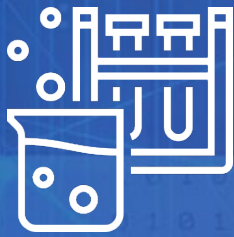


Lab Assignment & Solution



Cybersecurity Professional Program
Introduction to Python
for Security

Loops

PY-03-LS3

Loops and Conditions

Note: Solutions for the instructor are shown inside the green box.



Lab Objective

Understand different ways to work with *while* loops to control the program flow.



Lab Mission

Practice how to create code using while loops and conditions.



Lab Duration

20 – 30 minutes



Requirements

- Basic knowledge of loops and conditions.



Resources

- Environment & Tools
 - Windows, Linux, MacOS
 - Python 3
 - PyCharm



Textbook References

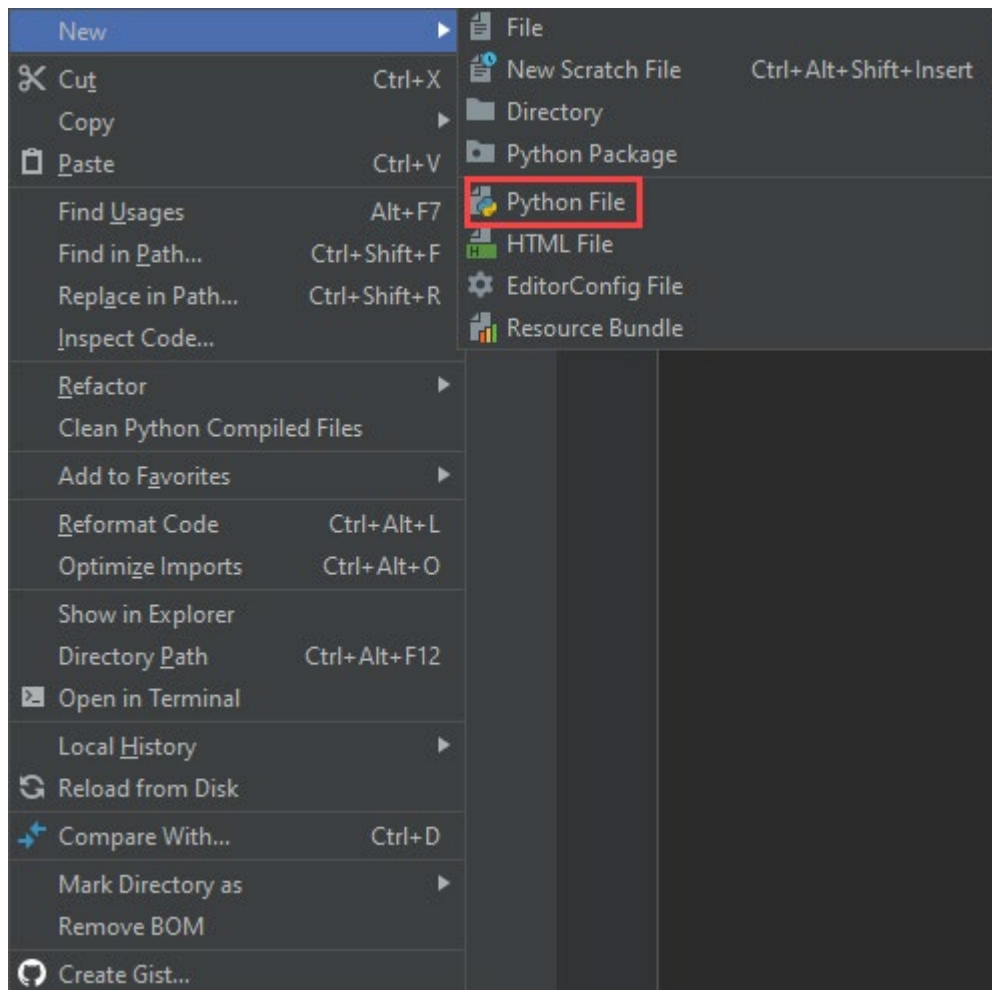
- Chapter 3: Loops
 - Section 1: For & While

Lab Task: While Loops and Conditions

In this lab task, you will continue to practice how to work with **while** loops and conditions, such as **if-else**, in loops.

