Assessment – Operating System Diagnostics

Read the “Tutorial – Operating System Diagnostics.docx” for more information on completing this assessment, including steps to:

* Update Software Packages,
* Perform Disk Maintenance,
* Managing User Accounts and Permissions,
* Installing new software.

***Complete this document and submit as part of your final assessment. Include screenshots of your work as evidence.***

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## Installing Virtual Box (Optional), installing pre-configured VMs.

1. Write down the steps taken to install VirtualBox on a host machine. Take screenshots of the process. NOTE: VirtualBox is installed on AIE computers. Only complete this section if VirtualBox is not installed on your device.
2. Describe the process you performed to install pre-configured Virtual Machines into VirtualBox and starting up the VMs.
3. Take screenshots of the process to install Virtual Box and pre-configured VMs.

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## Updating an Operating System

1. Describe the process taken to update the OS on the Virtual Machine.
2. Explain what the “apt list --installed” command does in Linux.
3. Explain what the “apt-get” command does in Linux, and what the “update”, “upgrade” and “dist-upgrade” options are when used with the “apt-get”.
4. Explain what does the “sudo” command does on Unix-based systems (like Linux)?
5. Take screenshots of the process used to update the Linux Mint OS.

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## Installing Software

1. Describe how to *install software* using **at least one (1)** *Administration tool* in Linux Mint.
2. Select a software package (not mentioned in the tutorial) and install it into the VM.
3. Explain your choice of installed software, what it is and why you chose it.
4. Take screenshots of the process used to install new software on Linux Mint.

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## Scheduling Backups

1. Describe the process taken to schedule a regular backup on Linux
2. What are the “**crontab”** & “**tar”** commands used for on Unix-based machines?
3. What’s the ***Archive Utility*** used for?
4. Take screenshots of the process used to schedule regular backups on the Linux Mint OS.

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## Maintaining the file system

1. Describe **one (1) tool** used to *analyse the file system* on Linux Mint and how to use it.
2. Explain what the “sudo apt-get clean” and “sudo apt-get autoclean” commands are used for.
3. Take screenshots of the process used to maintain & record diagnostics for the Linux Mint OS.

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## Managing the network

1. Describe **two (2) tools** used to *manage the network* on Linux Mint.
2. Explain what the tools are used for and how to use them to manage the system network.
3. Take screenshots of the process used to manage/maintain/secure the network for the Linux Mint OS.

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## Creating User Accounts

1. Describe the process to create/remove new users on Linux Mint.
2. Take screenshots of the process used to create/administer Users on the Linux Mint OS.

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## Explore other Administration Tools

1. Select **one (1) other Administration tool** from the ***Administration menu*** (one we haven’t discussed yet)
2. Describe what the tool is for, and how to use it.
3. Take screenshots of the process.

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