

# SECURE CODING LAB 6

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- Write a python script to get all the file names in the current directory
- Write a python script to get all the directory names in the current directory
- Write a python script to get all the directory and subdirectory names in the current directory
- Write a python script to get all the file name, directory and all the subdirectory names (recursively) in the current directory
- 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.
- Write a python script which creates four new files in the current directory using Powershell.

- Python script to fetch names of all files and directories in a folder

lab6.py - C:/Users/allak/Desktop/lab6.py (3.9.2)

File Edit Format Run Options Window Help

```
import os
arr= os.listdir("C:\\Users\\allak\\Desktop")
print(arr)
```

```
>>>
===== RESTART: C:/Users/allak/Desktop/lab6.py =====
['18BCN7033 Tejeswar.pdf', 'blog website', 'cleanmybin.py', 'desktop.ini', 'Discord.lnk', 'dummy folder',
'lab6.py', 'MBA chawala story (18BCN7033 Tejeswar Allaka).mp3', 'moo.py', 'network programming', 'replic
ate.py', 'resume.pdf', 'simplex.m', 'Ubisoft Connect.lnk']
>>> |
```

- Python script to fetch all sub directories in a folder

```
import os
def run_fast_scandir(dir, ext):    # dir: str, ext: list
    subfolders, files = [], []

    for f in os.scandir(dir):
        if f.is_dir():
            subfolders.append(f.path)
        if f.is_file():
            if os.path.splitext(f.name)[1].lower() in ext:
                files.append(f.path)

    for dir in list(subfolders):
        sf, f = run_fast_scandir(dir, ext)
        subfolders.extend(sf)
        files.extend(f)
    return subfolders, files

subfolders, files = run_fast_scandir("C:\\Users\\allak\\Desktop", ["."])

>>> subfolders
['C:\\Users\\allak\\Desktop\\blog website', 'C:\\Users\\allak\\Desktop\\dummy folder', 'C:\\Users\\allak\\Desktop\\network programmi
ng', 'C:\\Users\\allak\\Desktop\\blog website\\assets', 'C:\\Users\\allak\\Desktop\\blog website\\css', 'C:\\Users\\allak\\Desktop\\
blog website\\js', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass\\klis
e']
>>>
```

- Recursively fetch files and sub directories in a folder

lab6.py - C:/Users/allak/Desktop/lab6.py (3.9.2)

File Edit Format Run Options Window Help

```
import glob

files = glob.glob("C:\\Users\\allak\\Desktop" + '/*/*', recursive=True)

>>> files
['C:\\Users\\allak\\Desktop\\18BCN7033 Tejeswar.pdf', 'C:\\Users\\allak\\Desktop\\blog website', 'C:\\Users\\allak\\Desktop\\cleanmy
bin.py', 'C:\\Users\\allak\\Desktop\\desktop.ini', 'C:\\Users\\allak\\Desktop\\Discord.lnk', 'C:\\Users\\allak\\Desktop\\dummy folde
r', 'C:\\Users\\allak\\Desktop\\lab6.py', 'C:\\Users\\allak\\Desktop\\MBA chawala story (18BCN7033 Tejeswar Allaka).mp3', 'C:\\User
s\\allak\\Desktop\\moo.py', 'C:\\Users\\allak\\Desktop\\network programming', 'C:\\Users\\allak\\Desktop\\replicate.py', 'C:\\Users\\
allak\\Desktop\\resume.pdf', 'C:\\Users\\allak\\Desktop\\simplex.m', 'C:\\Users\\allak\\Desktop\\Ubisoft Connect.lnk', 'C:\\Users\\
allak\\Desktop\\blog website\\assets', 'C:\\Users\\allak\\Desktop\\blog website\\css', 'C:\\Users\\allak\\Desktop\\blog website\\ind
ex.html', 'C:\\Users\\allak\\Desktop\\blog website\\js', 'C:\\Users\\allak\\Desktop\\blog website\\assets\\avatar.png', 'C:\\Users\\
allak\\Desktop\\blog website\\css\\style.css', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass', 'C:\\Users\\allak\\Desktop\\bl
og website\\css\\_sass\\klise', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass\\main.scss', 'C:\\Users\\allak\\Desktop\\blog w
ebsite\\css\\_sass\\klise\\base.scss', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass\\klise\\dark.scss', 'C:\\Users\\allak\\
Desktop\\blog website\\css\\_sass\\klise\\fonts.scss', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass\\klise\\layout.scss',
'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass\\klise\\miscellaneous.scss', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_s
ass\\klise\\post.scss', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass\\klise\\syntax.scss', 'C:\\Users\\allak\\Desktop\\blo
g website\\js\\main.js', 'C:\\Users\\allak\\Desktop\\network programming\\threads.txt']
>>>
```

