

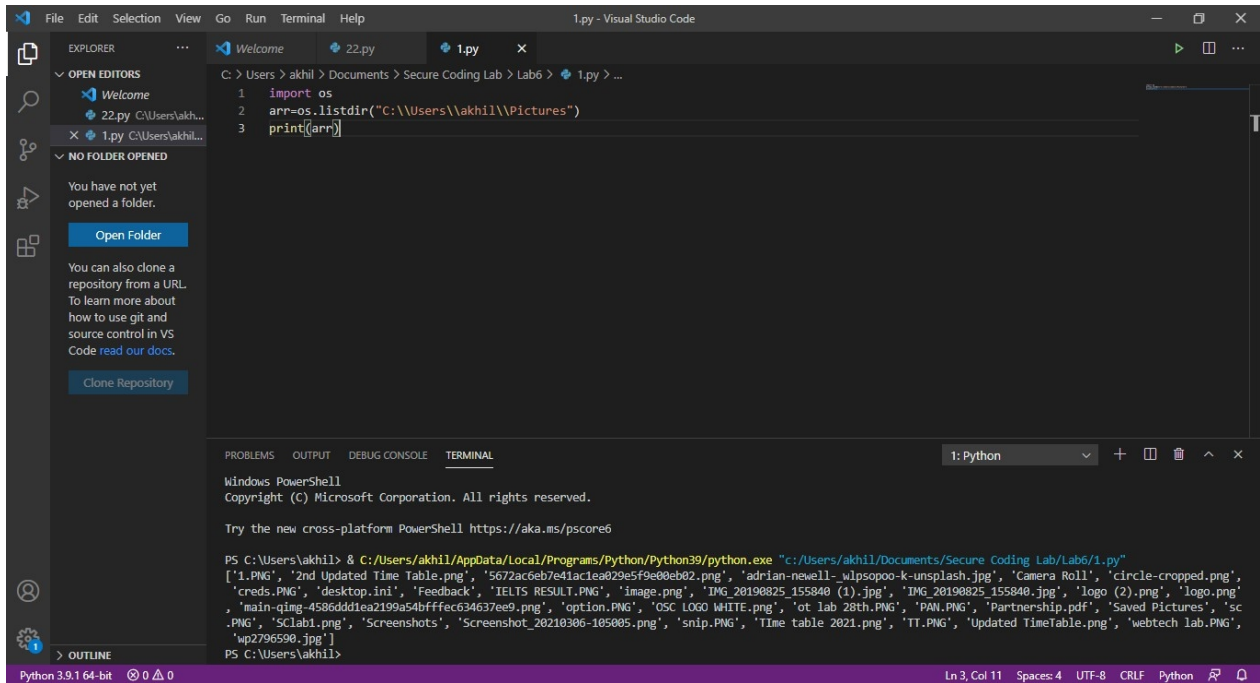
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SECURE CODING(L39+L40)

LAB 6-03/03/2021

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



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left shows the file structure with '1.py' selected. The Editor panel displays the following Python code:

```
1 import os
2 arr=os.listdir("C:\\Users\\akhil\\Pictures")
3 print(arr)
```

The TERMINAL panel at the bottom shows the command prompt output:

```
PS C:\Users\akhil> & C:/Users/akhil/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/akhil/Documents/Secure Coding Lab/Lab6/1.py"
['1.PNG', '2nd Updated Time Table.png', '5672ac6eb7e41ac1ea829e5f9e00eb02.png', 'adrian-newell_wlpsopoo-k-unsplash.jpg', 'Camera Roll', 'circle-cropped.png', 'creds.PNG', 'desktop.ini', 'Feedback', 'IELTS RESULT.PNG', 'image.png', 'IMG_20190825_155840 (1).jpg', 'IMG_20190825_155840.jpg', 'logo (2).png', 'logo.png', 'main-qimg-4586dd10a2199a54bfffec634637ee9.png', 'option.PNG', 'OSC LOCO WHITE.png', 'ot lab 28th.PNG', 'PAN.PNG', 'Partnership.pdf', 'Saved Pictures', 'sc.PNG', 'SCLab1.png', 'Screenshots', 'Screenshot_20210306-105005.png', 'snip.PNG', 'Time table 2021.png', 'TT.PNG', 'Updated TimeTable.png', 'webtech lab.PNG', 'wp2796590.jpg']
```

