

## The logic of algorithm:

There is a initial state which is given from user. First of all, prints given map. It means loop supposed to iterate remaining states times (step number minus one). And it continues fill the blank spaces with bomb, detonate the bomb.

## The Design Of The Program:

Program starts with start label and it jumps directly main label. So it does not read other functions unless they are called. There are indents, they make easier to read.

## Functions:

There are three functions except main. First one is print function. It prints map with bombs and empty spaces. There are '.' which represents empty spaces, 'O' which represents new Bombs and '1' which represents old bombs. If print function see any '1', it prints 'O'. '1' is only to mark old bombs. Second function is putBomb. It has two duty. One of them converting 'O' to '1'. So it can recognize old bombs from new bombs. Other one is converting '.' to 'O' which means it places new bombs to empty places. So there is a loop and if current char is 'O' it converts that index to '1', if there is '.' it converts it to 'O'. Third function is detonateBomb. It finds old bombs which is marked with '1'. It checks it's neighbour indexes. If these indexes are different than '1' (old bomb) it convert them and itself index to '.'. It detonates around.

## Input:

It takes input as single line as a string. Then it operates everything like the string is two dimensional array by using number of row and column. There is C code which converts two dimensional input to one dimensional. You can change the file name which is in the code and you can get your string. I used 'O' (big o) for the bombs and '.' for the empty places.