

```

1  /** 2D Maximum Sum
2 -----
3 int row,col,a[105][105],cs[105][105],v[105],kd[105];
4 int main(){
5     while(scanf("%d%d",&row,&col)){
6         if(row==0&&col==0)break;
7         for(int i=1; i<=row; i++){
8             for(int j=1; j<=col; j++){
9                 scanf("%d",&a[i][j]);
10            }
11        }
12
13        for(int j=1; j<=col; j++){
14            for(int i=1; i<=row; i++){
15                cs[j][i]=cs[j][i-1]+a[i][j];
16                //cs[j][i] means sum of j'th column from (1-to-i) row
17            }
18        }
19
20        int ans=-1000000000;
21        for(int i=1; i<=row; i++){
22            for(int k=i; k<=row; k++){
23                for(int j=1; j<=col; j++){
24                    v[j] = cs[j][k]-cs[j][i-1];
25                }
26                /// kadane or 1D maximum sum
27                for(int x=1; x<=col; x++) {
28                    kd[x]=kd[x-1]+v[x];
29                    if(kd[x]<0)kd[x]=0;
30                    ans = max(ans,kd[x]);
31                }
32            }
33        }
34        printf("%d\n",ans);
35    }
36 }
37 ****
38 int row,col,a[105][105],rs[105][105],v[105],kd[105];
39 int main(){
40     while(scanf("%d%d",&row,&col)){
41         if(row==0&&col==0)break;
42         for(int i=1; i<=row; i++){
43             for(int j=1; j<=col; j++){
44                 scanf("%d",&a[i][j]);
45             }
46        }
47
48        for(int i=1; i<=row; i++){
49            for(int j=1; j<=col; j++){
50                rs[i][j]=rs[i][j-1]+a[i][j];
51                //rs[i][j] means sum of i'th row from (1-to-j) column
52            }
53        }
54
55        int ans=-100000000;
56        for(int j=1; j<=col; j++){
57            for(int k=j; k<=col; k++){
58                for(int i=1; i<=row; i++){
59                    v[i] = rs[i][k]-rs[i][j-1];
60                }
61                /// kadane or 1D maximum sum
62                for(int x=1; x<=row; x++) {
63                    kd[x]=kd[x-1]+v[x];
64                    if(kd[x]<0)kd[x]=0;
65                    ans = max(ans,kd[x]);
66                }
67            }
68        }
69        printf("%d\n",ans);
70    }
71 }
```