

Lambda functions clearly explained!!

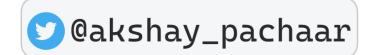
lambda arguments: expression



What are lambda functions?

Simply put, they are small anonymous functions that are defined without a name.

Check out the syntax



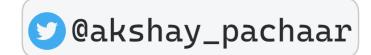


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Lambda functions can have any number of arguments, but they can only have one expression.

The expression is executed and the result is returned.

Here is an example of a lambda function that adds two numbers



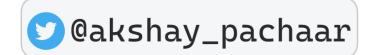
```
>>> add = lambda x, y: x + y
>>> add(3, 4)
```



Lambda functions can be used wherever a function is required.

For Ex., they can be passed as an argument to a higher-order function.

Here is an example of using a lambda function with the built-in `filter()` function.



```
# `filter()` takes two inputs:
  1. function: function that tests if each element
# of a seq is true or not
# 2. iterable: an iterable (eg. list) from which we
     need to filter values
#
>>> numbers = [1, 2, 3, 4, 5, 6]
>>> even_numbers = filter( lambda x: x % 2 = 0), ( numbers)
>>> even_numbers
                                                iterables
                                 > function
[2, 4, 6]
```

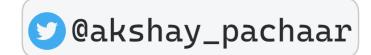
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Cheers 🕬

One of the most common application of Python lambda:

Pandas df.apply()

Applying a function across a DataFrame!



```
import pandas as pd
# Create a sample DataFrame
df = pd.DataFrame(\{'A': [1, 2, 3], 'B': [4, 5, 6], 'C': [7, 8, 9]\})
# Print the original DataFrame
print(df)
  A B C
0 1 4 7
1 2 5 8
2 3 6 9
# Apply a function to the 'A' column to square the values
df['A'] = df['A'].apply(lambda x: x ** 2)
# Print the modified DataFrame
print(df)
  A B C
0 1 4 7
1 4 5 8
2 9 6 9
# Observe that the entries in column 'A' are squared now!
                                               Akshay 🚀
# Cheers! 🐠
# Hope you enjoyed reading!! 📖
                                                  @akshay_pachaar
```

That's a wrap!

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