

Secure Coding

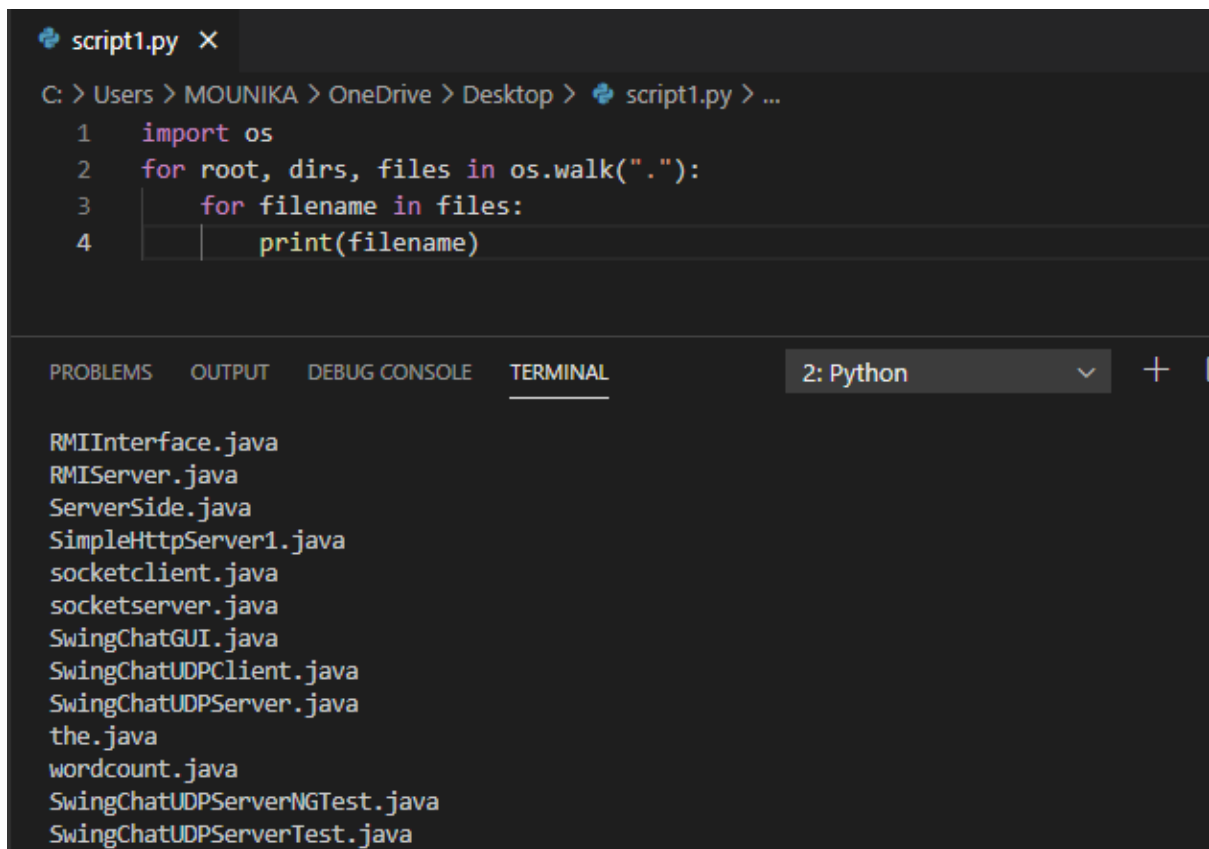
Lab-6

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SLOT - L23+L24

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



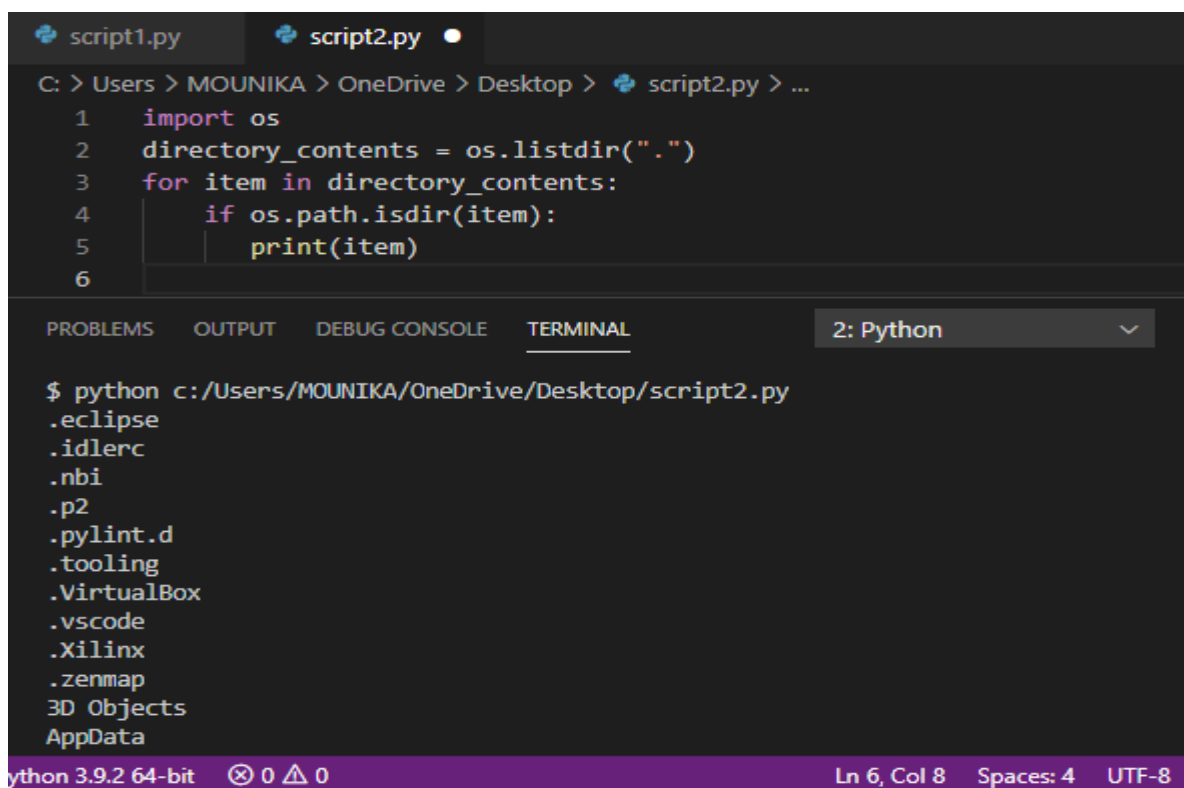
The screenshot shows a code editor with a file named `script1.py`. The script is a Python program that uses the `os` module to walk through the current directory and print the names of all files. The code is as follows:

```
1 import os
2 for root, dirs, files in os.walk("."):
3     for filename in files:
4         print(filename)
```

Below the code editor, the `TERMINAL` tab is active, displaying the output of the script. The output lists 15 files in the current directory:

