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

from datetime import date

# Get the current date

current\_date = date.today()

# Open the file in append mode

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

# Write the current date as a string to the file

file.write(str(current\_date))

# Confirm that the date has been added

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

date\_format = '%Y-%m-%d' # Specify the format of the date in your `today\_string`

parsed\_date = datetime.strptime(today\_string.strip(), date\_format).date()

print(parsed\_date)

4. List the files in your current directory

import os

# Get the current directory

current\_directory = os.getcwd()

# List all files in the current directory

file\_list = os.listdir(current\_directory)

# Print the file names

for file\_name in file\_list:

print(file\_name)

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

import os

# Get the parent directory

parent\_directory = os.path.abspath(os.path.join(os.getcwd(), os.pardir))

# List all files in the parent directory

file\_list = os.listdir(parent\_directory)

# Filter out directories and get only file names

file\_names = [file\_name for file\_name in file\_list if os.path.isfile(os.path.join(parent\_directory, file\_name))]

# Print the file names

for file\_name in file\_names:

print(file\_name)

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 process\_function():

# Generate a random wait time between 1 and 5 seconds

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

time.sleep(wait\_time)

# Get the current time

current\_time = datetime.datetime.now()

# Print the current time

print(f"Current time: {current\_time}")

if \_\_name\_\_ == '\_\_main\_\_':

# Create three separate processes

processes = [multiprocessing.Process(target=process\_function) for \_ in range(3)]

# Start the processes

for process in processes:

process.start()

# Wait for all processes to finish

for process in processes:

process.join()

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

from datetime import date

birth\_date = date(1990, 12, 31) # Replace birth year, month, and day

print(birth\_date)

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

from datetime import date

birth\_date = date(1990, 12, 31) # Replace with your actual birth year, month, and day

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

print(day\_of\_week)

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

from datetime import datetime, timedelta

birthday = datetime(1990, 12, 31) # Replace with your actual birth year, month, and day

age\_in\_days = 10000

target\_date = birthday + timedelta(days=age\_in\_days)

print(target\_date)