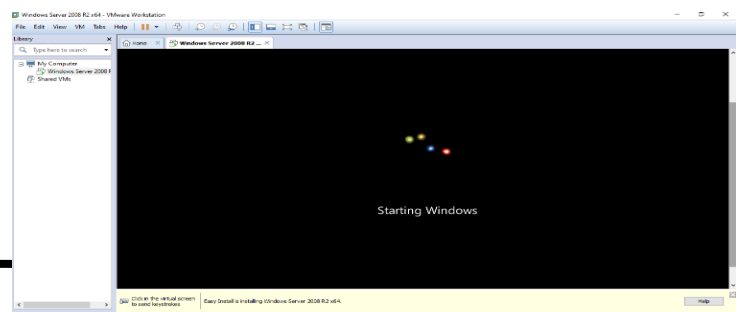Fig.9. Your NOS is starting to boot....
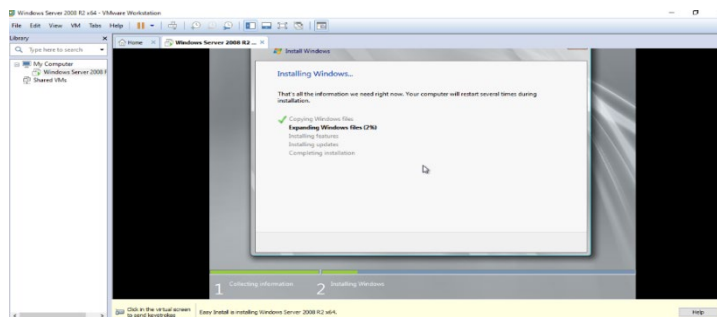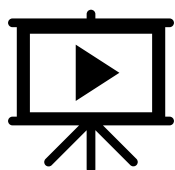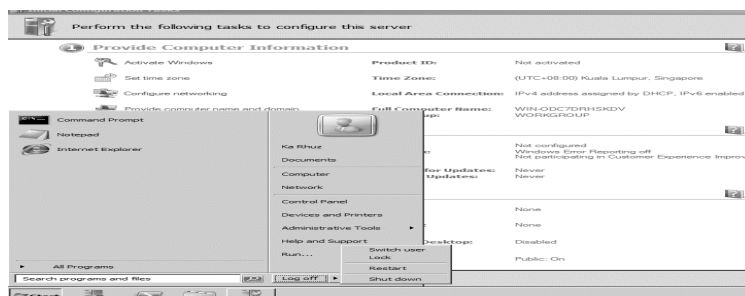
Fig.10.

Installing NOS..

Fig. 11. After finishing
the installation
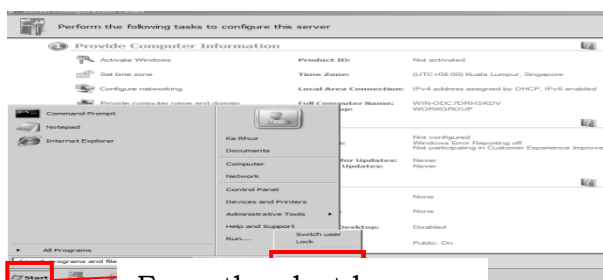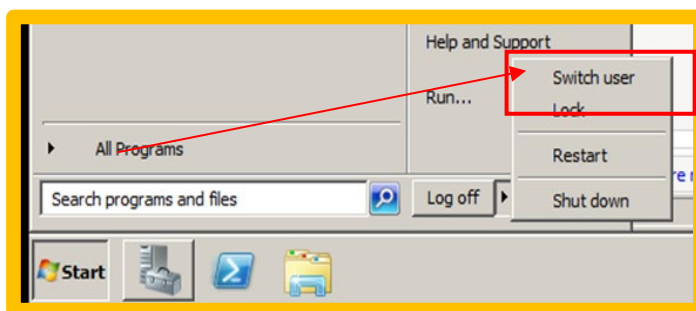process, you will
arrive in the
user
account.