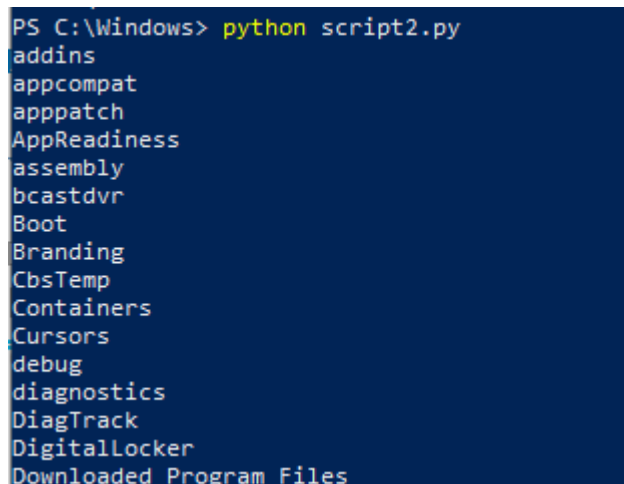
```
RMIInterface.java
RMIServer.java
ServerSide.java
SimpleHttpServer1.java
socketclient.java
socketserver.java
SwingChatGUI.java
SwingChatUDPCClient.java
SwingChatUDPServer.java
the.java
wordcount.java
SwingChatUDPServerNGTest.java
SwingChatUDPServerTest.java
```

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



The screenshot shows an IDE with two tabs: 'script1.py' and 'script2.py'. The 'script2.py' tab is active, displaying a Python script that lists directory contents. Below the script, the 'TERMINAL' panel shows the command to run the script and its output, which lists various system and application directories.

