

Counting number of islands

int countIsland (vector<vector<int>>&a)

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

```
    {  
      if (current cell is 0)  
        no operations
```

```
    }  
    else
```

```
    // check if all 8 neighbours
```

```
    if neighbour is also 1
```

```
    do union of them
```

```
  }  
}
```

we will get sets of connected ones

int c = new int [m * n]

then count frequency of each set

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

```
{  
  for (int k=0; k<n; k++)
```

```
  {  
    if (a[j][k] == 1)
```

```
    {  
      find frequent
```

```
      if (c[x] == 0)
```

```
        number of island ++
```

```
      c[x] ++  
    }
```

return number of island;