Assignment 21

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

In [1]:
```
import datetime
# Code to Add current date to the today.txt file
file = open('today.txt','w')
file.write(datetime.datetime.now().strftime("%d-%m-%Y"))
file.close()
# Code to Read current date from today.txt file
file = open('today.txt','r')
print(file.read())
file.close()
```

```
15-06-2023
```

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

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

```
15-06-2023
```

3. Parse the date from today_string.

In [3]:
```
from datetime import datetime
parsed_data = datetime.strptime(today_string, '%d-%m-%Y')
print(parsed_data)
```

```
2023-06-15 00:00:00
```

4. List the files in your current directory

In [4]:
```
import os
for folders, subfolders, files in os.walk(os.getcwd()):
    for file in files:
        print(file)
```

```
application_log.txt
books.csv
books.db
pic2.jpg
Python Basic Assignment 1.ipynb
Python Basic Assignment 10.ipynb
Python Basic Assignment 11.ipynb
Python Basic Assignment 12.ipynb
Python Basic Assignment 13.ipynb
Python Basic Assignment 14.ipynb
Python Basic Assignment 15.ipynb
Python Basic Assignment 16.ipynb
Python Basic Assignment 17.ipynb
Python Basic Assignment 18.ipynb
Python Basic Assignment 19.ipynb
Python Basic Assignment 2 .ipynb
Python Basic Assignment 20.ipynb
Python Basic Assignment 21.ipynb
Python Basic Assignment 4.ipynb
Python Basic Assignment 5.ipynb
Python Basic Assignment 6.ipynb
Python Basic Assignment 7.ipynb
Python Basic Assignment 8.ipynb
Python Basic Assignment 9.ipynb
test.txt
today.txt
university_records.csv
zoo.py
Python Basic Assignment 1-checkpoint.ipynb
Python Basic Assignment 10-checkpoint.ipynb
Python Basic Assignment 11-checkpoint.ipynb
Python Basic Assignment 12-checkpoint.ipynb
Python Basic Assignment 13-checkpoint.ipynb
Python Basic Assignment 14-checkpoint.ipynb
Python Basic Assignment 15-checkpoint.ipynb
Python Basic Assignment 16-checkpoint.ipynb
Python Basic Assignment 17-checkpoint.ipynb
Python Basic Assignment 18-checkpoint.ipynb
Python Basic Assignment 19-checkpoint.ipynb
Python Basic Assignment 2 -checkpoint.ipynb
Python Basic Assignment 20-checkpoint.ipynb
Python Basic Assignment 21-checkpoint.ipynb
Python Basic Assignment 4-checkpoint.ipynb
Python Basic Assignment 5-checkpoint.ipynb
Python Basic Assignment 6-checkpoint.ipynb
Python Basic Assignment 7-checkpoint.ipynb
Python Basic Assignment 8-checkpoint.ipynb
Python Basic Assignment 9-checkpoint.ipynb
zoo.cpython-39.pyc
```

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

In [5]:
```
import os
os.listdir()
```

Out[5]:
```
['.ipynb_checkpoints',
 'application_log.txt',
 'books.csv',
 'books.db',
 'pic2.jpg',
 'Python Basic Assignment 1.ipynb',
 'Python Basic Assignment 10.ipynb',
 'Python Basic Assignment 11.ipynb',
 'Python Basic Assignment 12.ipynb',
 'Python Basic Assignment 13.ipynb',
 'Python Basic Assignment 14.ipynb',
 'Python Basic Assignment 15.ipynb',
 'Python Basic Assignment 16.ipynb',
 'Python Basic Assignment 17.ipynb',
 'Python Basic Assignment 18.ipynb',
 'Python Basic Assignment 19.ipynb',
 'Python Basic Assignment 2 .ipynb',
 'Python Basic Assignment 20.ipynb',
 'Python Basic Assignment 21.ipynb',
 'Python Basic Assignment 4.ipynb',
 'Python Basic Assignment 5.ipynb',
 'Python Basic Assignment 6.ipynb',
 'Python Basic Assignment 7.ipynb',
 'Python Basic Assignment 8.ipynb',
 'Python Basic Assignment 9.ipynb',
 'test.txt',
 'today.txt',
 'university_records.csv',
 'zoo.py',
 '__pycache__']
```

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.

In [10]:
```
import threading
import random
import time
from datetime import datetime

def processes():
    # Generate a random sleep time between 1 and 5 seconds
    sleep_time = random.randint(1, 5)

    # Wait for the sleep time
    time.sleep(sleep_time)

    # Get the current time
    current_time = datetime.now().strftime("%Y-%m-%d %H:%M:%S")

    # Print the current time
    print(f"Thread {threading.current_thread().name}: Current time is {current_time}")


if __name__ == '__main__':
    # Create three separate threads
    threads = []
    for i in range(3):
        t = threading.Thread(target=processes)
        t.start()
        threads.append(t)

    # Wait for all threads to finish
    for t in threads:
        t.join()
```

```
Thread Thread-10: Current time is 2023-06-15 01:46:39
Thread Thread-8: Current time is 2023-06-15 01:46:42
Thread Thread-9: Current time is 2023-06-15 01:46:43
```

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

In [11]:
```
from datetime import datetime
my_dob = datetime.strptime('27/11/1997','%d/%m/%Y')
print(my_dob, type(my_dob))
```

```
1997-11-27 00:00:00 <class 'datetime.datetime'>
```

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

In [12]:
```
from datetime import datetime
my_dob = datetime(1997,11,27)
my_dob.strftime("%A")
```

Out[12]:
```
'Thursday'
```

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

In [13]:
```
from datetime import datetime, timedelta
my_dob = datetime.strptime("27/11/1997",'%d/%m/%Y')
future_date = my_dob-timedelta(10000)
future_date
```

Out[13]:
```
datetime.datetime(1970, 7, 12, 0, 0)
```