

# PYTHON CHEAT SHEET

## import datetime

%%	Literal%
%a	Sun
%A	Sunday
%b	Jan
%B	January
%d	Day (01)
%H	Hour 24
%I	Hour 12
%j	Day of the year
%m	Month (01)
%M	Minute
%p	AM/PM
%S	Second
%w	Weekday
%x	dd.mm.yyyy
%X	hh.mm.ss
%y	Year (00 to 99)
%Y	Year (2001)
%Y-%m-%d %H:%M:%S	1999-02-22 10:44:23
%x%X	

### examples

```
>>> datetime.strptime('20151231', '%Y%m%d')
datetime.datetime(2015, 12, 31, 0, 0)
>>> datetime.now().strftime('%H:%M')
'13:37'
>>> datetime.now().strftime('%d %B %Y')
'29 October 2014'
```

## import re

\d	digit
\D	non digit
\b	empty string boundary
\B	empty string non boundary
\w	alphanumeric
\W	no alphanumeric
\s	whitespace
\S	non whitespace
\A	start of string
\Z	end of string
*	0 or more
+	1 or more
?	0 or none
{x,y}	from x to y

### usage

#### re.compile

compile regexp

#### re.search

search for pattern in string

#### re.match

checks if string starts with pattern

#### re.findall

return all matches of pattern

#### re.split

split string by the occurrences of pattern

#### re.sub

replace occurrences of pattern

#### re.group

returns one or more subgroups of the match

## flags

re.I	ignore cas
re.M	multiline
re.S	dot matches all
re.X	whitespace ignored, allows comments

### examples

```
>>> p = re.compile (' \d+ ' )
>>> p.findall ( '12 superheroes, 2 teams ' )
[ '12' , '2' ]
>>> txt = 'super herome@stxnext.pl email'
>>> m = re.search (' ([ \w . ]+ ) @ ([ \w . ]+ ) , txt )
>>> m.group ( )
'me@stnext.pl'
>>> m.group ( 1 )
'me'
>>> m.group ( 2 )
'stxnext.pl'
>>> txt = 'S@u!p#e$r(h!e#r*o'
>>> pattern = re.compile (' \W+ ' )
>>> re.sub ( pattern , ' ' , txt )
'Superhero'
>>> re.sub ( pattern , ' _ ' , txt )
'S_u_p_e_r_h_e_r_o'
```

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## f-strings

<code>f'Hello {name}'</code>	f-strings are evaluated at runtime
<code>f'13*71 is {13*71}'</code>	valid Python expressions
<code>f'Result is {my_func(arg)}'</code>	calling functions
<code>f'Hello {name.capitalize()}'</code>	calling methods
<code>f'{math.pi:.2f}'</code>	3.14 - precision
<code>f'{10:b}'</code>	'1010' - binary
<code>f'{200:x}'</code>	'c8' - hexadecimal
<code>f'{0.75:.1%}'</code>	'75.0%' - percentage
<code>f'{"four":10}'</code>	'four ' - formatting width
<code>f'{"four":&lt;10}'</code>	'four@@@@@' - fill align
<code>f'{"four":&gt;10}'</code>	'@@@@@four'
<code>f'{"four":^10}'</code>	'@@@four@@@'

## About STX Next

We have over 15 years of experience, 200 completed projects and 100 satisfied customers which makes us a real "Python Powerhouse". What does it mean in practice?

Excellent understanding of the processes behind successful development. In STX Next the statement "the sky's the limit" has a real meaning: development and knowledge sharing works on the basis of values such as self-organization and partnership.

This is our way of triggering positive energy and maintaining a good flow between people.

Deep commitment to Agile principles, non-corporate management style, employment on B2B model, flexible working hours, software craftsmanship - those are just some of the elements that emphasize our uniqueness and allow you to be free from the traditional corporate „enslavement“.

*Check if your are the NEXT one!*

## import pdb

<code>pdb.set_trace()</code>	enter the debugger at the calling stack frame
<code>breakpoint()</code>	since 3.7 enter the debugger at the calling stack frame without importing pdb module
<code>pdb.pm()</code>	enter post-mortem debugging of the last traceback
<code>where</code>	print stack trace
<code>down</code>	one level down
<code>up</code>	one level up
<code>break n</code>	set breakpoint at line number <i>n</i>
<code>ignore n</code>	ignore <i>n</i> breaks
<code>step</code>	move one step forward (goes into functions)
<code>next</code>	move one step forward (does not go into functions)
<code>return</code>	step out of function (execute until return)
<code>continue</code>	continue
<code>list [n]</code>	list source of current file
<code>args</code>	print arguments of current function
<code>restart</code>	restart program
<code>quit</code>	quit and abort program execution
<code>pp</code>	pretty print variable
<code>until [n]</code>	continue execution until the line with the line number greater than the current one is reached