1. Add the current date to the text file today.txt as a string.

**import** datetime

*# Code to Add current date to the today.txt file*

file **=** open('today.txt','w')

file**.**write(datetime**.**datetime**.**now()**.**strftime("%d-%m-%Y"))

file**.**close()

*# Code to Read current date from today.txt file*

file **=** open('today.txt','r')

print(file**.**read())

file**.**close()

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2. Read the text file today.txt into the string today\_string

file **=** open('today.txt','r')

today\_string **=** file**.**read()

print(today\_string)

3. Parse the date from today\_string.

**from** datetime **import** datetime

parsed\_data **=** datetime**.**strptime(today\_string, '%d-%m-%Y')

print(parsed\_data)

4. List the files in your current directory

import os

for folders, subfolders, files in os.walk(os.getcwd()):

for file in files:

print(file)

.python\_history

NTUSER.DAT

ntuser.dat.LOG1

ntuser.dat.LOG2

NTUSER.DAT{f0c4fe22-8948-11eb-972f-f44cc7e0acb9}.TxR.0.regtrans-ms

NTUSER.DAT{f0c4fe22-8948-11eb-972f-f44cc7e0acb9}.TxR.1.regtrans-ms

NTUSER.DAT{f0c4fe22-8948-11eb-972f-f44cc7e0acb9}.TxR.2.regtrans-ms

NTUSER.DAT{f0c4fe22-8948-11eb-972f-f44cc7e0acb9}.TxR.blf

NTUSER.DAT{f0c4fe23-8948-11eb-972f-f44cc7e0acb9}.TM.blf

NTUSER.DAT{f0c4fe23-8948-11eb-972f-f44cc7e0acb9}.TMContainer00000000000000000001.regtrans-ms

NTUSER.DAT{f0c4fe23-8948-11eb-972f-f44cc7e0acb9}.TMContainer00000000000000000002.regtrans-ms

ntuser.ini

Untitled.ipynb

Untitled-checkpoint.ipynb

history.sqlite

history.sqlite-journal

README

migrated

desktop.ini

.nonadmin

5. Create a list of all of the files in your parent directory (minimum five files should be available).

**import** os

os**.**listdir()

['.ipynb\_checkpoints',

'.ipython',

'.jupyter',

'.python\_history',

'3D Objects',

'anaconda3',

'AppData',

'Application Data',

'Contacts',

'Cookies',

'Desktop',

'Documents',

'Downloads',

'Favorites',

'Links',

'Local Settings',

'MicrosoftEdgeBackups',

'Music',

'My Documents',

'NetHood',

'NTUSER.DAT',

'ntuser.dat.LOG1',

'ntuser.dat.LOG2',

'NTUSER.DAT{f0c4fe22-8948-11eb-972f-f44cc7e0acb9}.TxR.0.regtrans-ms',

'NTUSER.DAT{f0c4fe22-8948-11eb-972f-f44cc7e0acb9}.TxR.1.regtrans-ms',

'NTUSER.DAT{f0c4fe22-8948-11eb-972f-f44cc7e0acb9}.TxR.2.regtrans-ms',

'NTUSER.DAT{f0c4fe22-8948-11eb-972f-f44cc7e0acb9}.TxR.blf',

'NTUSER.DAT{f0c4fe23-8948-11eb-972f-f44cc7e0acb9}.TM.blf',

'NTUSER.DAT{f0c4fe23-8948-11eb-972f-f44cc7e0acb9}.TMContainer00000000000000000001.regtrans-ms',

'NTUSER.DAT{f0c4fe23-8948-11eb-972f-f44cc7e0acb9}.TMContainer00000000000000000002.regtrans-ms',

'ntuser.ini',

'OneDrive',

'OPAL-RT',

'Pictures',

'PrintHood',

'Recent',

'Saved Games',

'Searches',

'SendTo',

'Start Menu',

'Templates',

'Tracing',

'Untitled.ipynb',

'Videos']

6. Use multiprocessing to create three separate processes. Make each one wait a random number of seconds between one and five, print the current time, and then exit.

**import** multiprocessing

**import** time

**import** random

**import** datetime

**def** procOne():

print(f'Proc\_one\_Starttime -> {datetime**.**datetime**.**now()}')

time**.**sleep(random**.**randint(1,5))

print(f'Proc\_one\_Endtime -> {datetime**.**datetime**.**now()}')

**def** procTwo():

print(f'Proc\_two\_Starttime -> {datetime**.**datetime**.**now()}')

time**.**sleep(random**.**randint(1,5))

print(f'Proc\_two\_Endtime -> {datetime**.**datetime**.**now()}')

**def** procThree():

print(f'Proc\_two\_Starttime -> {datetime**.**datetime**.**now()}')

time**.**sleep(random**.**randint(1,5))

print(f'Proc\_two\_Endtime -> {datetime**.**datetime**.**now()}')

**if** \_\_name\_\_ **==** "\_\_main\_\_":

p1 **=** multiprocessing**.**Process(target**=**procOne)

p2 **=** multiprocessing**.**Process(target**=**procTwo)

p3 **=** multiprocessing**.**Process(target**=**procThree)

p1**.**start()

p2**.**start()

p3**.**start()

p1**.**join()

p2**.**join()

p3**.**join()

Proc\_one\_Starttime -> 2021-09-22 18:41:59.354061  
Proc\_two\_Starttime -> 2021-09-22 18:41:59.363712  
Proc\_two\_Starttime -> 2021-09-22 18:41:59.367238  
Proc\_two\_Endtime -> 2021-09-22 18:42:04.369860  
Proc\_two\_Endtime -> 2021-09-22 18:42:04.369860  
Proc\_one\_Endtime -> 2021-09-22 18:42:04.369860

7. Create a date object of your day of birth.

from datetime import datetime

my\_dob = datetime.strptime('5/12/1996','%d/%m/%Y')

print(my\_dob, type(my\_dob))

1996-12-05 00:00:00 <class 'datetime.datetime'>

8. What day of the week was your day of birth?

from datetime import datetime

my\_dob = datetime(1996,12,5)

my\_dob.strftime("%A")

'Thursday'

9. When will you be (or when were you) 10,000 days old?

**from** datetime **import** datetime, timedelta

my\_dob **=** datetime**.**strptime("5/12/1996",'%d/%m/%Y')

future\_date **=** my\_dob**-**timedelta(10000)

future\_date

datetime.datetime(1969, 7, 20, 0, 0)