

```

1  /// Sample Code SCC(Tarjan):
2  int dis[100005], low[100005], par[100005], vis[100005];
3  vector<int> ed[100005], scc[100005];
4  int tim, root, gr;
5  stack<int> st;
6  void dfs(int u){
7      vis[u]=1;
8      dis[u]=++tim;
9      low[u]=tim;
10     st.push(u);
11     for(int i=0; i<ed[u].size(); i++){
12         int v = ed[u][i];
13         if(vis[v]==0){
14             par[v]=u;
15             dfs(v);
16             low[u]=min(low[u], low[v]);
17         }else if(vis[v]==1){
18             low[u]=min(low[u], dis[v]);
19         }
20     }
21
22     vis[u]=2;
23     if(dis[u]==low[u]){
24         gr++;
25         while(st.top()!=u){
26             int w = st.top();
27             st.pop();
28             scc[gr].push_back(w);
29         }
30         int w = st.top();
31         st.pop();
32         scc[gr].push_back(w);
33         sort(scc[gr].begin(), scc[gr].end());
34     }
35 }
36 int main(){
37     int tt; scanf("%d", &tt);
38     for(int ks=1; ks<=tt; ks++){
39         int n, m; scanf("%d%d", &n, &m);
40         for(int i=1; i<=m; i++){
41             int u, v; scanf("%d%d", &u, &v);
42             ed[u].push_back(v);
43         }
44
45         memset(vis, 0, sizeof(vis));
46         tim=0; gr=0;
47
48         for(int i=1; i<=n; i++){
49             if(vis[i]==0) dfs(i);
50         }
51
52         for(int i=1; i<=gr; i++){
53             printf("Group %d:", i);
54             for(int j=0; j<scc[i].size(); j++){
55                 int u = scc[i][j];
56                 printf(" %d", u);
57             }
58             printf("\n");
59         }
60
61         for(int i=1; i<=n; i++) ed[i].clear();
62         for(int i=1; i<=gr; i++) scc[i].clear();
63         while(!st.empty()) st.pop();
64     }
65     return 0;
66 }

```