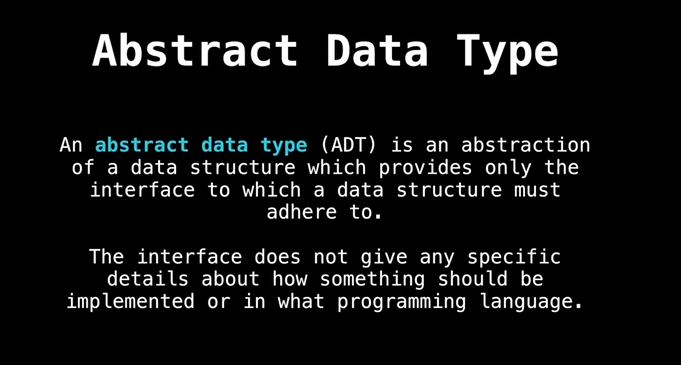
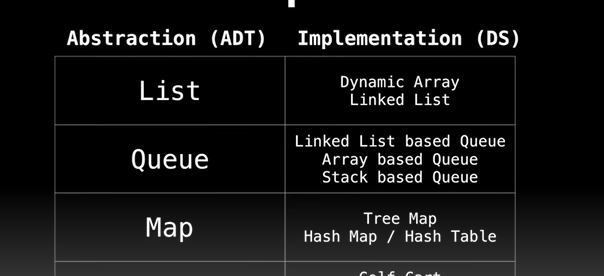
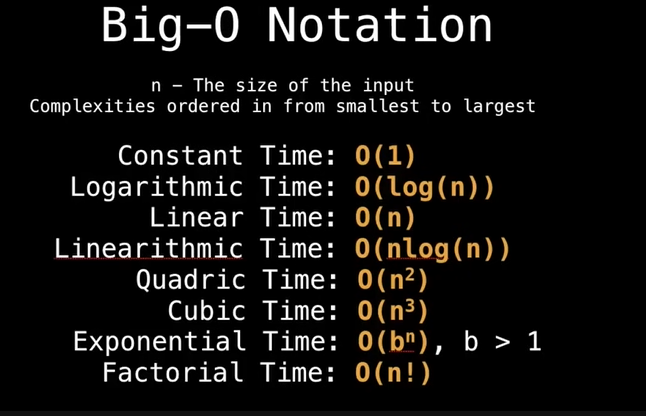
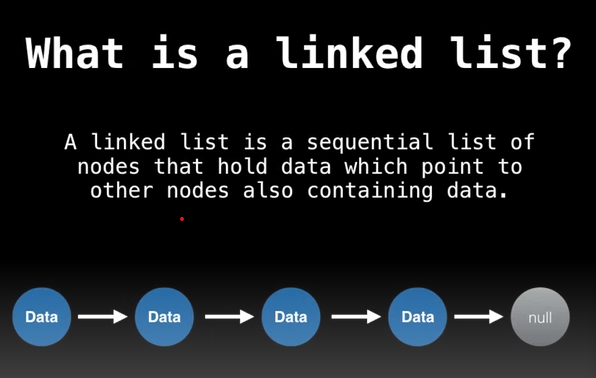
Data structure is a way of organizing data in a way it is used efficiently



