**While Loop**

while Loop is used to execute number of statements or body till the condition passed in while is true. Once the condition is false, the control will come out of the loop.

**Syntax:**

1. while <expression>:
2. Body

Here, body will execute multiple times till the expression passed is true. The Body may be a single statement or multiple statement.

**Eg:**

1. a=10
2. while a>0:
3. print "Value of a is",a
4. a=a-2

print "Loop is Completed"

**Output:**

1. >>>
2. Value of a is 10
3. Value of a is 8
4. Value of a is 6
5. Value of a is 4
6. Value of a is 2
7. Loop is Completed
8. >>>

**Explanation:**

* Firstly, the value in the variable is initialized.
* Secondly, the condition/expression in the while is evaluated. Consequently if condition is true, the control enters in the body and executes all the statements . If the condition/expression passed results in false then the control exists the body and straight away control goes to next instruction after body of while.
* Thirdly, in case condition was true having completed all the statements, the variable is incremented or decremented. Having changed the value of variable step second is followed. This process continues till the expression/condition becomes false.
* Finally Rest of code after body is executed.

**Program to add digits of a number:**

1. n=153
2. sum=0
3. while n>0:
4. r=n%10
5. sum+=r
6. n=n/10
7. print sum

**Output:**

1. >>>
2. 9
3. >>>