LAPORAN PRAKTIKUM
PEMROGRAMAN TERSTRUKTUR
PRAKTIKUM I – PENDAHULUAN
KELAS B

Disusun Oleh:

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LABORATURIUM KOMPUTASI

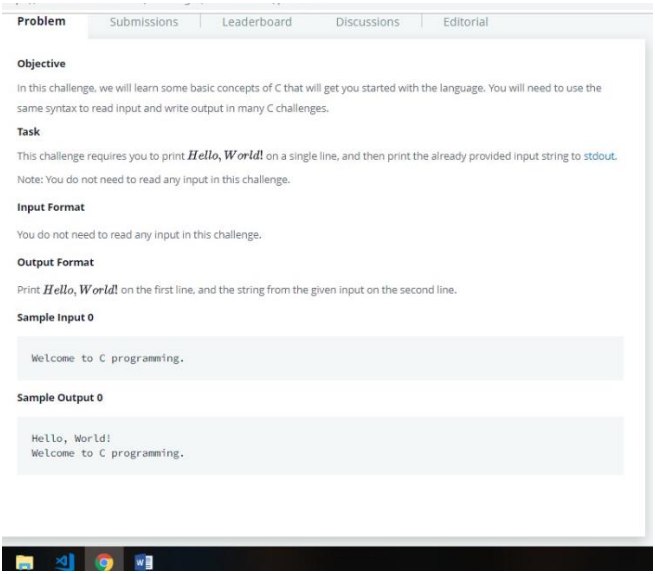
JURUSAN FISIKA

FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM

UMIVERSITAS BRAWIJAYA

2019

A. Tugas 1



Problem | Submissions | Leaderboard | Discussions | Editorial

Objective

In this challenge, we will learn some basic concepts of C that will get you started with the language. You will need to use the same syntax to read input and write output in many C challenges.

Task

This challenge requires you to print *Hello, World!* on a single line, and then print the already provided input string to stdout.

Note: You do not need to read any input in this challenge.

Input Format

You do not need to read any input in this challenge.

Output Format

Print *Hello, World!* on the first line, and the string from the given input on the second line.

Sample Input 0

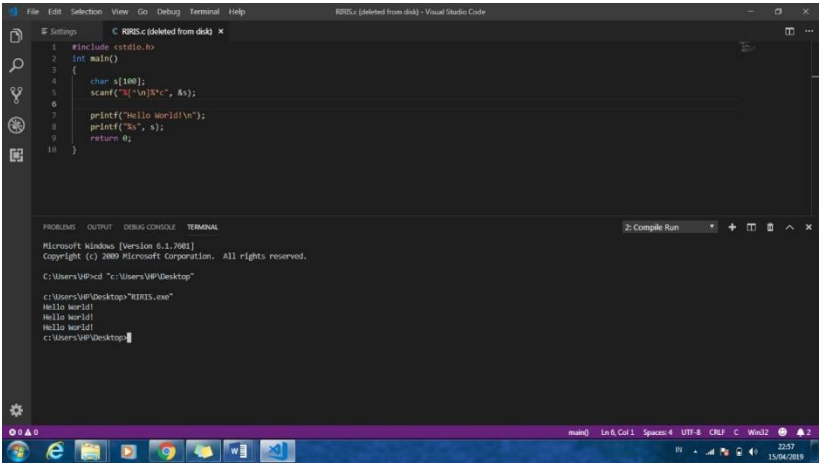
```
Welcome to C programming.
```

Sample Output 0

```
Hello, World!
Welcome to C programming.
```

Jawaban:

Kode Program 1



```
#include <stdio.h>
int main()
{
    char s[100];
    scanf("%[^\n]%*c", &s);

    printf("Hello World!\n");
    printf("%s", s);
    return 0;
}
```

