

Lab 6 Secure Coding

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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)
```

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
16134017718689Q2E8CTyE1RQCvd2.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>

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
```

```
C:\Users\user>python cd_dir.py
Desktop\build\19bc7f17
Desktop\das\19bc7f17
Desktop\das\merged
Desktop\hrush\out\production
Desktop\hrush\out\production
Desktop\hrush\out
Desktop\hrush\src
Desktop\1Neuron\Linear_Regression_App\static\css
Desktop\1Neuron\Linear_Regression_App\choments\ons
Desktop\1Neuron\Linear_Regression_App\idea
Desktop\1Neuron\Linear_Regression_App\static
Desktop\1Neuron\Linear_Regression_App\templates
Desktop\1Neuron\Linear_Regression_App
Desktop\itc_mps\cat_1
Desktop\itc_mps\cat_2
Desktop\itc_mps\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\XGBoost
Desktop\machine_learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost\Xgboost
Desktop\machine_learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost\Xgboost2
Desktop\machine_learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost\Xgboost3
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_213100
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\PredictionArchivedBadData\BadData_2021-02-26_170239
Desktop\machine_learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchivedBadData\BadData_2020-02-19_162402
Desktop\machine_learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchivedBadData\BadData_2020-02-19_162552
Desktop\machine_learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchivedBadData\BadData_2020-02-19_163931
Desktop\machine_learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchivedBadData\BadData_2020-02-19_165021
Desktop\machine_learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchivedBadData\BadData_2020-02-19_165309
```

```
C:\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\salessman
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\E 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\aadnya
Desktop\build
Desktop\dist
Desktop\dms
Desktop\hrushhi
Desktop\iNeuron
Desktop\itc maps
Desktop\lab compre
Desktop\machine learning
Desktop\mapo
Desktop\Projects
Desktop\Python
Desktop\SCProj1
Desktop\stats
Desktop\trivision
Desktop\VIT
Desktop\_pycache_

C:\Users\user2>
```

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



The screenshot shows a Notepad window titled "cd_dir.py - Notepad". The menu bar includes "File", "Edit", "Format", "View", and "Help". The text area contains the following Python code:

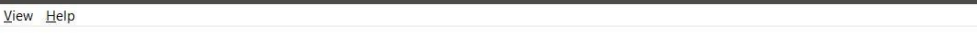
```
import os
for root, dirs, files in os.walk("Desktop/", topdown=False):
    for name in dirs:
        print(os.path.join(root, name))
    for subdir in dirs:
        print(os.path.join(root, subdir))
```

