

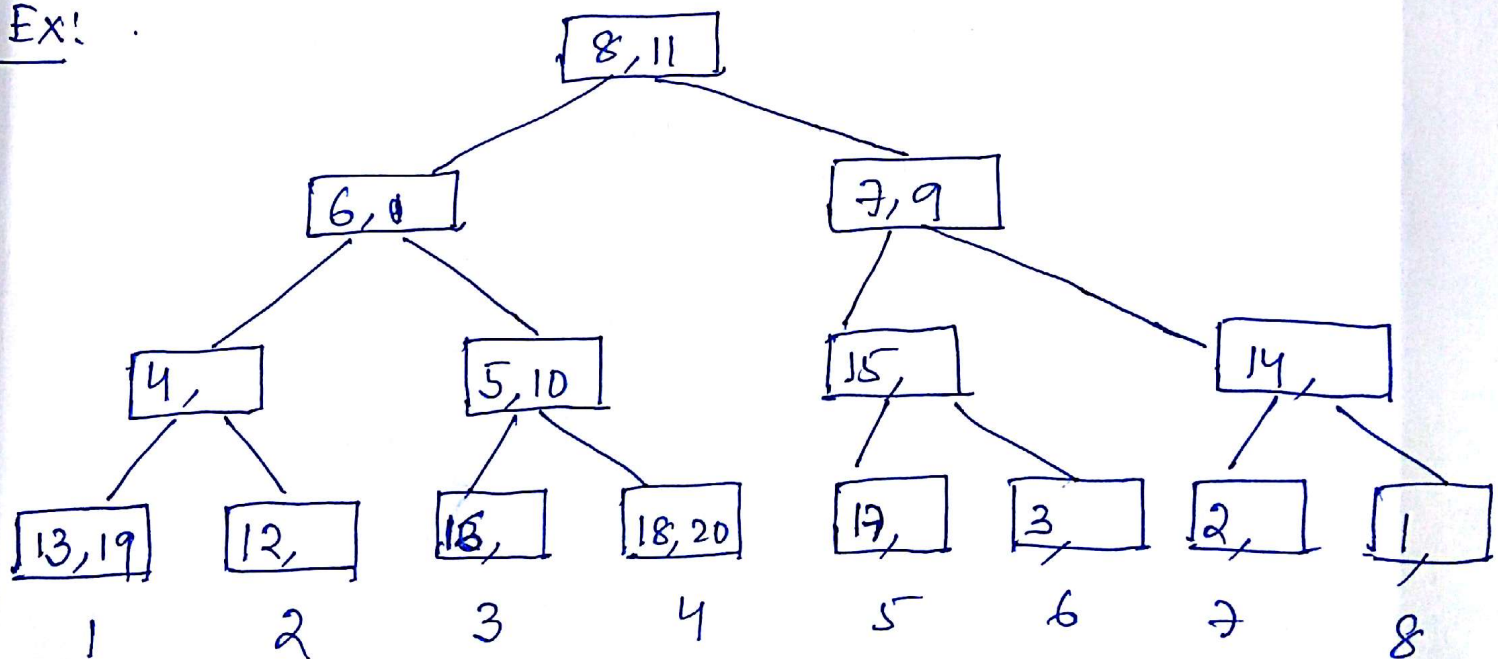
1. Rearrangement Cost reduced to $O(\log n)$.
 - single element $O(1)$ i.e.'s operation.
 - $\log n$ elements $O(\log n)$.

3 operation:

1. Find depth
2. prepare deepest
3. prepare Target

2. Circuit ORAM is derived from Binary ORAM.

Ex:



