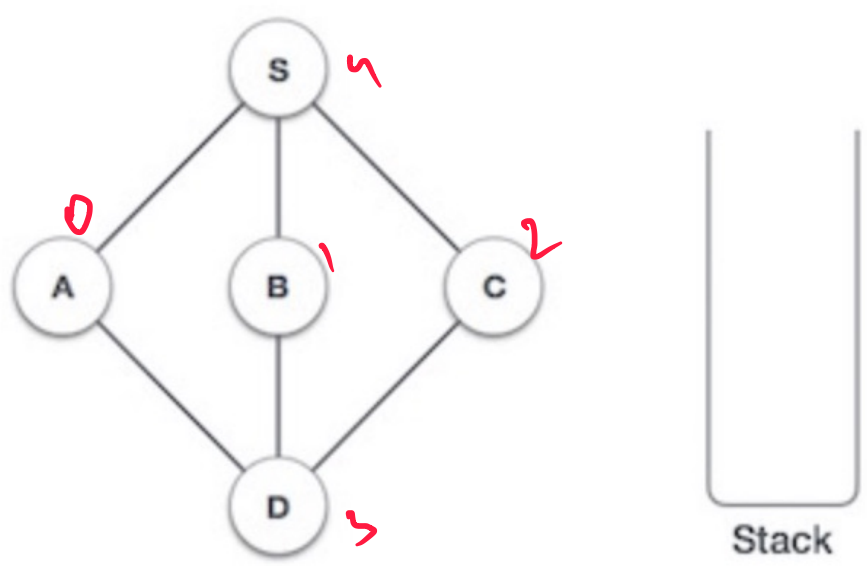


DFS

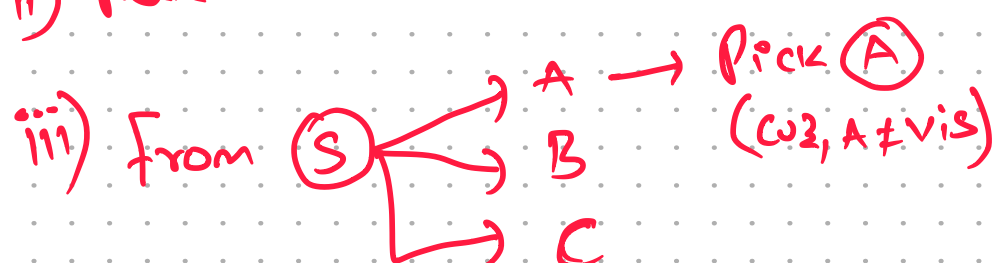
#1)



	0	1	2	3	4
0	0	0	0	1	1
1	0	0	0	1	1
2	0	0	0	1	1
3	1	1	1	0	0
4	1	1	1	0	0

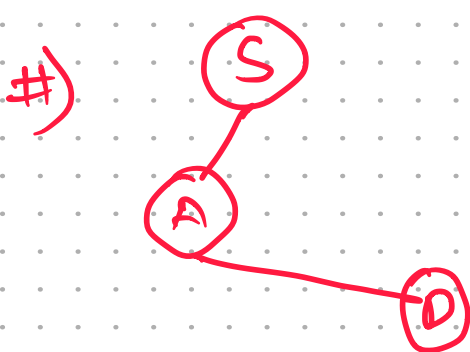
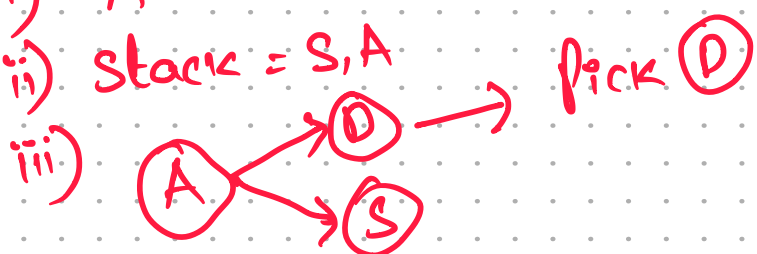
#2)

- S = visited
- Place it on to stack.



#3)

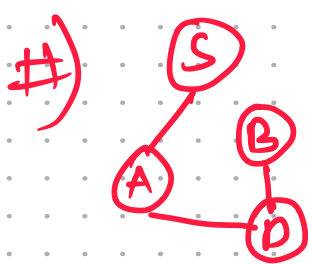
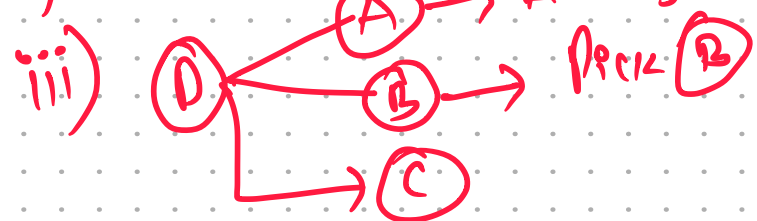
- A = visited
- Stack = S, A



#4)

- D = visited

- Stack = S, A, D



#5)

- B = visited

- Stack = S, A, D, B



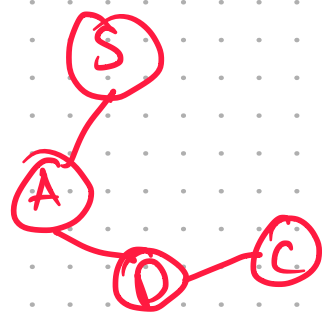
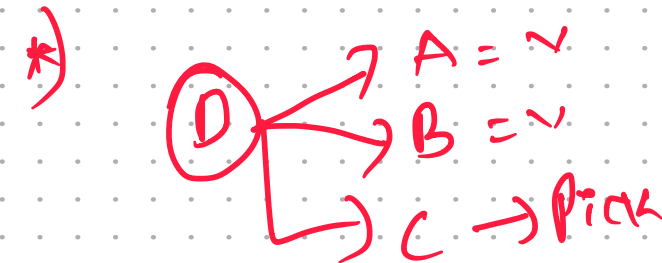
- Since came to End of loop (no match)
↳ Pop B

Note: Before return

- Pop B
- don't remove B from visiting Array.
↳ It will form a cycle.

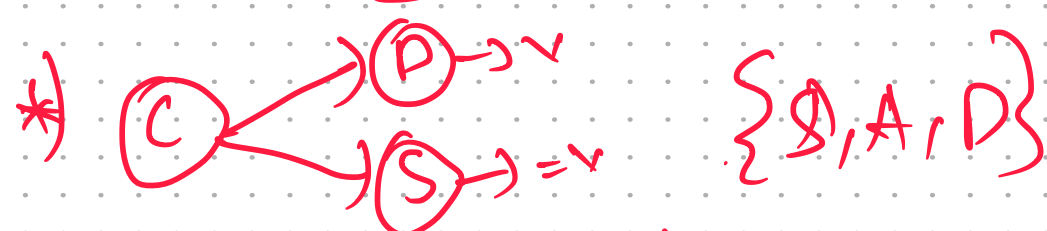
#6) $visited = \{S, A, D, B\} \Rightarrow$

* Stack = $\{S, A, D\}$



#7) $vis = \{S, A, D, B, C\}$

* Stack = $\{S, A, D, C\}$



Ret Back (Pop C)

#8)

D Edges = vis

↳ Ret Back (Pop D)

$\{S, A\}$

#9)

A Edges = vis

↳ Ret Back (Pop A)

$\{S\}$

#10)

S Edges = vis

↳ Ret Back (Pop S)