

HashMap < String, Integer >

India - 5 } 2

China - 3 } 0

US - 4

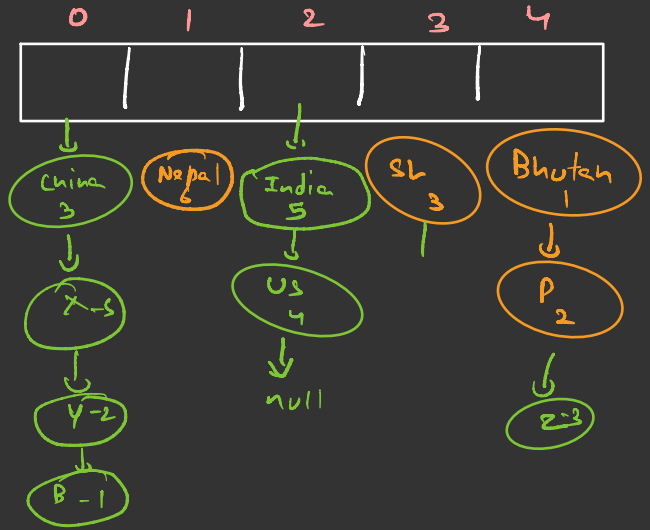
Nepal - 6

Bhutan - 1

Sri Lanka - 3

Pakistan - 2

Bangladesh



Input  $\longrightarrow$  hashCode()  $\longrightarrow$  Output

hashFunction (String s)

int a = Math.abs(s.hashCode());

a r. size

size  $\rightarrow$  no of nodes in HM

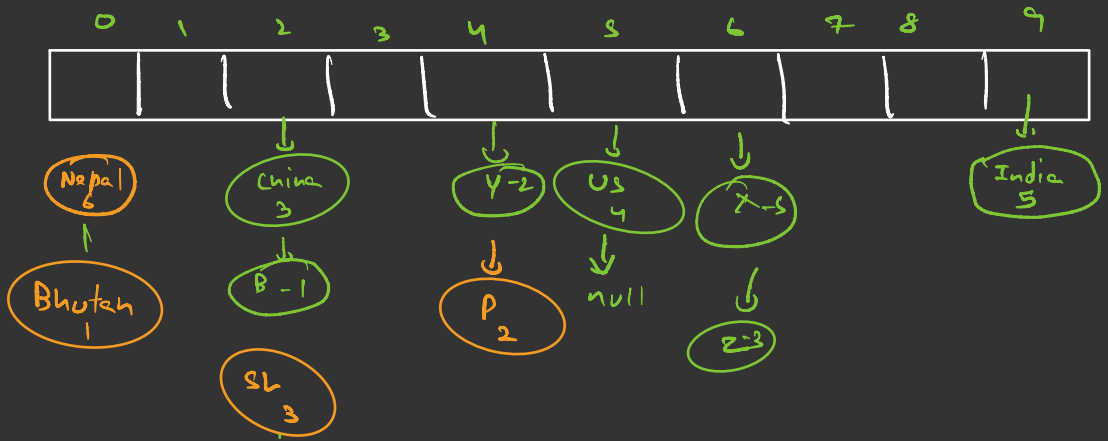
N  $\rightarrow$  Length of your array

$$\lambda(\text{load factor}) = \frac{\text{size}}{N}$$

$$TC = O(N)$$

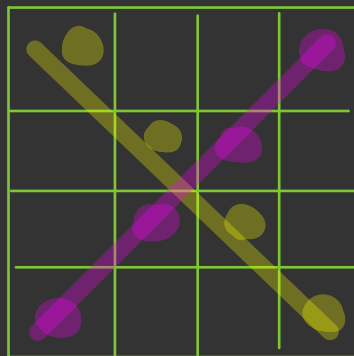
$K$  (threshold Value)  $\lambda \leq K=2$

Rehashing



$$\lambda = \frac{11}{10} = 1.1$$

	1	2	3
1	1+1	1+2	1+3
2	2+1	2+2	2+3
3	3+1	3+2	3+3



$$a[i][j] = i + j$$

$$\text{row} \Rightarrow 1 - n$$

$$\text{col} \Rightarrow 1 - n$$

$$\text{rows} \Rightarrow 1 - n$$

$$\text{cols} \Rightarrow n - 1$$

$$1 - n \Rightarrow \frac{n \times (n+1)}{2} \times 2$$

$$\text{even} \Rightarrow n \times (n+1) \times 2$$

$$\text{odd} \Rightarrow n \times (n+1) \times 2 - (n+1)$$

