

While loop

While loops are mainly used if you don't know how many times you need to execute the same line or group of lines.

Syntax:

While (condition):

Statements

.....

.....

Statements

Example:

```
var = 'a'
```

```
while (var != 'e'):
```

```
    var = input('Enter q to exit the loop are press any letter')
```

```
    print('You are outside loop')
```

Output:

Enter q to exit the loop are press any letter **w**

Enter q to exit the loop are press any letter **r**

Enter q to exit the loop are press any letter **u**

Enter q to exit the loop are press any letter **q**

You are outside loop

Explanation :

Iteration	Value of var	var == 'q'
1	a	True
2	w	True
3	r	True
4	u	True
5	q	False

You can see that during first iteration the value of var will be a so condition becomes True and statement inside while is executed.

Until the user gives input 'q' the condition will return True and the statement with in the loop is executed.

While loop can also be used like 'for' loop. But try to use for loop if you know the number of iterations.

Example :

```
var = int(input('Enter the no of times star should print having one less than previous ones'))
```

```
while var != 0:
```

```
    print('*' * var)
```

```
    var = var - 1
```

Output :

Enter the no of times star should print having one less than previous ones **5**

**

*

Explanation :

Iteration	Value of var	var != 0
1	5	True
2	4	True
3	3	True
4	2	True
5	1	True
6	0	False

When the condition become false the flow comes out of loop.