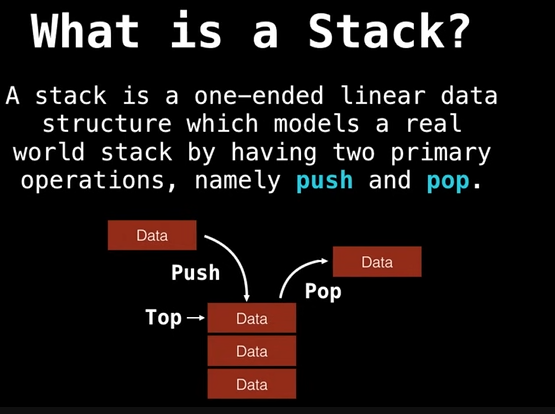


Dynamic array can grow and shrink in size



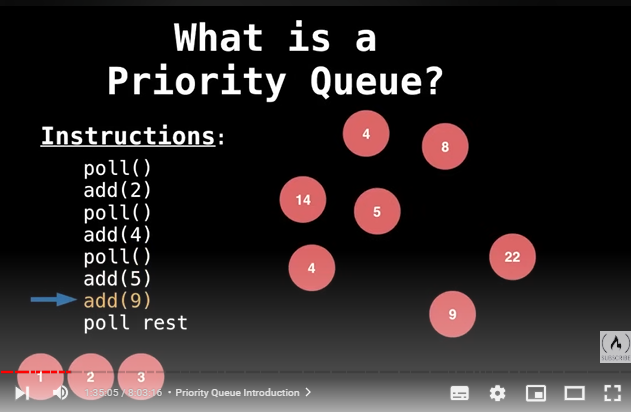
Used in stacks , queue and list

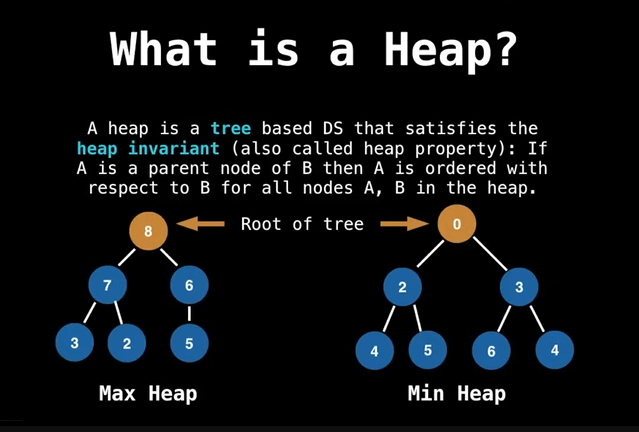
Types… singly and doubly linked list

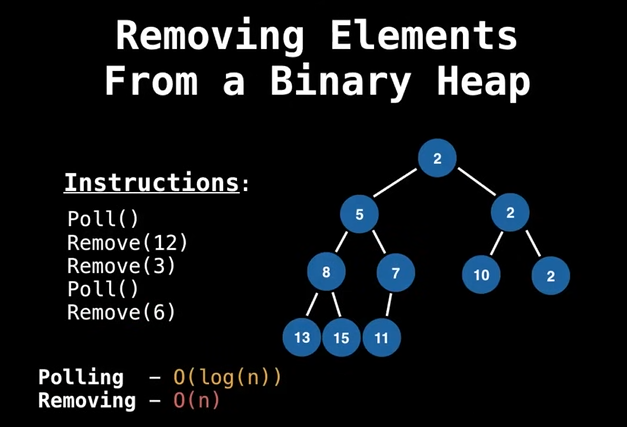


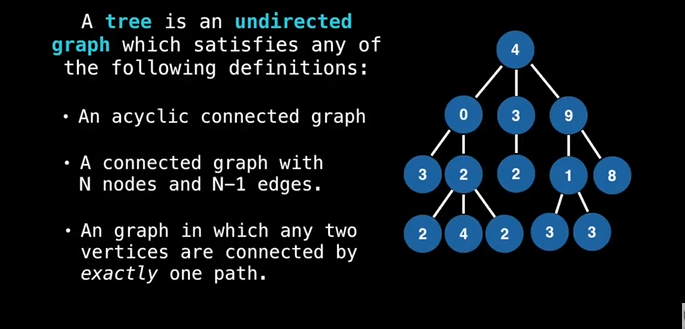


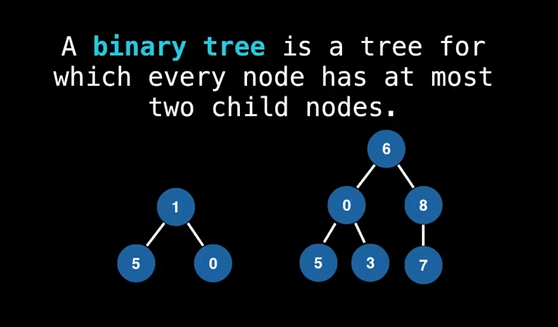


