```
Edge classification
Function DFS ()
foreach v in V do
    visited[v] = false;
    pre[v] = null;
    post[v] = null;
end
foreach v in V do
    if visited[v]==false then
        explore(v);
    end
end

Function explore (z);
pre[z] = clock ++;
visited[z] = true;
foreach (z, w) in E do
    if visited[w]==false then
        print: (z,w) is a tree edge
        explore(w);
    end
    else if pre[z] < pre[w] then
        print: (z,w) is a forward edge
    end
    else if post[w] == null then
        print: (z,w) is a back edge
    end
    else
        print: (z,w) is a cross edge
    end
end
post[z] = clock++;
```