PYTHON 3

## Tuple Unpacking: Using \* as an Argument

By using \*args in the argument section when calling function, we can unpack a Tuple/ List and treat each element in the Tuple/ List as individual argument.

Ex 1: Unpacking Tuple

Screen of a cell phone

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Ex 2: Unpacking List

A screen shot of a smart phone

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## Dictionary Unpacking: Using \*\* as an Argument

By using \*\*args in the argument section when calling a function, we can unpack dictionary into keyword element.

Ex 1:

A screenshot of a cell phone

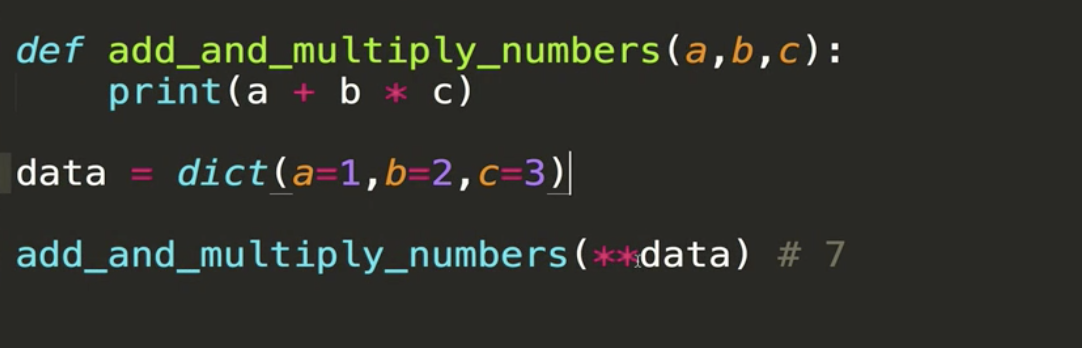
Description automatically generated

Ex 2:

A screen shot of a social media post

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Ex 3:



## Lambda:

- It’s a function with no name

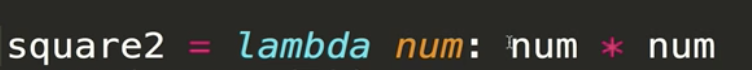
**Syntax:**

lambda parameter: single expression

Note:

- The expression is automatically return. So, there’s no need t*o* use the return syntax.

- Lambda doesn’t need t*o* be assigned its value to any variable.



Why Lambda:

the most common use case is when you have some code that actually you need to pass the function into another function as a parameter and that function will never be used again.

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## Map:

- A standard function that accepts at least 2 arguments, a function (which is usually a lambda) and an ‘iterable’.

- iterable: something that can be iterated over (lists, strings, dictionaries, sets, tuples).

- runs the lambda for each value in the iterable and returns a map object which can be converted into another data structure.

Ex:

doubles = map(lambda x: x\*2, nums)

Explanation: map takes this lambda function and iterate it over every single element within nums

**Note:** Map object can only be iterated once.

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## filter:

- There is a lambda for each value in the iterable.

- Returns filter object which can be converted into other iterables.

- The object contains only the values that return true to the lambda.

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**Combining filter and map:**

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Or we can use list comprehension:

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