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DOCUMENTATION

Documentation for Counting the
Number of Digits in an Integer

Introduction to Programing using c

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QUESTION - II

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CODE OVERVIEW

This c program calculates and displays the number of digits in an integer number entered by the user.

- Two integer variables 'n' and 'c' are declared. 'n' is used to store the user's input integer, while 'c' will store the count of digits in that integer.
- The user enter an integer number through the message: "Enter an integer number: ".
- The program reads the user's input and stores it in the variable 'n' using the 'scanf' function.
- It checks 'if the input number is negative'. If it is, the program makes it positive by taking its absolute value using the '-n operation'.

↪ Next, the program checks “if the input number is zero”. If it is, it sets the digit count ‘c to 1’, as zero has only one digit.

↪ “If the input number is greater than zero”, the program enters a loop to count the digits. It repeatedly divides the number by ‘10’, removing the rightmost digit, and increments the count ‘c’ until the number becomes zero.

↪ Finally, the program displays the count of digits in the input number with the message "Number of digits: " followed by the value of ‘c’.

TEST CASE

Following test case given in Question

Case1:- 25: 2 digits

```
Enter an integer number: 25  
Number of digits: 2
```

Case2:- 546: 3 digits

```
Enter an integer number: 546  
Number of digits: 3
```

Case3:- -5789: 4 digits

```
Enter an integer number: -5789  
Number of digits: 4
```

Case4:- 0: 1 digit

```
Enter an integer number: 0  
Number of digits: 1
```

Case5:- 7: 1 digit

```
Enter an integer number: 7  
Number of digits: 1
```

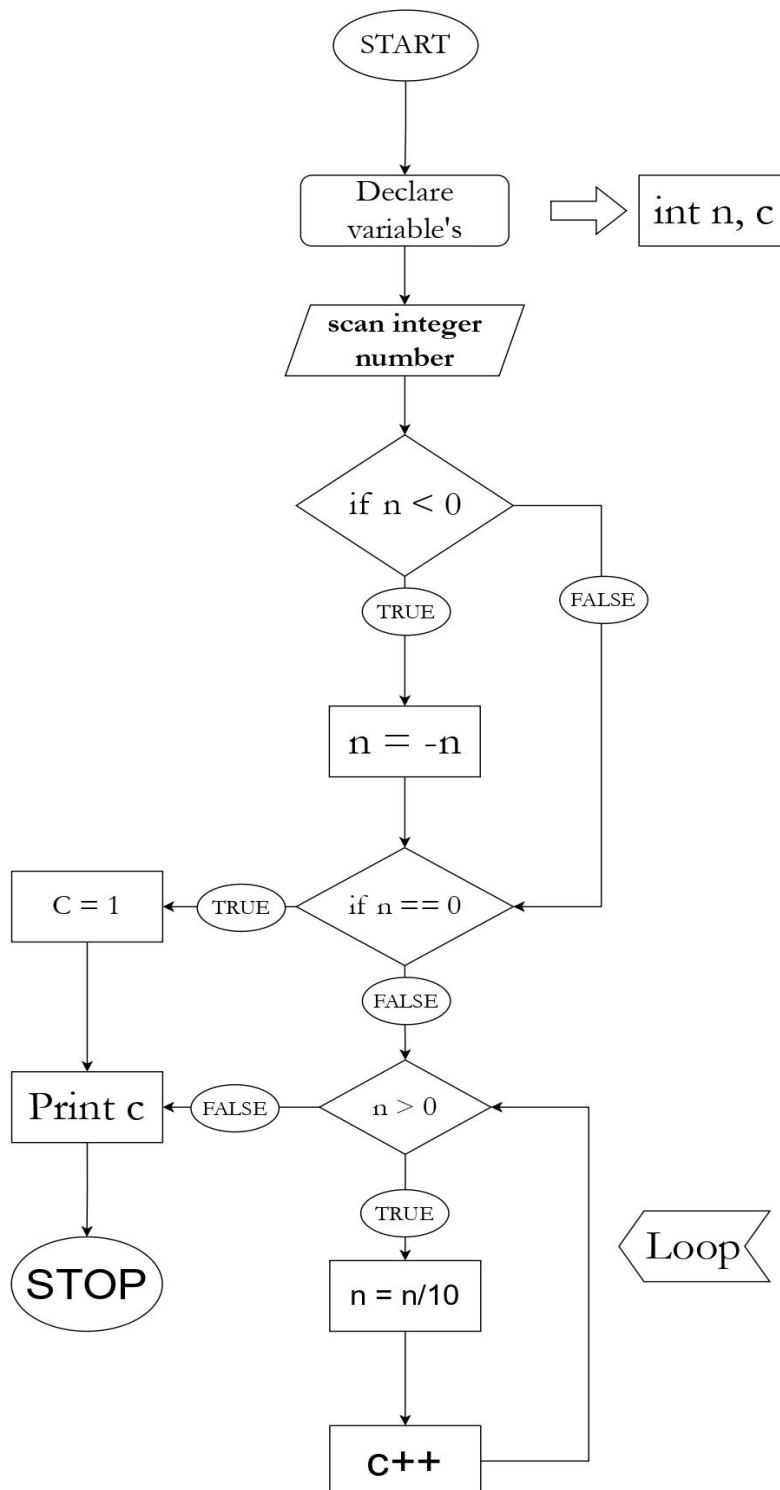
Case6:- 001: 1 digit

```
Enter an integer number: 001  
Number of digits: 1
```

Case7:- 100: 3 digits

```
Enter an integer number: 100  
Number of digits: 3
```

FLOWCHART



THANKYOU