ACTIVITIES

Activity 1. Hands-on Activity

Let us do the following steps : (**NOTE :** Remember to disconnect from the internet)

1. From your user account, click start button. from the dropdown menu, select shutdown or press **ALT+ F4.**
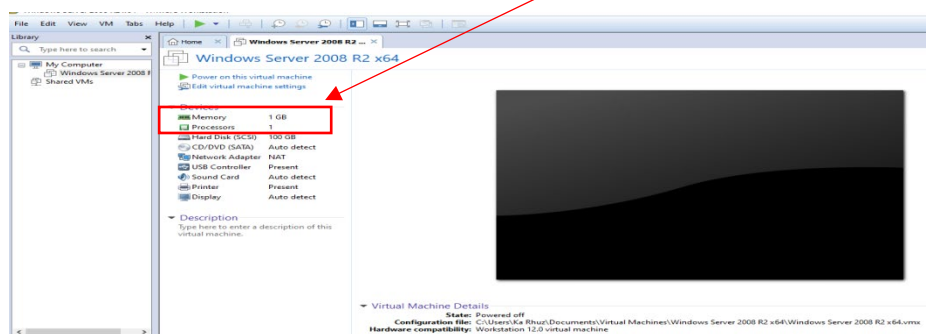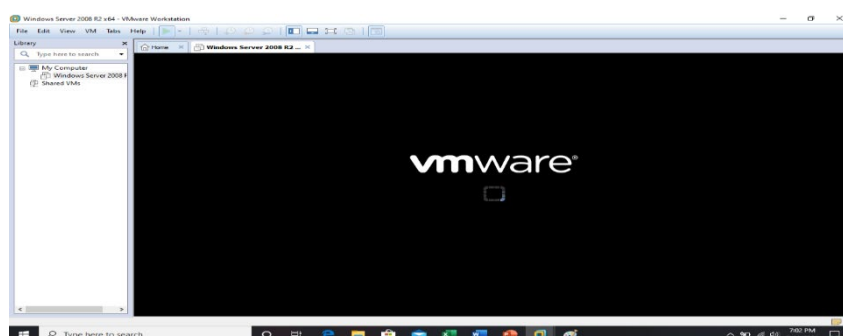

2.

From the shutdown event tracker dropdown menu, select Operating System ; Reconfiguration (planned).Then press OK. Shutdown both machines.

3. Open your VM by double clicking **<u>POWER ON THIS VIRTUAL MACHINE</u>**


4. A VMware screen will appear on the desktop . . . .

5. By doing such steps, should now be at your user account. These steps are so important to remember when using your NOS on this Virtual Machine.
6. To delete the NOS from the virtual machine, you need to shutdown the VM properly. See step 1 and 2 in our hand-on activity to shutdown the VM.
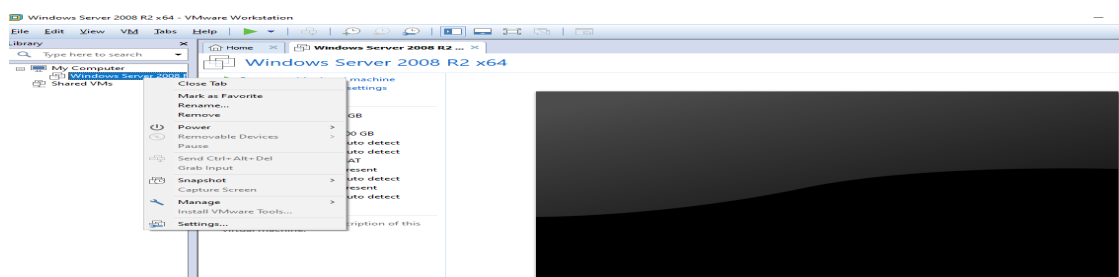
7. While the virtual machine is shutted down, right click your machine (Windows Server 2008 R2 Standard) and click REMOVE.
8. A confirmation screen will appear. Click REMOVE.
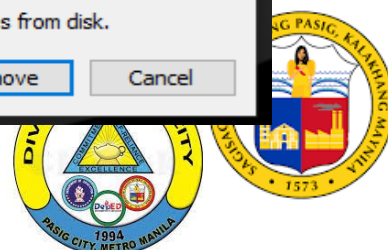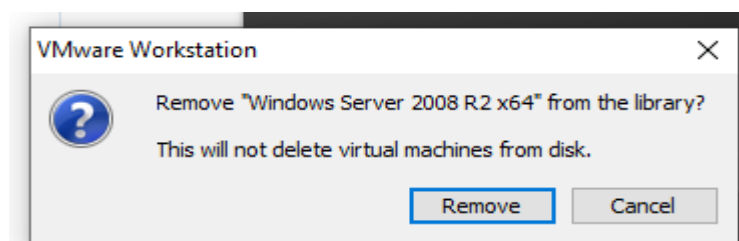
9. Close your VMware Workstation 12. Go to the default folder installation of you vmware. Double click the folder named "Virtual Machine". Delete your Windows Server 2008 R2 x 64, the machine that you have created a while ago.
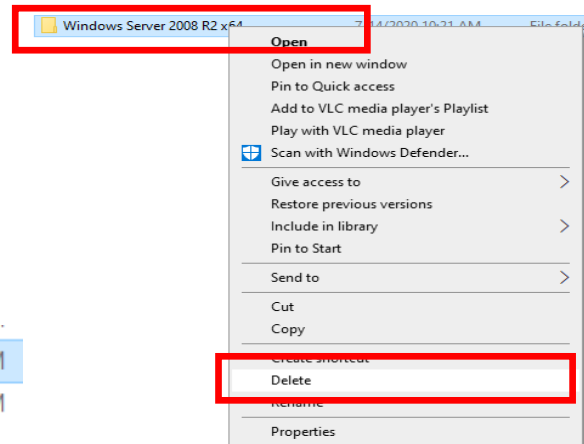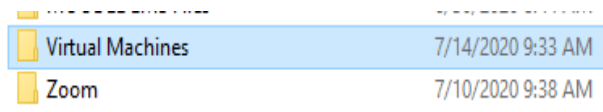
**NOTE:** This step is intended for removing a particular machine. Otherwise, you need to to delete the Virtual Machines folder if you want to delete the VMware, then uninstall from programs as per previous discussion.

