

```

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=-1000000000;
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 }

```