- 1 Create a new Python file in PyCharm.

Right-click the project you created previously, and select **New** → **Python File**.



- 2 Create a variable to be used as a counter and set its value to zero, since it will be the counter's starting point.

```
counter = 0
```

- 3 Create a **while** loop with a condition that checks if the counter's value is less than 10.

```
counter = 0

while counter < 10:
```

- 4 In the loop, add +1 to the counter with each iteration.

```
counter = 0

while counter < 10:
    counter += 1
```

- 5 Create an **if** statement that checks if the counter equals 6.

```
counter = 0

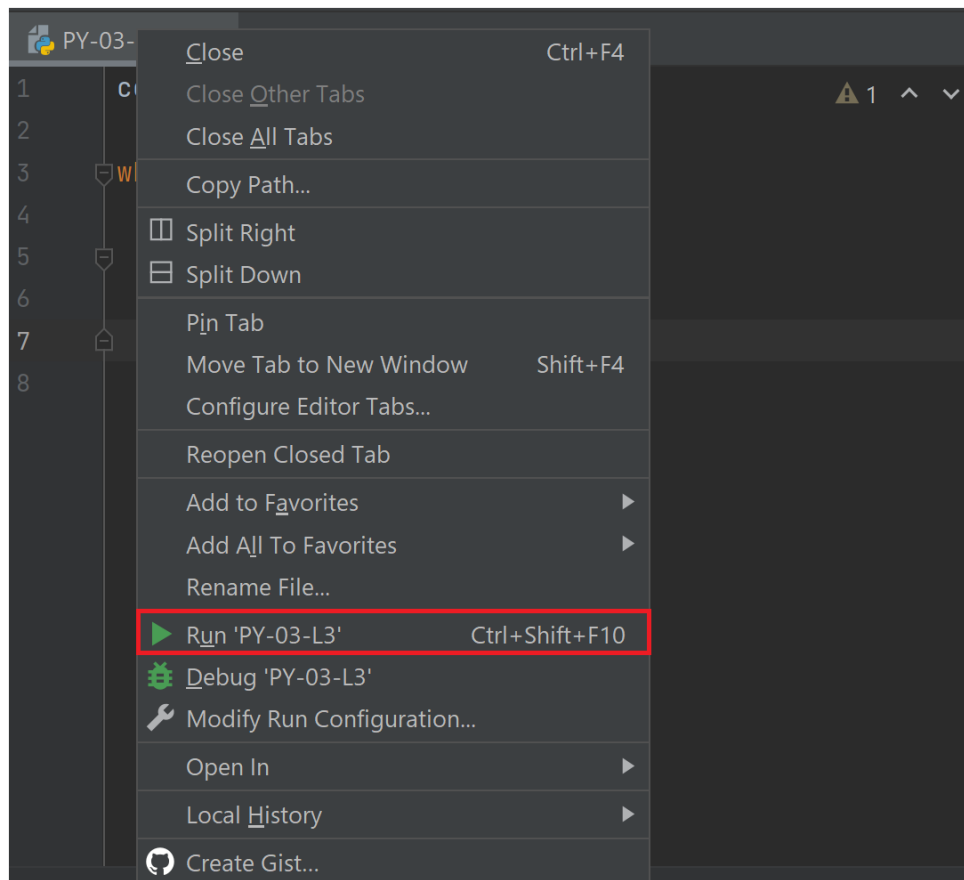
while counter < 10:
    counter += 1
    if counter == 6:
```

- 6 If the counter equals 6, print "Found", and exit the **while** loop.

```
counter = 0

while counter < 10:
    counter += 1
    if counter == 6:
        print("Found!")
        break
```

- 7 Right click the file of the lab and execute the Run "File name."



8 The result of the following program should appear.

```
Found!  
  
Process finished with exit code 0
```

- 9 If the counter does not equal 6, use an *else* statement to print “Check” and the current value.

```
counter = 0

while counter < 10:
    counter += 1
    if counter == 6:
        print("Found!")
        break
    else:
        print("Check {}".format(counter))
```