Lab 6

Secure Coding

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19BCN7117

Q) Python script to get all file names in the current directory.

cd_files.py - Notepad

File Edit Format View Help

```
import os

with os.scandir('Desktop/') as entries:
    for entry in entries:
        print(entry.name)
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

```
Microsoft Windows [Version 10.0.19041.804]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\user>cd C:\Users\user

C:\Users\user>python cd_files.py
161340177186890Q2E8CTyE1RQCvd2.pdf
19bcn7117.py
19bcn7117.spec
201220
2019a7ps0024u.docx
5074736407117824.svg
aadhya
BlueJ.lnk
build
Cisco Packet Tracer.lnk
CS Engineering.xlsx
CS F214-B.pdf
desktop.ini
dist
dms
DMS REPORT.pdf
dms.pdf
FIITJEEfee.pdf
hrushi
iNeuron
itc mqps
lab compre
machine learning
mapo
master.mkv
Microsoft Teams.lnk
Projects
Projects.rar
prospectus.pdf
Python
SCProj1
stats
Telegram.lnk
uivision
verify.pdf
VIT
WhatsApp.lnk
Zoom.lnk
__pycache__

C:\Users\user>
```

Q) Python script to get all directory names in the current directory.

cd_dir.py - Notepad

File Edit Format View Help

```
import os
for root, dirs, files in os.walk("Desktop/", topdown=False):
   for name in dirs:
      print(os.path.join(root, name))
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

Command Prompt

```
C:\Users\user>python cd_dir.py
Desktop\build\19bcn7117
Desktop\dist\19bcn7117
Desktop/dms\merged
Desktop\hrushi\out\production\hrushi
Desktop\hrushi\out\production
Desktop/hrushi\.idea
Desktop\hrushi\out
Desktop/hrushi\src
Desktop/iNeuron\Linear Regression App\static\css
Desktop/iNeuron\Linear Regression App\.ebextensions
Desktop/iNeuron\Linear Regression App\.idea
Desktop/iNeuron\Linear Regression App\static
Desktop/iNeuron\Linear Regression App\templates
Desktop/iNeuron\linear Regression App
Desktop/itc mqps\cat 1
Desktop/itc mqps\cat 2
Desktop/itc mqps\cat 3
Desktop/lab compre\out\production\lab compre
Desktop/lab compre\out\production
Desktop/lab compre\.idea
Desktop/lab compre\out
Desktop/lab compre\src
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\.idea\inspectionProfiles
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\application_logging\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\best_model_finder\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTransformation_Prediction\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTransform_Training\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTypeValidation_Insertion_Prediction\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTypeValidation_Insertion_Training\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_ingestion\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_preprocessing\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\EDA\.ipynb_checkpoints
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\file_operations\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\KMeans
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\NaiveBayes1
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\NaiveBayes2
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost0
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_165637
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_173611
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-04-12_215100
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165536
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165647
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_170239
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\Prediction_Raw_Data_Validation\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162402
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162552
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_163931
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165021
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165329
```


Command Prompt

```
Desktop/VIT\Sem 4\G web technologies\Lab\17-02
Desktop/VIT\Sem 4\G web technologies\Lab\24-02
Desktop/VIT\Sem 4\G web technologies\Lab\27-01
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7117_ritvik 03-03-2021\2nd Ques
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7117_ritvik 03-03-2021\html doc
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7117_ritvik 03-03-2021
Desktop/VIT\Sem 4\G web technologies\Theory\Module 1
Desktop/VIT\Sem 4\G web technologies\Lab
Desktop/VIT\Sem 4\G web technologies\Project
Desktop/VIT\Sem 4\G web technologies\Theory
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021\knapsack
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021\salesman
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab
Desktop/VIT\Sem 4\H design analysis of algorithms\Theory
Desktop/VIT\Sem 4\A computer architecture and organization
Desktop/VIT\Sem 4\B secure coding
Desktop/VIT\Sem 4\C database management systems
Desktop/VIT\Sem 4\D computer networks
Desktop/VIT\Sem 4\E graph theory
Desktop/VIT\Sem 4\F soft skills
Desktop/VIT\Sem 4\G web technologies
Desktop/VIT\Sem 4\H design analysis of algorithms
Desktop/VIT\EPFL
Desktop/VIT\General
Desktop/VIT\Sem 2
Desktop/VIT\Sem 3
Desktop/VIT\Sem 4
Desktop/201220
Desktop/aadhya
Desktop/build
Desktop/dist
Desktop/dms
Desktop/hrushi
Desktop/iNeuron
Desktop/itc mqps
Desktop/lab compre
Desktop/machine learning
Desktop/mapo
Desktop/Projects
Desktop/Python
Desktop/SCProj1
Desktop/stats
Desktop/uivision
Desktop/VIT
Desktop/__pycache__

C:\Users\user>
```

