10 June

**C Program to print the sum of boundary elements of a matrix**

#include <bits/stdc++.h>

using namespace std;

const int MAX = 100;

void printBoundary(int a[][MAX], int m, int n)

{

for (int i = 0; i < m; i++) {

for (int j = 0; j < n; j++) {

if (i == 0 || j == 0 || i == n - 1 || j == n - 1)

cout << a[i][j] << " ";

else

cout << " "

<< " ";

}

cout << "\n";

}

}

// Driver code

int main()

{

int a[4][MAX] = { { 1, 2, 3, 4 }, { 5, 6, 7, 8 }, { 1, 2, 3, 4 }, { 5, 6, 7, 8 } };

printBoundary(a, 4, 4);

return 0;

}

Output:

1 2 3 4

5 8

1 4

5 6 7 8

#include <bits/stdc++.h>

using namespace std;

const int MAX = 100;

int getBoundarySum(int a[][MAX], int m, int n)

{

long long int sum = 0;

for (int i = 0; i < m; i++) {

for (int j = 0; j < n; j++) {

if (i == 0)

sum += a[i][j];

else if (i == m - 1)

sum += a[i][j];

else if (j == 0)

sum += a[i][j];

else if (j == n - 1)

sum += a[i][j];

}

}

return sum;

}

// Driver code

int main()

{

int a[][MAX] = { { 1, 2, 3, 4 }, { 5, 6, 7, 8 }, { 1, 2, 3, 4 }, { 5, 6, 7, 8 } };

long long int sum = getBoundarySum(a, 4, 4);

cout << "Sum of boundary elements is " << sum;

return 0;

}

Input :

1 2 3 4

5 6 7 8

1 2 3 4

5 6 7 8

Output:

Sum of boundary elements is 54