

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')]
```