Sam Graham

P3 – COP 1220

9/13/2018

**Program 1: Convert Inches to Centimeters**

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This program converts inches to centimeters. There is no data verification and it is vulnerable to overflow.

Written by: Sam Graham on 8/13/2019

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#include <stdio.h>

int main()

{

int inches;

int centimeters;

int centimetersRemainder; //kept everything as integers to maintain higher level of accuracy

printf("This program converts inches to centimeters.\n");

printf("Using whole numbers, please tell me the amount of inches you would like to convert: \a");

scanf("%d", &inches);

centimeters = inches \* 254; //actual calculation is 2.54, didn't want a float or a double in this code.

centimetersRemainder = centimeters % 100; //making sure we don't lose data by dividing integers

printf("%d inches is %d.%d centimeters", inches, centimeters/100, centimetersRemainder);

return 0;

}

**Output:**

This program converts inches to centimeters.

Using whole numbers, please tell me the amount of inches you would like to convert: 27

27 inches is 68.58 centimeters

**Program 2: Convert Numeric Input to the Corresponding ASCII Character**

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This program asks for the user to input a character and responds with the corresponding ASCII decimal number. Then it asks for a number between 0-127 (only ones I could verify with the chart that was given and provides the corresponding character. There is no data validation in this code.

Written by: Sam Graham on 9/13/2018

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#include <stdio.h>

int main()

{

char asciiCharacter;

int asciiNumber;

printf("Enter a character and I will give you its ASCII Code: \a");

scanf("%c", &asciiCharacter);

printf("%c is %d in the ASCII Code\n\n", asciiCharacter, asciiCharacter);

printf("Now give me a number between 0 - 127 and I will give its ASCII character value: \a");

scanf("%d", &asciiNumber);

printf("%d is %c in ASCII Code.\n", asciiNumber, asciiNumber);

return 0;

}

**Output:**

Enter a character and I will give you its ASCII Code: r

r is 114 in the ASCII Code

Now give me a number between 0 – 127 and I will give its ASCII character value: 84

84 is T in ASCII Code.