PA1

LeetCode ID : ChenJiayang

Code (C++)

```cpp
class Solution {
public:
    bool dfs(int i, int j, vector<vector<char>> &grid)
    {
        if(i>=0 && i<grid.size() && j>=0 && j<grid[i].size() && grid[i][j]=='1')
        {
            grid[i][j] = '3';

            dfs(i-1, j, grid);
            dfs(i+1, j, grid);
            dfs(i, j-1, grid);
            dfs(i, j+1, grid);

            return true;
        }

        return false;
    }


    int numIslands(vector<vector<char>>& grid) {

        int ans = 0;
```

```cpp
        for(int i=0;i<grid.size();i++)
        {
            for(int j=0;j<grid[i].size();j++)
            {
                if(dfs(i,j,grid))
                {
                    ans++;
                }
            }
        }

        return ans;
    }
};
```