

## **Lab 6 – Powershell & Automation**

---

**NAME** :- Chaitanya

**Course** :- Secure Coding

**Reg Num** :- 19BCN7083

**Faculty** :- Dr. Sibi Chakkaravarthy

---

**Find the first five processes using the most memory**

```
PS C:\Users\chait> ps | sort -p ws | select -last 5
```

Handles	NPM(K)	PM(K)	WS(K)	CPU(s)	Id	SI	ProcessName
1110	67	163828	215412		18088	21	Teams
439	34	185696	217872		17192	21	chrome
2700	164	197228	239276		23096	21	SearchUI
492	37	233004	292096	43.67	23508	20	chrome
482	155	329088	322188		10260	21	Teams

**Write a python script to get all the file names in the current directory**

```
PS C:\Users\chait\OneDrive\Documents\secure_coding> python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import os
>>> from os import listdir
>>> from os.path import isfile, join
>>> mypath=os.getcwd()
>>> files = [f for f in listdir(mypath) if isfile(join(mypath, f))]
>>> print(files)
['lab3.pdf', 'lab4.pdf', 'LBA2.pdf']
```

- **Write a python script to get all the directory names in the current directory**

```
PS C:\Users\chait\OneDrive\Documents\secure_coding> python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import os
>>> mypath=os.getcwd()
>>> print([ dir for dir in os.listdir(mypath) if os.path.isdir(os.path.join(mypath, dir)) ])
['task1']
>>>
```

- **Write a python script to get all the directory and subdirectory names in the current directory**

```
PS C:\Users\chait\OneDrive\Documents\secure_coding> python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import os
>>> for root, dirs, files in os.walk("."):
...     for dirname in dirs:
...         print(dirname)
...
task1
task2
>>>
```

- **Write a python script to get all the file name, directory and all the subdirectory names (recursively) in the current directory**

```
PS C:\Users\chait\OneDrive\Documents\secure_coding> python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import os
>>> path=os.getcwd()
>>> filelist = []
>>> for root, dirs, files in os.walk(path):
...     for file in files:
...         filelist.append(os.path.join(root,file))
...
>>> for name in filelist:
...     print(name)
...
C:\Users\chait\OneDrive\Documents\secure_coding\lab3.pdf
C:\Users\chait\OneDrive\Documents\secure_coding\lab4.pdf
C:\Users\chait\OneDrive\Documents\secure_coding\LBA2.pdf
C:\Users\chait\OneDrive\Documents\secure_coding\task1\1.txt
C:\Users\chait\OneDrive\Documents\secure_coding\task1\2.txt
C:\Users\chait\OneDrive\Documents\secure_coding\task1\3.txt
C:\Users\chait\OneDrive\Documents\secure_coding\task1\task2\4.txt
```

- Write a python script to get all the file name, directory and all the subdirectory names (recursively) in the current drive and write it to a text file.

```
PS C:\Users\chait\OneDrive\Documents\secure_coding> python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import os
>>> import pathlib
>>> drive = pathlib.Path.home().drive
>>> path = drive+"\"
>>> with open("file.txt", "w", encoding="utf-8") as filewrite:
...     for r, d, f in os.walk(path):
...         for file in f:
...             filewrite.write(f"{r + file}\n")
...
>>>
```

file - Notepad

File Edit Format View Help

```
C:\.log
C:\hiberfil.sys
C:\pagefile.sys
C:\swapfile.sys
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I00ZWQU.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I07CESA.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I1MPDRA.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I26HRRB.rm ski
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I2ASRUZ.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I2DV05U.lnk
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I2GZOSD
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I2KGSQ0.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I2VCKPP.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I3918FH.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I3K5ZMO.lnk
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I3KR1EF.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I3OVQI0.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I3UXMDI.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I3YPWUT.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I41XB0Q.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I4212LD.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I4RD3JU.lnk
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I50IMC5.py
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I51A5SZ.png
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I5409KI.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I5B9S9P.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I6L3YN9.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I6MQBSV.png
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I7ELZLU.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I7RCJQ6.png
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I7UFNV7.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I831U6M.png
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I86XPME.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I8NI2NC.txt
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I8P8A5F.png
C:\$Recycle.Bin\S-1-5-21-11575468-3212704765-280030192-1031$I8UTEJC.txt
```

- **Write a python script which creates four new files in the current directory using Powershell.**

```
PS C:\Users\chait> cd C:\Users\chait\OneDrive\Documents\secure_coding
PS C:\Users\chait\OneDrive\Documents\secure_coding> python
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import os
>>> path = os.getcwd()
>>> for x in range(1,5):
...     with open(path+"\{}.txt".format(x), "w") as f:
...         f.write("\n this my files ")
...
16
16
16
16
>>>
```

This PC > Documents > secure_coding						
^	Name	^	Status	Date modified	Type	Size
	task1		✓	08-03-2021 19:39	File folder	
	1		✓	09-03-2021 08:58	Text Document	1 KB
	2		✓	09-03-2021 08:58	Text Document	1 KB
	3		✓	09-03-2021 08:58	Text Document	1 KB
	4		✓	09-03-2021 08:58	Text Document	1 KB
			-			