**Assignment21**

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

A) from datetime import datetime

# Get the current date

current\_date = datetime.now().strftime("%Y-%m-%d")

# Write the current date to the file

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

file.write(current\_date + "\n")

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

A) # Read the contents of the file into a string

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

today\_string = file.read()

print(today\_string)

1. Parse the date from today\_string.

A) from datetime import datetime

# Read the contents of the file into a string

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

today\_string = file.read()

# Parse the date from today\_string

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

print(parsed\_date)

1. List the files in your current directory

A) There are multiple ways of listing all the files in a directory. In this article, we will discuss the below modules and their functions to fetch the list of files in a directory. We will cover a total of 5 ways with examples to check the list of files in a directory.

Using OS Module

Using glob Module

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

A) import os

# Get the parent directory path

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

# List all files in the parent directory

files\_in\_parent\_directory = os.listdir(parent\_directory)

# Print the list of files

print(files\_in\_parent\_directory)

1. 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.

A) import multiprocessing

import random

import time

from datetime import datetime

def worker():

# Generate a random sleep time between 1 and 5 seconds

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

# Sleep for the random amount of time

time.sleep(sleep\_time)

# Print the current time after sleeping

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

print(f"Process {multiprocessing.current\_process().name}: Current time is {current\_time}")

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

# Create three separate processes

processes = []

for i in range(3):

p = multiprocessing.Process(target=worker, name=f"Process-{i+1}")

processes.append(p)

p.start()

# Wait for all processes to finish

for p in processes:

p.join()

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

A) from datetime import date

# Create a date object for your birthday

birthday = date(2001, 8, 22)

print(birthday)

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

A) from datetime import datetime

# Create a datetime object for your birthday

birthday = datetime(2001, 8, 22)

# Get the day of the week (as an integer, where Monday is 0 and Sunday is 6)

day\_of\_week = birthday.weekday()

# Convert the integer representation to the actual day name

day\_name = ["Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"][day\_of\_week]

print(f"Your birthday, August 22, 2001, was on a {day\_name}.")

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

1. from datetime import datetime, timedelta
2. # Your birthday (change this to your actual birthday)
3. birthday = datetime(2001, 8, 22)
4. # Calculate the date when you will be 10,000 days old
5. ten\_thousand\_days\_old = birthday + timedelta(days=10000)
6. print(f"You will be 10,000 days old on: {ten\_thousand\_days\_old.strftime('%Y-%m-%d')}")