- Recursively fetch files and sub directories in a folder and give output in a txt file

lab6.py - C:/Users/allak/Desktop/lab6.py (3.9.2)

File Edit Format Run Options Window Help

```
import glob

files = glob.glob("C:\\Users\\allak\\Desktop" + '**/*', recursive=True)

with open('filename.txt', 'w') as f:
    print(files, file=f)
```

filename - Notepad

File Edit Format View Help

```
[ 'C:\\Users\\allak\\Desktop\\188CN7033 Tejeswar.pdf', 'C:\\Users\\allak\\Desktop\\blog website', 'C:\\Users\\allak\\Desktop\\cleanmybin.py', 'C:\\Users\\allak\\Desktop\\deskto
k\\Desktop\\blog website\\css\\_sass', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass\\klise', 'C:\\Users\\allak\\Desktop\\blog website\\css\\_sass\\main.scss', 'C:\\Use
```

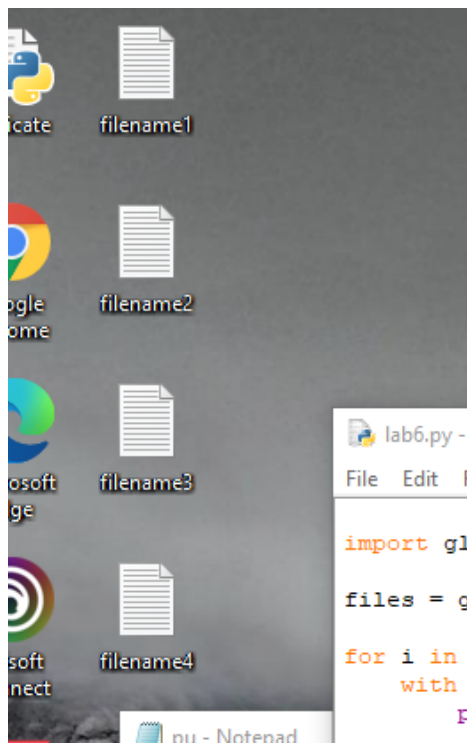
- Python script to create 4 files using powershell

```
import glob

files = glob.glob("C:\\Users\\allak\\Desktop" + '**/*', recursive=True)

for i in range(1,4):
    with open("filename"+i+".txt", 'w') as f:
        print(files, file=f)
```

```
PS C:\Users\allak\Desktop> py lab6.py
```