10. Repeat the above process from figures 1 to 11.

11. Uninstall the machine (see our hands on activity from 1 to 9.

12. Repeat all the processes of installing and uninstalling the machine (NOS).

13. On your worksheet, assess yourself based on the given scales from 1 to 5. 1 as the lowest and 5 as the highest. It is important to note that both machines are shutted down properly to avoid corrupting the OS just like your physical machine.
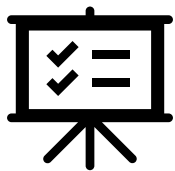
W R A P – U P

Direction: Complete the missing statement.

A virtual network connects virtual machines and devices, no matter their location, using software. ISO is a type of disk image file that is commonly used for virtualizing machine. The shutdown event tracker describes why you shutdown the computer(virtual machine). You can only delete a particular machine if the machine is shutted down.. By default, the created machine can only be found inside the VMware "**Virtual Machine**" folder.
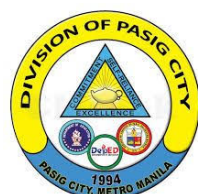
V A L U I N G

As ICT/CSS student, what do you think is the advantage of installing NOS using VMware ?

_____
_____
_____
_____
_____
_____
_____

P O S T   T E S T

TRUE or FALSE

Directions: Read each statement below carefully. Write **T** if the statement is correct and **F** if not in the space provided before each number.

_____ 1. You can remove the machine (virtual) even if it is currently use or open.

_____ 2. Virtual networks connects the machine (virtual) and its devices.

_____ 3. Windows Server R2 web Edition is commonly used as CSS students.

_____ 4. Depends on the user and number of virtual machines, disk capacity can be increased.

_____ 5. After finishing the NOS installation on VMware, you will arrive at your user account

K E Y   T O   C O R R E C T I O N

RECAP

1. A
2. D
3. E
4. C
5. B

PRETEST:

1. T
2. T
3. T
4. T
5. T

ACTIVITY

Self-Assessment Guide:

Can I:

1. Install Windows Server 2008 R2 in MVware?
2. Change the storage capacity of my machine to be installed?
3. Select Windows server 2008 R2 in the dropdown menu of NOS version?
4. Properly shutdown the machine (NOS) on the VMware?
5. Remove the machine (NOS) properly?

POST TEST

1. F
2. T
3. F
4. T
5. T

R E F E R E N C E S

(MODULE 5)

Online Site :

https://www.vmware.com/topics/glossary/content/virtual-networking
(Access July 14, 2020)

https://www.vmware.com/topics/glossary/content/network-functions-virtualization-nfv?SRC=WWW_US_GP_virtual-networking_SiteLink
(Access July 14, 2020)

Images:

Set Up Computer Servers
Cover Page was designed using Adobe Photoshop 2018 photo manipulation.
https://www.computerhope.com/jargon/s/server.htm
(accessed June 20, 2020)

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