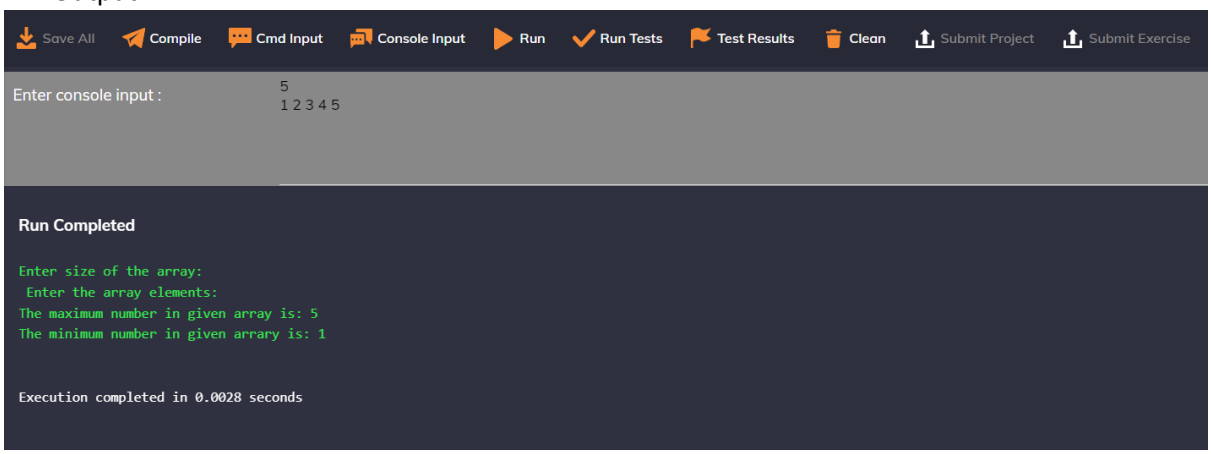
7a. **Write a C program, to find both the largest and smallest number in a list of integers using an Array.**

b. Write a C program, to add two matrices using an Array.

c. Write a C program, to multiply two matrices using an Array.

a.
```
#include <stdio.h>
#include <math.h>
int main()
{
int i,min,max,size,a[20];
printf("Enter size of the array:\n ");
scanf("%d",&size);
printf("Enter the array elements:\n");
 for(i=0; i<size; i++)
 {
 scanf("%d\n", &a[i]);
}
max=a[0];
min=a[0];
for(i=1;i<size;i++)
{
if(a[i]>max)
max=a[i];
if(a[i]<min)
min=a[i];
}
printf("The maximum number in given array is: %d\n",max);
printf("The minimum number in given arrary is: %d\n",min);
return 0;
}
```

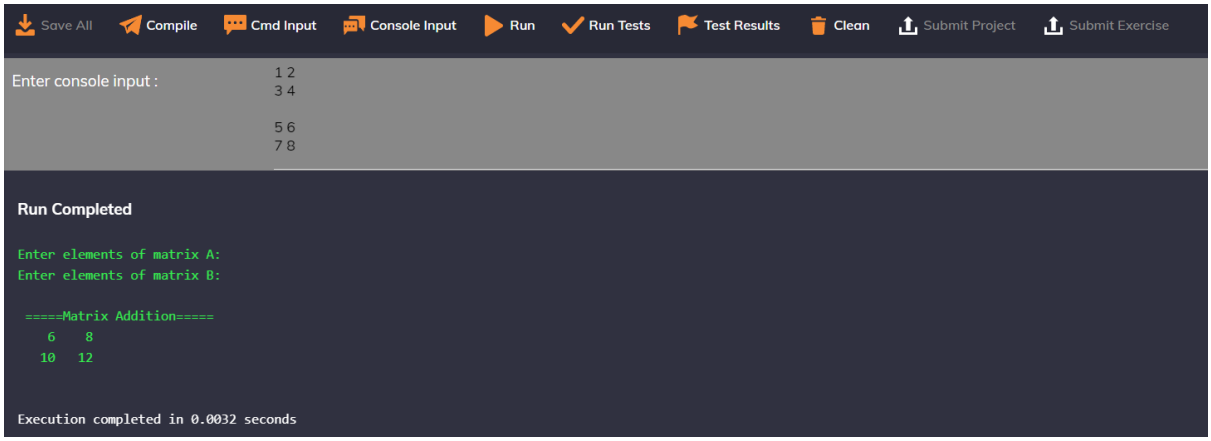
Output:



b.
```
#include <stdio.h>
#include <math.h>
void main()
{
int a[2][2], b[2][2];
int i,j;
```

```
printf("Enter elements of matrix A:\n");
for(i=0;i<2;i++)
{
for(j=0;j<2;j++)
scanf("%d",&a[i][j]);
}
printf("Enter elements of matrix B:\n");
for(i=0;i<2;i++)
{
for(j=0;j<2;j++)
scanf("%d",&b[i][j]);
}
printf("\n =====Matrix Addition=====\n");
for(i=0;i<2;i++)
{
for(j=0;j<2;j++)
printf("%5d",a[i][j]+b[i][j]);
printf("\n");
}
}
```

Output:



c.

```
#include<stdio.h>
#include<stdlib.h>
int main(){
int a[2][2],b[2][2],c[2][2],i,j,k;
printf("enter the first matrix element=\n");
for(i=0;i<2;i++)
{
for(j=0;j<2;j++)
{
scanf("%d",&a[i][j]);
}
}
printf("enter the second matrix element=\n");
for(i=0;i<2;i++)
```

```
{
for(j=0;j<2;j++)
{
scanf("%d",&b[i][j]);
}
}

printf("multiply of the matrix=\n");
for(i=0;i<2;i++)
{
for(j=0;j<2;j++)
{
c[i][j]=0;
for(k=0;k<2;k++)
{
c[i][j]+=a[i][k]*b[k][j];
}
}
}
//for printing result
for(i=0;i<2;i++)
{
for(j=0;j<2;j++)
{
printf("%d\t",c[i][j]);
}
printf("\n");
}
return 0;
}
```