

# Python Functions and Methods

Code Girls 2020-21





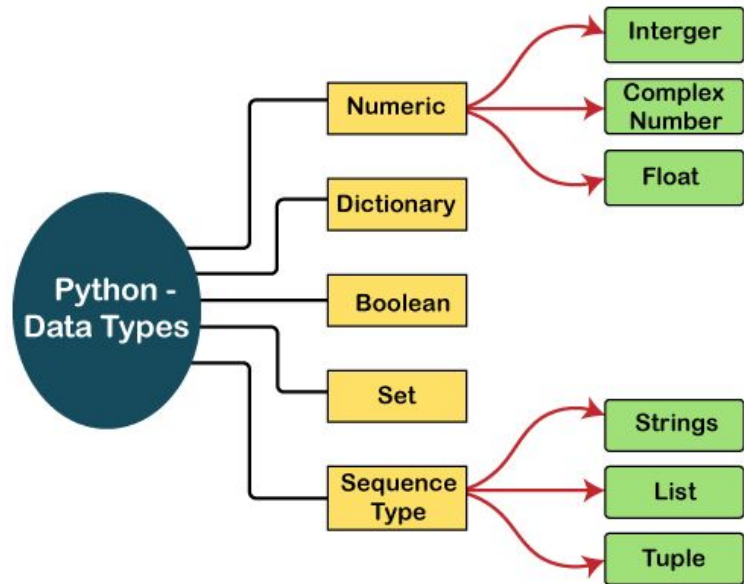
# Built-in Functions and Methods

- Functions
  - A block of reusable code to perform a single action
- Methods
  - A type of function that “belongs to” or is unique to an object type



# int, float, string

- int and float are basic data types
  - Python has built-in functions for them
- Strings are **objects**
  - Same concept as an object in Java
  - Python has built-in methods for strings



# Built-in functions

- int and float casting
- Regular math functions
  - Like pow() and abs()

```
Python 3.4.4 Shell
File Edit Shell Debug Options Window Help
Python 3.4.4 (v3.4.4:737efcadf5a6, Dec 20 2015, 19:28:18) [MSC v.1600 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> int(23.34)
23
>>> int(-3.1415)
-3
>>> int(5.0)
5
>>> float(7)
7.0
>>> complex(7,5)
(7+5j)
>>> complex(7)
(7+0j)
>>> |
```



# String Methods

STRING METHOD	WHAT IT DOES
<code>s.center(width)</code>	Returns a copy of <b>s</b> centered within the given number of columns.
<code>s.count(sub [, start [, end]])</code>	Returns the number of non-overlapping occurrences of substring <b>sub</b> in <b>s</b> . Optional arguments <b>start</b> and <b>end</b> are interpreted as in slice notation.
<code>s.endswith(sub)</code>	Returns <b>True</b> if <b>s</b> ends with <b>sub</b> or <b>False</b> otherwise.
<code>s.find(sub [, start [, end]])</code>	Returns the lowest index in <b>s</b> where substring <b>sub</b> is found. Optional arguments <b>start</b> and <b>end</b> are interpreted as in slice notation.
<code>s.isalpha()</code>	Returns <b>True</b> if <b>s</b> contains only letters or <b>False</b> otherwise.
<code>s.isdigit()</code>	Returns <b>True</b> if <b>s</b> contains only digits or <b>False</b> otherwise.



# String Methods

<code>s.join(sequence)</code>	Returns a string that is the concatenation of the strings in the sequence. The separator between elements is <b>s</b> .
<code>s.lower()</code>	Returns a copy of <b>s</b> converted to lowercase.
<code>s.replace(old, new [, count])</code>	Returns a copy of <b>s</b> with all occurrences of substring <b>old</b> replaced by <b>new</b> . If the optional argument <b>count</b> is given, only the first <b>count</b> occurrences are replaced.
<code>s.split([sep])</code>	Returns a list of the words in <b>s</b> , using <b>sep</b> as the delimiter string. If <b>sep</b> is not specified, any whitespace string is a separator.
<code>s.startswith(sub)</code>	Returns <b>True</b> if <b>s</b> starts with <b>sub</b> or <b>False</b> otherwise.
<code>s.strip([aString])</code>	Returns a copy of <b>s</b> with leading and trailing whitespace (tabs, spaces, newlines) removed. If <b>aString</b> is given, remove characters in <b>aString</b> instead.
<code>s.upper()</code>	Returns a copy of <b>s</b> converted to uppercase.



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