M.Ibrahim Tariq BIT-23F-054. Lab No 6

Python Loop Tasks

1. Basic Task: For loop to print the first 10 natural numbers

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for i in range(1, 11):

print(i)

Output:

1

2

3

4

5

6

7

8

9

10

2. Intermediate Task: While loop that prints numbers from 10 down to 1

----------------------------------------------------------------------

num = 10

while num >= 1:

print(num)

num -= 1

Output:

10

9

8

7

6

5

4

3

2

1

3. Advanced Task: Count the number of vowels in a string

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text = "Hello World"

vowels = "aeiouAEIOU"

count = 0

for char in text:

if char in vowels:

count += 1

print("Number of vowels:", count)

Output:

Number of vowels: 3

4. Challenge Task: Fibonacci series up to n terms using a while loop

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n = 10

a, b = 0, 1

count = 0

while count < n:

print(a)

a, b = b, a + b

count += 1

Output:

0

1

1

2

3

5

8

13

21

34