

# SECURE CODING CSE2010

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## Powershell and Automation

### QUESTION

Find the first five processes using the most memory

### CODE

```
ps | sort -p ws | select -last 5
```

### OUTPUT

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

Handles	NPM(K)	PM(K)	WS(K)	CPU(s)	Id	SI	ProcessName
-----	-----	-----	-----	-----	--	--	-----
1518	42	386308	247508	908.09	8360	7	brave
407	29	216648	260792	156.84	14204	7	brave
1663	73	472028	275844	905.02	13176	7	brave
0	0	1376	323256		2844	0	Memory Compression
2569	92	720796	431144		4844	0	MsMpEng

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### QUESTION

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

### CODE

```
import os
files = [f for f in os.listdir('.') if os.path.isfile(f)]

print(files)
```

## OUTPUT

```
PS C:\Users\romap\documents\sem6\secure_lab\6_03> python list_files.py  
['list_files.py']  
PS C:\Users\romap\documents\sem6\secure_lab\6_03> █
```

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## QUESTION

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

## CODE

```
import os  
files = [f for f in os.listdir('.') if not os.path.isfile(f)]  
  
print(files)
```

## OUTPUT

```
PS C:\Users\romap\documents\sem6\secure_lab\6_03> python list_files.py  
['hidden']  
PS C:\Users\romap\documents\sem6\secure_lab\6_03> █
```

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## QUESTION

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

## CODE

```
import os  
  
path = '.'  
directory_contents = os.listdir(path)  
for item in directory_contents:  
    if os.path.isdir(item):  
        print(item)
```

## OUTPUT

```
PS C:\Users\romap\documents\sem6\secure_lab\6_03> py list_files.py
hidden
new_folder0
new_folder1
new_folder2
new_folder3
PS C:\Users\romap\documents\sem6\secure_lab\6_03> █
```

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## QUESTION

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

## CODE

```
import os
top = os.getcwd()
files = [f for f in os.walk(top, topdown=True)]

print(files)
```

## OUTPUT

```
PS C:\Users\romap\documents\sem6\secure_lab\6_03> python list_files.py
[('C:\\Users\\romap\\documents\\sem6\\secure_lab\\6_03', ['hidden'], ['list_files.py']), ('C:\\Users\\romap\\documents\\sem6\\secure_lab\\6_03\\hidden', [], ['text.txt'])]
PS C:\Users\romap\documents\sem6\secure_lab\6_03> █
```

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## QUESTION

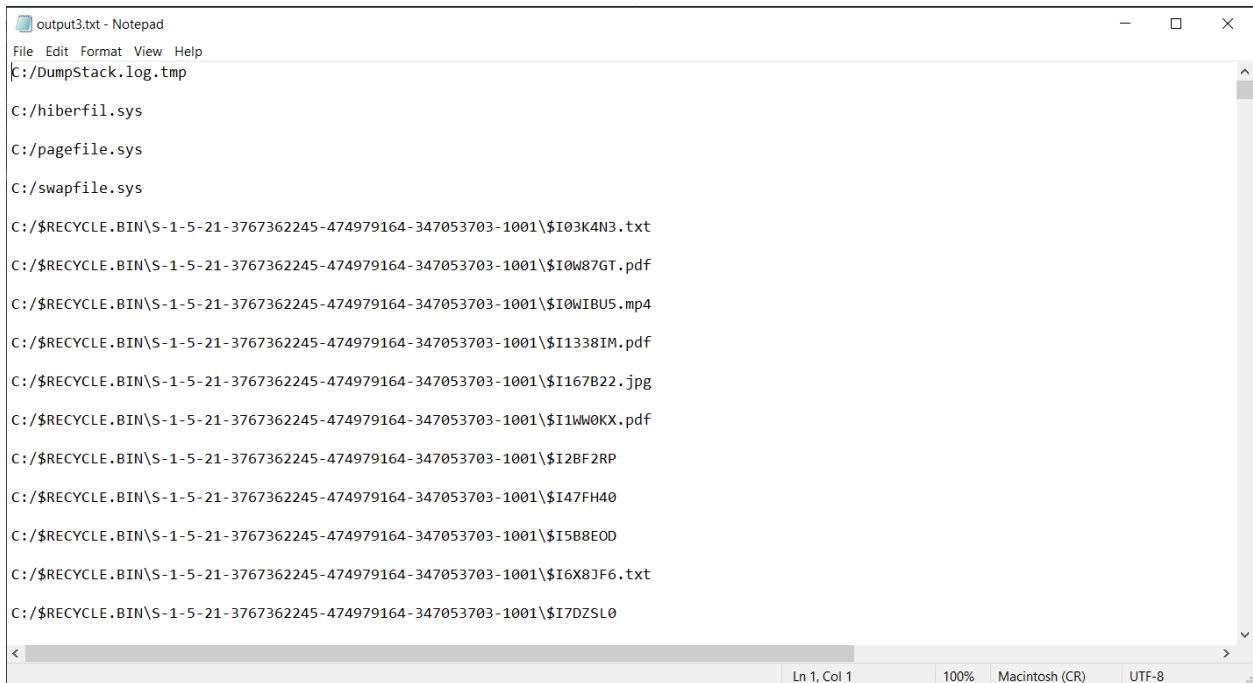
Write a python script to get all the file name, directory and all the subdirectory names (recursively) in the current drive and write it to a text file.