The status bar at the bottom indicates "Ln 1, Col 1", "100%", "Windows (CR LF)", and "UTF-8".

```
C:\Users\user>python cd_dir.py
Desktop/build\19bc7117
Desktop/dist\19bc7117
Desktop/dss\merged
Desktop/hrush1\out\production\hrush1
Desktop/hrush1\out\production
Desktop/hrush1\idea
Desktop/hrush1\out
Desktop/hrush1\src
Desktop/Heuron\Linear Regression App\static\css
Desktop/Heuron\Linear Regression App\static\css
Desktop/Heuron\Linear Regression App\static
Desktop/Heuron\Linear Regression App\static
Desktop/Heuron\Linear Regression App\templates
Desktop/Heuron\Linear Regression App
Desktop/itc mpps\cat 1
Desktop/itc mpps\cat 2
Desktop/itc mpps\cat
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_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\XMeans
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\models\XgbBoost1
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\models\XgbBoost2
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchiveBadData\BadData_2020-02-19_165637
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchiveBadData\BadData_2020-02-19_173611
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchiveBadData\BadData_2020-04-12_215100
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchiveBadData\BadData_2021-02-26_165536
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchiveBadData\BadData_2021-02-26_165647
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchiveBadData\BadData_2021-02-26_170219
Desktop/machine_learning\creditCardDefaulters\code\creditCardDefaulters\Prediction_Archive_BadData_Verification\_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_165320
```

```
C:\Command Prompt
Desktop/VII/Sem 4/G web technologies\Lab\17-02
Desktop/VII/Sem 4/G web technologies\Lab\24-02
Desktop/VII/Sem 4/G web technologies\Lab\27-01
Desktop/VII/Sem 4/G web technologies\Project\19bcb7117_rtitvik 03-03-2021\2nd Ques
Desktop/VII/Sem 4/G web technologies\Project\19bcb7117_rtitvik 03-03-2021\html doc
Desktop/VII/Sem 4/G web technologies\Project\19bcb7117_rtitvik 03-03-2021
Desktop/VII/Sem 4/G web technologies\Theory\Module 1
Desktop/VII/Sem 4/G web technologies\Lab
Desktop/VII/Sem 4/G web technologies\Project
Desktop/VII/Sem 4/G web technologies\Theory
Desktop/VII/Sem 4/H design analysis of algorithms\Lab\27-02-2021\knapsack
Desktop/VII/Sem 4/H design analysis of algorithms\Lab\27-02-2021\Salesman
Desktop/VII/Sem 4/H design analysis of algorithms\Lab\27-02-2021
Desktop/VII/Sem 4/H design analysis of algorithms\Lab
Desktop/VII/Sem 4/H design analysis of algorithms\Theory
Desktop/VII/Sem 4/A computer architecture and organization
Desktop/VII/Sem 4/B secure coding
Desktop/VII/Sem 4/C database management systems
Desktop/VII/Sem 4/D computer networks
Desktop/VII/Sem 4/E graph theory
Desktop/VII/Sem 4/F soft skills
Desktop/VII/Sem 4/G web technologies
Desktop/VII/Sem 4/H design analysis of algorithms
Desktop/VII/EPFL
Desktop/VII/General
Desktop/VII/Sem 2
Desktop/VII/Sem 3
Desktop/VII/Sem 4
Desktop/201220
Desktop/ashya
Desktop/build
Desktop/dlist
Desktop/dns
Desktop/hrushi
Desktop/iNeuron
Desktop/itc maps
Desktop/lab compre
Desktop/machine learning
Desktop/mapo
Desktop/Projects
Desktop/Python
Desktop/SCProj1
Desktop/stats
Desktop/tivision
Desktop/VII
Desktop/_pycache_
C:\Users\user>
```

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



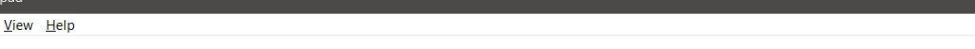
The screenshot shows a Notepad window titled "cd_dir.py - Notepad". The menu bar includes "File", "Edit", "Format", "View", and "Help". The text area contains the following Python code:

```
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))
```

The status bar at the bottom indicates "Ln 9, Col 36", "100%", "Windows (CRLF)", and "UTF-8".

```
C:\Users\User>python cd_dir.py
Desktop\build\19bcn717
Desktop\d1st\19bcn717
Desktop\des\werred
Desktop\hrush\out\production\hrush
Desktop\hrush\out\production
Desktop\hrush\ideas
Desktop\hrush\out
Desktop\hrush\src
Desktop\Neuron\Linear Regression App\static\css
Desktop\Neuron\Linear Regression App\.ebextensions
Desktop\Neuron\Linear Regression App\idea
Desktop\Neuron\Linear Regression App\static
Desktop\Neuron\Linear Regression App\templates
Desktop\Neuron\Linear Regression App
Desktop\itc maps\cat 1
Desktop\itc maps\cat 2
Desktop\itc maps\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>Data\transform_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\FEDA.ipynb_checkpoints
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\File_operations\_pycache_
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\models\VaiveBayes
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\models\VaiveBayes1
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\models\XGBoost
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\PredictionArchive\BadData\BadData_2020-02-19_165637
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\PredictionArchive\BadData\BadData_2020-02-19_173611
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\PredictionArchive\BadData\BadData_2020-02-19_213180
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\PredictionArchive\BadData\BadData_2021-02-26_165536
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\PredictionArchive\BadData\BadData_2021-02-26_165647
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\PredictionArchive\BadData\BadData_2021-02-26_170219
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\Prediction_Rmw_Data Validation\_pycache_
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\TrainingArchive\BadData\BadData_2020-02-19_162482
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\TrainingArchive\BadData\BadData_2020-02-19_162552
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\TrainingArchive\BadData\BadData_2020-02-19_163931
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\TrainingArchive\BadData\BadData_2020-02-19_165921
Desktop\machine learning\CreditCardDefaulters\code\CreditCardDefaulters\TrainingArchive\BadData\BadData_2020-02-19_165929
```

