Introduction to Hashing

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Hashing Interface

- Insert(key)
- Delete(key)
- Find(key)
- Traverse
- Find the frequency of a given element
- Find the prefix sum
- Find the prefix diff
- Check balancedness of a string
- Check subsequence of a string

Hashing Implementation

- Array
- Linked List
- Binary Search Tree
- Balanced Binary Search Tree
- Hashing

Hashing is a technique to map a large chunk of data into a small table using a hash function.

Key Hashing

Key → Hash Function → Hash Table

Key Value Hashing

Key → Hash Function → Hash Table

Hash Table

0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

Key hashing

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Key Value Hashing

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Key Value