1. **Richest Customer Wealth**
2. *int*[][] accounts = {{1,2,3},  
    {4,2,1},  
    {7,1,3},  
    {1,9,5} };  
     
   *int* maxSum=Integer.***MIN\_VALUE***;  
   *int* curSum=0;  
   *int* cusNo=0;  
   *for*(*int* i=0;i< accounts.length;i++){  
    *for*(*int* j=0;j<accounts[i].length;j++){  
    curSum+=accounts[i][j];  
    }  
    *if*(curSum>maxSum){  
    cusNo= i+1;  
    maxSum=curSum;  
    }  
    curSum=0;  
   }  
     
   System.***out***.println("Richest Customer is "+cusNo+" , with wealth :"+maxSum);

2. **Matrix Diagonal Sum**

*// int[][] mat= { {1,1,1,1}, {1,1,1,1}, {1,1,1,1}, {1,1,1,1} };  
 int*[][] mat= { {1,2,3}, {4,5,6}, {7,8,9} };  
  
 *int* sum = 0;  
 *for*(*int* i=0;i< mat.length;i++){  
 sum+=mat[i][i];  
 }  
  
 *if*((mat.length & 1) ==1){  
 *int* mid = mat[mat.length/2][mat.length/2];  
 *for*(*int* i= mat.length-1;i>=0;i--){  
 *if*(mat[i][i]!=mid){  
 sum+=mat[i][mat.length-1-i];  
 }  
 }  
 }*else* {  
 *for*(*int* i= mat.length-1;i>=0;i--){  
 sum+=mat[i][mat.length-1-i];  
 }  
 }  
  
 System.***out***.println(sum);

1. **Flipping an Image**

*int*[][] mat= { {1,1,0,0}, {1,0,0,1}, {0,1,1,1}, {1,0,1,0} };  
*int* temp=0;  
 *for*(*int* i=0;i< mat.length;i++){  
 *for*(*int* j=0;j<mat.length/2;j++){  
 temp=mat[i][j];  
 mat[i][j]=mat[i][mat.length-1-j];  
 mat[i][mat.length-1-j]=temp;  
 }  
  
 *for*(*int* j=0;j<mat.length;j++){  
 *if*(mat[i][j]==0){  
 mat[i][j]=1;  
 }*else* {  
 mat[i][j]=0;  
 }  
 }  
 }  
  
 System.***out***.println(Arrays.*deepToString*(mat));

1. Total Negative Numbers in A sorted matrix

*// int [][] mat ={ {3,2,1},{0,-1,-2},{-3,-4,-5}};  
 int*[][] mat = { {2,-1},{1,-1}};  
 *int* count=0;  
  
 *for*(*int* i=0;i<mat.length;i++){  
 *for*(*int* j=0;j<mat[1].length;j++){  
 *if*(mat[i][j]<0){  
 count++;  
 }  
 }  
 }  
  
 System.***out***.println(count);

5.Lucky numbers in matrix

*// int[][] mat = {{1,10,4,2},{9,3,8,7},{15,16,17,12}};  
 int*[][] mat = {{7,8},{1,2}};  
 *int*[] arr =*new int*[mat[0].length];  
 *for*(*int* i=0;i<mat[0].length;i++){  
 arr[i]=0;  
 }  
 *for*(*int* i=0;i< mat.length;i++){  
 *for*(*int* j=0;j<mat[1].length;j++){  
 *if*(mat[i][j]>arr[j]){  
 arr[j]=mat[i][j];  
 }  
 }  
 }  
 *int* lucky\_no=arr[0];  
 *for* (*int* ele: arr) {  
 *if*(ele<=lucky\_no){  
 lucky\_no=ele;  
 }  
 }  
  
 System.***out***.println(lucky\_no);

6. **Reshape the Matrix**

*int*[][] mat= {{1,2},{3,4}};  
 *int* r=1,c=4;  
*// int r=2,c=4;  
 int* count\_row=0,count\_col=0,newRow=r,newCol=c;  
  
 *int*[][] arr= *new int*[r][c];  
 *if*(r\*c> mat.length\*mat[0].length){  
 System.***out***.println(Arrays.*deepToString*(mat));  
 }*else* {  
 *for*(*int* i=0;i< mat.length;i++){  
 *for* (*int* j=0;j<mat[0].length;j++){  
 *if*(count\_col<newCol ){  
 arr[count\_row][count\_col++]=mat[i][j];  
 }*else if*(count\_col==newCol){  
 count\_col=0;  
 arr[count\_row++][count\_col++]=mat[i][j];  
 }  
 }  
 }  
 *for*(*int* i=0;i<newRow;i++){  
 *for*(*int* j=0;j<newCol;j++){  
 System.***out***.print(arr[i][j]+" ");  
 }  
 System.***out***.println();  
 }  
 }

7. Building Projection

*int*[][] mat = {{1,1,1},{1,0,1},{1,1,1}};  
*int* count=0;  
*int*[] arr1=*new int*[mat[0].length];  
*int*[] arr2=*new int*[mat[0].length];  
*for*(*int* i=0;i< mat.length;i++){  
 *int* max=Integer.***MIN\_VALUE***;  
 *for*(*int* j=0;j<mat[0].length;j++){  
 *if*(mat[i][j]>0) {  
 count++;  
 }  
 *if*(mat[i][j]>arr1[j]){  
 arr1[j]=mat[i][j];  
 }  
 *if*(mat[i][j]>max){  
 max=mat[i][j];  
 }  
 }  
 arr2[i] = max;  
}  
  
*int* Area2=0;  
*for*(*int* i=0;i< arr1.length;i++){  
 Area2+=arr1[i];  
}  
  
 *int* Area3=0;  
 *for*(*int* i=0;i< arr2.length;i++){  
 Area3+=arr2[i];  
 }  
 *int* sum = count+Area2+Area3;  
 System.***out***.println("Area is "+count+"+"+Area2+"+"+Area3+"= "+sum);