

Day - 13

23/09/2025

- Syntax for while loop inside for loop

for var in range(): # outer loop

initialization of while

while (condition): # inner loop

Statements of while loop

inc/dec of while loop

Statement of for loop

- Pattern:

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

```
for i in range(1,6,1):
```

```
    j=5
```

```
    while j>i:
```

```
        print(" ",end=" ")
```

```
        k=1 j=j+1
```

```
    while k<=i:
```

```
        print(k,end=" ")
```

```
        k=k+1
```

```
    print()
```

```
for i in range(4,0,-1):
```

```
    j=5
```

```
    while j>i:
```

```
        print(" ",end=" ")
```

```
        j=j+1
```

```
    k=1
```

```
    while k<=i:
```

```
        print(k,end=" ")
```

```
        k=k+1
```

```
    print()
```

- Syntax of for loop inside while loop

Initialization of while loop

while (condition): # outer loop

for var in range():

Statements of for loop

Statements of while loop

inside of while loop

-  $i = 1$

num = 2

while  $i \leq 5$ :

for j in range(1, i+1, 1):

print(num, end=" ")

num = num + 2

print()

$i = i + 1$

O/P:-

2 4

6 8

10 12 14

16 18 20 22

24 26 28 30