Day 58

Code-

class Solution {

public:

int DR[4]={1, 0, -1, 0};

int DC[4]={0, -1, 0, 1};

bool valid\_index(int i, int j, vector<vector<char>>& grid) {

if(i<0 || j<0 || i>=grid.size() || j>=grid[0].size())

return false;

return true;

}

void dfs(int i, int j, vector<vector<char>>& grid) {

grid[i][j]='0';

for(int k=0; k<4; k++) {

int ci=DR[k]+i;

int cj=DC[k]+j;

if(!valid\_index(ci, cj, grid))

continue;

if(grid[ci][cj]=='1')

dfs(ci, cj, grid);

}

}

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

int n=grid.size();

int m=grid[0].size();

int no\_of\_islands=0;

for(int i=0; i<n; i++) {

for(int j=0; j<m; j++) {

if(grid[i][j]=='1') {

no\_of\_islands++;

dfs(i, j, grid);

}

}

}

return no\_of\_islands;

}

};Time Complexity : O(n x m)  
Space Complexity: O(n x m)