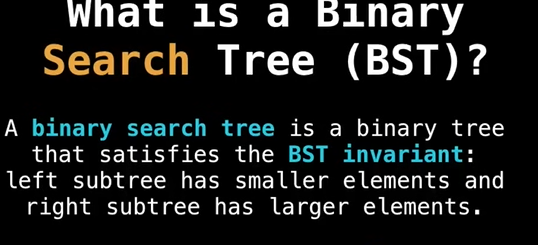


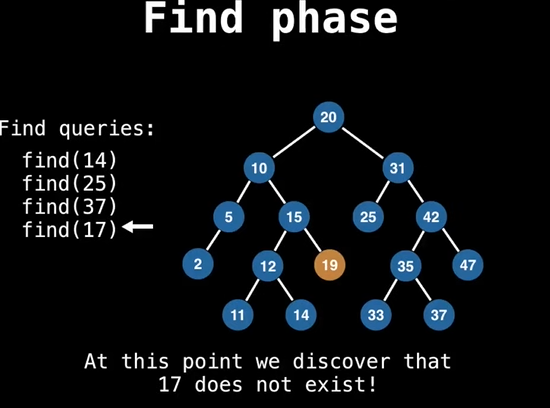




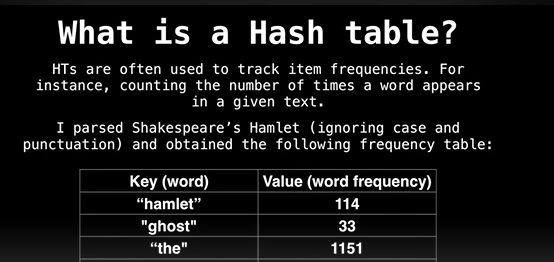
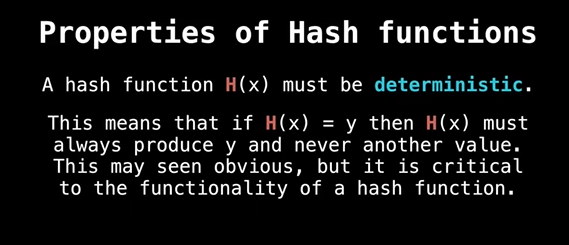


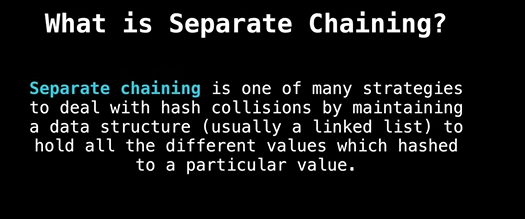


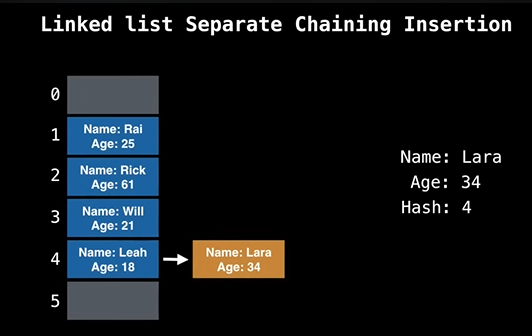
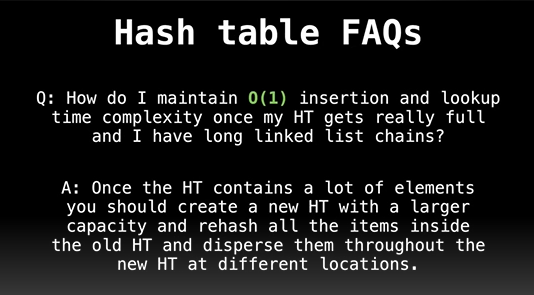
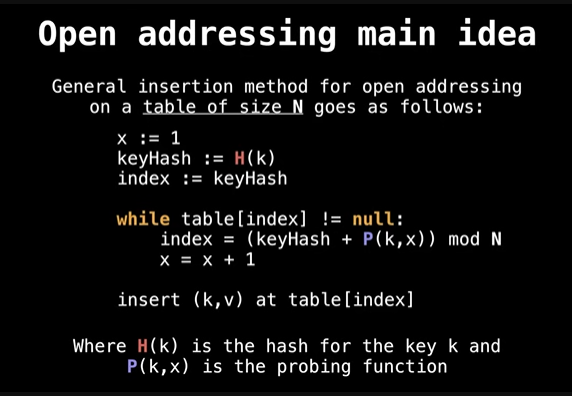