Q) Python script to get all directory and sub directory names in the current directory.

cd_dir.py - Notepad

File Edit Format View Help

```
import os
for root, dirs, files in os.walk("Desktop/", topdown=False):
   for name in dirs:
      print(os.path.join(root, name))
   for subdir in dirs:
        print(os.path.join(root, subdir))
```

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Command Prompt

```
C:\Users\user>python cd_dir.py
Desktop/build\19bcn7117
Desktop/dist\19bcn7117
Desktop/dms\merged
Desktop/hrushi\out\production\hrushi
Desktop/hrushi\out\production
Desktop/hrushi\.idea
Desktop/hrushi\out
Desktop/hrushi\src
Desktop/iNeuron\Linear Regression App\static\css
Desktop/iNeuron\Linear Regression App\.ebextensions
Desktop/iNeuron\Linear Regression App\.idea
Desktop/iNeuron\Linear Regression App\static
Desktop/iNeuron\Linear Regression App\templates
Desktop/iNeuron\Linear Regression App
Desktop/itc mqps\cat 1
Desktop/itc mqps\cat 2
Desktop/itc mqps\cat 3
Desktop/lab compre\out\production\lab compre
Desktop/lab compre\out\production
Desktop/lab compre\.idea
Desktop/lab compre\out
Desktop/lab compre\src
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\.idea\inspectionProfiles
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\application_logging\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\best_model_finder\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTransformation_Prediction\__pycache__
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Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTypeValidation_Insertion_Prediction\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTypeValidation_Insertion_Training\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_ingestion\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_preprocessing\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\EDA\.ipynb_checkpoints
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\file_operations\__pycache__
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Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\NaiveBayes1
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\NaiveBayes2
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost0
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_165637
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_173611
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-04-12_215100
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165536
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165647
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_170239
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\Prediction_Raw_Data_Validation\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162402
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162552
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_163931
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165021
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165329
```


Command Prompt

```
Desktop/VIT\Sem 4\G web technologies\Lab\17-02
Desktop/VIT\Sem 4\G web technologies\Lab\24-02
Desktop/VIT\Sem 4\G web technologies\Lab\27-01
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7117_ritvik 03-03-2021\2nd Ques
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7117_ritvik 03-03-2021\html doc
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7117_ritvik 03-03-2021
Desktop/VIT\Sem 4\G web technologies\Theory\Module 1
Desktop/VIT\Sem 4\G web technologies\Lab
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Desktop/VIT\Sem 4\G web technologies\Theory
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021\knapsack
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021\salesman
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab
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Desktop/VIT\Sem 4\E graph theory
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Desktop/dist
Desktop/dms
Desktop/hrushi
Desktop/iNeuron
Desktop/itc mqps
Desktop/lab compre
Desktop/machine learning
Desktop/mapo
Desktop/Projects
Desktop/Python
Desktop/SCProj1
Desktop/stats
Desktop/uivision
Desktop/VIT
Desktop/__pycache__

C:\Users\user>
```

