

Python-Functions

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FUNCTIONS

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Defining a Function

- ▶ Function blocks begin with the keyword **def** followed by the function name and parentheses ())

```
def functionname( parameters ):  
    "function_docstring"  
    function_suite  
    return [expression]
```

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code

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Pass by Reference vs Value

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Function Arguments

- ▶ Required arguments
- ▶ Keyword arguments
- ▶ Default arguments
- ▶ Variable-length arguments

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The Anonymous Functions

- ▶ You can use the **lambda** keyword to create small anonymous functions.
- ▶ Lambda forms can take any number of arguments but return just one value in the form of an expression. They cannot contain commands or multiple expressions.
- ▶ An anonymous function cannot be a direct call to print because lambda requires an expression.
- ▶ Lambda functions have their own local namespace and cannot access variables other than those in their parameter list and those in the global namespace.
- ▶ Syntax
- ▶ `lambda [arg1 [,arg2,.....argn]]:expression`

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Scope of Variables

- ▶ Global variables
- ▶ Local variables

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```
total = 0
```

```
def sum( arg1, arg2 ):  
    total = arg1 + arg2; # Here total is local variable.  
    print ("Inside the function local total : ", total)  
    return total
```

```
sum( 10, 20 )  
print ("Outside the function global total : ", total )
```

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