PLACEMENTS KEY'S

Coding Challenge #17 (Question)

Day - 9

Ram wants an application which performs basic maths operations on given two numbers i.e. a calculator which does addition, subtraction, multiplication, division and modulus. Help him develop the calculator.

INPUT FORMAT:

1. 1st line of input takes two integers on which the math operations are to be carried out.

2. 2nd line of input takes operand(+,-,*,/,%)

OUTPUT FORMAT:

Perform the input operation on two given numbers.

SAMPLE INPUT 0:

23 32

+

SAMPLE OUTPUT 0:

55

SAMPLE INPUT 1:

12 2

*****

SAMPLE OUTPUT 1:

24

SAMPLE INPUT 2:

23 3

%

SAMPLE OUTPUT 2:

2

PLACEMENTS KEY'S

Coding Challenge #17 (C Solution)

Day - 9

```c
#include <stdio.h>

int main()
{
	printf("Enter two numbers\n");
	int x,y;
	scanf("%d%d",&x,&y);
	printf("Enter the operation to be performed\n");
	char ch;
	scanf(" %c",&ch);
	switch(ch)
	{
		case '+':{
			printf("%d",x+y);
			break;
		}
		case '-':{
			printf("%d",x-y);
			break;
		}
		case '*':{
			printf("%d",x*y);
			break;
		}
```

PLACEMENTS KEY'S

Coding Challenge #17 (C Solution contd.)

Day - 9

```
case '/':{
                printf("%d",x/y);
                break;
        }
        case '%':{
                printf("%d",x%y);
                break;
        }
        default :
                printf("INVALID OPERATION INITIATED\n");
    }
}
```

PLACEMENTS KEY'S

Coding Challenge #17 (JAVA solution)

Day - 9

```
import java.util.*;
public class Calculator
{
	public static void main(String[] args)
	{
		Scanner input=new Scanner(System.in);
		System.out.println("Enter two numbers");
		int x = input.nextInt();
		int y = input.nextInt();
		System.out.println("Enter the operation to be performed");
		char c = input.next().charAt(0);
		switch(c)
		{
			case '+':{
				System.out.println(x+y);
				break;
			}
			case '-':{
				System.out.println(x-y);
				break;
			}
			case '*':{
				System.out.println(x*y);
				break;
			}
```

PLACEMENTS KEY'S

Coding Challenge #17 (JAVA solution contd.)

Day - 9

```
case '/':{
                        System.out.println(x/y);
                        break;
                }
                case '%':{
                        System.out.println(x%y);
                        break;
                }
                default :
                        System.out.println("INVALID OPERATION
INITIATED");
                }
        }
}
```

PLACEMENTS KEY'S

Coding Challenge #18 (Question)

Day - 9

User has an array with him. He wants to increment the even elements by 1 and decrement the odd elements by 1. Develop an application program to do the required operation and print the final array to the user.

INPUT FORMAT:

1. 1st line of input takes the size of user array.

2. 2nd line of input takes elements of the array.

OUTPUT FORMAT:

Print the array elements after incrementing the even elements and decrement the odd elements.

SAMPLE INPUT 0:

5

2 4 5 6 7

SAMPLE OUTPUT 0:

1 5 4 7 6

SAMPLE INPUT 1:

10

1 2 3 5 7 4 6 8 10 12

SAMPLE OUTPUT 1:

0 3 2 6 6 5 5 9 9 13

PLACEMENTS KEY'S

Coding Challenge #18 (C solution)

Day - 9

```c
#include <stdio.h>

int main()
{
	printf("Enter the size of array\n");
	int size;
	scanf("%d",&size);
	int array[size];
	printf("Enter the elements\n");
	for(int i=0;i<size;i++){
		scanf("%d",&array[i]);
	}
	for(int i=0;i<size;i++){
		if(array[i]%2==0)
			array[i]=array[i]+1;
		else
			array[i]=array[i]-1;
	}
	printf("Updated Array:\n");
	for(int i=0;i<size;i++){
		printf("%d ",array[i]);
	}
}
```

PLACEMENTS KEY'S

Coding Challenge #18 (JAVA solution)

Day - 9

```
import java.util.*;
public class EvenOdd
{
	public static void main(String[] args)
	{
		Scanner input = new Scanner(System.in);
		System.out.println("Enter the size of array");
		int size=input.nextInt();
		int[] array = new int[size];
		System.out.println("Enter the elements");
		for(int i=0;i<size;i++){
			array[i]=input.nextInt();
		}
		for(int i=0;i<size;i++){
			if(array[i]%2==0)
				array[i]=array[i]+1;
			else
				array[i]=array[i]-1;
		}
		System.out.println("Updated Array:");
		for(int i=0;i<size;i++){
			System.out.print(array[i] + " ");
		}
	}
}
```