

06-10-2025

Lambda :

lambda function is a small,anonymous function in python.

- \* defined using a keyword lambda instead of def
- \* it can take any number of arguments but must contains only one expression.
- \* expression is automatically returns(no need to use return)

syntax:

lambda arguments: expression

```
s = lambda num: num*num
```

```
s(5)
```

```
25
```

```
s = lambda a,b:a+b
```

```
add(2,2)
```

```
add = lambda a,b:a+b
```

```
add(4,8)
```

```
12
```

nested lambda

```
# nested
```

```
m = (lambda a,b:(lambda sum:sum*5) (a+b))
```

```
m(5,6)
```

```
55
```

recursive functions

a recursive function is a function that calls itself until a base condition met

```
def fact(n):
```

```
    if n==1:
```

```
        return 1
```

```
    else:
```

```
        return n*fact(n-1)
```

```
fact(5)
```

```
120
```

```
# nested function
```

```
def outer_fun(p1,p2..pn):
```

```
    def inner_fun(p1,p2...pn):
```

```
        return value
```

```
    return value
```

```
def outer(a,b):
```

```
    def inner(x,y):
```

```
        return x+y
```

```
result = inner(a,b)
```

```
    return result*5
```

```
outer(5,2)
```

```
35
```