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1  #include<stdio.h>
2  #include<string.h>
3  #include<vector>
4  #include<algorithm>
5  #include<set>
6  #include<utility>
7  using namespace std;
8
9  #define MAX 112345
10 #define INF 1123456789
11 //#define DEBP
12
13 typedef vector<int> vi;
14 typedef pair<int, int> ii;
15
16 int ncomp, d[MAX], low[MAX], seen[MAX], st[MAX], comp[MAX], sn, tempo;
17 int ld[MAX], lp[MAX], li, vistp[MAX], tp[MAX], itp;
18
19 void tarjan(int u, vector<vi> &LG) {
20     int i, v;
21     st[sn++] = u; seen[u] = 1;
22     d[u] = low[u] = tempo++;
23     for (i = 0; i < (int)LG[u].size(); i++) {
24         v = LG[u][i];
25         if (!seen[v]) { tarjan(v, LG); low[u] = min(low[u], low[v]); }
26         else { low[u] = min(low[u], d[v]); }
27     }
28     if (d[u] == low[u]) {
29         do { v = st[--sn]; comp[v] = ncomp; d[v] = INF; } while (v != u);
30         ncomp++;
31     }
32 }
33
34 void dfs(int u, vector<vi> &DAG) {
35     int i, v;
36     vistp[u] = 1;
37     for (i = 0; i < (int)DAG[u].size(); i++) {
38         v = DAG[u][i];
39         if (!vistp[v]) dfs(v, DAG);
40     }
41     tp[itp++] = u;
42 }
43
44 int main(void) {
45     int n, m, a, b, u, i, v, bolada;
46     scanf("%d %d", &n, &m);
47     vector<vi> LG(n);
48     for (u = 0; u < m; u++) {
49         scanf("%d %d", &a, &b); a--; b--;
50         LG[a].push_back(b);
51     }
52     memset(d, 0, sizeof(d)); memset(low, 0, sizeof(low));
53     memset(seen, 0, sizeof(seen));
54     for (tempo = 1, u = ncomp = sn = 0; u < n; u++)
55         if (!d[u]) tarjan(u, LG);
56     vector<vi> DAG(ncomp);
57     set<ii> LDAG;
58     memset(ld, -1, sizeof(ld)); memset(lp, 0, sizeof(lp));
59     for (u = 0; u < n; u++)
60         for (li = i = 0; i < (int)LG[u].size(); i++) {
61             v = LG[u][i];
62             if (comp[u] != comp[v] && LDAG.find(ii(comp[u], comp[v])) == LDAG.end()) {
63                 LDAG.insert(ii(comp[u], comp[v]));
64                 DAG[comp[u]].push_back(comp[v]);
65             }
66         }
67     memset(vistp, 0, sizeof(vistp));
68     for (itp = ncomp - 1, u = 0; u < ncomp; u++)
69         if (!vistp[u]) dfs(u, DAG);
70     for (bolada = 1, i = 0; i < ncomp - 1; i++)
71         bolada &= (LDAG.find(ii(tp[i], tp[i + 1])) != LDAG.end());
72     printf("%sBolada\n", bolada ? "" : "Nao ");
73     return 0;
74 }

```