## **Conclusion Workshop**

**Work through the below tasks to practice what has been covered in this course. Rather than focusing on getting the correct answer, it’s the process of getting to the answer that’s important; ask for help but do not copy others, it’s more important to think about these tasks then getting the answers right.**

**Task 1**

Using control structures and functions or any other method you like produce a script that will export all permissions on a folder to Excel with the following headings:

FolderName

User

Permissions

Inherited

*This will require you to get all permissions, loop through them, perform some kind of logic then either write back to a variable or use the “Export-CSV” cmdlet with the “–append” parameter to create the Excel file.*

Notes:

$Permissions = Get-Acl -Path C:\Expo

"FolderName##User#Permissions##Inherited" | Out-File -FilePath C:\Expo\Permissions.txt -Append

foreach ($Per in $Permissions.Access) {

    $FolderName = $Permissions.Path

    $User = $Per.IdentityReference

    $UserPer = $Per.FileSystemRights

    $Inherited = $Per.IsInherited

    $Result = $("$FolderName ## $User ## $UserPer ## $Inherited")

    $Result | Out-File -FilePath C:\Expo\Permissions.txt -Append

}

**Task 2**

Produce a report for your local machine which produces the following:

MachineName

CPU Name

Total Memory (GB)

OS name

OS Version

Notes:

$MachineName = hostname

$CPUName = (Get-WmiObject win32\_processor | Select-Object Name).Name

$TotalMemory = [Math]::Round((Get-CimInstance win32\_OperatingSystem).TotalVisibleMemorySize / 1mb)

$OSName = (Get-CimInstance win32\_OperatingSystem).Caption

$OSVersion = (Get-CimInstance win32\_OperatingSystem).Version

@{"MachineName" = $MachineName;

"CpuName" = $CPUName;

"Total Memory (GB)" = $TotalMemory;

"OSName" = $OSName;

"OSVersion" = $OSVersion}

**Task 3**

Get all folders under C:\ and for each one find the number of files within the folder. Return the number of files. If this is over 30 change the background to red and the foreground to white. If the number of files is 0 then change the background to green. If this is over 100 then exit out of the loop open an image file in paint.

Notes:

$AllFolders = Get-ChildItem -Path C:\ -Recurse | WHERE {$\_.Attributes -like "\*Directory\*"}

foreach ($Directory in $AllFolders) {

    $Path = $Directory.FullName

    $Files = (Get-ChildItem -Path $Path | Where {$\_.Attributes -notlike "\*Directory\*"}).Count

    If (($Files -gt 30) -and ($Files -lt 100)) {

        Write-Host $("$Folder : $Path, Files : $Files") -BackgroundColor Red -ForegroundColor White

    }

    If ($Files -eq 0) {

         Write-Host $("$Folder : $Path, Files : $Files") -BackgroundColor Green

    }

    if ($Files -gt 100) {

        Write-Host $("$Folder : $Path, Files : $Files") -BackgroundColor DarkMagenta

        mspaint.exe C:\Expo\GladOS.jpg

        break

    }

}