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\HP>cd "c:\Users\HP\Desktop"

c:\Users\HP\Desktop>"RIRIS.exe"
Hello World!
Hello World!
Hello World!
c:\Users\HP\Desktop>
```

Penjelasan

Pada tugas-1 diberikan perintah untuk membuat output berdisplay *'Hello World!'* dan ketika dijalankan maka akan tampil output *Hello World!*

B. Tugas 2

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 ***ch*** 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 ***ch***.

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 ***s*** is defined as `char s[MAX_LEN]` where ***MAX_LEN*** is the maximum size of ***s***. 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.

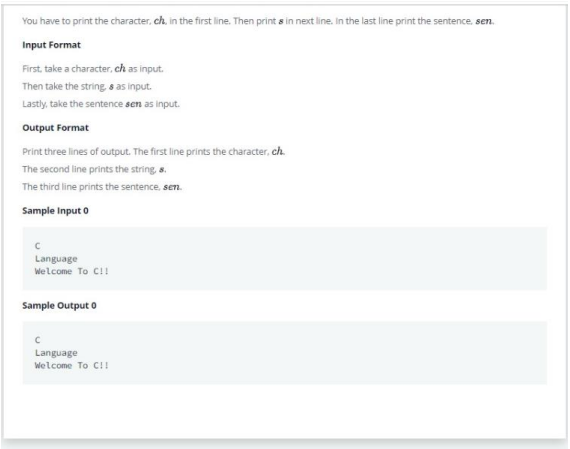
Note: After inputting the character and the string, inputting the sentence by the above mentioned statement won't work. This is because, at the end of each line, a new line character (\n) is present. So, the statement: `scanf("%[^\n]%*c", s);` will not work because the last statement will read a newline 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.

Task

You have to print the character, ***ch***, in the first line. Then print ***s*** in next line. In the last line print the sentence, ***sen***.

Input Format

First, take a character, ***ch*** as input.
Then take the string, ***s*** as input.
Lastly, take the sentence ***sen*** as input.



You have to print the character, ***ch***, in the first line. Then print ***s*** in next line. In the last line print the sentence, ***sen***.

Input Format

First, take a character, ***ch*** as input.
Then take the string, ***s*** as input.
Lastly, take the sentence ***sen*** as input.

Output Format

Print three lines of output. The first line prints the character, ***ch***.
The second line prints the string, ***s***.
The third line prints the sentence, ***sen***.

Sample Input 0

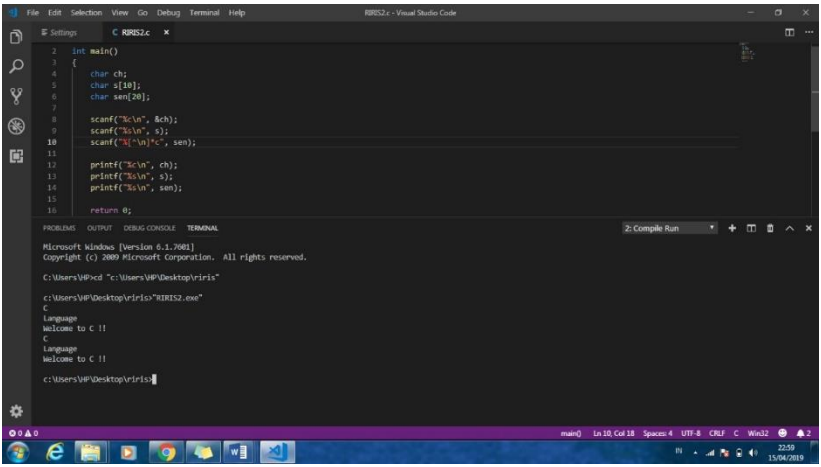
```
C
Language
Welcome To C!!
```

Sample Output 0

