

Adjacency Matrix

	A	B	C	d	E	F	G	H	S
A	0	1	0	0	0	0	0	0	1
B	1	0	0	0	0	0	0	0	0
C	0	0	0	1	1	1	0	0	1
D	0	0	1	0	0	0	0	0	0
E	0	0	1	0	0	0	0	1	0
F	0	0	1	0	0	0	1	0	0
G	0	0	0	0	0	1	0	1	1
H	0	0	0	0	1	0	1	0	0
S	1	0	1	0	0	0	1	0	0

Visit C

mark it

push on Stack

Output C

push D

output

D has no go

pop d

push E

output E

mark E

push h

visit g.

mark G

push G

print G

①

C

②

d
C

③

C

④

e
C

⑤

h
e
C

⑥

G
h
e
C

visit F

mark F

push on stack

both C and G

are visited node

Pop F

mark S

push S

print S

mark A

push A

print A

mark B

push B

print B

B has no further

pop B

pop A

pop S

⑦

F
G
h
e
C

⑧

G
H
e
C

⑨

S
H
e
C

⑩

A
S
H
e
C

B
A
H
e
C

A	S	G
S	S	H
H	H	e
e	e	C
C	C	C

H	e		
e	c	c	
c			

↓
empty step.

Output

C D F H G F S A B