**Lesson 3 – Network Security**

**\*\*Instructions:** Please change the text color of your responses to red text. Please organize the endings to each page.

**ACTIVITY 3.1.1 – COMMANDING THE OS**

**SELF-ASSESSMENT**

What is a Linux-based operating system and why is it the system of choice for many companies?

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What are the differences (and relationships) between files, directories, and folders in Windows compared to those in Linux?

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Describe the importance of access control and permission types within a system.

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How do you encrypt a file in Linux?

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What is a shell program?

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What does it mean to build a security baseline?

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What is the difference between a network firewall and a host-based firewall?

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What is ethical hacking?

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How do you use packet analysis to differentiate between “well-behaved” packets and “malicious” packets?

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**VOCABULARY**

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| --- | --- |
| File System |  |
| Argument |  |
| Concatenate |  |

**LINUX BASED COMMANDS**

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| --- | --- |
| **COMMAND** | **DESCRIPTION** |
| ls | List the contents of a directory |
| cd |  |
| pwd |  |
| cat |  |
| mkdir |  |
| mv |  |
| touch |  |
| cp |  |
| rm |  |
| rmdir |  |

Record contents of the welcome.txt file (After Step #17)

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What if you try to cat a directory? Try to cat Documents and describe what happens. (Step #18)

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Somewhere in the item’s directory, find what is hidden in a box in the trunk of a car. Explore each directory, going as many levels down as you need to go. What did you find? (Step #19)

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Using Figure 1 as a reference, draw a tree structure of the item’s directory.

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Color indications (After Step #21)

|  |  |
| --- | --- |
| white |  |
| Blue |  |
| green |  |
| pink |  |

Create a file in each of the lowest level directories you created in menu to indicate your favorite hot breakfast, cold breakfast, school lunch, and so on. Remember to use the \_ character in place of spaces. (Step #29)

*\* Students create their own files and then can use ls -R to show the menu directory structure.*

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What directories did you remove? (Step #36)

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Try to remove a directory that’s not empty. What happens? Why is this an important feature?

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**CONCLUSION**

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