

1. Develop a program to perform addition of two Matrices

```
1 #include <stdio.h>
2 int main(){
3     int r,c,i,j;
4     printf("Enter number of rows : ");
5     scanf("%d",&r);
6     printf("Enter number of columns : ");
7     scanf("%d",&c);
8     int arr1[r][c],arr2[r][c],arr3[r][c];
9     printf("Enter matrix 1 : \n");
10    for(i=0;i<r;i++){
11        for(j=0;j<c;j++){
12            //printf("Enter element [%d][%d] - ",i+1,j+1);
13            scanf("%d",&arr1[i][j]);
14        }
15    }
16    printf("Enter matrix 2 : \n");
17    for(i=0;i<r;i++){
18        for(j=0;j<c;j++){
19            //printf("Enter element [%d][%d] - ",i+1,j+1);
20            scanf("%d",&arr2[i][j]);
21        }
22    }
23    printf("Addition of matrices : \n");
24    for(i=0;i<r;i++){
25        for(j=0;j<c;j++){
26            arr3[i][j]=arr1[i][j]+arr2[i][j];
27        }
28    }
29    for(i=0;i<r;i++){
30        for(j=0;j<c;j++){
31            printf("%d\t",arr3[i][j]);
32        }
33        printf("\n");
34    }
35 }
```

D:\programs\LAB_7-EVAL\1.exe

Enter number of rows : 2
Enter number of columns : 2
Enter matrix 1 :
10 12
15 18
Enter matrix 2 :
20 11
21 22
Addition of matrices :
30 23
36 40

Process exited after 40.59 seconds with return value 2
Press any key to continue . . .

2. Demonstrate reading a two-dimensional array of marks which stores marks of 4 students in 3 subjects and display the highest marks in each subject.

```
Enter marks :
Marks of student[1] in sub[1] : 12
Marks of student[1] in sub[2] : 23
Marks of student[1] in sub[3] : 34
Marks of student[2] in sub[1] : 45
Marks of student[2] in sub[2] : 56
Marks of student[2] in sub[3] : 67
Marks of student[3] in sub[1] : 78
Marks of student[3] in sub[2] : 89
Marks of student[3] in sub[3] : 90
Marks of student[4] in sub[1] : 58
Marks of student[4] in sub[2] : 37
Marks of student[4] in sub[3] : 74
maximum marks in sub[1] = 78
maximum marks in sub[2] = 89
maximum marks in sub[3] = 90

...Program finished with exit code 0
Press ENTER to exit console.
```