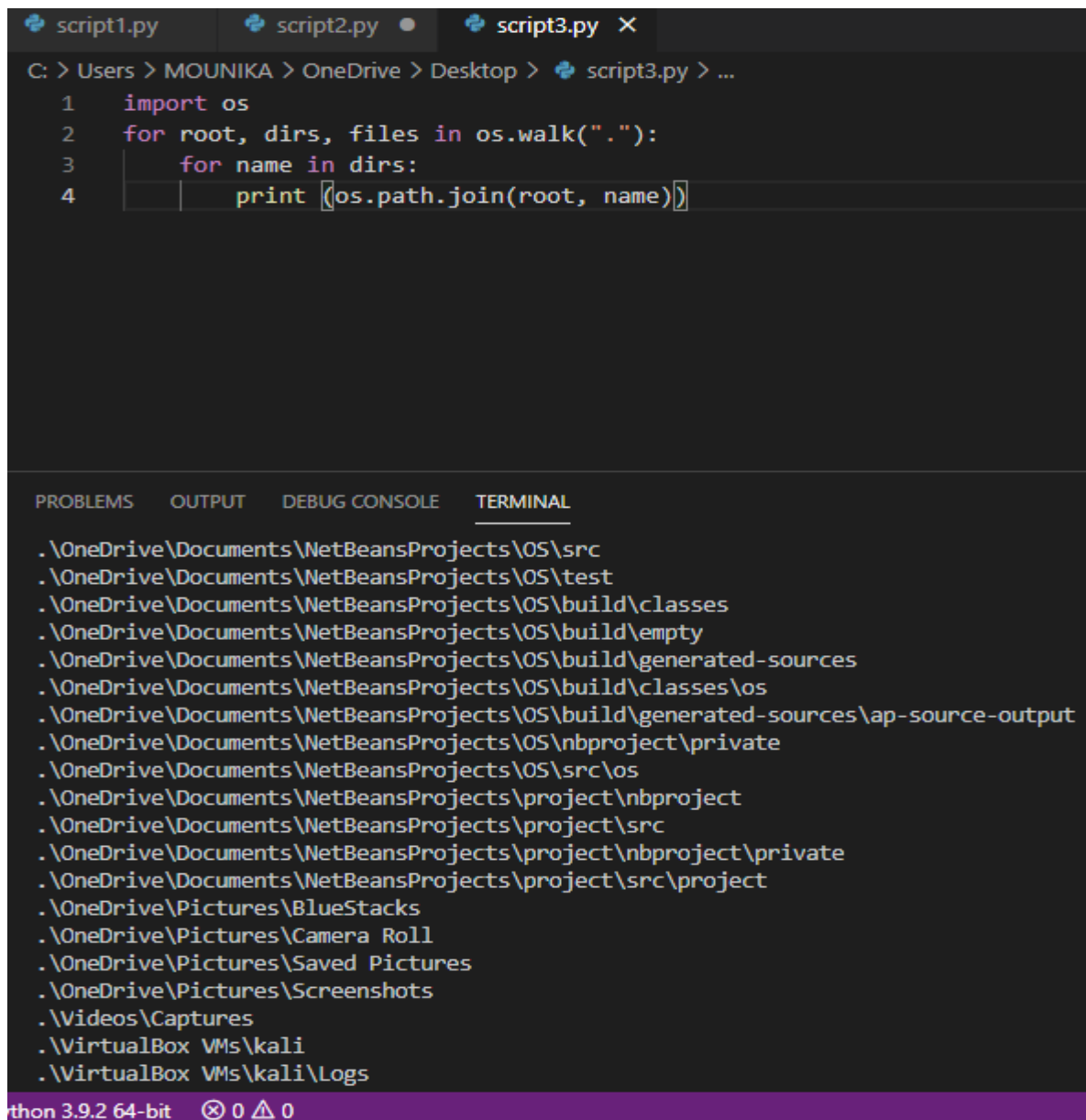
```
script1.py script2.py
C: > Users > MOUNIKA > OneDrive > Desktop > script2.py > ...
1 import os
2 directory_contents = os.listdir(".")
3 for item in directory_contents:
4     if os.path.isdir(item):
5         print(item)
6
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 2: Python
$ python c:/Users/MOUNIKA/OneDrive/Desktop/script2.py
.eclipse
.idlrc
.nbi
.p2
.pylint.d
.tooling
.VirtualBox
.vscode
.Xilinx
.zenmap
3D Objects
AppData
python 3.9.2 64-bit 0 0 Ln 6, Col 8 Spaces: 4 UTF-8
```



