15-09-25

Break:

* The break statement is used to exit a loop immediately, even if the loop condition is still true
* After breaking, the program continues with the next statement outside the loop.

Syn:

for/while loop:-
    if condition:
        break.

Eg:

```
for i in range(1,10):
    if(i==5):
        break
    print(i)
```

o/p:
1
2
3
4

CONTINUE:-

* The continue statement skips the current iteration and goes to the next iteration of the loop
* Unlike break, the loop doesn't exit completely

Syn:

for/While Loop:
    if Condition:
        Continue

Eg:
```
for i in range(1,10):
    if(i==5):
        continue
    print(i):
```
→ In the If will not print the o/p if satisfies the condition

O/p
```
1
2
3
4
6
7
8
9
```

---

2) WHILE Loop:-

* It is used to repeat a block of code as long as a Give Condition is True.

* It will keep running Untill the Given Conditon becomes false

Syn: Initialization
```
while(Condition):
    # Statement / Code block
    # must Update the Variables Inside,
      otherwise infinite Loop
```

Condition ⇒ Expression that evaluates to True or false

Code block ⇒ Statements that will run repeatedly

* Indentation is most important in python

* If the Condition never becomes false, the Loop will run infinitely

Eg: Simple Counter:

```
i = 1
while i<=5:
    print("No":i)
    i= i+1
```

O/p:-

No: 1
No : 2
No : 3
No : 4
No : 5

INFINTE Loop [with break]

```
count = 1
while True: #runs forever
    print("count:", count)
    if (count == 3):
        break  # stop loop
    count += 1
```

O/p:

count: 1
count : 2
count : 3. (infinite)

---

program to print the value of each position

```
s = 'python'
i = 0
while (i<len(s)):
    print(s[i]) # In these step it is Use to print position by above Condition according to the index value
    i= i+1
```

o/p

p
y
t
h
o
n