We often need current date and time when logging errors and saving data

```
# To get current date and time
# we need to use the datetime library
from datetime import datetime

current_date = datetime.now()
# the now function returns a datetime object
print('Today is: ' + str(current_date))
```

```
# output
Today is: 2019-06-06 16:17:18.694511
```

There are functions you can use with datetime objects to manipulate dates

```
from datetime import datetime, timedelta
today = datetime.now()
print('Today is: ' + str(today))

# timedelta is used to define a period of time
one_day = timedelta(days=1)
yesterday = today - one_day
print('Yesterday was: ' + str(yesterday))
```

```
# output
Today is: 2019-06-06 16:14:24.615495
Yesterday was: 2019-06-05 16:14:24.615495
```

Use date functions to control date formatting

```
from datetime import datetime
current_date = datetime.now()

print('Day: ' + str(current_date.day))
print('Month: ' + str(current_date.month))
print('Year: ' + str(current_date.year))
```

```
# output
Day: 6
Month: 6
Year: 2019
```

Sometimes you receive the date as a string and need to convert it to a datetime object

```
from datetime import datetime
birthday = input('When is your birthday (dd/mm/yyyy)? ')

birthday_date = datetime.strptime(birthday, '%d/%m/%Y')

print ('Birthday: ' + str(birthday_date))
```

```
# output
When is your birthday (dd/mm/yyyy)? 24/04/1998
Birthday: 1998-04-24 00:00:00
```

Converting it to a datetime allows you to use the date functions

```
from datetime import datetime, timedelta
birthday = input('When is your birthday (dd/mm/yyyy)? ')
birthday_date = datetime.strptime(birthday, '%d/%m/%Y')
print ('Birthday: ' + str(birthday_date))
one_day = timedelta(days=1)
birthday_eve = birthday_date - one_day
print('Day before birthday: ' + str(birthday_eve))
```

```
# output
When is your birthday (dd/mm/yyyy)? 24/04/1998
Birthday: 1998-04-24 00:00:00
Day before birthday: 1998-04-23 00:00:00
```

Make sure you add exception handling in case the date entered is invalid

```
# output
When is your birthday (dd/mm/yyyy)? 05-19-2005
Traceback (most recent call last):
  File "c:/PythonCourse/dates/input_date.py", line 6, in <module>
    datetime.datetime.strptime(birthday, '%d/%m/%Y')
  File "C:\AppData\Local\Programs\Python\Python37-
32\lib\_strptime.py", line 577, in _strptime_datetime
    tt, fraction, gmtoff_fraction = _strptime(data_string, format)
  File "C:\AppData\Local\Programs\Python\Python37-
32\lib\_strptime.py", line 359, in _strptime
    (data_string, format))
ValueError: time data '05-19-2005' does not match format '%d/%m/%Y'
```