The screenshot shows a Windows command prompt window with the command 'python script2.py' executed. The output lists the directory contents of the current directory, which are various system and application folders.

```
PS C:\Windows> python script2.py
addins
appcompat
apppatch
AppReadiness
assembly
bcastdvr
Boot
Branding
CbsTemp
Containers
Cursors
debug
diagnostics
DiagTrack
DigitalLocker
Downloaded Program Files
```

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



The screenshot shows a Python IDE with three tabs: script1.py, script2.py, and script3.py. The active tab is script3.py, which contains the following code:

```
C: > Users > MOUNIKA > OneDrive > Desktop > script3.py > ...  
1 import os  
2 for root, dirs, files in os.walk("."):   
3     for name in dirs:  
4         print(os.path.join(root, name))
```

Below the code editor, the TERMINAL tab is active, displaying the output of the script:

```
.\OneDrive\Documents\NetBeansProjects\OS\src  
.\OneDrive\Documents\NetBeansProjects\OS\test  
.\OneDrive\Documents\NetBeansProjects\OS\build\classes  
.\OneDrive\Documents\NetBeansProjects\OS\build\empty  
.\OneDrive\Documents\NetBeansProjects\OS\build\generated-sources  
.\OneDrive\Documents\NetBeansProjects\OS\build\classes\os  
.\OneDrive\Documents\NetBeansProjects\OS\build\generated-sources\ap-source-output  
.\OneDrive\Documents\NetBeansProjects\OS\nbproject\private  
.\OneDrive\Documents\NetBeansProjects\OS\src\os  
.\OneDrive\Documents\NetBeansProjects\project\nbproject  
.\OneDrive\Documents\NetBeansProjects\project\src  
.\OneDrive\Documents\NetBeansProjects\project\nbproject\private  
.\OneDrive\Documents\NetBeansProjects\project\src\project  
.\OneDrive\Pictures\BlueStacks  
.\OneDrive\Pictures\Camera Roll  
.\OneDrive\Pictures\Saved Pictures  
.\OneDrive\Pictures\Screenshots  
.\Videos\Captures  
.\VirtualBox VMs\kali  
.\VirtualBox VMs\kali\Logs
```

The status bar at the bottom indicates "Python 3.9.2 64-bit" and "0 errors, 0 warnings".

