

1. Develop a program to perform addition of two matrices

```
#include<stdio.h>

#include<conio.h>

void main()

{

int a[10][10],b[10][10],d[10][10],i,j,r,c;

clrscr();

printf("\nEnter the number of rows and columns: ");

scanf("%d,%d",&r,&c);

printf("\nEnter the values of matrix A:\n");

for(i=0;i<r;i++)

for(j=0;j<c;j++)

scanf("%d",&a[i][j]);

printf("\nEnter the values of matrix B:\n");

for(i=0;i<r;i++)

for(j=0;j<c;j++)

scanf("%d",&b[i][j]);

for(i=0;i<r;i++)

for(j=0;j<c;j++)

d[i][j]=a[i][j]+b[i][j];

printf("\nThe values of matrix C:\n");

for(i=0;i<r;i++)

{

printf("\n");

for(j=0;j<c;j++)

printf("%d\t",d[i][j]);
```

```
}  
getch();
```

```
}
```

OUTPUTS

```
Enter the number of rows and columns: 2,2
```

```
Enter the values of matrix A:
```

```
1 2
```

```
3 4
```

```
Enter the values of matrix B:
```

```
5 6
```

```
7 8
```

```
The values of matrix C:
```

```
6
```

```
8
```

```
10
```

```
12
```

```
_
```

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>
void main()
{
int marks[4][3],i,j,max_marks;
clrscr();
for(i=0;i<4;i++)
{
printf("Enter the marks obtained by student %d",i+1);
for(j=0;j<3;j++)
{
printf("\nmarks[%d][%d]=",i,j);
scanf("%d",&marks[i][j]);
}
}
for(j=0;j<3;j++)
{
max_marks=marks[0][j];
for(i=1;i<4;i++)
{
if(marks[i][j]>max_marks)
```

```
max_marks=marks[i][j];  
}  
printf("\nThe highest marks obtained in the subject  
%d=%d\n",j+1,max_marks);  
}  
  
    getch();  
}
```

OUTPUTS

```
Enter the marks obtained by student 1  
marks[0][0]=10  
  
marks[0][1]=30  
  
marks[0][2]=40  
Enter the marks obtained by student 2  
marks[1][0]=50  
  
marks[1][1]=60  
  
marks[1][2]=70  
Enter the marks obtained by student 3  
marks[2][0]=90  
  
marks[2][1]=80  
  
marks[2][2]=85_
```

Enter the marks obtained by student 4
marks[3][0]=65

marks[3][1]=32

marks[3][2]=25

The highest marks obtained in the subject 1=90

The highest marks obtained in the subject 2=80

The highest marks obtained in the subject 3=85