Functional Programming in Python

MAP

map(function\_to\_apply, list\_of\_inputs)

Example:

items = [1, 2, 3, 4, 5]

squared = list(map(**lambda** x: x\*\*2, items))

FILTER

filter(function\_to\_apply, list\_of\_inputs)

Example:

number\_list = range(-5, 5)

less\_than\_zero = list(filter(**lambda** x: x < 0, number\_list))

print(less\_than\_zero)

*# Output: [-5, -4, -3, -2, -1]*

REDUCE

reduce(function\_to\_apply, list\_of\_inputs)

Example:

product = reduce((**lambda** x, y: x \* y), [1, 2, 3, 4])

ENUMERATE

enumerate(list\_of\_inputs)

Example:

my\_list = ['apple', 'banana', 'grapes', 'pear']

list(enumerate(my\_list))

*# Output: [(0, 'apple'), (1, 'banana'), (2, 'grapes'), (3, 'pear')]*