# 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

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

A computer screen with colorful text

Description automatically generated

Output:

A black background with white text

Description automatically generated

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

]

A screen shot of a computer program

Description automatically generated

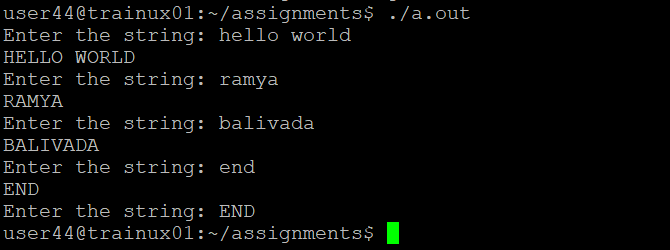
A screenshot of a computer

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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)

A computer screen shot of code

Description automatically generated

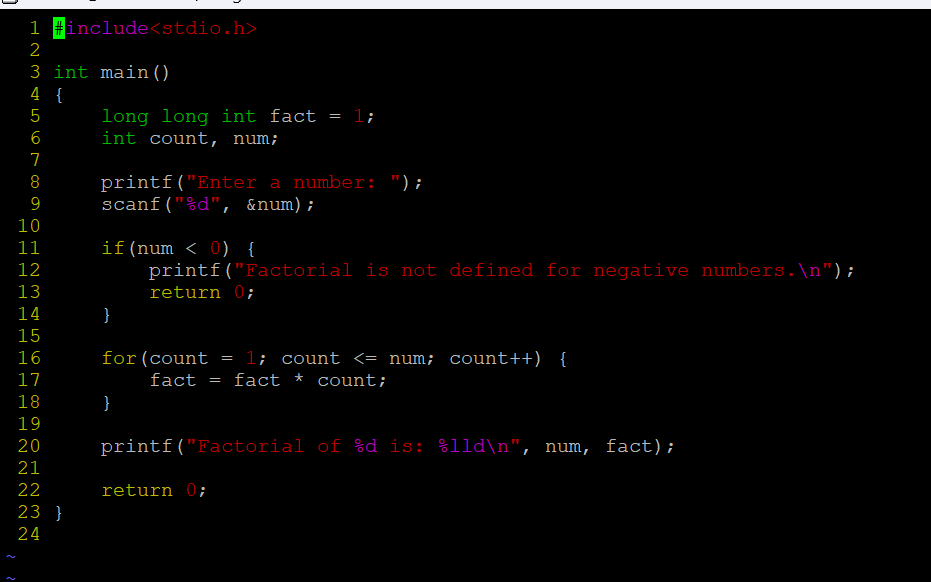


1. Refer the program “value\_out\_of\_domain.c”. Try to run the program with a large value say 255. Check the output? Is it correct? Fix the issue observed.

What improvements do you suggest?

Ans) Improvements:

1. long long int: This type allows for a much larger range of values (usually 64-bit).
2. Handling negative inputs: Factorial is not defined for negative integers, so we check for negative numbers at the start.
3. %lld format specifier: To print long long int values, use %lld in printf.



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;

}

A computer screen with text on it

Description automatically generated

Output:

A black screen with white text

Description automatically generated

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;

}

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