-Python script to fetch all sub directories in a folder

```
6  it += 1: is_dir():
7      subfolders.append(f.path)
8      if f.is_file():
9          if os.path.splitext(f.name)[1].lower() in ext:
10             files.append(f.path)
11
12
13
14  for dir in list(subfolders):
15      sf, f = run_fast_scandir(dir, ext)
16      subfolders.extend(sf)
17      files.extend(f)
18  return subfolders, files
19
20
21  subfolders, files=run_fast_scandir(r"C:\Users\akhil\Downloads", ["."])
22  print(subfolders, files)
23
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: Python

for f in os.scandir(dir):
PermissionError: [winError 5] Access is denied: 'C:\\\\Users\\\\akhil\\\\Documents\\\\My Music'
PS C:\Users\akhil> & C:/Users/akhil/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/akhil/Documents/Secure Coding Lab/Lab6/22.py"
PS C:\Users\akhil> & C:/Users/akhil/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/akhil/Documents/Secure Coding Lab/Lab6/22.py"
PS C:\Users\akhil> & C:/Users/akhil/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/akhil/Documents/Secure Coding Lab/Lab6/22.py"
PS C:\Users\akhil> & C:/Users/akhil/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/akhil/Documents/Secure Coding Lab/Lab6/22.py"
[["C:\Users\akhil\Downloads\19042.546 Free", "C:\Users\akhil\Downloads\Psychedelic Animation", "C:\Users\akhil\Downloads\Psychedelic Animation\Project Files", "C:\Users\akhil\Downloads\Psychedelic Animation\UI Introduction", "C:\Users\akhil\Downloads\Psychedelic Animation\UI2 The Trippy Effect", "C:\Users\akhil\Downloads\Psychedelic Animation\UI3 Production Preparing Colorful Textures in Photoshop", "C:\Users\akhil\Downloads\Psychedelic Animation\UI4 Working with After Effects", "C:\Users\akhil\Downloads\Psychedelic Animation\UI5 Final Animations", "C:\Users\akhil\Downloads\Psychedelic Animation\UI6 Post Production Finalizing & Exporting", "C:\Users\akhil\Downloads\Psychedelic Animation\UI7 Final project"]]
PS C:\Users\akhil>

Python 3.9.1 64-bit 0 0 0

- Recursively fetch files and sub directories in a folder

