**Assignment 2: Systems Utilities**

Using different system utilities create and use scheduled tasks, custom MMC Consoles and certificates.

**Required Resources**

* Windows 10 workstation created in Assignment 1.

**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 and summary (description)
* Graphics or screenshots must include introduction and descriptions
* Document summary
* ALL sources and graphics used MUST be properly cited (APA) or credited.
* **NO** embedded, zipped or compressed files. **1 Professional Document ONLY.**

\*\* 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>

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**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 1, Task 2 part 3 & 4)** MUST be completed on the due date assigned during the scheduled class.
* **Documentation (Task 1 part 2, Task 2 part 5, Task 3)** must be submitted to Brightspace by 5pm 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 – Creating and understanding Scheduled Tasks**

**Part 1 (In-Class Marking)**

Windows 10 uses scheduled tasks to perform a number of system maintenance tasks and operations on a regular basis. You also have the option to create scheduled tasks to perform system maintenance at regular intervals. One of the common causes of system instability is a Windows computer not being rebooted for extended periods of time. In Part 1, you will create a scheduled task that ensures the computer is rebooted at least once per week.

In Windows 10, you have access to Administrative Tools that allow you as the System Administrator to access the tools required to better manage your system.

* Navigate the Start Menu Program to open your Windows Administrator Tools and locate the Task Scheduler.
* Click Task Scheduler Library. This is the list of tasks you have created or were created by Windows or during software installs.
* In the Actions pane, click Create Task.
* In the Name box, type Weekly Reboot.
* Add a description to the task to explain “Why you should reboot your system weekly.”
* Click Change User or Group, type SYSTEM, click Check Names, and click OK
* Click the Triggers tab and click New.
* In the Settings area, click Weekly.
* Select the Sunday check box.
* Set the Start time as 11:00:00 PM and click OK.
* Click the Actions tab and click New.
* In the Program/Script box, type **C:\Windows\System32\shutdown.exe**
* In the Add Arguments box, type **-r -t 30** and click OK.
* Click the Conditions tab.
* Select the Start the task only if the computer is idle for check box. Take note of the default settings and how the computer responds to idle time.
* Click the Settings tab, review the available settings and click OK.

**Part 2 (submit on Brightspace):**

Create a professional style document (requirements on page 1) and answer the following review questions for Part 1.

1. For the task configured in Part 1, what are three (3) reasons it important that the task starts only when the computer is idle?
2. In addition to setting “On a schedule” task weekly, what other time setting options are available?
3. In addition to triggering Begin the task: “on a schedule”, what are the other options available to trigger a task to begin?

**Task 2 – Create a Custom MMC Console**

Most of the admin tools are MMC consoles with a single snap-in. Each snap-in provides specific functionality. For example, the Event Viewer snap-in provides the ability to look at the contents of the event logs. The Event Viewer snap-in is included in the Event Viewer administrative tool and the Computer Management administrative tool. You can create custom MMC consoles that include the snap-ins you most commonly use.

**Part 3 (In-Class Marking)**

* Create a custom MMC console named “Custom Console”, as detailed in the following steps:
  + Right click the Start menu, select “Run” type mmc in the box to open your Microsoft Management Console.
  + In the User Account Control window, click Yes.
  + In the Console1-[Console Root] window, click the File menu and click Save As.
  + **Document the full path to the default save location (hint: Use the dropdown box to view the full path)**, you will need this information later.
  + In the File name box, type “Custom Console”, and then click Save.
  + Close the Custom Console window and return to the desktop.
* Create a short cut on your desktop to your new Custom Console.msc
  + Navigate to the location noted above for your Custom Console.msc
  + Right click on and send your Custom Console.msc to your desktop (create shortcut).
* Modify your new Custom Console.msc by add snap-ins as described in the following steps:
  + Open your MMC
  + In the User Account Control window, click Yes.
  + Open your Custom Console from your mmc
  + In the Custom Console window, click the File menu and click Add/Remove Snap-in.
  + In the Available snap-ins list, double-click **Group Policy Object Editor**, accept the default Local Computer Group Policy Object and click Finish to add the snap-in to your Custom Console.
  + Add the additional following snap-ins:
    - **Local Users and Groups**, accept the default of managing the local computer.
    - **Windows Defender Firewall with Advanced Security**, and accept the default of managing the local computer.
  + In the Add or Remove Snap-ins window, click OK.
  + Notice that all three snap-ins are now available for use in our Custom Console.
  + Save your updated Custom Console

**Part 4 (In-Class Marking)**

* Add the **Certificates** snap-in to the Custom Console, as detailed in the following steps:
  + Add the Certificates snap-in, accept the default of managing certificates for “**My user account**”.
  + We also want to manage our computer certificates
  + Add the Certificates snap-inagain, but this time select “**Computer account”**, and click Next.
  + Accept the default of managing certificates for the local computer and click Finish to accept the new Certificate snap-in.
  + In the Add or Remove Snap-ins window, click OK.
  + Save your updated Custom Console
* Explore the Certificates snap-in, as detailed in the following steps:
  + In the left pane, expand **Certificates - Current User** and expand **Trusted Root Certification Authorities**. Review the different certificate authorities listed.
  + In the left pane, expand and click Certificates. This is the list of certification authorities from which your computer will trust certificates.
  + In the left pane, expand **Certificates – (Local Computer)** and click Untrusted Certificates and click Certificates Trust List. This is the list of certificates that are not trusted by your computer even if they appear to be valid.
  + Save your Custom Console
  + Close the Custom Console window and return to the desktop.
* Now that we have create a custom console we want to protect it against modifications. Change the console mode as detailed in the following steps:
  + Open the Custom Console.msc
  + In the File menu and click Options.
  + In the Options window, in the Console mode box, select each available console mode: and read the description, you will need this information later.
  + Change the Console mode to **User mode - full access** and click OK.
  + Now we need to keep our options change, click the File menu and click Save.
  + Close the Custom Console window and return to the desktop.
  + Open your Custom Console from your desktop shortcut.
  + In the User Account Control window, click Yes.
  + In the Custom Console window, click the File menu and review the available options. Notice that the option to add or remove a snap-in is not available.

**Part 5 (submit on Brightspace):**

In your Professional Document, answer the following review questions for Part 3 & 4

1. Where are custom MMC consoles stored by default, as documented earlier? Please include the **FULL** **path**.
2. What are the 4 console **modes** available in the options of an MMC console and what does each mode do (make sure to explain in your own words)?
3. What certificates types are different (exist in one but not the other) for the Local Computer and Local User.
4. In what mode can I open my Custom Console to be able to add or remove snapins?

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

It is important to keep an up to date record of all changes and modifications made to your workstation and have a reliable copy available as backup.

* Take a final snapshot of your workstation called “Assignment 2” in the **OFF** state
* Create a new “**Gold**” copy of your workstation on your portable drive
* Update your Change Management Log as required throughout this assignment.