## CODE

```
import os
import sys

a = open("output3.txt", "w")
top="C:/"
for path, subdirs, files in os.walk(top):
    for filename in files:
        f = os.path.join(path, filename)
        a.write(str(f) + os.linesep)
```

## OUTPUT



```
output3.txt - Notepad
File Edit Format View Help
C:/DumpStack.log.tmp

C:/hiberfil.sys
C:/pagefile.sys
C:/swapfile.sys
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I03K4N3.txt
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I0W87GT.pdf
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I0WIBU5.mp4
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I1338IM.pdf
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I167B22.jpg
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I1W0KX.pdf
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I2BF2RP
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I47FH40
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I5B8E0D
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I6X8JF6.txt
C:/RECYCLE.BIN/S-1-5-21-3767362245-474979164-347053703-1001/I7DZSL0
```

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## QUESTION

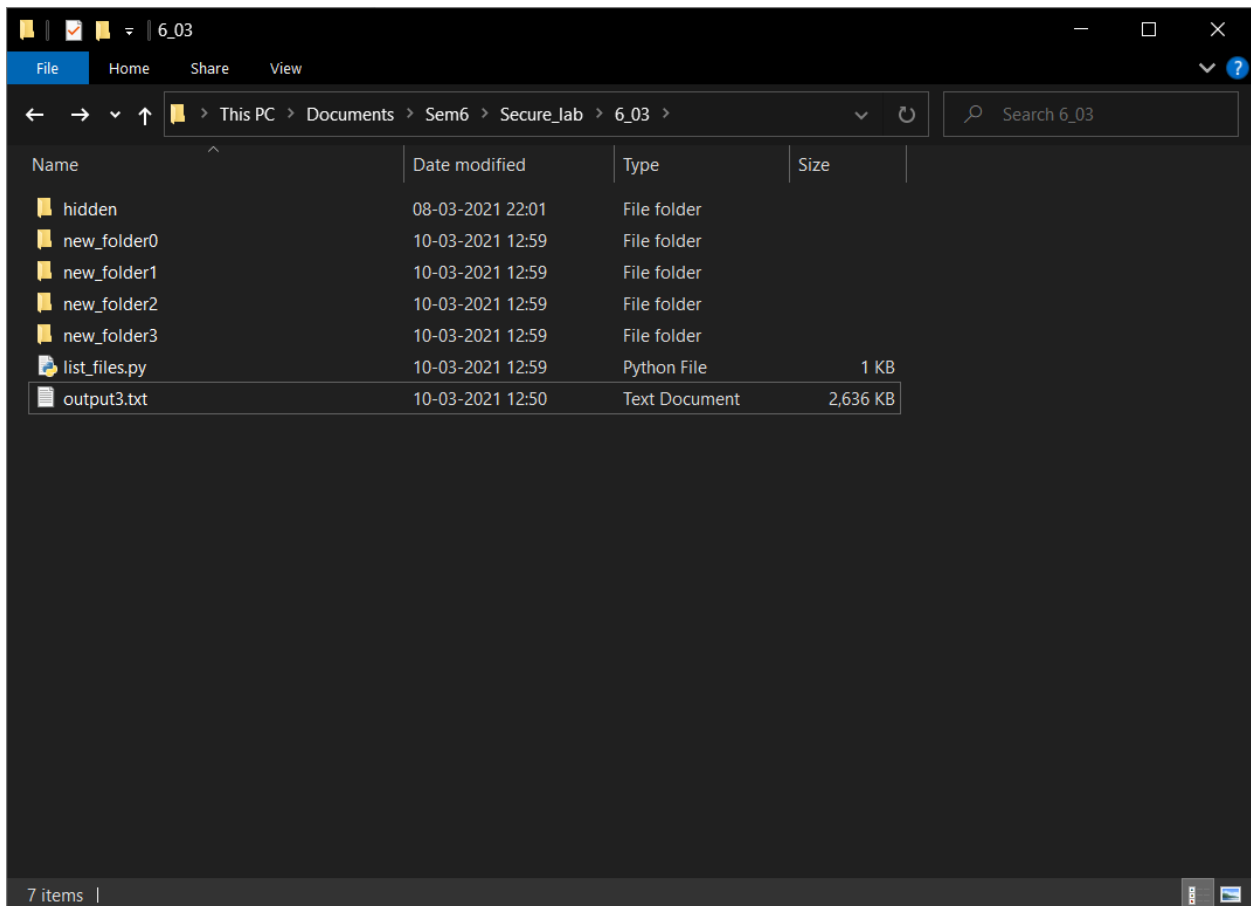
Write a python script which creates four new files in the current directory using Powershell.

## CODE

```
import os

current_directory = os.getcwd()
for i in range(4):
    final_directory = os.path.join(current_directory, f'new_folder{i}')
    if not os.path.exists(final_directory):
        os.makedirs(final_directory)
```

## OUTPUT



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