## FEW EXTRA COMMAND

```
PS C:\Users\allak\Desktop> Gwmi Win32_Bios | select SerialNumber
SerialNumber
-----
5CD8323YQ4
```

```
PS C:\Users\allak\Desktop> Gwmi Win32_LogicalDisk
```

```
DeviceID      : C:
DriveType     : 3
ProviderName  :
FreeSpace     : 61953900544
Size          : 126710968320
VolumeName    : WINDOWS
```

```
DeviceID      : D:
DriveType     : 3
ProviderName  :
FreeSpace     : 88261632000
Size          : 985453817856
VolumeName    : DATA
```

```
DeviceID      : E:
DriveType     : 3
ProviderName  :
FreeSpace     : 1759547392
Size          : 14748217344
VolumeName    : RECOVERY
```

```
Windows PowerShell
CSCreationClassName      : Win32_ComputerSystem
CSName                   : LAPTOP-M096SVVG
Description              : SecurityHealthSystray.exe
ExecutablePath           : C:\windows\System32\SecurityHealthSystray.exe
ExecutionState           :
Handle                   : 14760
HandleCount              : 184
InstallDate              :
KernelModeTime           : 781250
MaximumWorkingSetSize    : 1380
MinimumWorkingSetSize    : 200
Name                     : SecurityHealthSystray.exe
OSCreationClassName      : Win32_OperatingSystem
OSName                   : Microsoft windows 10 Home Single Language|C:\WINDOWS|
OtherOperationCount      : 76
OtherTransferCount       : 2414
PageFaults               : 3122
PageFileUsage            : 2128
ParentProcessId          : 5848
PeakPageFileUsage        : 2568
PeakVirtualSize          : 2203435364352
PeakWorkingSetSize       : 9792
Priority                  : 8
PrivatePageCount         : 2179072
ProcessId                : 14760
QuotaNonPagedPoolUsage   : 10
QuotaPagedPoolUsage      : 149
QuotaPeakNonPagedPoolUsage : 12
QuotaPeakPagedPoolUsage  : 167
ReadOperationCount       : 1
ReadTransferCount        : 5184
SessionId                : 1
Status                   :
TerminationDate          :
ThreadCount              : 4
UserModeTime             : 312500
VirtualSize               : 2203429072896
WindowsVersion            : 10.0.19042
WorkingSetSize            : 4460544
WriteOperationCount      : 0
WriteTransferCount       : 0
PSComputerName            : LAPTOP-M096SVVG
ProcessName               : SecurityHealthSystray.exe
Handles                  : 184

PS C:\Users\allak\Desktop> $NIC = Get-WMIObject Win32_NetworkAdapterConfiguration | where{$_.IPEnabled -eq "TRUE"}
PS C:\Users\allak\Desktop> $NIC

DHCPEnabled              : True
IPAddress                 : {192.168.29.52, fe80::d094:5246:b40f:dbef, 2405:201:c000:a85e:34c6:a543:9936:4809,
DefaultIPGateway          : {192.168.29.1, fe80::461c:a8ff:fe79:28e1}
DNSDomain                 :
ServiceName               : Netwtw08
Description               : Intel(R) Wireless-AC 9560 160MHz
Index                    : 1

DHCPEnabled              : False
IPAddress                 : {192.168.56.1, fe80::e4aa:2e5f:3069:d28e}
DefaultIPGateway          :
DNSDomain                 :
ServiceName               : VBoxNetAdp
Description               : VirtualBox Host-Only Ethernet Adapter
Index                    : 14
```

```
PS C:\Users\allak\Desktop> Get-Process | Where { $_.Handles -gt 500 } | Sort handles | Format-Table
```

Handles	NPM(K)	PM(K)	WS(K)	CPU(s)	Id	SI	ProcessName
502	26	6344	15000		5416	0	spoolsv
502	15	4376	11116		3968	0	svchost
505	18	9464	17896	12.22	5092	1	ctfmon
505	28	201968	82492	2.59	15384	1	chrome
515	1166	8160	13240	10.55	5952	1	SynTPEnh
525	23	7012	10792		4856	0	svchost
529	45	226212	274532	137.16	15428	1	msedge
535	27	75388	25404	0.64	6240	1	NVIDIA Share
539	29	30892	28480	0.55	18396	1	ApplicationFrameHost
544	34	57980	56508	4.02	16548	1	Discord
545	58	397124	481380	408.42	19980	1	msedge
546	34	31180	55484	75.66	11992	1	msedge
558	31	51428	78856		21792	0	svchost
562	44	42384	25516		12384	0	HPSupportSolutionsFrameworkService
565	24	25924	25696		16036	0	HPCommRecovery
574	25	20516	27124		6064	0	svchost
590	31	71220	1636	0.50	18580	1	Calculator
609	26	12208	3936	5.09	2508	1	SettingsSyncHost
609	26	63380	28148	5.38	12924	1	TextInputHost
620	45	87304	2324	0.53	17860	1	Microsoft.Photos
624	79	30368	15772	3.44	10784	1	NVIDIA Web Helper
626	28	11972	33052	4.42	4492	1	svchost
631	16	9176	14200		3236	0	svchost
668	38	14076	29152	2.75	10068	1	McUICnt
668	27	11796	31928	2.03	9736	1	RuntimeBroker
677	33	76356	57380	2.00	8880	1	StartMenuExperienceHost
679	30	23800	26848	1.25	268	1	HxTsr
682	40	12236	25016		6300	0	nvcontainer
688	32	32384	31116		3296	1	NVDisplay.Container
690	27	322256	302088	11.30	14356	0	mcshield
694	20	8524	25604	4.80	4376	1	sihost
704	33	67272	2364	0.34	13888	1	GameBar

```
PS C:\Users\allak\Desktop> PS
```

