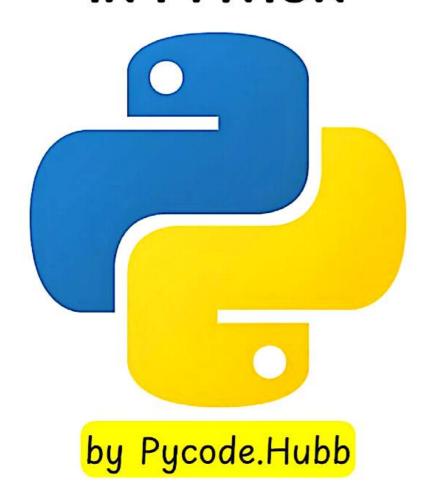
5 POWERFUL FUNCTIONS IN PYTHON







Powerful Functions in Python

Python comes with a wide range of built-in functions. Some are extremely useful and commonly used, while others are less frequently needed.

In this post, I've highlighted the Top 5 Python Functions that every Python programmer should be familiar with.







Map Function

The map() function in Python is used to apply a function to each item in a list (or any iterable). It returns a new list with the results.

Example:

```
# Using map to double each number in a list
numbers = [1, 2, 3, 4]
doubled = list(map(lambda x: x * 2, numbers))
print(doubled) # Output: [2, 4, 6, 8]
```

Use map() when you want to apply the same operation to every item in a list easily!





Lambda Function

A lambda function is a small, anonymous function. It's called "anonymous" because it doesn't need a name like regular functions. You can think of it as a quick one-line function.

Here's the format:

```
lambda arguments: expression
```

Example:

```
# Lambda function to double a number
double = lambda x: x * 2
print(double(5)) # Output: 10
```





Filter Function

The filter() function in Python is used to filter items from a list (or any iterable) based on a condition. It keeps only the items where the condition is True.

Example:

```
# Using filter to keep only even numbers
numbers = [1, 2, 3, 4, 5, 6]
evens = list(filter(lambda x: x % 2 == 0, numbers))
print(evens) # Output: [2, 4, 6]
```

Use filter() to easily select items that meet a specific condition!





Zip Function

The zip() function in Python combines items from two or more lists (or iterables) into pairs. It creates a list of tuples, where each tuple contains one item from each list.

Example:

```
# Using zip to combine two lists
names = ['Alice', 'Bob', 'Charlie']
scores = [85, 90, 95]

combined = list(zip(names, scores))

print(combined)
# Output: [('Alice', 85), ('Bob', 90), ('Charlie', 95)]
```

Use zip() to combine lists easily when you need to pair up items from different sequences!





Enumerate Function

The enumerate() function in Python adds a counter (index) to each item in a list (or iterable). It's useful when you need both the item and its position in the list.

Example:

```
# Using enumerate to get index and item
fruits = ['apple', 'banana', 'cherry']

for index, fruit in enumerate(fruits):
    print(index, fruit)

# Output:
# 0 apple
# 1 banana
# 2 cherry
```

Use enumerate() when you need to loop through a list and want both the item and its index!