```
1  import glob
2  files=glob.glob("C:\\Users\\akhil\\Pictures\\*\\*\\*", recursive=True)
3  print(files)
```

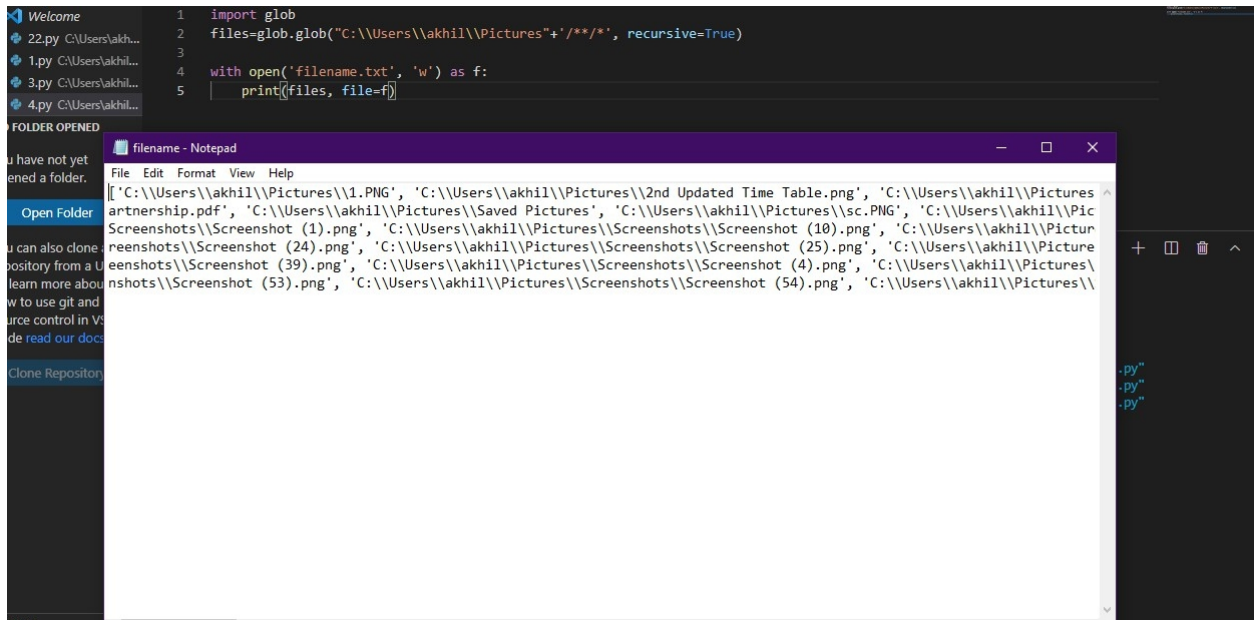
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: Python

PS C:\Users\akhil> & C:/Users/akhil/AppData/Local/Programs/Python/Python39/python.exe "c:/Users/akhil/Documents/Secure Coding Lab/Lab6/3.py"
[["C:\Users\akhil\Pictures\1.PNG", "C:\Users\akhil\Pictures\2nd Updated Time Table.png", "C:\Users\akhil\Pictures\15672ac6eb7e41ac1ea829e5f9e0e0e02.png", "C:\Users\akhil\Pictures\ladrion-newell_wpsopoo-k-unsplash.jpg", "C:\Users\akhil\Pictures\Camera Roll", "C:\Users\akhil\Pictures\circle-cropped.png", "C:\Users\akhil\Pictures\creds.PNG", "C:\Users\akhil\Pictures\Desktop.ini", "C:\Users\akhil\Pictures\Feedback", "C:\Users\akhil\Pictures\IELTS RESULT.PNG", "C:\Users\akhil\Pictures\Image.png", "C:\Users\akhil\Pictures\IMG_20190825_155840 (1).jpg", "C:\Users\akhil\Pictures\IMG_20190825_155940.jpg", "C:\Users\akhil\Pictures\Logo (2).png", "C:\Users\akhil\Pictures\Logo.png", "C:\Users\akhil\Pictures\main-qimg-4586dd1ea2199a5b4ff9cc3637e09.png", "C:\Users\akhil\Pictures\Option.PNG", "C:\Users\akhil\Pictures\OSF LOGO WHITE.png", "C:\Users\akhil\Pictures\ot lab 28th.png", "C:\Users\akhil\Pictures\PMW.PNG", "C:\Users\akhil\Pictures\Partnership.pdf", "C:\Users\akhil\Pictures\Saved Pictures", "C:\Users\akhil\Pictures\loc.PNG", "C:\Users\akhil\Pictures\SCLab1.png", "C:\Users\akhil\Pictures\Screenshots", "C:\Users\akhil\Pictures\Screenshot_20210306-105005.png", "C:\Users\akhil\Pictures\snip.PNG", "C:\Users\akhil\Pictures\Time table 2021.png", "C:\Users\akhil\Pictures\UIT.PNG", "C:\Users\akhil\Pictures\Updated TimeTable.png", "C:\Users\akhil\Pictures\webtech lab.PNG", "C:\Users\akhil\Pictures\wp2796590.jpg", "C:\Users\akhil\Pictures\Camera Roll\desktop.ini", "C:\Users\akhil\Pictures\Camera Roll\WIN_20210109_09_35_16_Pro.mp4", "C:\Users\akhil\Pictures\Camera Roll\WIN_20210220_19_51_46_Pro.mp4", "C:\Users\akhil\Pictures\Camera Roll\WIN_20210220_21_03_08_Pro.mp4", "C:\Users\akhil\Pictures\Feedback\6CC427A1-29E6-49BA-AE9E-5F11E7285F8A", "C:\Users\akhil\Pictures\Saved Pictures\desktop.ini", "C:\Users\akhil\Pictures\Screenshots\desktop.ini", "C:\Users\akhil\Pictures\Screenshots\Screenshot (1).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (10).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (11).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (12).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (13).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (14).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (15).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (16).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (17).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (18).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (19).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (2).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (20).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (21).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (22).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (23).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (24).png", "C:\Users\akhil\Pictures\Screenshots\Screenshot (2)"]]

Python 3.9.1 64-bit 0 0 0

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



The screenshot shows a Visual Studio Code editor with a Python script in a file named 'filename.txt'. The script uses the `glob` module to recursively find all files and subdirectories in the path `"C:\\Users\\akhil\\Pictures" + '**/*'`. The output of the script is displayed in a Notepad window titled 'filename - Notepad', showing a list of files and directories found, including `1.PNG`, `2nd Updated Time Table.png`, `artnership.pdf`, `Saved Pictures`, `sc.PNG`, `Screenhots\\Screenshot (1).png`, `Screenhots\\Screenshot (10).png`, `Screenhots\\Screenshot (24).png`, `Screenhots\\Screenshot (25).png`, `Screenhots\\Screenshot (39).png`, `Screenhots\\Screenshot (4).png`, `Screenhots\\Screenshot (53).png`, and `Screenhots\\Screenshot (54).png`.

