**Assignment 7: PowerShell**

This week’s assignment looks at working with PowerShell, both as a command line tool and for scripts.

**Required Resources**

* Windows 10 workstation created in Assignment 1.
* Student\_PowerShell\_Scripts.zip from Brightspace (module 7 resources)

**Additional Information**

Professional Documentation - All documentation must be done in a **professional style**. It must include:

* Title page
* Updateable Table of Contents
* Document introduction
* Section introductions
* Document summary
* ALL sources and graphics used MUST be properly cited (APA) or credited.

\*\* All scripts must be converted to text before embedding them in your documentation. \*\*

*NB: Citations – Remember that citations MUST be provided for any code, script, test or image copied from another source or used as a resource. Not attributing appropriately (Plagiarism) or using illegal or unlicensed copies (copy write breach) are serious academic offenses. If you have any doubt as to when or how to cite, consult with your instructor and the resources provided by the college.*

<http://www.nscc.ca/docs/about-nscc/policies-procedures/policy-studentcodeofconduct.pdf>

<https://www.nscc.ca/docs/about-nscc/policies-procedures/policy-academicintegrity.pdf>

**Evaluation:**

This assignment is worth a total of **55 Marks** as per the Rubric on Brightspace (marks will be deducted for deviating from Requirements). You may be asked to demonstrate some of your assignment to show your comprehension of the material.

**Marking and Assignment Notes:**

* **In Class** **marking** (Task 1 Part 3) MUST be completed on the due date assigned during the scheduled class.
* **Documentation (Task 1 Part 1, 2, 3, Task 2, Task 3)** must be submitted to Brightspace by 10pm on the due date assigned in Brightspace
* **Automatic mark of 0 - Assignment not submitted or work not original.**
* **Rubric** can be found on Brightspace at the bottom right of the assignment page under ‘Assessment’ or via Assessments 🡪 Rubrics

**Task 1 (submit on Brightspace) – Hands-On with PowerShell**

**Part 1**

Using the help system built into PowerShell, find answers to the following questions (each should be answered with a screenshot in your documentation):

* Find a command that allows you to save a *transcript* of every command ran in the console, and all output to the console, to a text file. Take a screenshot of the commands help page and include in your documentation.
* Find a help page that explains aliases in PowerShell. Take a screenshot of the help page and include in your documentation.
* Find information on the accepted inputs accepted by Get-Process, and the created outputs. Take a screenshot of the information and include in your documentation.

**Part 2**

* Create a Document called “PowerShell” and upload to Brightspace when completed. Make sure your Document is completed in a professional Style.
* **If required**, create a folder on the Root of your C: drive called Scripts where you will create and save all your PowerShell scripts.
* **Create** a PowerShell script (NewObject.ps1) to create the following structure.
* Create a User named “Max” with the password “student”
* Create a Group named “ITAdmins”
* Make “Max” a member of your “ITAdmins” and “Users” groups
* Make “ITAdmins” group a member of your “Administrators” group.
* Create a directory object called “Backup” on the Root of your C: drive
* Copy the contents of your E:\CompanyInc folder to the “Backup” folder you just created (the folder structure should be maintained through this process)
* Comment each line of the script explaining in your words what is happening
* Include a copy of your NewObject.ps1 script converted to text in your Document.

**Part 3**

* Download the Student\_PowerShell\_Scripts.zip file from Brightspace (see ‘Required Resources’ on page 1 of this document for further details)
* Open the Backup.ps1 script in Notepad++ and **comment** each line to detail what is happening at each line.
* Place a **shortcut** to your Backup.ps1 in the “Start Up” folder for Max (you may need to create a file association)
* Login as Max and confirm your Backup.ps1 script has run successfully. Demo for you instructor.
* Include a copy of your Backup.ps1 script converted to text in your Document.

**Task 2 (submit on Brightspace) – PowerShell Summary Report**

**Part 1**

There are four (4) PowerShell Profiles, create a document in a Summary Table format that:

* + Lists each PowerShell Profile
  + List the Path of each Profile
  + Gives a brief explanation of the description and difference between each profile.

|  |  |  |
| --- | --- | --- |
| **PowerShell Profile** | **Path** | **Description** |
|  |  |  |
|  |  |  |

**Part 2**

There are six (6) Execution Policies for PowerShell (not including Default), create a document in a Summary Table format that:

* + Lists each Execution Policy
  + Gives a brief explanation of each policy.

|  |  |
| --- | --- |
| **PowerShell Execution Policy** | **Description** |
|  |  |
|  |  |

**Task 3 (submit on Brightspace) – Change Log**

* Include a copy of your Scripts converted to text.
* Log your system changes into the change log portion of your professional documentation
* Submit your documentation to Brightspace