Handles	NPM(K)	PM(K)	WS(K)	CPU(s)	Id	SI	ProcessName
326	15	5168	5632		3064	0	AppHelperCap
539	29	30892	28480	0.55	18396	1	ApplicationFrameHost
204	12	8148	13404	0.36	21032	0	audiodg
237	16	4324	20040	0.05	7152	1	backgroundTaskHost
299	19	15388	27844	0.11	10652	1	backgroundTaskHost
590	31	71220	1636	0.50	18580	1	Calculator
228	14	6428	11816	0.14	2912	1	chrome
210	14	11744	20120	0.16	10400	1	chrome
203	12	6656	11864	0.33	13824	1	chrome
313	21	13656	29040	2.92	15364	1	chrome
505	28	201968	82492	2.59	15384	1	chrome
232	17	80812	101304	7.34	15792	1	chrome
225	15	16860	29188	0.31	15896	1	chrome
224	15	19076	31968	3.61	15908	1	chrome
230	16	26624	41652	0.94	15916	1	chrome
224	15	16248	28004	0.25	15944	1	chrome
1504	52	173272	202912	26.48	16204	1	chrome
193	9	1708	3268	0.06	16224	1	chrome
198	13	8368	12876	0.19	17816	1	chrome
141	7	1512	5904	0.19	18272	1	CompPkgSrv
100	7	6344	1516	0.02	1900	1	conhost
97	7	6216	1284		5200	0	conhost
100	7	6340	1052	0.28	10252	1	conhost
97	7	6220	1576		11148	0	conhost

```
PS C:\Users\allak\Desktop> Get-WmiObject -Class Win32_BIOS -ComputerName .

SMBIOSBIOSVersion : F.12
Manufacturer      : AMI
Name              : F.12
SerialNumber      : 5CD8323YQ4
Version           : HPQOEM - 1072009
```

```
PS C:\Users\allak\Desktop> whoami
allanton-mo96svvg\allak
```

```
PS C:\Users\allak\Desktop> Get-WmiObject -Class Win32_ComputerSystem

Domain                : WORKGROUP
Manufacturer          : HP
Model                 : OMEN by HP Laptop 15-dc0xxx
Name                  : LAPTOP-M096SVVG
PrimaryOwnerName      : allakarahul@gmail.com
TotalPhysicalMemory    : 17052819456
```

```
PS C:\Users\allak\Desktop> Get-WmiObject -Class Win32_Product -ComputerName . | Format-Wide -Column 1

Python 3.9.2 Add to Path (64-bit)
Python 3.9.2 Utility Scripts (64-bit)
Python 3.9.2 Core Interpreter (64-bit)
Python 3.9.2 Tcl/Tk Support (64-bit)
BlueJ
Python 3.9.2 Test Suite (64-bit)
Python 3.9.2 pip Bootstrap (64-bit)
Python 3.9.2 Standard Library (64-bit)
Python 3.9.2 Documentation (64-bit)
Python 3.9.2 Executables (64-bit)
Python 3.9.2 Development Libraries (64-bit)
Intel XTU SDK
HP Recovery Manager
Update for Windows 10 for x64-based Systems (KB4023057)
Microsoft Visual C++ 2010 x64 Redistributable - 10.0.40219
HP ePrint SW
Microsoft Visual C++ 2010 x86 Redistributable - 10.0.40219
Microsoft Visual C++ 2013 x86 Minimum Runtime - 12.0.21005
Microsoft Visual C++ 2013 x86 Additional Runtime - 12.0.21005
HP Support Solutions Framework
Bonjour
Intel(R) Rapid Storage Technology
HP ePrint SW
HP ePrint SW
HP Customer Experience Enhancements
HP Registration Service
```