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

```
script1.py script2.py script3.py script4.py X
C: > Users > MOUNIKA > OneDrive > Desktop > script4.py > recursive

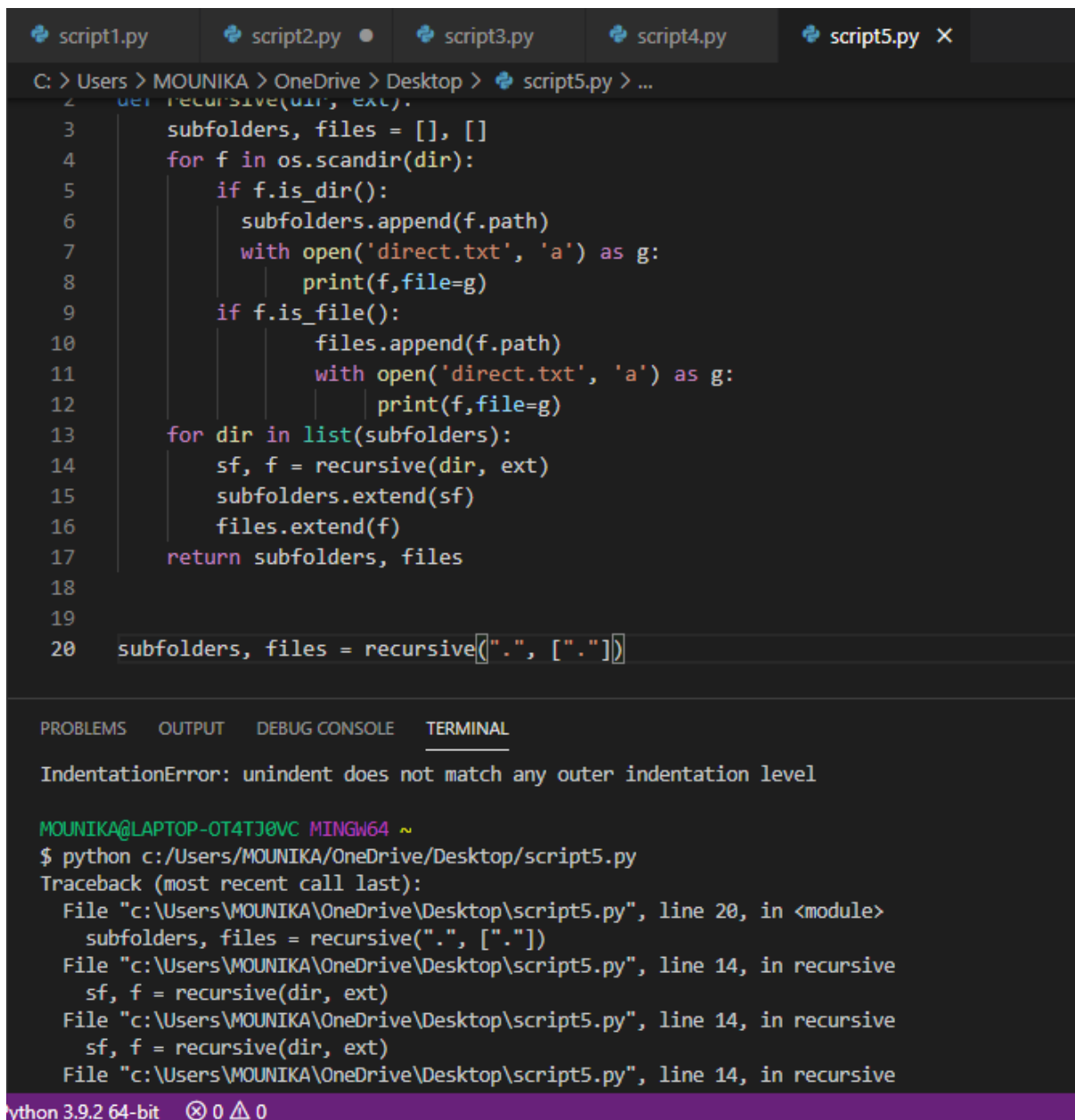
2 def recursive(dir, ext):
3     subfolders, files = [], []
4
5     for f in os.scandir(dir):
6         if f.is_dir():
7             subfolders.append(f.path)
8             print(f)
9         if f.is_file():
10            files.append(f.path)
11            print(f)
12
13
14     for dir in list(subfolders):

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

<DirEntry 'METADATA.toml'>
<DirEntry '__init__.pyi'>
<DirEntry 'first.pyi'>
<DirEntry 'METADATA.toml'>
<DirEntry 'flask'>
<DirEntry 'METADATA.toml'>
<DirEntry 'app.pyi'>
<DirEntry 'blueprints.pyi'>
<DirEntry 'cli.pyi'>
<DirEntry 'config.pyi'>
<DirEntry 'ctx.pyi'>
<DirEntry 'debughelpers.pyi'>
<DirEntry 'globals.pyi'>
<DirEntry 'helpers.pyi'>
<DirEntry 'json'>
<DirEntry 'logging.pyi'>
<DirEntry 'sessions.pyi'>
<DirEntry 'signals.pyi'>
<DirEntry 'templating.pyi'>
```

```
PS C:\Windows> python script4.py
<DirEntry 'addins'>
<DirEntry 'appcompat'>
<DirEntry 'apppatch'>
<DirEntry 'AppReadiness'>
<DirEntry 'assembly'>
<DirEntry 'bcastdvr'>
<DirEntry 'bfsvc.exe'>
<DirEntry 'Boot'>
<DirEntry 'bootstat.dat'>
<DirEntry 'Branding'>
<DirEntry 'CbsTemp'>
<DirEntry 'comsetup.log'>
<DirEntry 'Containers'>
<DirEntry 'Core.xml'>
<DirEntry 'CoreSingleLanguage.xml'>
<DirEntry 'CSUP.txt'>
<DirEntry 'Cursors'>
<DirEntry 'debug'>
<DirEntry 'diagerr.xml'>
<DirEntry 'diagnostics'>
```

5. 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.

