

Practical No. 03

Program:

```
// Write the C program to execute following statements.
// - Sum of array index elements
// - Sum of two array index elements

#include <stdio.h>
// - Sum of array index elements
void arrayIndexSum(int arr[])
{
    printf("Addition of arrayIndexSum : %d\n", *(arr) + *(++arr) + *(++arr));
}

// - Sum of two array index elements
void twoArrayIndexSum(int arr[], int arr1[])
{
    printf("Addition of twoArrayIndexSum : %d\n", *(arr) + *(++arr) +
*(++arr) + *(arr1) + *(++arr1) + *(++arr1));
}

int main()
{
    int array1[] = {07, 90, 04};
    int array2[] = {14, 04, 85};

    arrayIndexSum(&array1[0]);
    twoArrayIndexSum(&array1[0], &array2[0]);
    return 0;
}
```

Output :

```
PS E:\SGGS\2ND YEAR\DM> cd "e:\SGGS\2ND YEAR\DM\" ;
Addition of arrayIndexSum : 101
Addition of twoArrayIndexSum : 204
PS E:\SGGS\2ND YEAR\DM>
```

Program:

```
// Write the C program to execute following statements.
// - Dynamic Array sum
```

```
#include <stdio.h>
void sum(int arr[], int s)
{
    int total = 0;
    for (int i = 0; i < s; i++)
    {
        total = total + *(arr);
        ++arr;
    }
    printf("Addition of Array : %d\n", total);
}

void getElement(int s, int arr[])
{
    printf("Enter %d elements of an array : ", s);

    for (int i = 0; i < s; i++)
    {
        scanf("%d", &arr[i]);
    }
}

int main()
{
    int size;
    printf("Enter the size of an Array : ");
    scanf("%d", &size);
    int array[size];

    getElement(size, array);

    sum(&array[0], size);

    return 0;
}
```

Output :

```
PS E:\SGGS\2ND YEAR\DM> cd "e:\SGGS\2ND YEAR\DM\" ; if
Enter the size of an Array : 5
Enter 5 elements of an array : 11 22 33 44 55
Addition of Array : 165
PS E:\SGGS\2ND YEAR\DM> █
```

Program :

```
// Write the C program to execute following statements.
// - Dynamic array index sum

#include <stdio.h>
void arraySum(int arr1[],int size1,int arr2[],int size2)
{
    for(int i =0 ;i<size1;i++)
        for(int j=0+i;j<size2;j++)
            if(i == j )
                printf("Addition of [%d][%d] is %d\n",i,j,(arr1[i]
+arr2[j]));
}

void getElement(int arr[], int size)
{
    printf("Enter %d elements of an array : ", size);
    for (int i = 0; i < size; i++)
        scanf("%d", &arr[i]);
}

int main()
{
    int size1, size2;
    printf("Enter Size of array1 : ");
    scanf("%d", &size1);
    printf("Enter Size of array2 : ");
    scanf("%d", &size2);

    int array1[size1], array2[size2];

    getElement(array1, size1);
    getElement(array2, size2);
    arraySum(array1, size1, array2, size2);
    return 0;
}
```

Output :

```
PS E:\SGGS\2ND YEAR\DM> cd "e:\SGGS\2ND YEAR\DM\" ;
Enter Size of array1 : 5
Enter Size of array2 : 3
Enter 5 elements of an array : 10 20 30 40 50
Enter 3 elements of an array : 11 22 33
Addition of [0][0] is 21
Addition of [1][1] is 42
Addition of [2][2] is 63
PS E:\SGGS\2ND YEAR\DM> █
```