# Lab-3-1: PowerShell file processing

# Objectives

* Gather a basic understanding of and experience with Microsoft PowerShell



# Preparation

1. Open the PowerShell ISE (To do that type ‘powershell’ in the search field on your workstation
2. Select Windows **PowerShell ISE**). You can also perform this lab in the basic PowerShell environment (Windows **PowerShell**), but you may be missing the code completion facilities of the Interactive Scripting Environment (ISE).
3. You can also pin it to your taskbar for ease of access in future.

# Exploring PowerShell

Solve the following tasks based on the **integrated help** (get-help), **lecture slides** and PowerShell **online reference**.

**Write down the commands you used to achieve the tasks.**

1. Create a folder named ‘temp’ on you D: drive.

New-Item -Path D:\ -ItemType Directory -Name "temp"

1. Write a function that will take a folder name and path as argument and create a function at that path.

function createFile {

param([string]$name, [string]$path)

New-Item -Path $path -ItemType File -Name $name

}

createFile -name "theWall.txt" -path D:\temp

Sample execution:

CreateFolder -path “d:\temp” -name “TheWall”

1. Use loop to create 20 files with the names file01, file02….file20 and 20 directories with name dir01, dir02, …dir20 inside the folder you created for Q2.

for($count = 1; $count -le 20; $count++)

{

$file = "file" + "$count" + ".txt"

New-Item -Path D:\temp -Name $file

}

1. Delete all the files and folders that you created for Q3.

$files = Get-ChildItem -Path D:\temp

foreach($x in $files){ Remove-Item D:\temp\$x }

1. Read the file phonebook.txt into a variable $mytext. Show the first 3 lines.

$mytext = Get-Content -Path 'C:\Users\leggtc1\OneDrive - Otago Polytechnic\BIT\_Year 2\2.OPs Eng\Week 3\phonebook.txt'

$mytext[0..2]

1. Save only the phone numbers from the phonebook.txt to a file name onlyphones.txt

New-Item -Path 'C:\Users\leggtc1\OneDrive - Otago Polytechnic\BIT\_Year 2\2.OPs Eng\Week 3' -ItemType File -Name "onlyphones.txt"

$mytext | Select-String -Pattern "\(...\) ...-...." > "C:\Users\leggtc1\OneDrive - Otago Polytechnic\BIT\_Year 2\2.OPs Eng\Week 3\onlyphones.txt"

1. Open the file phonebook.txt and replace the string “coporal kennedy” with “sunny florida”

Hints: save the file on a variable and then use replace operator.

$search = “coporal kennedy”

$update = "sunny florida"

(Get-Content -Path $path) -replace $search,$update | Set-Content -Path $path

Get-Content -Path $path

1. Count the frequency of the words of the file phobook.txt

Hints: save the file on a variable and then use where-object{$\_ .split(“ “) and group

$words = (Get-Content -Path $path) | ForEach-Object {$\_.Split(" ") -match '[A-Z][a-z]'} | Group-Object | Sort-Object | Select-Object Name, Count

$words