```
C
Language
Welcome To C!!
```

Jawaban

Kode Program 2



Penjelasan

Pada tugas-2 diberikan perintah output print karakter ch, s, dan sen pada tiga line yang berbeda. Dimana input yang dimasukkan adalah

C

Language

Welcome to C!!

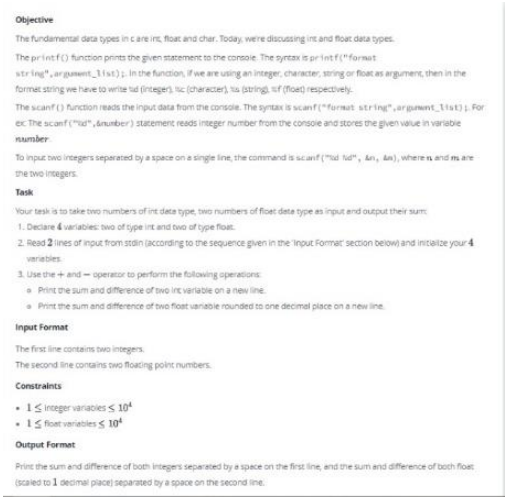
ketika dijalankan pada *command window* maka akan ditampilkan *output*

C

Language

Welcome to C!!

C. Tugas 3



Objective

The fundamental data types in c are int, float and char. Today, we're discussing int and float data types.

The `printf()` function prints the given statement to the console. The syntax is `printf("format string",argument_list);`. In the function, if we are using an integer, character, string or float as argument, then in the format string we have to write %d (integer), %c (character), %s (string), %f (float) respectively.

The `scanf()` function reads the input data from the console. The syntax is `scanf("format string",argument_list);`. For ex: The `scanf("%d",&number)` statement reads integer number from the console and stores the given value in variable `number`.

To input two integers separated by a space on a single line, the command is `scanf("%d %d", &n, &m)`, where `n` and `m` are the two integers.

Task

Your task is to take two numbers of int data type, two numbers of float data type as input and output their sum:

1. Declare **4** variables: two of type int and two of type float.
2. Read **2** lines of input from stdin (according to the sequence given in the 'Input Format' section below) and initialize your **4** variables.
3. Use the + and − operator to perform the following operations:
   - Print the sum and difference of two int variable on a new line.
   - Print the sum and difference of two float variable rounded to one decimal place on a new line.

Input Format

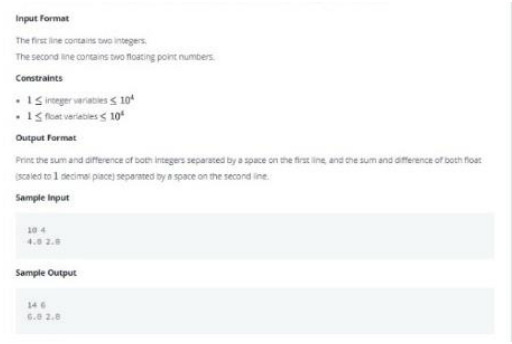
The first line contains two integers.
The second line contains two floating point numbers.

Constraints

- $1 \leq$ integer variables $\leq 10^4$
- $1 \leq$ float variables $\leq 10^4$

Output Format

Print the sum and difference of both integers separated by a space on the first line, and the sum and difference of both float (scaled to 1 decimal place) separated by a space on the second line.



Input Format

The first line contains two integers.
The second line contains two floating point numbers.

Constraints

- $1 \leq$ integer variables $\leq 10^4$
- $1 \leq$ float variables $\leq 10^4$

Output Format

Print the sum and difference of both integers separated by a space on the first line, and the sum and difference of both float (scaled to 1 decimal place) separated by a space on the second line.

Sample Input

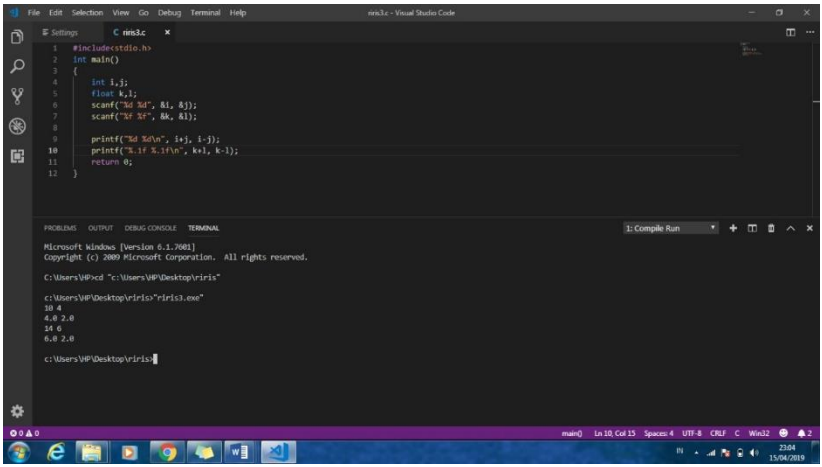
```
10 4
4.0 2.0
```

Sample Output

```
14 6
6.0 2.0
```

Jawaban:

Kode Program 3



Penjelasan

Pada tugas-3 diberikan perintah untuk mendeklarasikan 4 variabel dimana 2 integer dan 2 float. Kemudian, dibuat program dimana masing-masing variable saling menambahkan dan mengurangi satu sama lain.