

```
bool isSafe(MC][], row, col, visited[][])
```

```
{  
    return true if point lies on graph and is not  
    visited  
}
```

```
DFS(MC][], row, col, visited[][])
```

```
{  
    rowNum = {-1, -1, -1, 0, 0, 1, 1, 1};
```

```
    colNum = {-1, 0, -1, -1, 1, -1, 0, 1};
```

```
    visited[row][col] = true;
```

```
    for (int k=0; k<8; k++)
```

```
    {  
        if (isSafe(MC][], row[k], col[k], visited[][])
```

```
            DFS(M, rowNum[k], colNum[k], visited[][]);  
    }
```

```
countIslands(MC][])
```

```
{  
    visited[][],
```

```
    count = 0;
```

```
    for (i=0; i<row; i++)
```

```
        for (j=0; j<col; j++)
```

```
        {  
            if (MC[i][j] && !visited[i][j])
```

```
            {  
                DFS(M, i, j, visited);
```

```
                count++;  
            }
```

```
        }
```

```
    }  
    return count;
```