

Nested loops in Python

A **nested** loop is a loop that runs inside another loop. The **outer** loop has a set number of iterations, for each of these iterations the **inner** loop executes its iterations.

```
for x in range(3):
    for y in range(1, 11):
        print(y, end=" ")
    print() # <-- Start a new line Outer Loop
```

Exercise:

Write code to ask a user for the dimensions of a rectangle, then print it out using a user defined character.

Solution:

```
length = int(input("Enter the length of your rectangle: "))
width = int(input("Enter the width of your rectangle: "))
symbol = input("Enter the symbol to draw your rectangle: ")

for i in range(length):
    for j in range(width):
        print(symbol, end="")
    print()
```

Output:

```
Enter the length of your rectangle: 2
Enter the width of your rectangle: 40
Enter the symbol to draw your rectangle: #
#####
#####
```