**Objective**

This challenge will help you to learn how to take a character, a string and a sentence as input in C.

To take a single character  as input, you can use scanf("%c", &ch ); and printf("%c", ch)writes a character specified by the argument char to stdout

char ch;

scanf("%c", &ch);

printf("%c", ch);

This piece of code prints the character .

You can take a string as input in C using scanf(“%s”, s). But, it accepts string only until it finds the first space.

In order to take a line as input, you can use scanf("%[^\n]%\*c", s); where  is defined as char s[MAX\_LEN] where MAX\_LEN is the maximum size of . Here, [] is the scanset character. ^\n stands for taking input until a newline isn't encountered. Then, with this %\*c, it reads the newline character and here, the used \* indicates that this newline character is discarded.

**Note:** After inputting the character and the string, inputting the sentence by the above mentioned statement won't work. This is because, at the end of each line, a new line character (\n) is present. So, the statement: scanf("%[^\n]%\*c", s); will not work because the last statement will read a newline character from the previous line. This can be handled in a variety of ways and one of them being: scanf("\n"); before the last statement.

#include <stdio.h>

#include <string.h>

#include <math.h>

#include <stdlib.h>

int main() {

char ch;

char s[20], sen[100];

scanf("%c", &ch);

scanf("%s", s);

scanf("\n");

scanf("%[^\n]%\*c", sen);

printf("%c\n", ch);

printf("%s\n", s);

printf("%s\n", sen);

return 0;

}

Read Integers and Float and print their sum and difference.

#include <stdio.h>

#include <string.h>

#include <math.h>

#include <stdlib.h>

int main()

{

    int a,b;

float c,d;

scanf("%d%d",&a,&b);

printf("%d ",a+b);

printf("%d\n",a-b);

scanf("%f%f",&c,&d);

printf("%.1f ",c+d);

printf("%.1f",c-d);

return 0;

}