

Week 1 – 1:

--Coding-C-Language Features-Optional.

ROLL NO.:240801152

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Attempt 1

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|------------------|------------------------------------|
| Status | Finished |
| Started | Monday, 23 December 2024, 5:33 PM |
| Completed | Thursday, 10 October 2024, 9:38 AM |
| Duration | 74 days 7 hours |

Review

Q1) This is a simple challenge to help you practice printing to stdout.

We're starting out by printing the most famous computing phrase of all time! In the editor below, use either `printf` or `cout` to print the string `Hello, World!` to stdout.

Input Format

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

Output Format

Print `Hello, World!` to stdout.

Sample Output 1

Hello, World!

Code:

```

1  #include <stdio.h>
2  int main()
3  {
4      printf("Hello, World!");
5      return 0;
6  }

```

OUTPUT:

| | Expected | Got | |
|---|---------------|---------------|---|
| ✓ | Hello, World! | Hello, World! | ✓ |

Passed all tests! ✓

Q2) 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`. Task You have to print the character, `ch`.

Input Format Take a character, `ch` as input.

Output Format Print the character, `ch`

Code:

```
1 #include <stdio.h>
2 int main()
3 {
4     char ch;
5     scanf("%c",&ch);
6     printf("%c",ch);
7     return 0;
8 }
```

OUTPUT:

| | Input | Expected | Got | |
|---|-------|----------|-----|---|
| ✓ | C | C | C | ✓ |

Passed all tests! ✓

Q3) Problem Statement:

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: $1 \leq \text{integer variables} \leq 10^4$, $1 \leq \text{float variables} \leq 10^4$

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

Code:

```
1 #include <stdio.h>
2 int main()
3 {
4     int a,b;
5     float c,d;
6     scanf("%d %d",&a,&b);
7     scanf("%f %f",&c,&d);
8     printf("%d %d\n",a+b,a-b);
9     printf("%.1f %.1f\n",c+d,c-d);
10    return 0;
11 }
```

OUTPUT:

| | Input | Expected | Got | |
|---|-----------------|-------------------|-------------------|---|
| ✓ | 10 4 4.0 2.0 | 14 6 6.0 2.0 | 14 6 6.0 2.0 | ✓ |
| ✓ | 20 8 8.0 4.0 | 28 12 12.0 4.0 | 28 12 12.0 4.0 | ✓ |

Passed all tests! ✓