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(1)  procedure VISIT(v);
(2)  begin
(3)    root[v] := v; InComponent[v] := False;
(4)    PUSH(v, stack);
(5)    for each node w such that  $(v, w) \in E$  do begin
(6)      if w is not already visited then VISIT(w);
(7)      if not InComponent[w] then root[v] := MIN(root[v], root[w])
(8)    end;
(9)    if root[v] = v then
(10)     repeat
(11)       w := POP(stack);
(12)       InComponent[w] := True;
(13)     until w = v
(14)  end;
(15) begin/* Main program */
(16)   stack :=  $\emptyset$ ;
(17)   for each node v  $\in V$  do
(18)     if v is not already visited then VISIT(v)
(19)  end.

```

Figure 1: Tarjan's algorithm detects the strongly connected components of graph  $G = (V, E)$ .