

python Workshop

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Functions

What is function ?

reusable pieces of code

Types of function

built-in functions : provided as a part of Python Language.

Example : `type()`, `len()`, `max()` etc

user-defined functions : defined by us.

user-defined Functions

Defined using `def` keyword

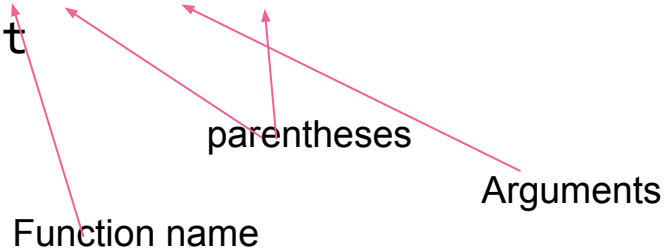
Called by using function name, parentheses, and arguments passed into it.

Functions Example

```
numbers = [10,20,30,68,40,50]
```

```
target = max(numbers)
```

```
print target
```



Creating your own simple function

```
def bigger(num1, num2):  
    if(num1 > num2):  
        return num1  
    else:  
        return num2
```

OUTPUT

6
20

Return Values



```
larger = bigger(5,6)  
print larger
```

Arguments



```
larger = bigger(10,20)  
print larger
```

Function name



Creating your own simple function

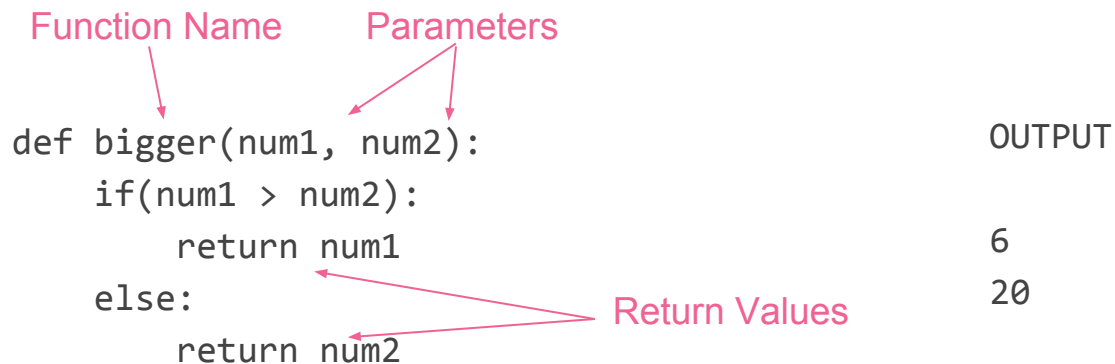
Function Name Parameters

```
def bigger(num1, num2):  
    if(num1 > num2):  
        return num1  
    else:  
        return num2
```

Return Values

OUTPUT

6
20



```
larger = bigger(5,6)  
print larger
```

```
larger = bigger(10,20)  
print larger
```


Important Points

Defining a function only gives it a name, specifies the parameters that are to be included in the function and structures the blocks of code. It is not executed this moment.

Creating your own simple function

```
def areaOfCircle(radius):  
    area = 3.14 * radius ** 2  
    return area
```

OUTPUT

452.16

```
def areaOfSquare(side):  
    area = side ** 2  
    return area
```

30

100

```
def areaOfRectangle(l,b):  
    area = l * b  
    return area;
```

```
print areaOfCircle(12)  
print areaOfRectangle(5,6)  
print areaOfSquare(10)
```

Important Points

If function don't contain return, it will return None

Assignment 4

Write a program to find factorial of the given number entered by the user using functions using recursion.

Thank You

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Assignments & Presentations:

<https://github.com/rahulcomp24/Python-Workshop-CS-Dept-BMSCE-May-2016>

