1.Write a C Program to print the sum of boundary elements of a matrix

Given a matrix, the task is to print the boundary elements of the matrix and display their sum.  
Sample Output 1:  
Enter M (Rows) and N (Columns): 3, 3  
Enter the Elements: 1 2 3 4 5 6 7 8 9  
OUTPUT:  
The Input Matrix is:  
1 2 3  
4 5 6  
7 8 9  
The Boundary Elements are: 1 2 3 4 6 7 8 9  
The Sum of Boundary elements of the Matrix is: 40

Sample Output 2:  
Enter M (Rows) and N (Columns): 4, 5  
Enter the Elements: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
OUTPUT:  
The Input Matrix is:  
1 2 3 4  
5 6 7 8  
9 10 11 12  
13 14 15 16  
17 18 19 20  
The Boundary Elements are: 1 2 3 4 5 8 9 12 13 16 17 18 19 20  
The Sum of Boundary elements of the Matrix is: 147

#include<stdio.h>

#include<stdlib.h>

int main()

{

int \*\*a,r,c,i,j;

printf("enter the size:");

scanf("%d",&r);

scanf("%d",&c);

a=(int\*\*)malloc(r\*sizeof(int\*));

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

\*(a+i)=(int\*)malloc(c\*sizeof(int));

printf("enter the matrix:\n");

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

{

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

{

scanf("%d",\*(a+i)+j);

}

}

i=0;int sum1=0;

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

sum1=sum1+\*(\*(a+i)+j);

i=r-1;int sum2=0;

if(i!=0)

{

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

sum2=sum2+\*(\*(a+i)+j);

}

j=0; int sum3=0;

for(i=1;i<r-1;i++)

sum3=sum3+\*(\*(a+i)+j);

j=c-1; int sum4=0;

for(i=1;i<r-1;i++)

sum4=sum4+\*(\*(a+i)+j);

printf("Sum of boundary is %d",sum1+sum2+sum3+sum4);

return 0;

}

**Output:**



