# Module 3 Mastery Assessment

## Equipment/Supplies Needed
- Computer with Internet Access
- Windows 2019 Server Virtual Machine downloaded from HERE
- Debian Linux Client Virtual Machine

## Assignment

1. Download and open the Windows 2019 Virtual Machine.

2. On your Linux VM, use Dumpster Fire to run Purple Sensor Mapping Scans. Ensure the scan has been configured to run against your Windows 2019 Server VM. Submit screenshots of the results of the scan.

3. On your Linux VM, write a Python script that does the following:
   a. Asks the user to input a target IP address to scan.
   b. Asks the user for a beginning port.
   c. Asks the user for an ending port.
   d. Create a loop, in which the target IP host is port scanned from the beginning to the ending ports. Store the open ports in an array.
   e. Print to the screen a report of the open ports.
   f. Write a report to a text file of the open ports.

4. Run the script you created in step 3. Enter the Windows Server 2019 VM as the target IP address.  Enter *1* as the beginning port.  Enter *65535* as the ending port.

5. Analyze the results of the Dumpster Fire scans and compare them to the resulting document written from your Python script. Are the results from the two scans the same? If not, address any issues with your script and rerun it. Document three different ports that are open that need to be closed.  Submit a screenshot of the report created by your script.

6. Create a python script to temporarily close these ports. *Note: You could use taskkill to accomplish this.*

7. Run the script and submit screenshots of the corresponding Event Log(s) to prove the script corrected the issues you found.

8. Now that you've killed the task temporarily, what steps would you take to prevent it from recurring?

Scripts must run with no error messages to receive full credit. Scripts must include ample documentation.

## Rubric
### Checklist/Single Point Mastery

| Concerns<br>Working Towards Proficiency | Criteria<br>Standards for This Competency | Accomplished<br>Evidence of Mastering Competency |
|---|---|---|
| | Screenshots of result of Dumpster Fire scan and the script's report<br>(20 points) | |
| | Documented three vulnerabilities to correct<br>(20 points) | |
| | Script to correct three vulnerabilities<br>(40 points) | |
| | Screenshots proving vulnerabilities were corrected<br>(20 points) | |