

Python Cheat Sheet - Functions and Tricks

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		Description	Example	Result
ADVANCED	map(func, iter)	Executes the function on all elements of the iterable	list(map(lambda x: x[0], ['red', 'green', 'blue']))	['r', 'g', 'b']
	map(func, i1, ..., ik)	Executes the function on all k elements of the k iterables	list(map(lambda x, y: str(x) + ' ' + y + 's', [0, 2, 2], ['apple', 'orange', 'banana']))	['0 apples', '2 oranges', '2 bananas']
	string.join(iter)	Concatenates iterable elements separated by string	'marries'.join(list(['Alice', 'Bob']))	'Alice marries Bob'
FUNCTIONS	filter(func, iterable)	Filters out elements in iterable for which function returns False (or 0)	list(filter(lambda x: True if x>17 else False, [1, 15, 17, 18]))	[18]
	string.strip()	Removes leading and trailing whitespaces of string	print("\n \t 42 \t ".strip())	42
	sorted(iter)	Sorts iterable in ascending order	sorted([8, 3, 2, 42, 5])	[2, 3, 5, 8, 42]
	sorted(iter, key=key)	Sorts according to the key function in ascending order	sorted([8, 3, 2, 42, 5], key=lambda x: 0 if x==42 else x)	[42, 2, 3, 5, 8]
	help(func)	Returns documentation of func	help(str.upper())	'... to uppercase.'
	zip(i1, i2, ...)	Groups the i-th elements of iterators i1, i2, ... together	list(zip(['Alice', 'Anna'], ['Bob', 'Jon', 'Frank']))	[('Alice', 'Bob'), ('Anna', 'Jon')]
	Unzip	Equal to: 1) unpack the zipped list, 2) zip the result	list(zip(*(['Alice', 'Bob'], ('Anna', 'Jon')))	[('Alice', 'Anna'), ('Bob', 'Jon')]
	enumerate(iter)	Assigns a counter value to each element of the iterable	list(enumerate(['Alice', 'Bob', 'Jon']))	[(0, 'Alice'), (1, 'Bob'), (2, 'Jon')]
	TRICKS	python -m http.server <P>	Share files between PC and phone? Run command in PC's shell. <P> is any port number 0–65535. Type < IP address of PC>:<P> in the phone's browser. You can now browse the files in the PC directory.	
Read comic		import antigavity	Open the comic series xkcd in your web browser	
Zen of Python		import this	'...Beautiful is better than ugly. Explicit is ...'	
Swapping numbers		Swapping variables is a breeze in Python. No offense, Java!	a, b = 'Jane', 'Alice' a, b = b, a	a = 'Alice' b = 'Jane'
Unpacking arguments		Use a sequence as function arguments via asterisk operator *. Use a dictionary (key, value) via double asterisk operator **	def f(x, y, z): return x + y * z f(*[1, 3, 4]) f(**{'z': 4, 'x': 1, 'y': 3})	13 13
Extended Unpacking		Use unpacking for multiple assignment feature in Python	a, *b = [1, 2, 3, 4, 5]	a = 1 b = [2, 3, 4, 5]
Merge two dictionaries		Use unpacking to merge two dictionaries into a single one	x={'Alice': 18} y={'Bob': 27, 'Ann': 22} z = {**x, **y}	z = {'Alice': 18, 'Bob': 27, 'Ann': 22}