Pointers in C ★

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C
C language

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Objective

In this challenge, you will learn to implement the basic functionalities of pointers in C. A pointer in C is a way to share a memory address among different contexts (primarily functions). They are primarily used whenever a function needs to modify the content of a variable that it does not own.

In order to access the memory address of a variable, val, prepend it with $\&$ sign. For example, `&val` returns the memory address of val
.

This memory address is assigned to a pointer and can be shared among various functions. For example, $int^*p = \&val$ will assign the memory address of val to pointer p. To access the content of the memory to which the pointer points, prepend it with a `*`. For example, `*p` will return the value reflected by val and any modification to it will be reflected at the source (val).

```
        void increment(int *v) {
        (*v)++;
    }
        int main() {
        int a;
        scanf("%d", &a);
        increment(&a);
        printf("%d", a);
        return 0;
    }
```

Task

Complete the function `void update(int *a,int *b)`. It receives two integer pointers, int* a and int* b. Set the value of a to their sum, and b to their absolute difference. There is no return value, and no return statement is needed.

- $a' = a + b$
- $b' = |a - b|$

Input Format

The input will contain two integers, a and b, separated by a newline.

Output Format

Modify the two values in place and the code stub main() will print their values.

Note: Input/ouput will be automatically handled. You only have to complete the function described in the 'task' section.

Sample Input

```
4
5
```

Sample Output

```
9
1
```

Explanation

- $a' = 4 + 5 = 9$
- $b' = |4 - 5| = 1$

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Difficulty	Easy
Max Score	10
Submitted By	438474

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```
#include <stdio.h>
#include <stdlib.h>

void update(int *a,int *b) {
    // Complete this function
    int A = (*a + *b);
    int B = abs(*a - *b);

    *a = A;
    *b = B;
}

int main() {
    int a, b;
    int *pa = &a, *pb = &b;

    scanf("%d %d", &a, &b);
    update(pa, pb);
    printf("%d\n%d", a, b);

    return 0;
}

```

Line: 23 Col: 1

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