Pseudocode:

ExploreAndLabelColony:

We will first check if the index given has any neighbors if so we call the method again and so on until we the cell no longer has any neighbors.

As for the neighboring cells we can find them with using the formulas:

For the neighboring cell with index (x,y):

X+1	y
X+1	y+1
X+1	y-1
X-1	y
X-1	y+1
X-1	y-1
X	y-1
X	y+1

```
If(Colonie[x+1][y]=='1')
        Colonie[x+1][y]->label
If(Colonie[x-1][y]=='1')
        Colonie[x-1][y]->label
.
.
.
.
```

And so one for all 8 steps

In this part we used linear recursion since we are calling only one method in every method

As for the time complexity it will be O(n) since it depends on the number of operations we have to perform. And there are no nested loops

As for the space complexity it is also O(n) since the final answer depends on the size of the cell