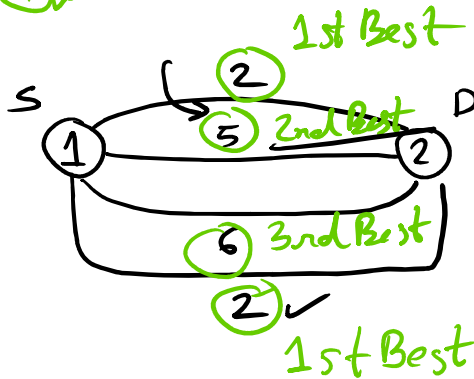
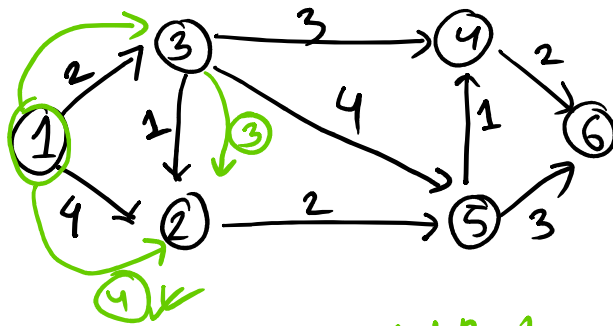


## 2nd Best Shortest Path

\* MIN Heap / Priority Queue

\* Array of min cost path for every node

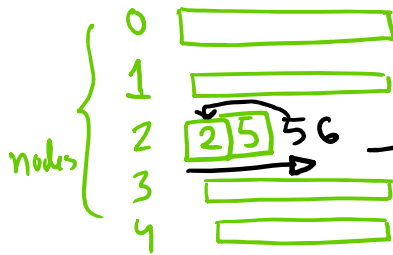


0	1	2	...	n-1
0	$\infty$	$\infty$		$\infty$

→ Cost of the shortest path

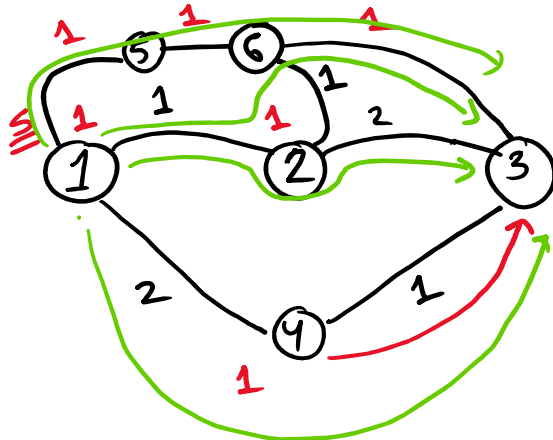
0	1	2	...	n-1
		2		
		2		

Cost of 2nd Best path  
 $(2, 2), (2, 2), (5, 2), (6, 2)$



$\text{mindis}[2].\text{back}() / \text{mindis}[2][0]$

$(2, 2)$   
 $(5, 2)$



$\underline{\underline{D}}$   
 $\underline{\underline{3, 1}}$

$$2+1 = 2+1 = 3+1 = 4$$

$1 \rightarrow 2 \rightarrow 3$

$1 \rightarrow 4 \rightarrow 3$

Pr (Probability, Node)

Pr (Probability, Node)

↳ MAX heap

Easy

————— (✓) → (10)

Medium

————— (✓) → (25)

(Hard)

=====

↑

2 month

BS, Graph, DP

2 weeks  
↑

Medium

3-4 months

Comfortable

BS

2 days

Need Practice

BFS, DFS

3 days

Unknown

DP

1-2 Days