



PYTHON DATE AND TIME



Python Dates

- A date in Python is not a data type of its own, but we can import a module named **datetime** to work with dates as date objects.

Import the `datetime` module and display the current date:

```
import datetime

x = datetime.datetime.now()
print(x)
```

2023-10-22 20:18:10.769350

Python Dates

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

The datetime module has many methods to return information about the date object.

`datetime()`

`strftime()`

Creating Date Objects

To create a date, we can use the `datetime()` class (constructor) of the `datetime` module.

The **`datetime()`** class requires three parameters to create a date: year, month, day.

Create a date object:

```
import datetime  
  
x = datetime.datetime(2020, 5, 17)  
  
print(x)
```

```
2020-05-17 00:00:00
```

The `datetime()` class also takes parameters for time and timezone (hour, minute, second, microsecond, tzzone), but they are optional, and has a default value of 0, (None for timezone).

The strftime() Method

The datetime object has a method for formatting date objects into readable strings.

The method is called **strftime()**, and takes one parameter, **format**, to specify the format of the returned string:

Display the name of the month:

```
import datetime

x = datetime.datetime(2018, 6, 1)

print(x.strftime("%B"))
```

June

Directive	Description	Example
%a	Weekday, short version	Wed
%A	Weekday, full version	Wednesday
%w	Weekday as a number 0-6, 0 is Sunday	3
%d	Day of month 01-31	31
%b	Month name, short version	Dec
%B	Month name, full version	December
%m	Month as a number 01-12	12

■ %y	Year, short version, without century	18	■
%Y	Year, full version	2018	
%H	Hour 00-23	17	
%I	Hour 00-12	05	
%p	AM/PM	PM	
%M	Minute 00-59	41	
%S	Second 00-59	08	
%f	Microsecond 000000-999999	548513	

%z	UTC offset	+0100
%Z	Timezone	CST
%j	Day number of year 001-366	365
%U	Week number of year, Sunday as the first day of week, 00-53	52
%W	Week number of year, Monday as the first day of week, 00-53	52
%c	Local version of date and time	Mon Dec 31 17:41:00 2018
%C	Century	20

%X	Local version of date	12/31/18
%X	Local version of time	17:41:00
%%	A % character	%
%G	ISO 8601 year	2018
%u	ISO 8601 weekday (1-7)	1
%V	ISO 8601 weeknumber (01-53)	01



Applications???

Any
questions???

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