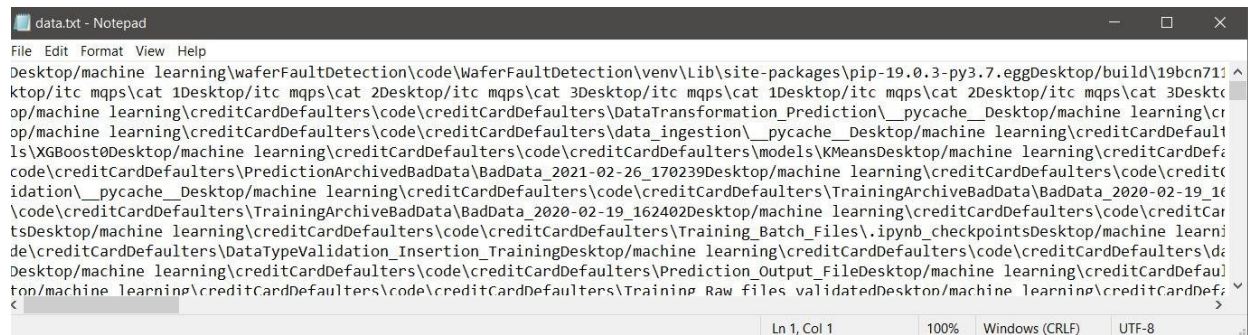
Write a python script to get all the file name, directory and all the subdirectory names (recursively) in the current directory and write it in a file



```
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))
```



```
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
```



```
data.txt - Notepad
File Edit Format View Help
Desktop/machine learning\waferFaultDetection\code\WaferFaultDetection\venv\Lib\site-packages\pip-19.0.3-py3.7.eggDesktop/build\19bcn711
ktop/itc mqps\cat 1Desktop/itc mqps\cat 2Desktop/itc mqps\cat 3Desktop/itc mqps\cat 1Desktop/itc mqps\cat 2Desktop/itc mqps\cat 3Deskt
op/machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTransformation\Prediction\_pycache\_Desktop/machine learning\cr
op/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_ingestion\_pycache\_Desktop/machine learning\creditCardDefaul
ls\XGBoost0Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\KMeansDesktop/machine learning\creditCardDefa
code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_170239Desktop/machine learning\creditCardDefaulters\code\credit
idation\_pycache\_Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_16
\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162402Desktop/machine learning\creditCardDefaulters\code\creditCar
tsDesktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\Training_Batch_Files\ipynb_checkpointsDesktop/machine learni
de\creditCardDefaulters\DataTypeValidation_Insertion_TrainingDesktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\da
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\Prediction_Output_FileDesktop/machine learning\creditCardDefa
ton/machine learning\creditCardDefaulters\code\creditCardDefaulters\Training Raw files validatedDesktop/machine learning\creditCardDef
Ln 1, Col 1 100% Windows (CRLF) UTF-8
```

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



```
files.py - Notepad
File Edit Format View Help
f1 = open("myfile1.txt", "x")
f2 = open("myfile2.txt", "x")
f3 = open("myfile3.txt", "x")
Ln 1, Col 1 100% Windows (CRLF) UTF-8
```

