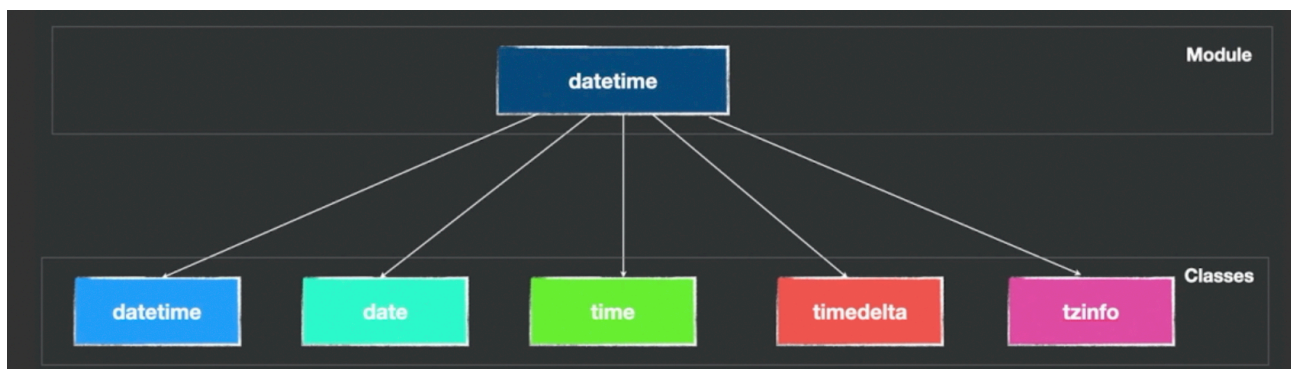


## Date and Time

- Python is having built in modules that are related to date and time they are **datetime, time and calendar**

### datetime module

- This module contains classes like **datetime, date, time, time delta, tzinfo**



- **datetime** - d / m / y , hours : minutes : seconds : millisecond it also gives timezone
- **date** - date / month / year
- **time** - hours : minutes : seconds : millisecond
- **timedelta** - difference between 2 times , d2 - d1 it also gives day , hour, minutes , second
- **tzinfo** - IST ,GMT

- If you want know the **current date and time** we have many functions for that
- The starting point for time for any watch is taken as **1 jan 1970** , this is also known as **epoch time** .
- The **time.time()** will give you the time elapsed from epoch time

```
>>> import time
>>> time.time()
1647342625.926307
>>> |
```

- The **time.localtime()** will give you all the values of current date and time including year , month , monthly , weekday etc.

```
>>> time.localtime()
time.struct_time(tm_year=2022, tm_mon=3, tm_mday=15, tm_hour=16, tm_min=41, tm_sec=3, tm_wday=1, tm_yday=74, tm_isdst=0)
>>>
>>> lt = time.localtime()
>>> type(lt)
<class 'time.struct_time'>
>>>
>>> lt.tm_year
2022
>>> lt.tm_mday
15
>>> lt.tm_hour
16
>>> |
```

- **lt** is variable for local time , type of **lt** is structured time , you can also get the particular data of your choice like year , day and hour etc...

- Some other function to know current date and time are

```
>>> import time
>>> import datetime
>>>
>>> time.ctime()
'Tue Mar 15 16:50:29 2022'
>>>
>>> datetime.datetime.now()
datetime.datetime(2022, 3, 15, 16, 51, 18, 350843)
>>> dt = datetime.datetime(2022, 3, 15, 16, 51, 18, 350843)
>>> dt.year
2022
>>> dt.month
3
>>> dt.day
15
>>> type(dt)
<class 'datetime.datetime'>
>>>
>>> dt = datetime.datetime.today()
>>> dt
datetime.datetime(2022, 3, 15, 16, 52, 58, 96412)
>>> |
```

**time.ctime()** - string form of current date and time

**time.now()** - will give object of date and time only

**time.today()** - same as now()