

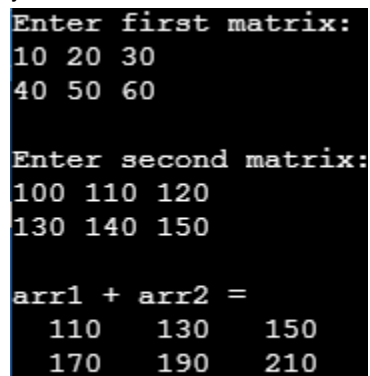
1. Develop a program to perform addition of two Matrices.

```
#include<stdio.h>
#define ROW 2
#define COL 3

int main()
{
    int i, j, arr1[ROW][COL], arr2[ROW][COL];

    printf("Enter first matrix: \n");

    for(i = 0; i < ROW; i++)
    {
        for(j = 0; j < COL; j++)
        {
            scanf("%d", &arr1[i][j]);
        }
    }
    printf("\nEnter second matrix: \n");
    for(i = 0; i < ROW; i++)
    {
        for(j = 0; j < COL; j++)
        {
            scanf("%d", &arr2[i][j]);
        }
    }
    printf("\narr1 + arr2 = \n");
    for(i = 0; i < ROW; i++)
    {
        for(j = 0; j < COL; j++)
        {
            printf("%5d ", arr1[i][j] + arr2[i][j]);
        }
        printf("\n");
    }
    return 0;
}
```



The screenshot shows the output of the C program. It displays the input for two 2x3 matrices, followed by the result of their addition. The first matrix is entered as 10 20 30 and 40 50 60. The second matrix is entered as 100 110 120 and 130 140 150. The result is shown as arr1 + arr2 =, followed by the sum of each element: 110 130 150 and 170 190 210.

```
Enter first matrix:
10 20 30
40 50 60

Enter second matrix:
100 110 120
130 140 150

arr1 + arr2 =
  110   130   150
  170   190   210
```

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.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int marks[4][3], i, j, max_marks;
    for(i=0; i<4; i++)
    {
        printf("Enter the marks obtained by student %d\n", i);
        for(j=0; j<3; j++)
        {
            scanf("%d", &marks[i][j]);
        }
    }

    for(j=0; j<3; j++)
    {
        max_marks=marks[0][j];
        for(i=0; i<4; i++)
        {
            if(marks[i][j]>max_marks)
                max_marks=marks[i][j];
        }
        printf("\n The highest marks obtained in the subject %d = %d", j,
max_marks);
    }

    getch();
    return 0;
}
```

```
Enter the marks obtained by student 0
10 20 30
Enter the marks obtained by student 1
20 30 40
Enter the marks obtained by student 2
30 40 50
Enter the marks obtained by student 3
40 50 60

The highest marks obtained in the subject 0 = 40
The highest marks obtained in the subject 1 = 50
The highest marks obtained in the subject 2 = 60
```