CS1083
Assignment 3
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CaveArea

```
import java.util.Scanner;
public class CaveArea{
	public static void main(String[] args){
Scanner scan = new Scanner(System.in);


int rows= scan.nextInt();
int columns = scan.nextInt();

int [][] cave= new int[rows][columns];


if (rows!=0 && columns!=0){
	for(int i=0; i<rows; i++) {
  for(int j=0; j<columns; j++) {
    cave[i][j] = scan.nextInt();
  }
 }// cave created


 //find cave opening
 int locationHole=0;
 boolean hasHole= false;
 for(int i=0; i<columns; i++){
	if (cave[0][i]==0){
		locationHole=i;
		hasHole= true;
	}
 }

	if(hasHole){
	for (int i=1; i<2; i++){
		if (cave[i][locationHole]==0){
			cave[i][locationHole]=7;
		}
		else{
			hasHole=false;
		}
	}


	int counter=0;
	while(counter>10){
```

```
		for (int j=1; j<rows;j++){//check after
			for (int i=0; i<columns; i++){
				if ( (cave[j][i]==0 && cave[j][i+1]==7))  {
					cave[j][i]=7;
					System.out.print("wtf");
				}
			}
		}

		for (int j=1; j<rows;j++){//check before
			for (int i=locationHole; i<0; i--){
				if ((cave[j][i]==7 &&cave[j][i-1]==0)){
					cave[j][i-1]=7;
					System.out.print("wtf2");
				}
			}
		}

		for (int j=1; j<rows-1;j++){//ontop
			for (int i=0; i<columns; i++){
				if ((cave[j][i]==0 &&cave[j-1][i]==7)){
					cave[j][i]=7;
					System.out.print("wtf3");
				}
			}
		}
		counter++;
}


int sevenCounter = 0;
for (int j=1; j<rows;j++){
			for (int i=0; i<columns; i++){
				if (cave[j][i]==7){
					sevenCounter++;
				}
			}
		}

int area=  1 + sevenCounter;
System.out.print("The area is " + area);

		}//if has hole
}
else{
		System.out.print("This cave is too small.");
}
```

```
}
}
```

Test1

```
C:\Users\kisen\Java2\Asgn3>java CaveArea<Test1.txt
This cave is too small.
```

Test2

```
C:\Users\kisen\Java2\Asgn3>java CaveArea<Test2.txt
This cave is too small.
```

Test3

```
C:\Users\kisen\Java2\Asgn3>java CaveArea<Test3.txt
The area is 1
```

Test4

```
C:\Users\kisen\Java2\Asgn3>java CaveArea<Test4.txt
The area is 2
```

Test5

```
C:\Users\kisen\Java2\Asgn3>java CaveArea<Test5.txt
The area is 2
```

I was working on other classes but was unable to complete it.