<u>Wednesday, Jan 24th 2024</u>
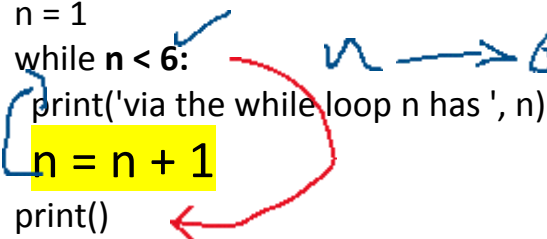
Topics coverage

- <mark>break</mark>
- <mark>continue</mark>
- using str with for loop
- slicing concept for str
- commonly used str methods , len – general method
  upper() , lower() , title()

break is keyword – it break from the body of the loop , the moment the control encounters it
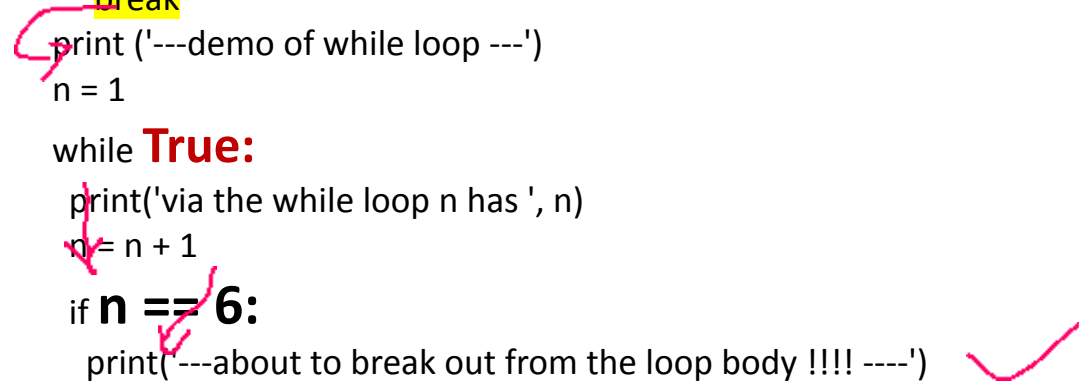
more commonly used in while loop

an example of while loop

```
print ('---demo of for loop ---')
for i in range(1,6):
  print(i)
print ('---demo of while loop ---')
n = 1
while n < 6:
  print('via the while loop n has ', n)
  n = n + 1
print()
print('----outside the BODY of the LOOP ')
```

using break in the loop body

```
print ('---demo of for loop ---')
for i in range(1,10):
  print(i)
  if i == 5:
      print('---about to break out from the FOR loop body !!!! ----')
      break
print ('---demo of while loop ---')
n = 1
while True:
  print('via the while loop n has ', n)
  n = n + 1
  if n == 6:
    print('---about to break out from the loop body !!!! ----')
```

```
    break
 print()
 print('----outside the BODY of the LOOP ')

 role of continue in the loop
 when the control encounters continue – the statement BELOW the continue is SKIPPED
 (not executed)
 and the control GOES BACK to the LOOP condition

 '''

 sum all the numbers which are divisble by 5 and 6 processing
 in SOME range
 count 5 such numbers and BREAK out of the loop
 '''

 n = 195
 c = 0
 total =0
 while True:
    n = n + 1
    if not (n%5 == 0 and n %6==0):
       continue

    print(n)
    total = total + n
    c = c + 1
    if c == 7:
       break
 print()
 print('---outside the loop ---')
```
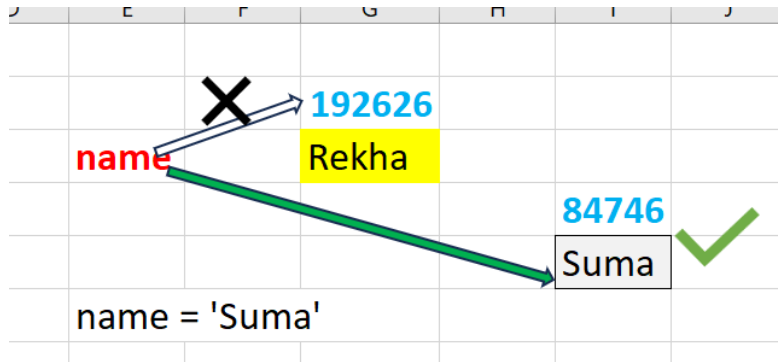
```
print ('total is ',total)
print('count is ',c)
print ('---without break or continue ----')
n = 195
c = 0
total =0
while c != 7:
    n = n + 1
    if (n%5 == 0 and n %6==0):
        print(n)
        total = total + n
        c = c + 1
print('---outside the loop ---')
print ('not using break/continue ..... total is ',total)
print('not using break/continue .....  count is ',c)
```

str

str is **IMMUTABLE** - NOT CHANGEABLE once created
name = 'Rekha'
name = 'Suma'

name = 'Suma'

city = 'BANGALORE'

0	1	2	3	4	5	6	7	8
B	A	N	G	A	L	O	R	E

print(city[**3**])
'G'

city = 'BaNGaLORE'
print(city[3])
print('------------------------')
for i in city:
  if i == 'a':
    print('yes a is there ',i)

find out how many char are there in the string?
i.e finding the length of the str
how = len(city)
print('length of the string is ',how)

len() – can NEVER return a NEGATIVE NUMBER !!!
len() could return 0

```
city = 'BANGALORE'
how = len(city)
print('length of the string is ',how)
print ('using the combo of range() and len and for loop ')
for j in range(0,how,1):
  print(city[j],end='')
print()
for q in range(how-1,-1,-1):
  print(city[q],end='')
```

====output=====
length of the string is 9
using the combo of range() and len and for loop
BANGALORE
EROLAGNAB

Qs) an error got…
IndexError: string index out of range

Why>
Answer trying to access a str member which is NOT in the INDEX range of the str variable

str slicing

range(start,end,step)

city[start:end:step]

city[0::1] from beg to end – process **all the** chars

city[3:6:1] from 3 start processing , stop when you reach 6
(will not print the char at index position 6) print till index pos 5 ONLY

city[:4:1] from 0 start processing , stop when you reach 4

city[::-1] …reverse the string

I wish to find a word in a sentence
How to do this ???
Use in operator – which tells True OR False

```
c1 = input('Please enter the persons name ... ')
n1 = 'Ashok,Jaya,Hari,Shankar,Ravi,Vinod,Vijaya,Ganesh,Vijay,Anitha,Xavier,Patrick'
if c1 in n1:
    print('yes he is in my friend\'s list')
else:
    print('i donot ',c1)
```

```python
if str(10) in str(9501030):
  print('yes via str ')
else:
  print('no')
print('--------------')
if '10' in '9501030':
  print('yes via quotes' )
else:
  print('no')
```

common str methods

```python
name = 'issAC VIViaN ALExanDer RicHarDs'
name.upper()
'ISSAC VIVIAN ALEXANDER RICHARDS'
name.lower()
'issac vivian alexander richards'
name.title()
```

'Issac Vivian Alexander Richards'
name
'issAC VIViaN ALExanDer RicHarDs'

====useful code =====

```
c=0
while True:
  name = input('enter name or type QUIT to STOP ')
  if name.upper() == 'QUIT':
    break
  print (name.title())
  c =c + 1
print()
print ('number of names inputted is ',c)
```