```

1 import glob
2 files=glob.glob("C:\\Users\\akhil\\Pictures"+"**/*", recursive=True)
3
4 with open('filename.txt', 'w') as f:
5     print(files, file=f)

```

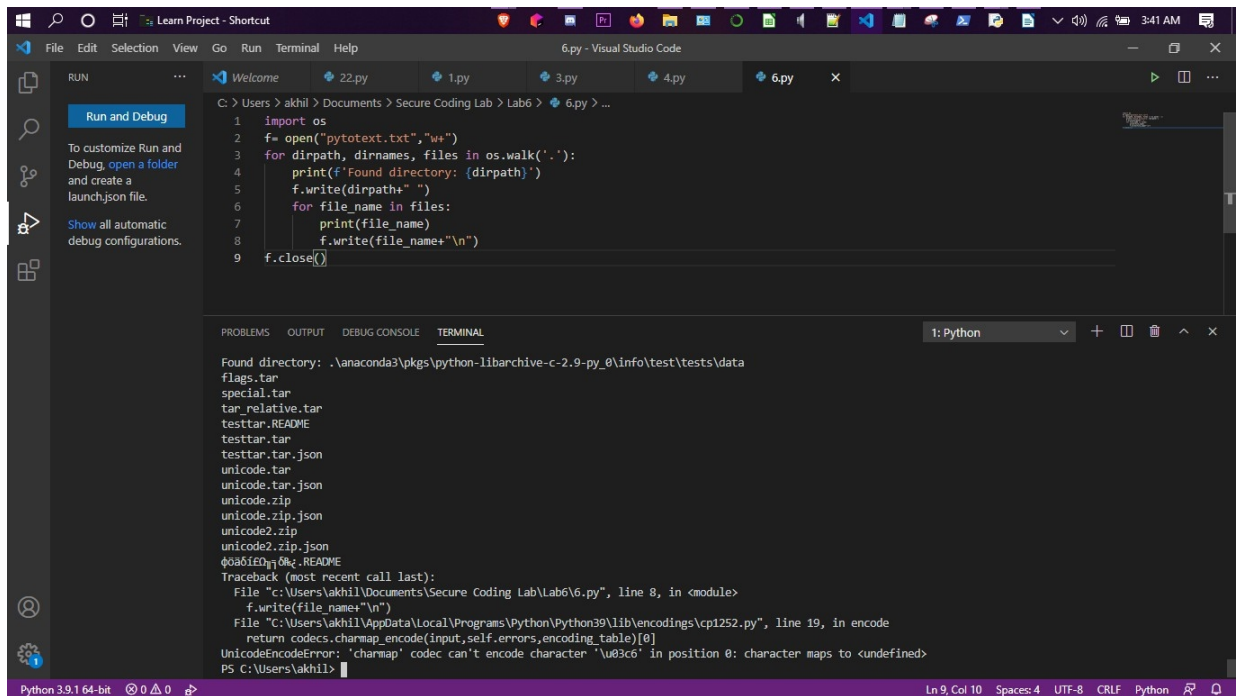
filename - Notepad

