class SM

{

int row[10], col[10], val[10];

int matrix[10][10];

int count;

public:

void get\_matrix(int r, int c)

{ int i, j;

for (i=0;i<r;i++)

for(j=0;j<c;j++)

cin>>matrix[i][j];

}

void create\_sparse(int r, int c)

{

int c1=0, k=1;

for (i=0;i<r;i++)

for(j=0;j<c;j++)

if(matrix[i][j]!=0)

{ c1++;

row[k]=i;

col[k]=j;

val[k]=matrix[i][j]

k++;

}

row[0]=r;

col[0]=c;

val[0]=c1;

count=c1;

}

void print()

{

int i;

for(i=0;i<=count;i++)

cout<row[i]<<col[i]<<val[i];

}

};

void main()

{

SM a;

int r, c;

cin>>r>>c;

a.getmatrix(r, c);

a.create\_sparse(r, c);

a. print();

}