

Lab Work

Basic Task: Write a for loop to print the first 10 natural numbers

This task prints natural numbers from 1 to 10 using a `for` loop and the `range`

```
for i in range(1, 11):  
    print(i)
```

Intermediate Task: Write a while loop that prints numbers from 10 down to 1

This task uses a `while` loop to count down from 10 to 1 by decreasing the value

```
i = 10  
  
while i >= 1:  
    print(i)  
    i -= 1
```

Advanced Task: Create a program that uses a for loop to iterate over a string and

This program goes through each character in the string and checks if it's a vowel

```
text = "Programming is fun"  
  
vowels = "aeiouAEIOU"  
  
count = 0
```

```
for char in text:
    if char in vowels:
        count += 1

print("Number of vowels:", count)
```

Challenge Task: Write a program that prints the Fibonacci series up to n terms

The Fibonacci series starts with 0 and 1, and each new number is the sum of the

```
n = 10

a, b = 0, 1

count = 0

while count < n:
    print(a)
    a, b = b, a + b
    count += 1
```