Python has a module named **datetime** to work with dates and times.

Example 1: Get Current Date and Time

```
import datetime
datetime_object = datetime.datetime.now()
print(datetime_object)
```

Output:

2022-02-21 00:03:08.356859

The date contains year, month, day, hour, minute, second, and microsecond.

Here, we have imported datetime module using import datetime statement.

One of the classes defined in the datetime module is datetime class. We then used now() method to create a datetime object containing the current local date and time.

Example 2: Get Current Date

```
import datetime

date_object = datetime.date.today()

print(date_object)
```

In this program, we have used today() method defined in the date class to get a date object containning the current local date.

Output:

2022-02-21

Example 3: Print today's year, month and day

```
from datetime import date
# date object of today's date
today = date.today()
print("Current year:", today.year)
print("Current month:", today.month)
print("Current day:", today.day)
```

Output:

Current year: 2022

Current month: 3

Current day: 23

Python - sys Module

- The **sys module** provides functions and variables used to manipulate different parts of the Python runtime environment

sys.path

- This is an environment variable that is a search path for all Python modules
- Type "copyright", "credits" or "license()" for more information.
- >>> import sys
- >>> sys.path
- ['', 'C:\\Users\\AppData\\Local\\Programs\\Python\\Python35-32\\Lib\\idlelib', 'C:\\Users\\\AppData\\Local\\Programs\\Python\\Python35-32\\python35.zip', 'C:\\Users\\AppData\\Local\\Programs\\Python\\Python35-32\\DLLs', 'C:\\Users\\AppData\\Local\\Programs\\Python\\Python35-32\\lib', 'C:\\Users\\AppData\\Local\\Programs\\Python\\Python35-32', 'C:\\Users\\AppData\\Local\\Programs\\Python\\Python35-32\\lib\\site-packages']

sys.version

- This **attribute** displays a string containing the version number of the current Python interpreter.
- >>> sys.version
- '3.5.2 (v3.5.2:4def2a2901a5, Jun 25 2016, 22:01:18) [MSC v.1900 32 bit (Intel)]'

Math Module

- Python has a set of **built-in math functions**, including an extensive math module, that allows you to perform mathematical tasks on numbers.

```
import math
x = math.sqrt(64)
print(x)
```

The math.ceil() method rounds a number upwards to its nearest integer, and the math.floor() method rounds a number downwards to its nearest integer, and returns the result:

```
import math

x = math.ceil(1.4)

y = math.floor(1.4)

print(x) # returns 2

print(y) # returns 1
```

The math.pi constant, returns the value of PI (3.14...):

```
import math
x = math.pi
print(x)
```

sin, cos and tan ratios for the angle of 30 degrees (0.5235987755982988 radians)

```
>>> import math
>>> math.sin(0.5235987755982988)
0.4999999999999994
>>> math.cos(0.5235987755982988)
0.8660254037844387
>>> math.tan(0.5235987755982988)
0.5773502691896257
```

math.log10()

The math.log10() method returns the base-10 logarithm of the given number. It is called the standard logarithm.

Example: log10

```
import math
Print(math.log10(10))
```

- Example: Power
- >>> import math
- >>> math.pow(2,4)
- #16.0
- math.sqrt(100)
- #10.0