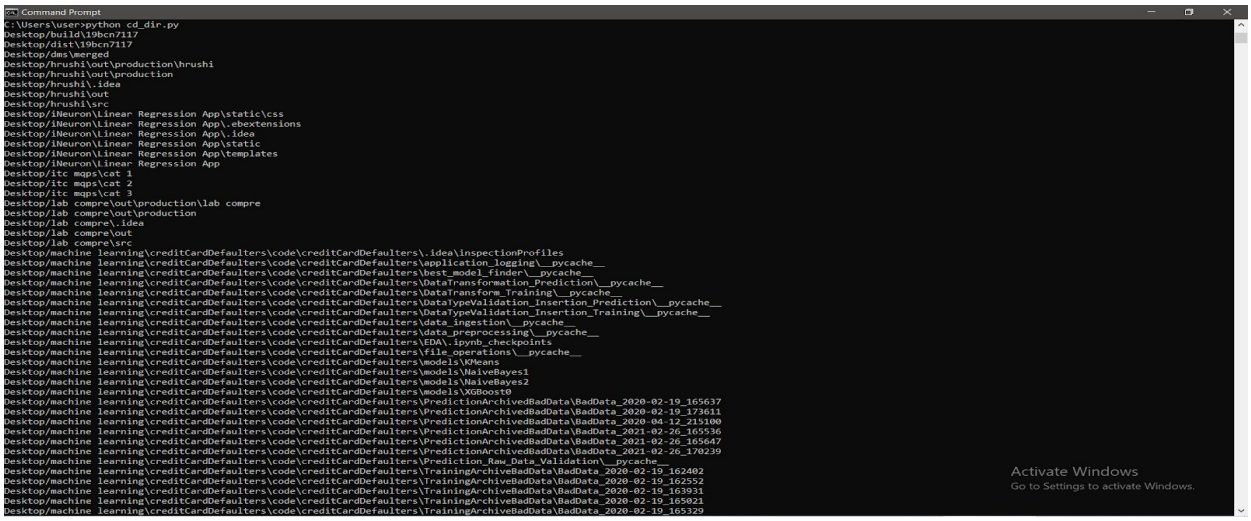
Q) Write a python script to get all the file name, directory and all the subdirectory names (recursively) in the current directory

cd_dir.py - Notepad

File Edit Format View Help

```
import os
while True:
        for root, dirs, files in os.walk("Desktop/", topdown=False):
                for name in dirs:
                        print(os.path.join(root, name))
                for subdir in dirs:
                        print(os.path.join(root, subdir))
                for files in dirs:
                        print(os.path.join(root, files))
```

Ln 9, Col 36 | 100% | Windows (CRLF) | UTF-8



Command Prompt

```
C:\Users\user>python cd_dir.py
Desktop/build\19bcn7117
Desktop/dist\19bcn7117
Desktop/dms\merged
Desktop/hrushi\out\production\hrushi
Desktop/hrushi\out\production
Desktop/hrushi\.idea
Desktop/hrushi\out
Desktop/hrushi\src
Desktop/iNeuron\Linear Regression App\static\css
Desktop/iNeuron\Linear Regression App\.ebextensions
Desktop/iNeuron\Linear Regression App\.idea
Desktop/iNeuron\Linear Regression App\static
Desktop/iNeuron\Linear Regression App\templates
Desktop/iNeuron\Linear Regression App
Desktop/itc mqps\cat 1
Desktop/itc mqps\cat 2
Desktop/itc mqps\cat 3
Desktop/lab compre\out\production\lab compre
Desktop/lab compre\out\production
Desktop/lab compre\.idea
Desktop/lab compre\out
Desktop/lab compre\src
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\.idea\inspectionProfiles
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\application_logging\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\best_model_finder\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTransformation_Prediction\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTransform_Training\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTypeValidation_Insertion_Prediction\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTypeValidation_Insertion_Training\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_ingestion\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_preprocessing\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\EDA\.ipynb_checkpoints
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\file_operations\__pycache__
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\KMeans
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\NaiveBayes1
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\NaiveBayes2
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost0
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_165637
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Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-04-12_215100
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165536
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Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162552
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_163931
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165021
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165329
```


