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Python Lamda :

- > In Python, anonymous function is a function that is defined without a name. While normal functions are defined using the def keyword, in Python anonymous functions are defined using the lambda keyword. Hence, anonymous functions are also called lambda functions.

- > The lambda operator or lambda function is a way to create small anonymous functions, i.e. functions without a name. These functions are throw-away functions, i.e. they are just needed where they have been created. Lambda functions are mainly used in combination with the functions filter(), map() and reduce(). The lambda feature was added to Python due to the demand from Lisp programmers.

- > The general syntax of a lambda function is quite simple:

“ lambda argument_list: expression ”

The argument list consists of a comma separated list of arguments and the expression is an arithmetic expression using these arguments.

- > The lambda definition does not include a "return" statement -- it always contains an expression which is returned.

- > Python supports this interesting syntax that lets you define one-line mini-functions on the fly. These so called lambda function can be used anywhere a functio is required.

- > We use this lambda functions whenever we require a nameless function for a short period of time.

- > This is not exactly the same as lambda in functional programming languages, but it is a very powerful concept that's well integrated into Python and is often used in conjunction with typical functional concepts like `filter()`, `map()` and `reduce()`.

FILTER () FUNCTION :

- > The `filter()` function in Python takes in a function and a list as arguments.The function is called with all the items in the list and a new list is returned which contains items for which the function evaluates to `True`.

MAP () FUNCTION :

- > The `map()` function in Python takes in a function and a list.The function is called with all the items in the list and a new list is returned which contains items returned by that function for each item.

REDUCE () FUNCTION:
- > The reduce () function is a really useful function for performing some computation on a list and returning the result. It applies a rolling computation to sequential pairs of values in a list.

- > This piece of code below shows the difference between a normal function definition ("f") and a lambda function ("g"):

```
>>> def f (x): return
x**2
...
>>> print f(8)
64
>>>
>>> g = lambda x: x**
2
>>>
>>> print g(8)
64
```

REFERENCE :
http://www.secnetix.de/olli/Python/lambda_functions.hawk
https://www.programiz.com/python-programming/anonymous-function