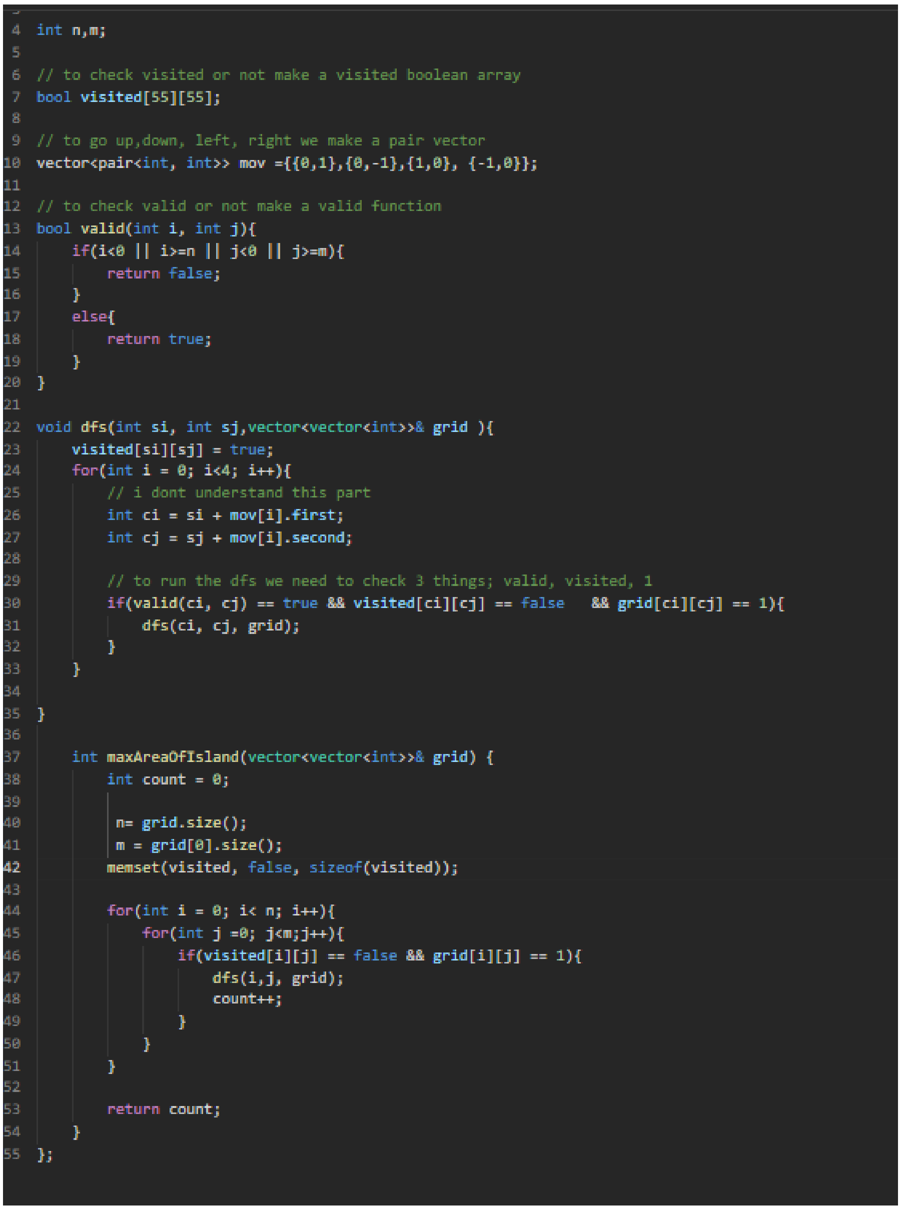
Basic formate of DFS



```cpp
int n,m;

// to check visited or not make a visited boolean array
bool visited[55][55];

// to go up,down, left, right we make a pair vector
vector<pair<int, int>> mov ={{0,1},{0,-1},{1,0}, {-1,0}};

// to check valid or not make a valid function
bool valid(int i, int j){
    if(i<0 || i>=n || j<0 || j>=m){
        return false;
    }
    else{
        return true;
    }
}

void dfs(int si, int sj,vector<vector<int>>& grid ){
    visited[si][sj] = true;
    for(int i = 0; i<4; i++){
        // i dont understand this part
        int ci = si + mov[i].first;
        int cj = sj + mov[i].second;

        // to run the dfs we need to check 3 things; valid, visited, 1
        if(valid(ci, cj) == true && visited[ci][cj] == false   && grid[ci][cj] == 1){
            dfs(ci, cj, grid);
        }
    }

}

    int maxAreaOfIsland(vector<vector<int>>& grid) {
        int count = 0;

         n= grid.size();
         m = grid[0].size();
        memset(visited, false, sizeof(visited));

        for(int i = 0; i< n; i++){
            for(int j =0; j<m;j++){
                if(visited[i][j] == false && grid[i][j] == 1){
                    dfs(i,j, grid);
                    count++;
                }
            }
        }

        return count;
    }
};
```