

PROGRAM 16

PROGRAM FOR SUM OF TWO MATRICES

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a[10][10],b[10][10],c[10][10];
int i,j,k,r1,r2,c1,c2;
clrscr();
printf("input the order of matrix A\n");
scanf("%d%d",&r1,&c1);
printf("input the order of matrix B\n");
scanf("%d%d",&r2,&c2);
if(c1!=c2& r1!=r2)
{
printf("addition is not possible");
getch();
}
printf("enter elements of matrix A\n");
for(i=0;i<r1;i++)
{
for(j=0;j<c1;j++)
{
scanf("%d",&a[i][j]);
}
}
printf("enter elements of matrix B\n");
for(i=0;i<r2;i++)
{
for(j=0;j<c2;j++)
{
scanf("%d",&b[i][j]);
}
}
printf("elements of matrix A are\n");
for(i=0;i<r1;i++)
{
printf("\n");
for(j=0;j<c1;j++)
{
printf("%d",a[i][j]);
printf("\t");
}
}
printf("elements of matrix B are\n");
```

```
for(i=0;i<r2;i++)
{
printf("\n");
for(j=0;j<c2;j++)
{
printf("%d",b[i][j]);
printf("\t");
}
}
for(i=0;i<r1;i++)
{
for(j=0;j<c1;j++)
{
c[i][j]=0;
for(k=0;k<c1;k++)
{
c[i][j]=a[i][j]+b[i][j];
}
}
}
printf("addition of matrix is\n");
for(i=0;i<r1;i++)
{
printf("\n");
for(j=0;j<c2;j++)
{
printf("%d",c[i][j]);
printf("\t");
}
}
getch();
}
```

ROLL NO. =12252