

Introduction to While Loops

The while loop is somewhat similar to an `if` statement, it executes the code block inside if the expression/condition is `True`. However, as opposed to the `if` statement, the while loop continues to execute the code repeatedly, as long as the expression is `True`. In other words, a while loop iterates over a block of code.

In Python, the body of a `while` loop is determined by the indentation. It starts with indentation and ends at the first unindented line.

The most important part of a `while` loop is the looping variable. This looping variable controls the flow of iterations. An increment or decrement in this looping variable is important for the loop to function. It determines the next iteration level. In case of the absence of such increment/decrement, the loop gets stuck at the current iteration and continues forever until the process is manually terminated.

The general syntax of a `while` loop is similar to an `if` statement with a few differences. It is shown below:

```
while(Expression/Condition/Boolean):  
    <Execute this code block till the Expression is True>  
    #Increment/Decrement in Looping variable
```