LAB - 09

- ☐ **All screenshots, must have your username at command prompt and screenshot should be legible.** Snipping tool is advised for the screen shots, no full page screenshot.
- ☐ **For LAB REPORT, The screenshots should be pasted in Word Document in order of the lab questions and submitted in Blackboard as a single document only. Plagiarism is awarded zero.**
- ☐ Refer to course details posted in BB for more info on Lab report and screenshots.
- ☐ **Do NOT login as root or user with UID=0 to do the lab, use sudo ONLY when required.**

If *nnnn* is specified in the lab, it is your last four digits of your humberid which starts with n

- ☐ **Do not use changeme username** to do the lab, the lab(s) MUST be done using your own username as specified in PART-B of LAB-1
- ☐ **Strictly NO screenshots with full screen of terminal or desktop or partly taken screenshots**
- ☐ **It is highly required to following naming conventions and instructions and it would affect evaluation.**

Reference to your course resources could be required

Inclass Activity: 1-15

PLAGIARISM IS MARKED AS ZERO, Scripts **MUST be unique**. All Scripts are MS Windows PowerShell script.

Use **DC2022 VM** ***(SCREENSHOT: ALL activities, for the PS script, display script and its output)***

1. Set Execution policy to remote signed and Create a profile for Powershell using function.
   SCREENSHOT: Get-ExecutionPolicy and display your profile script
2. Create a script using **functions** to display sum, product, divisor and difference with 2 numbers given as input for the script. **SCREENSHOT:** *Input atlease 2 sets of discrete non repeating numbers*
3. Create a script to get 3 numbers as input and display the lowest and greatest of the 3 numbers. **SCREENSHOT:** *Input atlease 3 sets of discrete non repeating numbers with greatest and smallest number. In each set smallest number should be 1st, 2nd, 3rd, input. Similarly for greatest number in 1st, 2nd, 3rd input. Check result for all same numbers.*
4. Create a script using **foreach** loop, where the collection is property of **Get-ComputerInfo**. Get any property as input and it should display the value against the property
5. List the environmental variables
6. Create script with two arrays named fruits and flowers with atleast 5 fruits and 5 flowers respectively. *(add meaningful text when displaying information)* and the script output should
   a. Display all the fruits and its index number
   b. Display all the flowers and its index number
   c. Display the first element of fruits with first element of flower, likewise for all the elements
   d. Display the length of the arrays.

PS scripts MUST be unique, same scripts lab is evaluated for ZERO since plagiarised.

7. Create a script using **if** statement, that displays drives when **D** is entered and when **S** is entered Shares must be listed and when **L** is entered, should list the local user. If other letters are entered, the script should say "Wrong Entry, Try again"
8. Create a script using **While** loop displaying all the elements in the array. The array should be the different versions of MS Windows Server from NT to 2022.

prof benann nathan

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9. Create script, using **foreach** that reads the array which contains 10,20,30,40,50,60,70 and displays each number with an added number . The added number will be given as input.
10. Demonstrate **for** loop with a script
11. Using **switch**, create a script that displays a menu of 5 items as below and select A, the computername must be displayed. Likewise for other options and any entry other than given here should say "Wrong Entry, Try again".

    A. Computername
    B. Drives
    C. IP Address
    D. Storage Pool
    E. Shares.

12. Use **Get-WmiObject** to find logged in user in LONDON.
13. Use **Get-CimInstance** and find the logged in user in LONDON.
14. Use PS script to find the shares of LONDON.
15. In PowerShell type the following commands and familiarse the purpose.
    a. Use **Test-NetConnection -ComputerName** WATERLOO
    b. Type **Get-Command -module NetTCPIP** and try the PS commands
    c. Type **Get-NetAdapter** to view the network adapters
    d. Type **Get-NetIPConfiguration** similar to ipconfig command
    e. Tyep **Get-NetAdapterHardwareInfo**
    f. Type **Resolve-DnsName ccgc*nnnn*.net** similar to nslookup command
    g. Type **Get-NetRoute** similar to route command
    h. Type **Get-NetTCPConnection** and note the purpose of this PS command
    i. Type **Get-NetTCPConnection -State Established** similar to netstat command
    j. Type **Get-DNSClient** displays network interfaces
    k. Type **Get-NetNeighbor** and note the purpose of this PS command
    l. Type **Get-NetIPv4Protocol** and **Get-NetIPv6Protocol** and note the purpose

SCREENSHOT: doskey /history

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