Lab#03 Recursion SSUET/QR/114

**LAB # 03**

**RECURSION**

**OBJECTIVE:** To understand the complexities of the recursive functions and a way to reduce these complexities.

# LAB TASK

1. Write a program which takes an integer value (k) as input and prints the sequence of numbers from k to 0 in descending order.

CODE:

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OUTPUT:

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2.Write a program to reverse your full name using Recursion.

CODE:

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OUTPUT:

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3.Write a program to calculate the sum of numbers from 1 to N using recursion. N should be user input.

CODE:

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OUTPUT:

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4. Write a recursive program to calculate the sum of elements in an array.

CODE:

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OUTPUT:

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1. Write a recursive program to calculate the factorial of a given integer n

CODE:

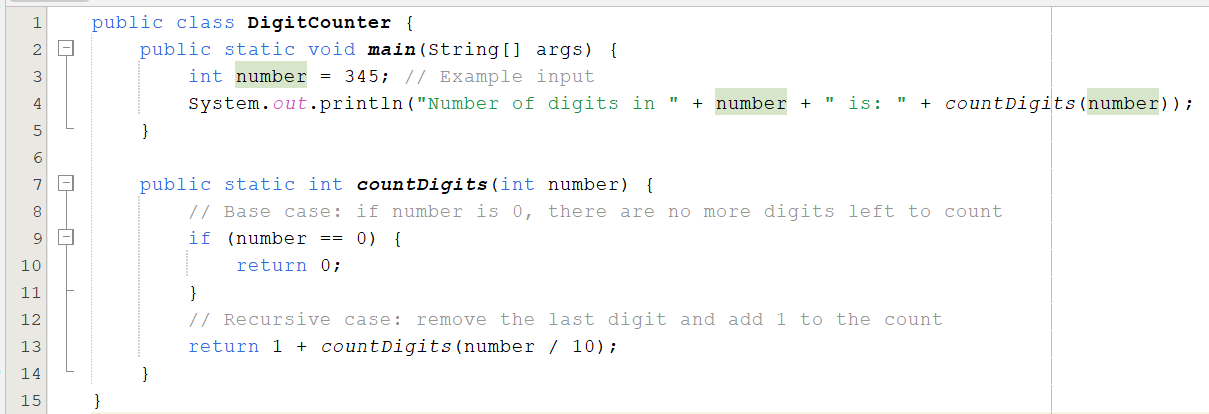
|  |
| --- |
|  |

OUTPUT:

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1. Write a program to count the digits of a given number using recursion.

CODE:



OUTPUT:

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# 

# 

# HOME TASK

1. Write a java program to find the N-th term in the Fibonacci series using Memoization.

CODE:

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OUTPUT:

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1. Write a program to count the digits of a given number using recursion.

CODE:

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OUTPUT:

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1. Write a java program to check whether a given string is a palindrome or not. A palindrome is a string that reads the same forwards and backwards.Print "YES" if the string is a palindrome, otherwise print "NO".

CODE:

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OUTPUT:

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1. Write a recursive program to find the greatest common divisor (GCD) of two numbers using Euclid's algorithm.

CODE:

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OUTPUT:

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