```c
//program of addition of sparse matrix
//krishnapriya_37
#include <stdio.h>
Void main()
{
Int a[100][100], b[100][100], r, c, p, q;
Printf("Enter the number of rows and columns: ");
Scanf("%d %d", &r, &c);
Printf("Enter the elements of sparse matrix 1: ");
For (p = 0; p < r; p++)
{
For (q = 0; q < c; q++)
{
Scanf("%d", &a[p][q]);
}
}
Printf("Enter the elements of sparse matrix 2: ");
For (p = 0; p < r; p++)
{
For (q = 0; q < c; q++)
{
Scanf("%d", &b[p][q]);
}
)}
Int I = 0, j = 0, k = 1, count = 0;
Int t1[100][3], t2[100][3], sum[100][3];
T1[0][0] = r;
T1[0][1] = c;
T1[0][2] = 0;
T2[0][0] = r;
T2[0][1] = c;
T2[0][2] = 0;
For (I = 0; I < r; i++) {
For (j = 0; j < c; j++) {
If (a[i][j] != 0) {
T1[k][0] = I;
T1[k][1] = j;
T1[k][2] = a[i][j];
K++;
T1[0][2]++;
}
}
}
K = 1;
For (I = 0; I < r; i++) {
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For (j = 0; j < c; j++) {
If (b[i][j] != 0) {
T2[k][0] = I;
T2[k][1] = j;
T2[k][2] = b[i][j];
K++;
T2[0][2]++;
}
}
}
I = 1;
J = 1;
K = 1;
Sum[0][0] = r;
Sum[0][1] = c;
Sum[0][2] = 0;
While (I <= t1[0][2] && j <= t2[0][2])
{
If (t1[i][0] < t2[j][0] || (t1[i][0] == t2[j][0] && t1[i][1] < t2[j][1]))
{
Sum[k][0] = t1[i][0];
Sum[k][1] = t1[i][1];
Sum[k][2] = t1[i][2];
I++;
}
Else if (t1[i][0] > t2[j][0] || (t1[i][0] == t2[j][0] && t1[i][1] > t2[j][1]))
{
Sum[k][0] = t2[j][0];
Sum[k][1] = t2[j][1];
Sum[k][2] = t2[j][2];
J++;
}
Else
{
Sum[k][0] = t1[i][0];
Sum[k][1] = t1[i][1];
Sum[k][2] = t1[i][2] + t2[j][2];
I++;
J++;
}
K++;
Sum[0][2]++;
}
While (I <= t1[0][2])
{
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Sum[k][0] = t1[i][0];
Sum[k][1] = t1[i][1];
Sum[k][2] = t1[i][2];
I++;
K++;
Sum[0][2]++;
}
While (j <= t2[0][2])
{
Sum[k][0] = t2[j][0];
Sum[k][1] = t2[j][1];
Sum[k][2] = t2[j][2];
J++;
K++;
Sum[0][2]++;
}
Printf("Sum: \n");
For (I = 0; I <= sum[0][2]; i++)
{
Printf("%d %d %d\n", sum[i][0], sum[i][1], sum[i][2]);
}}
```

OUTPUT

Enter the number of rows and columns: 3
3
Enter the elements of sparse matrix 1: 0 1 0
0 0 0
0 0 2
Enter the elements of sparse matrix 2: 1 2 0 0 0 0
0 0 1
Sum:
3 3 3
0 0 1
0 1 3
2 2 3