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

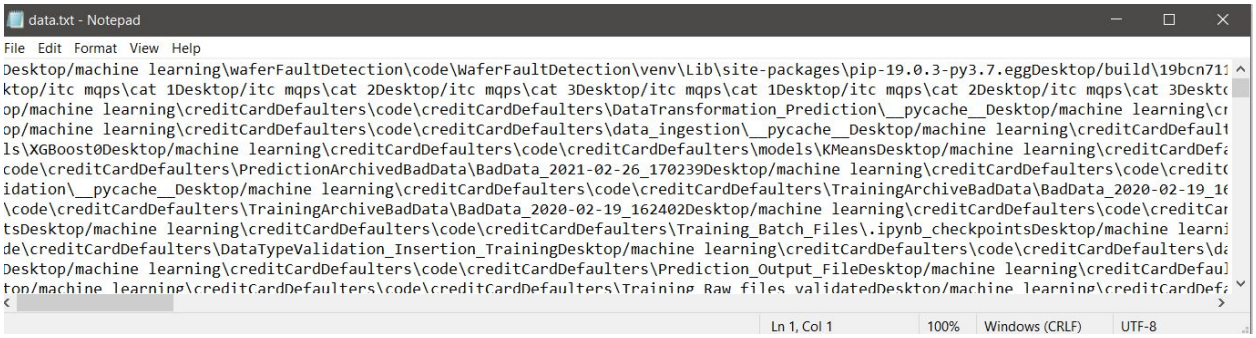
cd_dir.py - Notepad

File Edit Format View Help

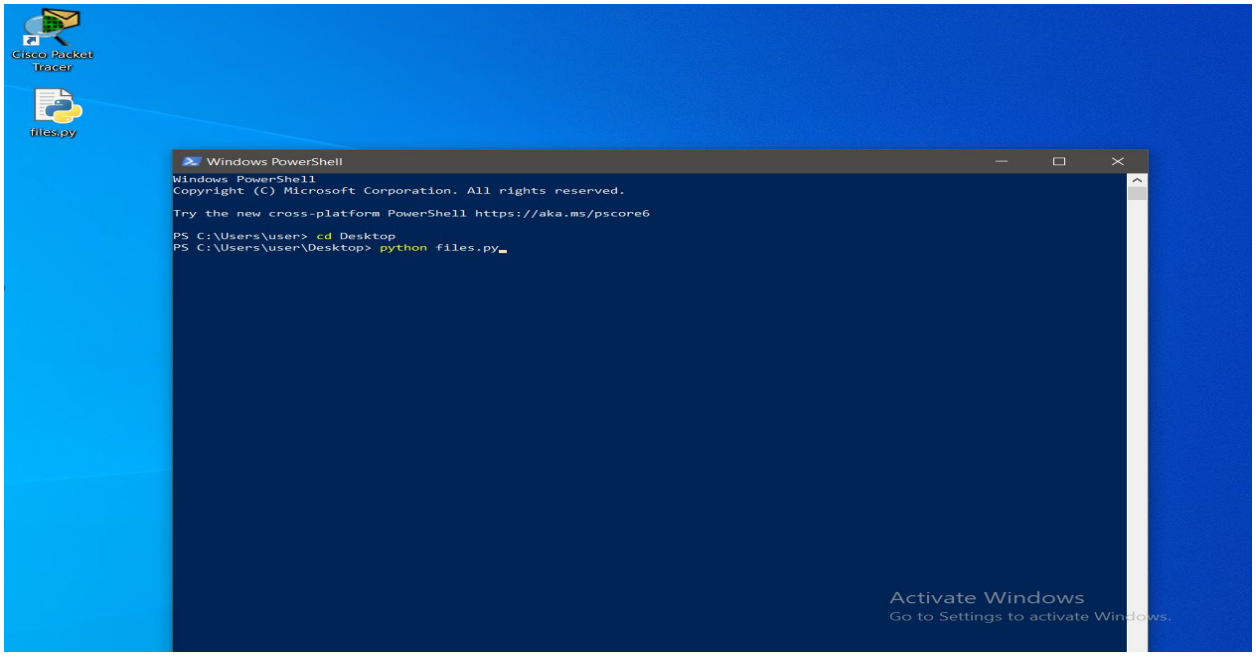
```
import os
while True:
        for root, dirs, files in os.walk("Desktop/", topdown=False):

                for name in dirs:
                        with open('data.txt', 'a') as f:
                                f.write(os.path.join(root, name))
                for subdir in dirs:
                        with open('data.txt', 'a') as f:
                                f.write(os.path.join(root, subdir))
```

