

Count Islands

Date _____
Page _____

1BM18CS002

Abhinaya K.G

```
int countIsland(vector<vector<int>> a)
{
```

```
    count = 0
```

```
    for i 0 to row
```

```
        for j 0 to col
```

```
            if (a[j][k] == 0)
```

```
                continue;
```

```
            // check all 8 if (a[j+1][k] == 1)
```

```
            neighbour and
```

```
            union (j*col + j, (j+1)*col + k)
```

```
            union with neighbour's
```

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

```
            set if it is 1
```

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

```
            same for
```

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

```
            all 8
```

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

```
            neighbours
```

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

```
            if (a[j-1][k+1] == 1)
```

```
            if (a[j+1][k-1] == 1)
```

```
            // if frequency is 0 then increment count
```

```
            int frequency [row*col]
```

```
            if (frequency [ele] == 0)
```

```
            {
```

```
                count ++;
```

```
            }
```

```
        return count;
```

```
    }
```