

Lab 3: Python Loops – For and While

Learning Objectives

- Use while and for loops to repeat actions.
 - Apply range() to control loop iterations.
 - Use break, continue, and else in loops.
 - Understand the difference between definite and indefinite loops.
-

Lab Tasks

Task 1: While Loop Countdown

Write a program that counts down from 5 to 1 using a while loop.

- Print each number.
 - After the loop ends, print "Blastoff!".
-

Task 2: For Loop with Range

Write a program using a for loop and `range()` to print:

```
The number is: 0  
The number is: 1  
The number is: 2  
The number is: 3  
The number is: 4  
The number is: 5
```

Task 3: Skip a Value with Continue

Write a program that prints numbers from 1 to 5, but skips 3 using the `continue` statement.

Expected output:

```
1  
2  
4  
5
```

Task 4: For Loop with List

Use a for loop to print each item in the list:

```
["Python", "Math", "English", "History", "Physics"]
```

Expected output:

```
Study Python
```

Study Math

Study English

Study History

Study Physics

Task 5: While Loop with Break

Write a program using a while loop that prints numbers starting from 1.

- Stop the loop when the number reaches 3 using break.
- Print each number before breaking.