

Remarks _____

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Line Procedure DFS(v)

// Given an undirected or directed graph
 $G = (V, E)$ with n vertices & an array
 $VISITED()$, initially set to 0.

This algorithm visits all vertices
reachable from v in G and $VISITED$
Global.

$VISITED(v) \leftarrow 1$

For each vertex w adjacent from
 v do,

if $VISITED(w) = 0$, then

call DFS(w)

endif

repeat

END_DFS.

Non-Recursive Procedure DFS -

Procedure NR-DFS (V)

VISITED (V) \leftarrow 1

u \leftarrow V

Initialize STACK to be empty

loop

For all w adjacent from u, do

POSH (w)

VISITED (w) \leftarrow 1

repeat

if STACK is empty then,

return

else

u \leftarrow POP (C)

endif

repeat

END_NR_DFS