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

    today = datetime.date.today()

    with open("today.txt", 'w') as f:

        f.write(str(today))

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

    with open("today.txt", 'r') as f:

        today\_string = f.read()

3. Parse the date from today\_string.

    parsed\_date = datetime.date.fromisoformat(today\_string)

    print("Parsed date object: ", parsed\_date)

Output:

Parsed date object: 2021-09-10

4. List the files in your current directory

    curr\_dir = os.listdir('.')

    print("current directory: ", curr\_dir)

Output:

current directory: ['assignment 10 shutil challenge', 'assignment 15 prime numbers', 'assignment 19 robot', 'assignment 20 create csv and db', 'assignment 21 datetime and files', 'Assignment\_1-Solution.docx', 'Assignment\_1.docx', 'Assignment\_10-Solution.docx', 'Assignment\_10.docx', 'Assignment\_11-Solution.docx', 'Assignment\_11.docx', 'Assignment\_12-Solution.docx', 'Assignment\_12.docx', 'Assignment\_13-Solution.docx', 'Assignment\_13.docx', 'Assignment\_14-Solution.docx', 'Assignment\_14.docx', 'Assignment\_15-Solution.docx', 'Assignment\_15.docx', 'Assignment\_16-Solution.docx', 'Assignment\_16.docx', 'Assignment\_17-Solution.docx', 'Assignment\_17.docx', 'Assignment\_18-Solution.docx', 'Assignment\_18.docx', 'Assignment\_19-Solution.docx', 'Assignment\_19.docx', 'Assignment\_2-Solution.docx', 'Assignment\_2.docx', 'Assignment\_20-Solution.docx', 'Assignment\_20.docx', 'Assignment\_21-Solution.docx', 'Assignment\_21.docx', 'Assignment\_3-Solution.docx', 'Assignment\_3.docx', 'Assignment\_4-Solution.docx', 'Assignment\_4.docx', 'Assignment\_5-Solution.docx', 'Assignment\_5.docx', 'Assignment\_6-Solution.docx', 'Assignment\_6.docx', 'Assignment\_7-Solution.docx', 'Assignment\_7.docx', 'Assignment\_8-Solution.docx', 'Assignment\_8.docx', 'Assignment\_9-Solution.docx', 'Assignment\_9.docx', 'today.txt']

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

    parent\_dir = os.listdir('..')

    print("parent directory: ", parent\_dir)

Output:

['.git', 'projects july 25th 2021', 'python\_basic\_assignmemt', 'README.md']

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.

*def* print\_time():

    wait\_time = random.choice(range(1, 5))

    time.sleep(wait\_time)

    print(*f*"Wait time: ", wait\_time, " seconds. Current time:", time.ctime())

if \_\_name\_\_ == '\_\_main\_\_':

    process1 = Process(*target*=print\_time)

    process2 = Process(*target*=print\_time)

    process3 = Process(*target*=print\_time)

    process1.start()

    process2.start()

    process3.start()

    # wait untill 3 processes are done

    process1.join()

    process2.join()

    process3.join()

    print("Processes are done!")

Output:

Wait time: 1 seconds. Current time: Fri Sep 10 19:52:28 2021

Wait time: 3 seconds. Current time: Fri Sep 10 19:52:30 2021

Wait time: 4 seconds. Current time: Fri Sep 10 19:52:31 2021

Processes are done!

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

    dob = datetime.datetime(1986, 11, 24)

    print("Date of Birth: ", dob)

Output:

Date of Birth: 1986-11-24 00:00:00

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

 print("Day of the week: ", dob.strftime('%A'))

Output:

Day of the week: Monday

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

    ten\_thousand\_days\_old = dob + datetime.timedelta(*days*=10000)

    print("10,000 years old was: ", ten\_thousand\_days\_old)

Output:

10,000 years old was: 2014-04-11 00:00:00