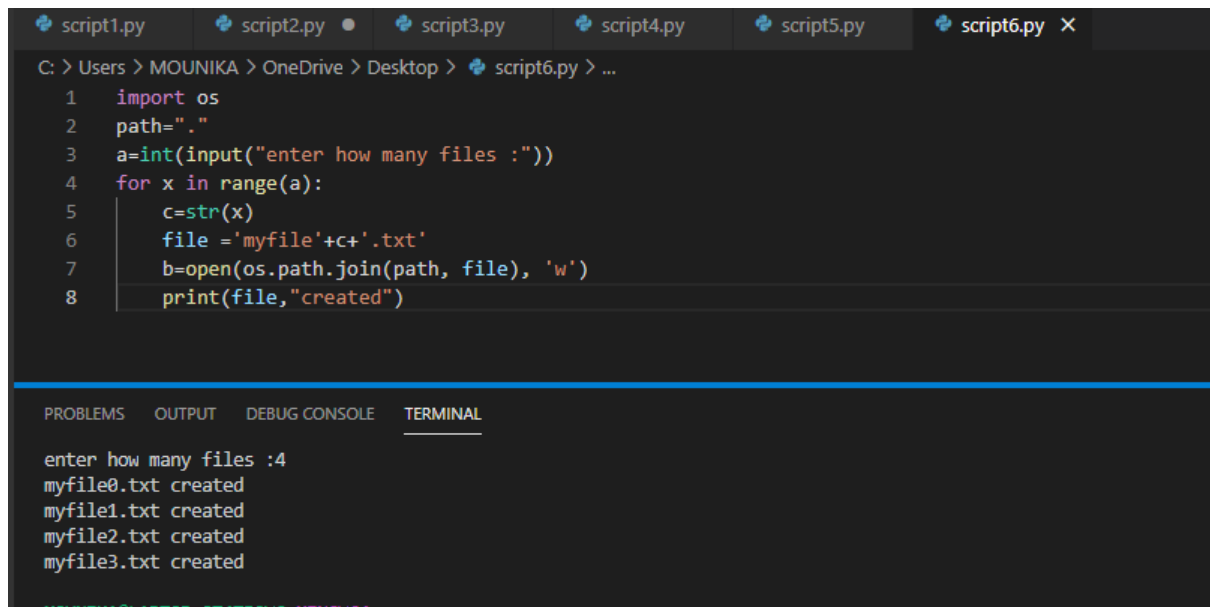


```
script1.py script2.py script3.py script4.py script5.py X
C: > Users > MOUNIKA > OneDrive > Desktop > script5.py > ...
2 def recursive(dir, ext):
3     subfolders, files = [], []
4     for f in os.scandir(dir):
5         if f.is_dir():
6             subfolders.append(f.path)
7             with open('direct.txt', 'a') as g:
8                 print(f,file=g)
9         if f.is_file():
10            files.append(f.path)
11            with open('direct.txt', 'a') as g:
12                print(f,file=g)
13    for dir in list(subfolders):
14        sf, f = recursive(dir, ext)
15        subfolders.extend(sf)
16        files.extend(f)
17    return subfolders, files
18
19
20 subfolders, files = recursive(".", ["."])

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
IndentationError: unindent does not match outer indentation level

MOUNIKA@LAPTOP-OT4TJ0VC MINGW64 ~
$ python c:/Users/MOUNIKA/OneDrive/Desktop/script5.py
Traceback (most recent call last):
  File "c:\Users\MOUNIKA\OneDrive\Desktop\script5.py", line 20, in <module>
    subfolders, files = recursive(".", ["."])
  File "c:\Users\MOUNIKA\OneDrive\Desktop\script5.py", line 14, in recursive
    sf, f = recursive(dir, ext)
  File "c:\Users\MOUNIKA\OneDrive\Desktop\script5.py", line 14, in recursive
    sf, f = recursive(dir, ext)
  File "c:\Users\MOUNIKA\OneDrive\Desktop\script5.py", line 14, in recursive
    sf, f = recursive(dir, ext)
python 3.9.2 64-bit 0 0 0
```

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



The screenshot shows a Python IDE with a dark theme. At the top, there are tabs for script1.py, script2.py, script3.py, script4.py, script5.py, and script6.py. The active tab is script6.py. The main editor area shows the following Python code:

```
C: > Users > MOUNIKA > OneDrive > Desktop > script6.py > ...  
1  import os  
2  path="."  
3  a=int(input("enter how many files :"))  
4  for x in range(a):  
5      c=str(x)  
6      file = 'myfile'+c+'.txt'  
7      b=open(os.path.join(path, file), 'w')  
8      print(file,"created")
```

Below the editor is a panel with tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, and TERMINAL. The TERMINAL tab is active and shows the output of the script:

```
enter how many files :4  
myfile0.txt created  
myfile1.txt created  
myfile2.txt created  
myfile3.txt created
```