### **Cheat Sheet**

# **Nested Loops**

An inner loop within the repeating block of an outer loop is called Nested Loop.

The **Inner Loop** will be executed one time for each iteration of the **Outer Loop**.

```
Block 1

for item in sequence B:

For item in sequence B:

Block 2

Block 3

Block 4
```

Code

**PYTHON** 

```
for i in range(2):
print("Outer: " + str(i))
for j in range(2):
print(" Inner: " + str(j))
```

#### Output

Outer: 0
Inner: 1
Outer: 1
Inner: 0
Inner: 1

## **Nested Repeating Block**

The one highlighted in the blue dotted line is the **repeating** block of the inner loop.

```
Block 1

for item in sequence B:

Block 2

Block 3

Block 4

Outer Loop

Block 1

Inner Loop

Repeating Block

Block 4
```

Code

**PYTHON** 

```
1 for i in range(2):
2  print("Outer: " + str(i))
3  for j in range(2):
4  print("Inner: " + str(j))
5  print("END")
```

In the above example, the below line is the repeating block of the nested loop.

Code

**PYTHON** 

```
1 print()" Inner: " + str(j)()
```

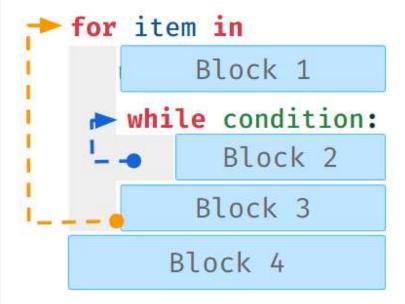
#### Output

Outer: 0
Inner: 0
Inner: 1
Outer: 1
Inner: 0
Inner: 1

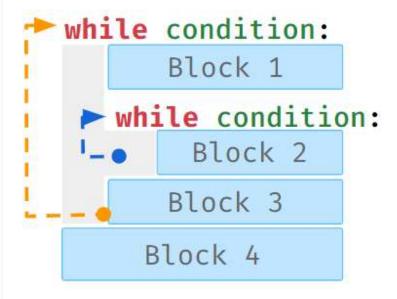
**END** 

### **Examples - Nested Loops**

**Example - 1**: While loop inside a For loop



**Example - 2**: While loop inside a while loop



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