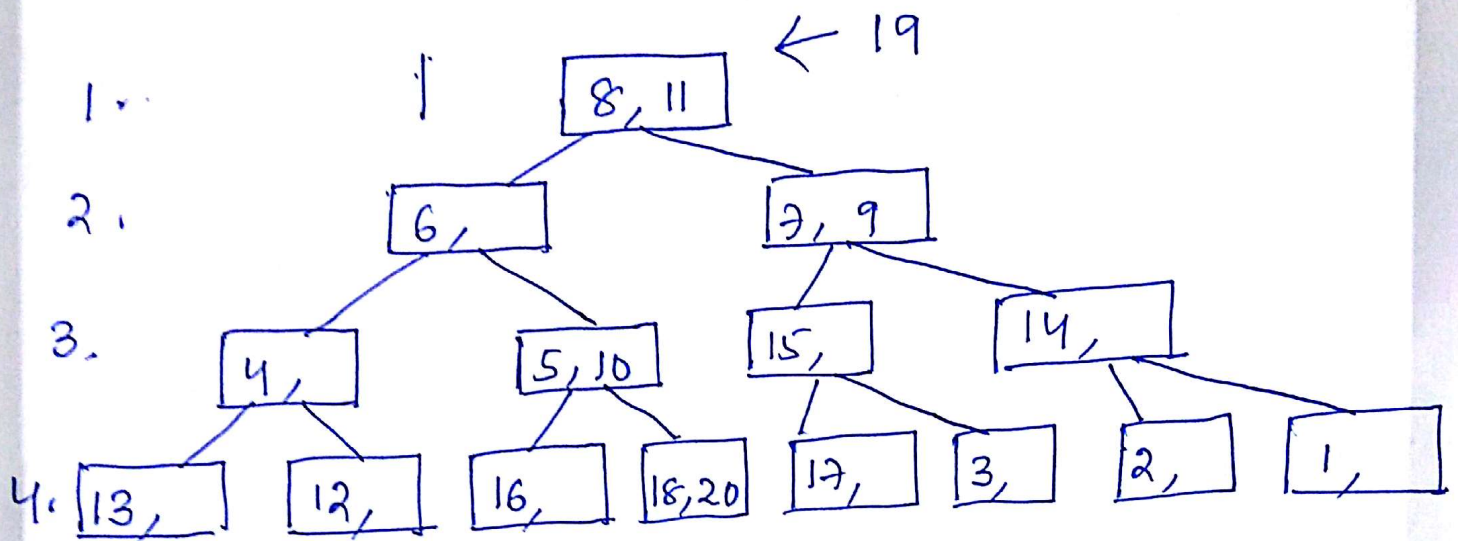
stash:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
8	7	6	1	4	2	5	1	8	3	6	2	1	2	6	3	5	4	1	4

After Reading '19'

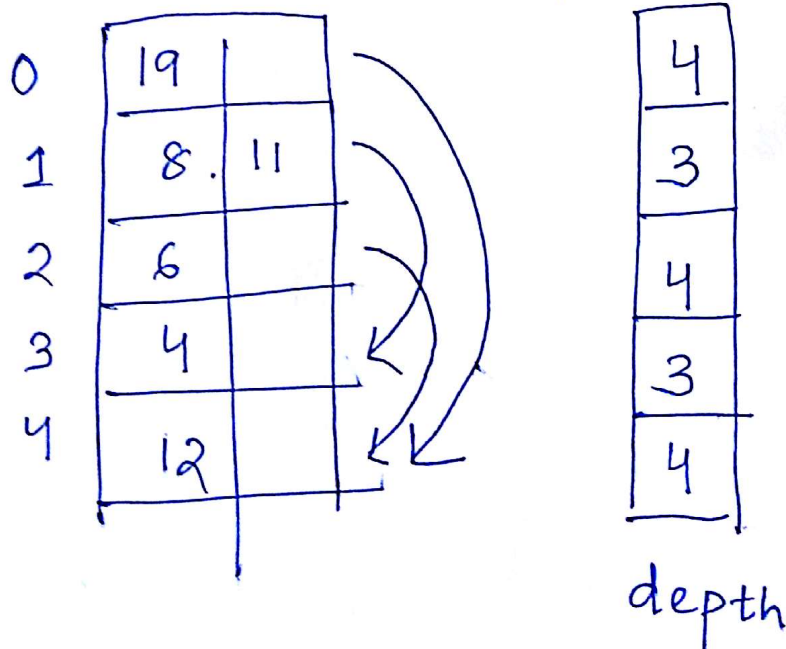
19 → 2

Position Map.



Find depth:

1. Find deepest element in a bucket and find its depth. (Top → bottom)



2. prepare Deepest:

Assign Memory Locations to nearest deepest element.
(Bottom \rightarrow up)

0	19	
1	8	11
2	6	
3	4	
4	12	

1
2
2

Deepest

3. prepare Target: (Top \rightarrow bottom)

0	19	
1	8	11
2	6	
3	4	
4	12	

2
4

4. eviction:

19	11
8	
4	
12	6.