# Lab 7

**Please hand in your code on Sakai-Assignment part. You only need to upload a .c file which includes all of your code and don't pack it. You should run your program to TA during Lab time and upload your program (both are required), or you won't get the point**

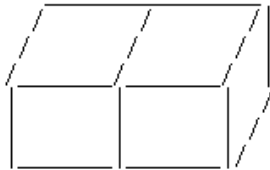Many of you always say:"I am cubed", so there is a "cubing" lab for you. Enjoy it.

In this lab, the input is a $3\times3$ matrix, named A, and your program should output corresponding picture in a txt file.

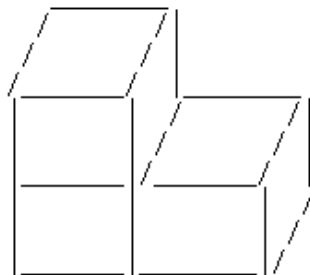It is hard to explain directly, let me show you some example:
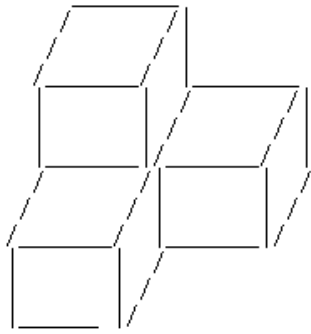
Input:

A[3][3]={ 0 0 0

0 1 1

0 0 0};

Output:



A[3][3]={ 0 0 0

0 2 1

0 0 0};

Output:



A[3][3]={ 0 0 0

0 2 1

0 1 0};

Output:

The number in the matrix A determines how many cubes should be located in the corresponding position.

Your cube can be different with my ugly cube, as long as it looks like a cube or parallelepiped.

The output should be stored in a txt file.

Goal 1:

Finish this problem when every elements in A less than or equal to 1.

Goal 2:

Finish this problem when there are only disconnected cubes in the second layer.

Goal 3:

Finish the whole problem when elements in A are positive.

Goal 4:

Finish the problem when the element in the matrix A can be negative. Negative number means there are some cubes under the first layer in this position.

Extra:

Try finish the whole problem when input is two matrix A and B. A is the front view and B is the top view. The elements in A and B also means how many cubes are in this position when see from this angle. In this case, cubes can float in the air without supporting.

If you feel that it is difficult to solve it, finish goals as much as possible and we will give you corresponding points.