```

['C:\\Users\\akhil\\Pictures\\1.PNG', 'C:\\Users\\akhil\\Pictures\\2nd Updated Time Table.png', 'C:\\Users\\akhil\\Pictures\\artnership.pdf', 'C:\\Users\\akhil\\Pictures\\Saved Pictures', 'C:\\Users\\akhil\\Pictures\\sc.PNG', 'C:\\Users\\akhil\\Pictures\\Screenhots\\Screenshot (1).png', 'C:\\Users\\akhil\\Pictures\\Screenhots\\Screenshot (10).png', 'C:\\Users\\akhil\\Pictures\\Screenhots\\Screenshot (24).png', 'C:\\Users\\akhil\\Pictures\\Screenhots\\Screenshot (25).png', 'C:\\Users\\akhil\\Pictures\\Screenhots\\Screenshot (39).png', 'C:\\Users\\akhil\\Pictures\\Screenhots\\Screenshot (4).png', 'C:\\Users\\akhil\\Pictures\\Screenhots\\Screenshot (53).png', 'C:\\Users\\akhil\\Pictures\\Screenhots\\Screenshot (54).png', 'C:\\Users\\akhil\\Pictures\\

```

- 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



The screenshot shows a Visual Studio Code editor with a Python script in a file named '6.py'. The script uses the `os` module to recursively find all files and subdirectories in the current directory. The output of the script is displayed in the terminal window, showing a list of files and directories found, including `.\anaconda3\pkgs\python-libarchive-c-2.9-py_0\info\test\tests\data`, `flags.tar`, `special.tar`, `tar_relative.tar`, `testtar.README`, `testtar.tar`, `testtar.tar.json`, `unicode.tar`, `unicode.tar.json`, `unicode.zip`, `unicode.zip.json`, `unicode2.zip`, `unicode2.zip.json`, and `φ085f0y-085.README`. The terminal also shows a traceback error: `UnicodeEncodeError: 'charmap' codec can't encode character '\u03c6' in position 0: character maps to <undefined>`.

```

1 import os
2 f= open("pytotext.txt","w+")
3 for dirpath, dirnames, files in os.walk('.'):
4     print(f'Found directory: {dirpath}')
5     f.write(dirpath+" ")
6     for file_name in files:
7         print(file_name)
8         f.write(file_name+"\n")
9 f.close()

```

Found directory: .\anaconda3\pkgs\python-libarchive-c-2.9-py_0\info\test\tests\data
 flags.tar
 special.tar
 tar_relative.tar
 testtar.README
 testtar.tar
 testtar.tar.json
 unicode.tar
 unicode.tar.json
 unicode.zip
 unicode.zip.json
 unicode2.zip
 unicode2.zip.json
 φ085f0y-085.README
 Traceback (most recent call last):
 File "c:\Users\akhil\Documents\Secure Coding Lab\Lab6\6.py", line 8, in <module>
 f.write(file_name+"\n")
 File "C:\Users\akhil\AppData\Local\Programs\Python\Python39\lib\encodings\cp1252.py", line 19, in encode
 return codecs.charmap_encode(input,self.errors,encoding_table)[0]
 UnicodeEncodeError: 'charmap' codec can't encode character '\u03c6' in position 0: character maps to <undefined>
 PS C:\Users\akhil>