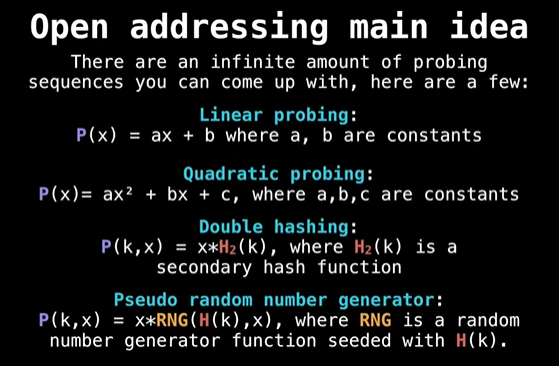


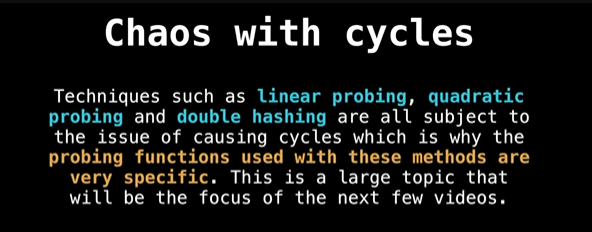








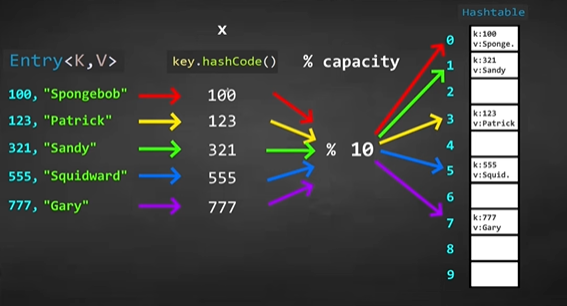


A hashtable is a collection of key value pairs . <K ,V> first is key , second is value

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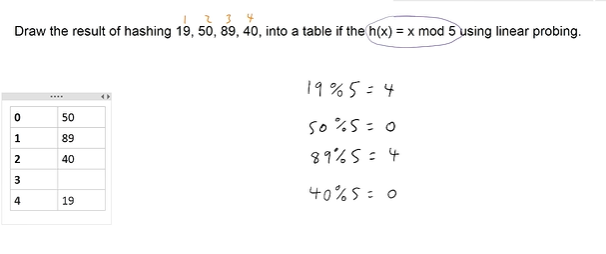
A hashtable is a collection of key value pairs . <K ,V> first is key , second is value

A hashtable is a collection of key value pairs . ENTRY<K ,V> first is key , second is value

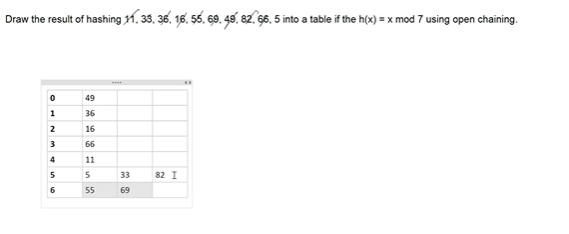


Collision is when we have 2 hashes to be same. what we do is we add separate chaining [linked list]

