23-09-25

1. forloop inside While loop:

Syn:-
   while Condition:
              // state 1 code
              for i in range (start, end):
                  // inner code.

here
      While => Control outer loop (until the
                                   Condition becomes
                                        false)
      for => loops runs completely to each
                              round of while loop.

Eg:
1. Printing No in Groups: -

   P = 1
   while P <= 2
          print ("Gr", i)
          for j in range (1, 3):
                 print (" No:" j)
          P += 1.

O/P
      Gr 1
         No: 1
         No = 2

      Gr 2
         No: 1
         No- 2 //

) Star pattern:-

```
row = 1
    while (row <= 5)
        for col in range (row):
            print ("*", end = " ")
        print ()
        row + = 1
```

O/p

```
*
* *
*  *  *
*  *  *  *
*  *  *  *  *
```

3.

```
*  *    *    *  *
*              *
*              *
*              *
*  *   *   *   *
```

```
i = 1
while i <= 5:
    for j in range (1,6,1):
        if (i == 1 or i == 5 or j == 1 or j == 5):
            print ("*", end = " ")
        else:
            print (" ", end " ")
    print ()
    i = i + 1
//
```

2. While loop Inside for loop.

Syn:

```
for var in range (start, end):
    # code
    while condition
        # inner code.
```

-* for loop => runs for fixed No. of times

-* Inside each for cycle, the while loop keeps running until the condition becomes false

Eg:- countdown for each round:

```
for round in range (1, 3).
    print ("Round", round)

    count = 2
        while count > 0:
            Print (" Countdown:", count)
            count = count - 1
```

o/p:

Round 1

    Countdown : 2
    Count down = 1

Round 2

    Countdown : 2
    Countdown : 1