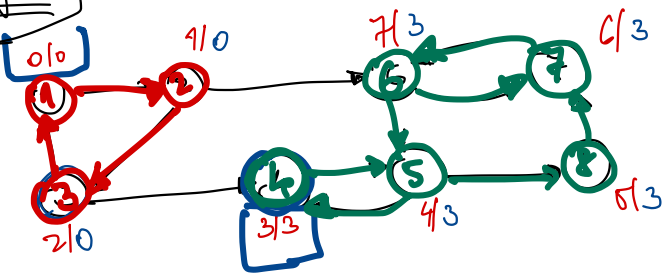


Tarjan



- 1: 2
- 2: 3 [6]
- 3: 1 4
- 4: 5
- 5: 4 8
- 6: 5 7
- 7: 6
- 8: 7

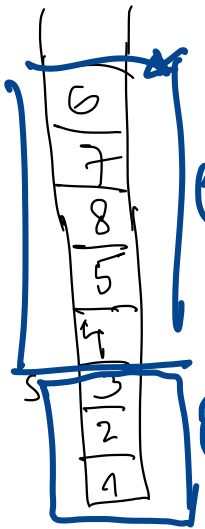
n=8 nodes
m=12 edge

idx \Rightarrow found

idx | lowlink

idx	1	2	3	4	5	6	7	8
idx	0	1	2	3	4	5	6	7
lowlink	0	1	2	3	4	5	6	7
in-stack	1	1	1	1	1	1	1	1

indices
1
2
3
4
5
6
7
8



1 $f(1)$ $x=1 \rightarrow y=2$ $lowlink[1] = \min(0, 0) = 0$

$f(2)$ $x=2 \rightarrow y=3$ $lowlink[2] = \min(1, 0) = 0$

$f(3)$ $x=3 \rightarrow y=1$ $lowlink[3] = \min(2, 0) = 0$

$f(4)$ $x=4 \rightarrow y=5$ $lowlink[4] = \min(3, 3) = 3$

$f(5)$ $x=5 \rightarrow y=4$ $lowlink[5] = \min(4, 3) = 3$

$f(8)$ $x=8 \rightarrow y=7$ $lowlink[8] = \min(5, 3) = 3$

$f(7)$ $x=7 \rightarrow y=6$ $lowlink[7] = \min(3, 6) = 3$

$idx[x] = lowlink[x]$
x root pt CTC

- {4, 5, 8, 7, 6}
- {1, 2, 3}

$$f(6) : x=6 \rightarrow y=5$$

$$y=7$$

$$\text{lowlink}[6] = \min(3, 7) = \underline{3}$$

$$\text{lowlink}[6] = \min(3, 6) = 3$$