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

Ans:

```
In [1]:
import datetime
file = open('today.txt','w')
file.write(datetime.datetime.now().strftime("%d/%m/%Y"))
file.close()
file = open('today.txt','r')
print(file.read())
file.close()
```

```
22/04/2022
```

2. Parse the date from today_string.

Ans:

```
In [2]:
file = open('today.txt','r')
today_string = file.read()
print(today_string)
```

```
22/04/2022
```

3. Parse the date from today_string.

Ans:

```
In [4]:
from datetime import datetime
parsed_data = datetime.strptime(today_string, '%d/%m/%Y')
print(parsed_data)
```

```
2022-04-22 00:00:00
```

4. List the files in your current directory

Ans:

```
In [5]:
import os
for folders, subfolders, files in os.walk(os.getcwd()):
    for file in files:
        print(file)
```

```
application_log.txt
arrays .ipynb
Basketball Analysis (Matrices).ipynb
books.csv
books.db
Boolean variables and operators.ipynb
code indentation.ipynb
creating lists.ipynb
Data frames.ipynb
Functions.ipynb
gretl.lnk
Homework 2 Financial statement analysis.csv
Homework 3 Basketball free throws.ipynb
Homework 5 (World Trends).ipynb
Homework 6 Movie domestic gross.ipynb
Homework law of large numbers.ipynb
importing data .ipynb
installing and importing packages.ipynb
ML_Data processing tools.ipynb
ML_Decision tree regression.ipynb
ML_Multiple regression model.ipynb
ML_Polynomial linear regression.ipynb
ML_Random forest regression.ipynb
ML_Simple linear regression model.ipynb
ML_Support Vector Regression (SVR).ipynb
Movie Ratings Analytics.ipynb
multiplication of vectors or lists.ipynb
Opera Browser.lnk
pic2.jpg
Telegram.lnk
test.txt
```

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

Ans:

```
In [9]:
import os
os.listdir()
```

```
Out[9]: ['.ipynb_checkpoints',
 'application_log.txt',
 'arrays .ipynb',
 'Basketball Analysis (Matrices).ipynb',
 'books.csv',
 'books.db',
 'Boolean variables and operators.ipynb',
```

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: The following code doesn't finish runtime on jupyter notebook.

```python
import multiprocessing
import time
import random
import datetime

def process1():
    time.sleep(random.randint(1,5))
    print(f'Process 1: {datetime.datetime.now()}')

def process2():
    time.sleep(random.randint(1,5))
    print(f'Process 2: {datetime.datetime.now()}')

def process3():
    time.sleep(random.randint(1,5))
    print(f'Process 3: {datetime.datetime.now()}')

if __name__ == "__main__":
    p1 = multiprocessing.Process(target=process1)
    p2 = multiprocessing.Process(target=process2)
    p3 = multiprocessing.Process(target=process3)

    p1.start()
    p2.start()
    p3.start()

    p1.join()
    p2.join()
    p3.join()
```

```
(base) PS C:\Users\thejaswini\Desktop> python process.py
Process 2: 2022-04-23 11:29:51.579806
Process 1: 2022-04-23 11:29:53.575311
Process 3: 2022-04-23 11:29:54.586286
```

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

Ans:

In [2]:
```python
from datetime import datetime
my_dob = datetime.strptime('15/01/1996','%d/%m/%Y')
print(my_dob, type(my_dob))
```

```
1996-01-15 00:00:00 <class 'datetime.datetime'>
```

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

Ans:

In [4]:
```python
from datetime import datetime
my_dob = datetime(1996,1,15)
my_dob.strftime("%A")
```

Out[4]: 'Monday'

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

Ans:

In [6]:
```python
from datetime import datetime, timedelta
my_dob = datetime.strptime("15/1/1991",'%d/%m/%Y')
older = my_dob-timedelta(10000)
older
```

Out[6]: datetime.datetime(1963, 8, 30, 0, 0)