

File handling: navigate, rename, move, copy, remove

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In [1]: #keeping files organized

In [ ]: # print current directory

In [4]: import os

print(os.getcwd())

/Users/estheramanya

In [5]: # to get into directory on my laptop with files ;practice folder

In [ ]: #chdir > change director

In [7]: import os

print(os.getcwd())

os.chdir('/Users/estheramanya/desktop/practice')

print(os.getcwd())

/Users/estheramanya/Desktop/practice
/Users/estheramanya/Desktop/practice

In [8]: # renaming files to sort them according to the name; numbers in the beginning and remove spaces

In [ ]: #to get a list of all items in the folder

In [9]: import os

os.chdir('/Users/estheramanya/desktop/practice')

print(os.listdir())

['.DS_Store', '1577702499821.jpeg', 'TRIAL text proj-ctxt', 'Game sales dataset.csv', '30Second-2020-05-05_-_Inspired_Thinking_-_www.FesliyanStudio
s.com_Steve_Oxen.mp3', '5.png']

In [ ]: #iterate the files

In [10]: import os

os.chdir('/Users/estheramanya/desktop/practice')

for file in os.listdir():
    print(file)

.DS_Store
1577702499821.jpeg
TRIAL text proj-ctxt
Game sales dataset.csv
30Second-2020-05-05_-_Inspired_Thinking_-_www.FesliyanStudios.com_Steve_Oxen.mp3
5.png

In [14]: #to remove file starting with .

In [16]: import os

os.chdir('/Users/estheramanya/desktop/practice')

for file in os.listdir():
    if file == '.DS_Store':
        continue
    print(file)

In [17]: #split the base name from the extension and put it back after

In [18]: import os

os.chdir('/Users/estheramanya/desktop/practice')

for file in os.listdir():
    if file == '.DS_Store':
        continue
    name, ext = os.path.splitext(file)
    print(name)
    print(ext)

1577702499821
.jpeg
TRIAL text proj-ctxt

Game sales dataset
.csv
30Second-2020-05-05_-_Inspired_Thinking_-_www.FesliyanStudios.com_Steve_Oxen
.mp3
5
.png

In [19]: #to modify file name, start with name

In [20]: import os

os.chdir('/Users/estheramanya/desktop/practice')

for file in os.listdir():
    if file == '.DS_Store':
        continue
    name, ext = os.path.splitext(file)
    splitted = name.split("_")
    print(splitted)

['1577702499821']
['TRIAL text proj-ctxt']
['Game sales dataset']
['30Second-2020-05-05', '-', 'Inspired', 'Thinking', '-', 'www.FesliyanStudios.com', 'Steve', 'Oxen']
['5']

In [21]: #get rid of spaces

In [22]: import os

os.chdir('/Users/estheramanya/desktop/practice')

for file in os.listdir():
    if file == '.DS_Store':
        continue
    name, ext = os.path.splitext(file)
    splitted = name.split("_")
    splitted = [s.strip() for s in splitted]
    print(splitted)

['1577702499821']
['TRIAL text proj-ctxt']
['Game sales dataset']
['30Second-2020-05-05', '-', 'Inspired', 'Thinking', '-', 'www.FesliyanStudios.com', 'Steve', 'Oxen']
['5']

In [ ]: #change the order

In [25]: import os

os.chdir('/Users/estheramanya/desktop/practice')

for file in os.listdir():
    if file == '.DS_Store':
        continue
    name, ext = os.path.splitext(file)
    splitted = name.split("_")
    splitted = [s.strip() for s in splitted]
    new_name = f"{splitted[0]}-{ext}"
    print(new_name)

1577702499821-.jpeg
TRIAL text proj-ctxt-
Game sales dataset-.csv
30Second-2020-05-05-.mp3
5-.png

In [26]: #to add a "0" before last file

In [27]: import os

os.chdir('/Users/estheramanya/desktop/practice')

for file in os.listdir():
    if file == '.DS_Store':
        continue
    name, ext = os.path.splitext(file)
    splitted = name.split("_")
    splitted = [s.strip() for s in splitted]
    new_name = f"{splitted[0].zfill(2)}-{ext}"
    print(new_name)

1577702499821-.jpeg
TRIAL text proj-ctxt-
Game sales dataset-.csv
30Second-2020-05-05-.mp3
05-.png

In [28]: # to rename files

In [30]: import os

os.chdir('/Users/estheramanya/desktop/practice')

for file in os.listdir():
    if file == '.DS_Store':
        continue
    name, ext = os.path.splitext(file)
    splitted = name.split("_")
    splitted = [s.strip() for s in splitted]
    new_name = f"{splitted[0].zfill(2)}-{ext}"
    os.rename(file, new_name)

In [35]: #to move a file, we first created a folder called; data

In [34]: import os
from pathlib import Path
os.chdir('/Users/estheramanya/desktop/practice')

#path("data").mkdir(exist_ok=True)
if not os.path.exists("data"):
    os.mkdir("data")

for file in os.listdir():
    if file == '.DS_Store':
        continue

In [36]: #to remove data folder from the list

In [38]: import os
from pathlib import Path
os.chdir('/Users/estheramanya/desktop/practice')

if not os.path.exists("data"):
    os.mkdir("data")

for file in os.listdir():
    if file == '.DS_Store' or file == 'data':
        continue
    print(file)

TRIAL text proj-ctxt-
05-.png
30Second-2020-05-05-.mp3
1577702499821-.jpeg
Game sales dataset-.csv

In [41]: #to move the files into the data folder

In [40]: import os
from pathlib import Path
import shutil
os.chdir('/Users/estheramanya/desktop/practice')

if not os.path.exists("data"):
    os.mkdir("data")

for file in os.listdir():
    if file == '.DS_Store' or file == 'data':
        continue
    shutil.move(file, "data")

In [ ]: # to copy files

In [42]: import os
from pathlib import Path
import shutil
os.chdir('/Users/estheramanya/desktop/practice')

if not os.path.exists("data"):
    os.mkdir("data")

for file in os.listdir():
    if file == '.DS_Store' or file == 'data':
        continue
    shutil.copy(file, "data")

In [43]: # to copy and keep file time stamps as similar

In [44]: import os
from pathlib import Path
import shutil
os.chdir('/Users/estheramanya/desktop/practice')

if not os.path.exists("data"):
    os.mkdir("data")

for file in os.listdir():
    if file == '.DS_Store' or file == 'data':
        continue
    shutil.copy2(file, "data")

In [45]: # deleting the file and folder

In [47]: #os.remove("filename") > removes empty files
#os.rmdir("data") > removes empty folder

In [48]: # for this project, files & folder are not empty

In [50]: #removing the whole data directory tree

In [49]: import os
from pathlib import Path
import shutil
os.chdir('/Users/estheramanya/desktop/practice')

shutil.rmtree("data")

In [ ]:

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