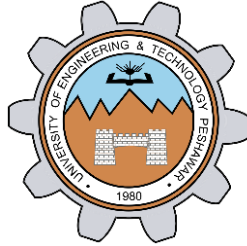


INTRODUCTION TO VISUALDSP++

LAB # 02



CSE402L Digital Signal Processing Lab

Submitted by: **Shah Raza**

Registration No: **18PWCSE1658**

Class Section: **B**

“On my honor, as a student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Student Signature: _____

Submitted to: **Engr. Faiz Ullah**

Sunday, December 13th, 2020

Department of Computer Systems Engineering
University of Engineering and Technology, Peshawar

Lab Objectives:

Objectives of this lab are as follows:

- Learning how to use the VisualDSP++ IDE

Task # 1:

Write a program that takes two arrays from the user and prints their sum and difference.

Code:

```
#include <stdio.h>

int main()
{
    int A[5], B[5], Res[5], i;
    printf("Enter the first Array: ");
    for(i=0; i<5; i++)
    {
        scanf("%d", &A[i]);
        printf(" %d ", A[i]);
    }
    printf("\nEnter the Second Array: ");
    for(i=0; i<5; i++)
    {
        scanf("%d", &B[i]);
        printf(" %d ", B[i]);
    }
    printf("\nSum: ");
    for(i=0; i<5; i++)
        Res[i] = A[i] + B[i];
    for(i=0; i<5; i++)
        printf(" %d ", Res[i]);
    printf("\nDifference: ");
    for(i=0; i<5; i++)
        Res[i] = A[i] - B[i];
    for(i=0; i<5; i++)
        printf(" %d ", Res[i]);
    return 0;
}
```

Output:

```
Enter the first Array:  8  4  7  2  5
Enter the Second Array: 12  7  3  1  3
Sum:  20 11 10 3 8
Difference: -4 -3 4 1 2
Breakpoint Hit at <ffa1166e>

>>
< > > Console Build
```

Task # 2:

Write a program that prints the Fibonacci series up to the number entered by the user.

Code:

```
#include <stdio.h>

int main()
{
    int num,a=0,b=1,sum=a+b;
    printf("Enter a number: ");
    scanf("%d",&num);
    printf(" %d\n",num);
    printf("Fibonacci Series: ");
    printf(" %d %d ",a,b);
    while(sum<=num)
    {
        printf(" %d ",sum);
        a=b;
        b=sum;
        sum=a+b;
    }
    return 0;
}
```

Output:

```
Breakpoint Hit at <ffa1138c>

Enter a number: 380
Fibonacci Series: 0 1 1 2 3 5 8 13 21 34 55 89 144 233 377
Breakpoint Hit at <ffa1156e>

>>
< > > > \ Console / Build /
```