```
DFS-connected-Component (G):
    Given : c ← 0
    for all vertices v in G:
        visited[v] ← false;
         finished[v] ← false;
          p[v] ← nil;

        for all vertices in G:
            if not visited[v];
            then, c ← c+1;
              DFS(v, c);

DFS(v, c):
    visited[v] ← true;
    component[v] ← c.
    for all vertices w in Adjacency[v]:
        if not visited[w];
        then, p[w] ← v;
          DFS(w, c);
    finished[v] ← true;
```