Python Assignment - 21

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

=>

from datetime import date

current\_date = date.today()

date\_string = str(current\_date)

with open('today.txt', 'a') as file:

file.write(date\_string + '\n')

print("Current date has been added to today.txt.")

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

=>

with open('today.txt', 'r') as file:

today\_string = file.read()

print(today\_string)

**3. Parse the date from today\_string.**

=>

from datetime import datetime

parsed\_date = datetime.strptime(today\_string.strip(), "%Y-%m-%d").date()

print(parsed\_date)

**4. List the files in your current directory**

=>

import os

current\_directory = os.getcwd()

files = os.listdir(current\_directory)

for file in files:

print(file)

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

=>

import os

current\_directory = os.getcwd()

parent\_directory = os.path.dirname(current\_directory)

files = os.listdir(parent\_directory)

for file in files:

print(file)

**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 random

import time

from datetime import datetime

def process\_function():

sleep\_time = random.randint(1, 5)

time.sleep(sleep\_time)

current\_time = datetime.now().strftime("%Y-%m-%d %H:%M:%S")

print(f"Process ID: {multiprocessing.current\_process().pid}, Current Time: {current\_time}")

processes = []

for \_ in range(3):

process = multiprocessing.Process(target=process\_function)

processes.append(process)

process.start()

for process in processes:

process.join()

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

=>

from datetime import date

birth\_date = date(1990, 5, 15) # Replace with your actual day of birth

print(birth\_date)

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

=>

from datetime import datetime

birth\_date = datetime.strptime('1990-05-15', '%Y-%m-%d').date()

day\_of\_week = birth\_date.strftime('%A')

print(f"The day of the week for your day of birth is: {day\_of\_week}")

Output: Tuesday

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

=>

from datetime import datetime

birth\_date = datetime.strptime('1990-05-15', '%Y-%m-%d').date()

day\_of\_week = birth\_date.strftime('%A')

print(f"The day of the week for your day of birth is: {day\_of\_week}")