# For While Do while Break Continue Assignment

1. WAP to read a number n and to display the cumulative sum of factorial of all numbers upto n . (use for or while)

Input: 4

Output: 4!+3!+2!+1! = 32

ANS:

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1. Write a program to accept “N” integers from the user. “N” also has to be taken from the user. Take the count of +ve numbers, -ve numbers and 0’s.

However the program should not accept a non-integer value. If a non-integer value is entered, used must be asked to re-enter.

[Hint:

* 1. Use the return value of scanf to find out whether the user has entered integer or not.
  2. You also will have to clear the input buffer before taking the next input.

For clearing the input buffer, use one of the following approaches

* while (getchar() != '\n'); // keep reading till newline and discard the characters
* scanf(“%\*s”); // read and discard one string

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1. Write a program to continuously read a string of maximum length 80 chars, End the program if string is END, else convert to upper case, display and continue. (use while)

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1. Refer the program “value\_out\_of\_domain.c”. Try to run the program with a large value say 255. Check the output? Is it correct? Fix the issue observed.

What improvements do you suggest?

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1. Refer the code below. It does not output anything. Fix it.

#include <stdio.h>

int main()

{

int x = 5;

while (x > 0);

{

printf( "Value of x :%d \n", x);

x--;

}

return 0;

}

The issue in this code was the semicolon after the while condition, This caused the loop body to be skipped

Removing the semicolon fixes the issue

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1. Analyse the code, identify the issues

#include <stdio.h>

int main()

{

float cnt = 0, num = 1000;

do

{

printf ("\n%d\n%d", num,cnt);

num /= cnt;

} while (cnt --); /\* End of while \*/

return 0;

}

The initial value of cnt is , but in the first iteration of the loop, num is divided by cnt, which leads to division by zero.

The while condition is cnt--, this means cnt is decremented before being checked in the condition.

Since cnt starts at 0, it immediately becomes -1 in the first iteration.

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