

Python Programming

Presented by

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Statements

break is a keyword in python which is used to bring the program control out of the loop.

The break statement breaks the loops one by one, i.e., in the case of nested loops, it breaks the inner loop first and then proceeds to outer loops.

In other words, we can say that break is used to abort the current execution of the program and the control goes to the next line after the loop.

break is commonly used in the cases where we need to break the loop for a given condition.

for statement

```
list =[1,2,3,4]
count = 1;
for i in list:
    if i == 4:
        print("item matched")
        break
count = count + 1;
```

o/p:- item matched

Ex:-

```
str = "python"
```

```
for i in str:
    if i == 'o':
        break
    print(i);
```

continue statement

- continue statement in python is used to bring the program control to the beginning of the loop. The continue statement skips the remaining lines of code inside the loop and start with the next iteration. It is mainly used for a particular condition inside the loop so that we can skip some specific code for a particular condition

```
i= 0;
```

```
while i!=10:
```

```
    print("%d"%i)
```

```
    continue
```

```
i=i+1;
```

```
o/p : infinite loop
```

```
i=1; #initializing a local variable
```

```
#starting a loop from 1 to 10
```

```
for i in range(1,11):
```

```
    if i==5:
```

```
        continue
```

```
    print("%d"%i); o/p: 1 2 3 4 6 7 8 9 10
```

Function

Python allows us to divide a large program into the basic building blocks known as function. The function contains the set of programming statements enclosed by { }. A function can be called multiple times to provide reusability and modularity to the python program.

- There are the following advantages of Python functions.
- By using functions, we can avoid rewriting same logic/code again and again in a program.
- We can call python functions any number of times in a program and from any place in a program.
- We can track a large python program easily when it is divided into multiple functions.
- Reusability is the main achievement of python functions.
- However, Function calling is always overhead in a python program.

Function

```
def my_function():  
    statements  
    return <expression>
```

The function block is started with the colon (:) and all the same level block statements remain at the same indentation.

A function can accept any number of parameters that must be the same in the definition and function calling.

In python, a function must be defined before the function calling otherwise the python interpreter gives an error.

Function call

Once the function is defined, we can call it from another function or the python prompt. To call the function, use the function name followed by the parentheses.

```
Ex:- def helloworld():  
    print("hearty welcome")
```

function call

```
helloworld()
```

Function

- The information into the functions can be passed as the parameters. The parameters are specified in the parentheses. We can give any number of parameters, but we have to separate them with a comma.

```
def displayname (name):
```

```
    print("Hi ",name);
```

```
#calling the function
```

```
    displayname("Ayush")
```

```
o/p: Hi Ayush
```

parameters : Example

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

```
    return a+b;
```

```
#taking values from the user
```

```
a = int(input("Enter a: ")) 10
```

```
b = int(input("Enter b: ")) 20
```

```
#printing the sum of a and b
```

```
print("Sum = ",sum(a,b)) o/p: 30
```

Thank you!

