

Assignment-21

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

Ans.

```
from datetime import date

today = date.today()

with open('today.txt', 'w') as file:
    file.write(today.isoformat())
```

2. Read the text file today.txt into the string today_string.

Ans.

```
with open('today.txt', 'r') as file:
    today_string = file.read()

print(f"Date string from file: {today_string}")
```

3. Parse the date from today_string.

Ans.

```
from datetime import datetime

parsed_date = datetime.strptime(today_string, '%Y-%m-%d').date()

print(f"Parsed date: {parsed_date}")
```

4. List the files in your current directory.

Ans.

```
import os

files = os.listdir('.')

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).

Ans.

```
parent_files = os.listdir('.')
print("Files in parent directory:")
for file in parent_files[:5]: # Show first 5 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.

Ans.

```
import multiprocessing
import random
import time
from datetime import datetime

def worker():
    sleep_time = random.uniform(1, 5)
    time.sleep(sleep_time)
    print(f'Process {multiprocessing.current_process().name} - Current time: {datetime.now().time()}')

if __name__ == '__main__':
    processes = []
    for i in range(3):
        p = multiprocessing.Process(target=worker)
        processes.append(p)
        p.start()

    for p in processes:
        p.join()
```

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

Ans.

```
birth_date = date(1999, 12, 29)
print(f"Birth date: {birth_date}")
```

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

Ans.

```
days = ['Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday', 'Sunday']
day_of_week = days[birth_date.weekday()]
print(f"You were born on a {day_of_week}")
```

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

Ans.

```
from datetime import timedelta

ten_thousand_days = birth_date + timedelta(days=10000)
print(f"You were/will be 10,000 days old on: {ten_thousand_days}")
```