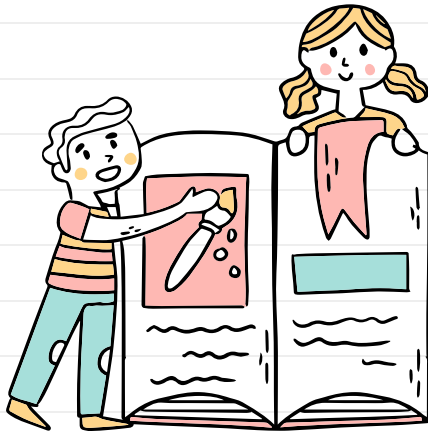# LAMBDA FUNCTION IN PYTHON

DATA BASH

INTRODUCTION

Lambda function is a nameless and anonymous function in Python that is defined without a name. It is also known as inline function. The concept is derived from lambda calculus. Lambda functions are used when we need a small function to be passed as an argument to a higher-order function.
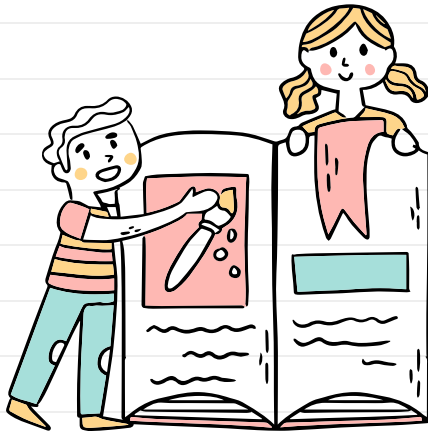
SYNTAX

The basic syntax of a lambda function is:
`lambda arguments: expression`
The **arguments** are inputs to the function.
The **expression** is the return value of the function.
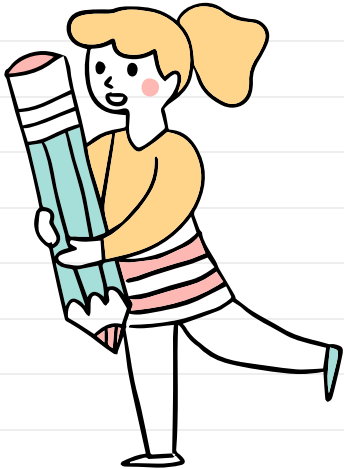Example: `lambda x: x**2` will return the square of the input x.

FILTERING WITH LAMBDA

The `filter()` function is used to filter out elements from a sequence based on a condition. We can use lambda function as a condition in `filter()` function.
Example: `list(filter(lambda x: x%2==, [1,2,3,4,5,6]))` will return `[2, 4, 6]`.

MAPPING WITH LAMBDA

The `map()` function is used to apply a function to each element in a sequence and returns a new sequence with the modified elements. We can use lambda function as a function in `map()` function.

Example: `list(map(lambda x: x**2, [1,2,3,4,5,6]))` will return `[1, 4, 9, 16, 25, 36]`.

SORTING WITH LAMBDA

The **sort()** function is used to sort elements in a list. We can use lambda function as a key in **sort()** function to sort based on a specific property.

Example: **sorted(['apple', 'banana', 'cherry'], key=lambda x: len(x))** will return **['apple', 'cherry', 'banana']**.
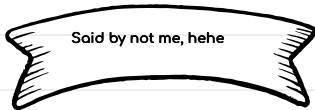
CONCLUSION

Lambda function is a useful tool in Python that allows us to write concise and efficient code. It is commonly used with higher-order functions like `filter()`, `map()` and `sort()`. Understanding lambda function is essential for any Python developer.

Said by not me, hehe

THANKS!

Follow me for daily Data Science tips/tricks
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