

→ Reduce()

It works by calling function we passed for the first two items in sequence. The result returned by function is used in another call to function alongside with next element. This process repeats until we have gone through all the elements in sequence.

Syntax:

reduce (function, Sequence [, initial])

→ zip()

This function is used to combine two or more lists into single iterable, where elements from corresponding positions are paired together.

The resulting iterable contains tuples, where first element from each list is paired together and second element from each list paired together & so on.

Syntax:

zip (\*iterables)

→ id()

This function returns unique id for specified object. All objects in python has its own unique id. The id assigned to object when it is created.

Syntax:

id (object)

→ enumerate()

This function adds a counter to an iterable and returns enumerate object as output.

Syntax:

enumerate (iterable, start=0)



→ `map()`

This function iterates through all items in given iterable & executes the function we passed as an argument on each of them.

Syntax:

`map (function, iterable(s))`

→ `filter()`

It is similar to `map()`, it takes a function object and an iterable and creates new list. `filter()` forms new list that contains only elements that satisfy a certain condition.

Syntax:

`filter (function, iterable(s))`

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In [4]: '''REDUCE FUNCTION'''
        from functools import reduce

        def add(x, y):
            return x + y

        list = [2, 4, 7, 3]
        print(reduce(add, list))

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In [5]: '''ZIP FUNCTION'''
        name = [ "Manjeet", "Nikhil", "Shambhavi", "Astha" ]
        roll_no = [ 4, 1, 3, 2 ]

        # using zip() to map values
        mapped = zip(name, roll_no)

        print(set(mapped))

        {('Shambhavi', 3), ('Astha', 2), ('Manjeet', 4), ('Nikhil', 1)}

In [7]: '''ID FUNCTION'''
        x = ('apple', 'banana', 'cherry')
        y = id(x)
        print(y)

        1816855704512
```

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In [2]: '''ENUMERATE FUNCTION'''
languages = ['Python', 'Java', 'JavaScript']
enumerate_languages = enumerate(languages)
# convert enumerate object to list
print(list(enumerate_languages))

[(0, 'Python'), (1, 'Java'), (2, 'JavaScript')]
```

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In [3]: '''MAP FUNCTION'''
def starts_with_A(s):
    return s[0] == "A"
fruit = ["Apple", "Banana", "Pear", "Apricot", "Orange"]
map_object = map(starts_with_A, fruit)
print(list(map_object))

[True, False, False, True, False]
```

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In [4]: '''FILTER FUNCTION'''
def starts_with_A(s):
    return s[0] == "A"
fruit = ["Apple", "Banana", "Pear", "Apricot", "Orange"]
filter_object = filter(starts_with_A, fruit)
print(list(filter_object))

['Apple', 'Apricot']
```