System Administration 1

**Lesson Description:**

The purpose of this workshop is to discuss the Linux command line, its importance, and the different ways in which users can interact with the command line. Time permitting, we will use the command line to cover system navigation, file reading, and file searching.

**Prerequisite Knowledge:**

None

**Length of Completion**:

**45** minutes

**Level of Instruction:**

6-8; 9-12

**Applicable First Principles &/or Concepts:**

Please check the Concepts covered in this lesson.

**GenCyber Cybersecurity Concepts**

Defense in Depth **Availability**

**Confidentiality** Think Like an Adversary

Integrity **Keep it Simple**

**Resources that are Needed:**

1. None

**Accommodations Needed:**

The biggest accommodations would be for visually impaired students who would need additional descriptions of both the activities performed and the resulting outputs. For example, one could use an operating system that enables narration for visually impaired students to enable activities.

# learning outcomes

**Lesson learning Outcomes:**

1. Understand the importance of the command line
2. Understand how to navigate the Linux file system
3. Learn how to create files using the command line
4. Learn how to backup files

# Lesson Details

**Interconnection:**

The lesson can be combined with other lessons on cybersecurity and ethical hacking concepts.

**Assessment:**

The assessment for this activity is currently a combination of activity-based and observational/informal.

**Differentiated Learning Opportunities:**

Teachers may want/need to scaffold:

* Why use the command line over the graphical user interface
* The importance of understanding the command line and how it can save time

# lesson

**Lesson:**

* **Discuss:**
  1. What is a system administrator
  2. What is the command line and the various commands
* **Activity 1:**
  1. Campers are tasked with an easter egg hunt in which they will have to search for the superhero files.
* **Discuss:**
  1. Discuss the more advanced method for finding and reading all the files using the command line.
* **Activity 2:**
  1. Have campers create a text file called Principles.txt under the Desktop folder.
  2. It’s important to note that campers should only enter the gencyber principles.
  3. Next, the campers will backup this file.
* **Activity 3:**
  1. Campers are tasked with creating a text file named Superhero.txt under the Desktop folder. In this file, the campers will state interesting facts about their imaginary superhero.
  2. Once completed, the campers are to backup this file.

**MENTOR NOTES:**

1. During the activities the mentors must ensure the students are staying on task during each activity.