

Higher Order Function

`filter ()` Function – The filter function is used to filter out the elements of an iterable (sequence) depending on a function that tests each element in the sequence to be true or not.

It returns those elements of sequence, for which function is true.

Syntax:-

`filter(function_name, iterable)`

`Function_name` – It's name of a function which tests each element in the sequence return True or False. If function is None, returns the elements that are true.

`iterable` – Iterable may be either a sequence, list, string, tuple, a container which supports iteration, or an iterator.

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map () Function – This function executes a specified function on each element of the iterable (sequence) and perhaps changes the elements.

Syntax:-

map(function_name, iterable)

Function_name - It's name of a function which perform an operation on all the elements of the sequence and modified elements are returned which can be stored in another sequence.

iterable – Iterable may be either a sequence, list, string, tuple, a container which supports iteration, or an iterator.

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`reduce ()` Function – This function is used to reduce a sequence of elements to a single value by processing the elements according to a function supplied. It returns a single value.

This function is a part of `functools` module so you have to import it before using.

Syntax:-

```
from functools import reduce  
reduce(function_name, sequence)
```