

DSTL LAB-2

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E-316

1. Write a program in C to create two sets and perform the Difference operation on sets.

ANS.

INPUT:-

```
#include<stdio.h>
#define Max 100

int m=10,n=5,i,j,k,p,q,r,s;
int flag=1;
char char1,char2,char3;
void Difference(int *,int *,int ,int);
void Display2(char ,char ,int );

int a[10] = { 1,2,3,4,5,6,7,8,9,0};
int b[10] = { 1,3,5,7,9 };
int c[10];

void Difference(int *a1,int *b1,int m1,int n1)
{
    q=0;
    p=0;
    i=0;
    for(k=0;k<m1;k++){
```

```

        flag=1;
        for(j=0;j<n1;j++){
            if(b1[j]==a1[k]){
                flag=1;
                q++;
                break;
            }
            else{
                flag=0;
            }
        }
        if(flag==0){
            c[p]=a1[k];
            p++;
        }
    }
}

void Display2(char ac,char bc,int m1)
{
    printf("\nThe Difference Of Two Sets i.e '%c - %c' Is : { ",ac,b
c);
    r = m1 - q;
    for(p=0;p<r;p++){
        printf("%2d",c[p]);
    }
    printf(" }");
}

int main(){
    Difference(a,b,m,n);
    Display2('A','B',m);
    return 0;
}

```

OUTPUT:-

VARTUL BAHUGUNA: Public profileCoding Blocks IDE

ide.codingblocks.com

AppsGmailYouTubeMapsNewsTranslate30 Days of Google...Machine Learning...TVF Originals | TVF...DSC GLBajajResources to learn...HackerblockscontextIBM Dashboard Ap...

RUNC</>INPUTFILEVIEWSHAREcode.c

LOGINMADE WITH ❤️ BYCODING BLOCKS

```
1 #include<stdio.h>
2 #define Max 100
3
4 int m=10,n=5,i,j,k,p,q,r,s;
5 int flag=1;
6 char char1,char2,char3;
7 void Difference(int *,int *,int ,int);
8 void Display2(char ,char ,int );
9
10 int a[10] = { 1,2,3,4,5,6,7,8,9,0};
11 int b[10] = { 1,3,5,7,9 };
12 int c[10];
13
14 void Difference(int *a1,int *b1,int m1,int n1)
```

InputOutput

Enter Input

The Difference Of Two Sets i.e 'A - B' Is : { 2 4 6 8 0 }

Type here to search

22:0505-11-2020

2. Write a program in C to create two sets and perform the Symmetric Difference operation

ANS.

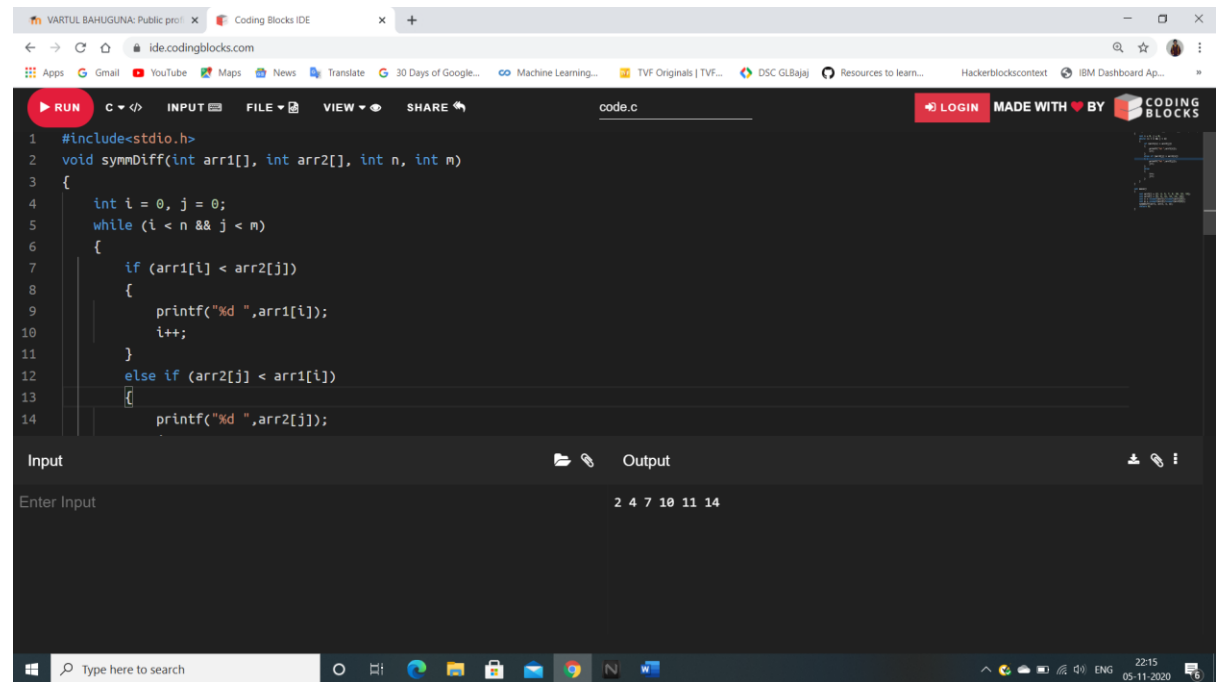
INPUT:-

```
#include<stdio.h>
void symmDiff(int arr1[], int arr2[], int n, int m)
{
    int i = 0, j = 0;
    while (i < n && j < m)
    {
        if (arr1[i] < arr2[j])
        {
            printf("%d ",arr1[i]);
            i++;
        }
        else if (arr2[j] < arr1[i])
        {
            printf("%d ",arr2[j]);
            j++;
        }
        else
        {
            i++;
            j++;
        }
    }
}

int main()
{
    int arr1[] = {2, 4, 5, 7, 8, 10, 12, 15};
    int arr2[] = {5, 8, 11, 12, 14, 15};
    int n = sizeof(arr1)/sizeof(arr1[0]);
    int m = sizeof(arr2)/sizeof(arr2[0]);
```

```
    symmDiff(arr1, arr2, n, m);  
    return 0;  
}
```

OUTPUT:-



The screenshot shows the Coding Blocks IDE interface. The code editor displays the following C code:

```
1 #include<stdio.h>  
2 void symmDiff(int arr1[], int arr2[], int n, int m)  
3 {  
4     int i = 0, j = 0;  
5     while (i < n && j < m)  
6     {  
7         if (arr1[i] < arr2[j])  
8         {  
9             printf("%d ",arr1[i]);  
10            i++;  
11        }  
12        else if (arr2[j] < arr1[i])  
13        {  
14            printf("%d ",arr2[j]);
```

The input field contains the text "Enter Input" and the output field displays the result "2 4 7 10 11 14". The IDE also shows a taskbar at the bottom with various application icons and a system clock indicating 22:15 on 05-11-2020.