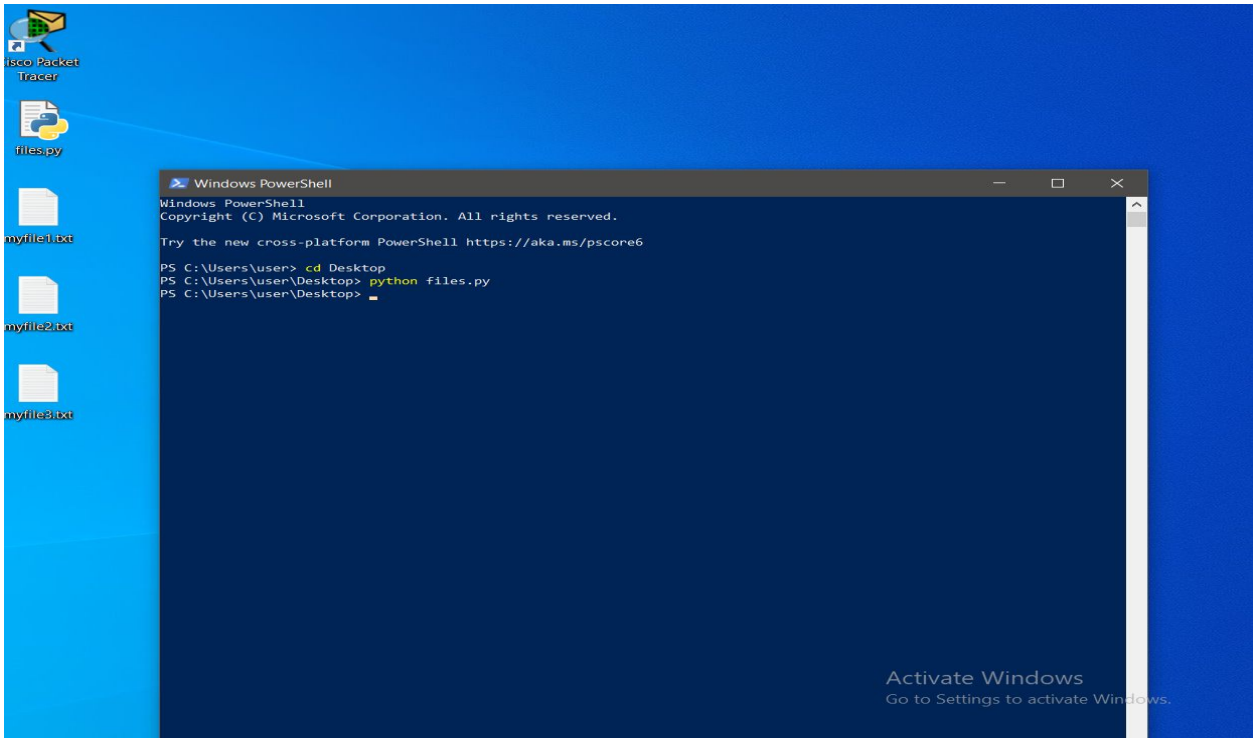
Ln 9, Col 31 | 100% | Windows (CRLF) | UTF-8

```
C:\Users\user>python cd_dir.py
Traceback (most recent call last):
  File "cd_dir.py", line 9, in <module>
    with open('data.txt', 'a') as f:
  File "C:\Users\user\AppData\Local\Programs\Python\Python36\lib\_bootlocale.py", line 11, in getpreferredencoding
    def getpreferredencoding(do_setlocale=True):
KeyboardInterrupt
```



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




isco Packet Tracer
files.py
myfile1.txt
myfile2.txt
myfile3.txt
Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\user> cd Desktop
PS C:\Users\user\Desktop> python files.py
PS C:\Users\user\Desktop>
Activate Windows
Go to Settings to activate Windows.