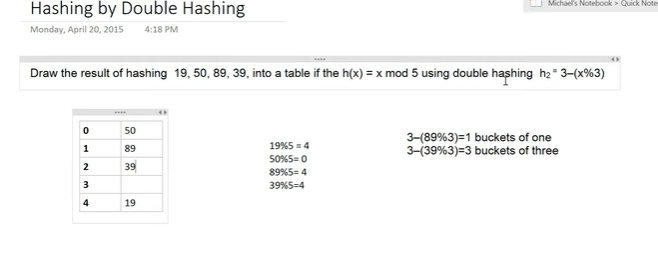
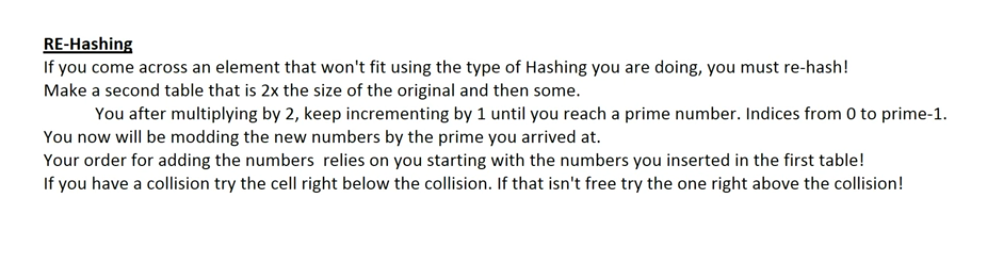
**Linear probing**

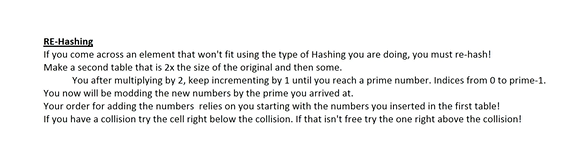
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**Open chaining**

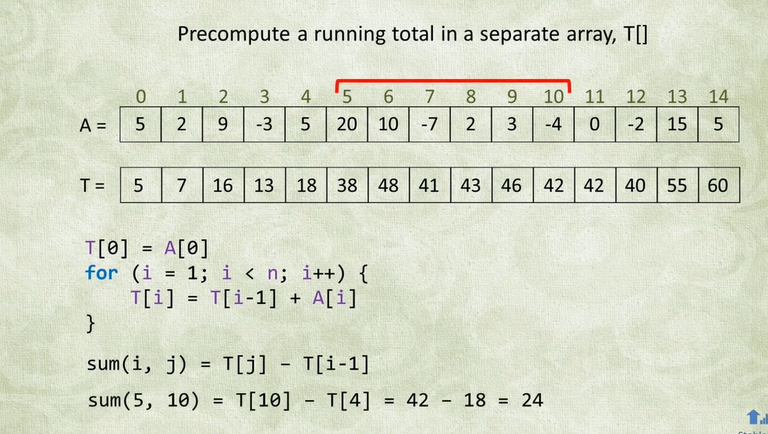
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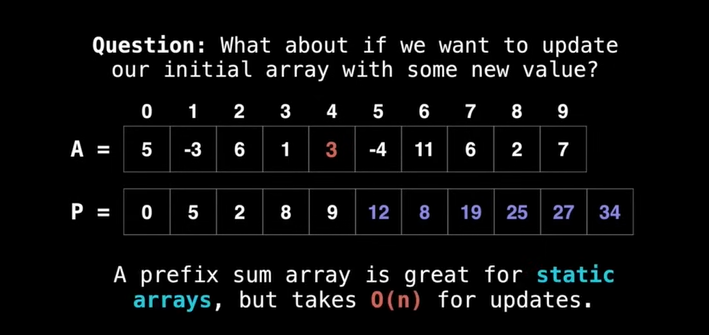
**Quadratic probing**

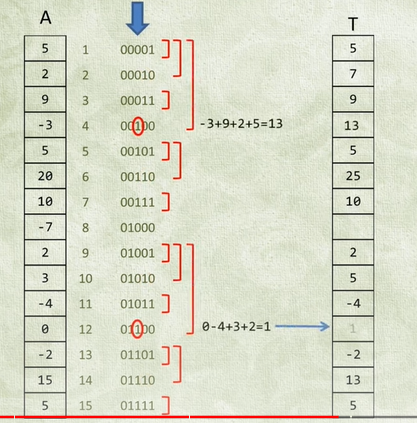
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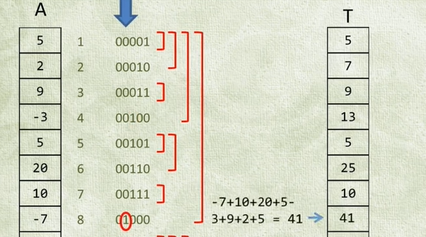
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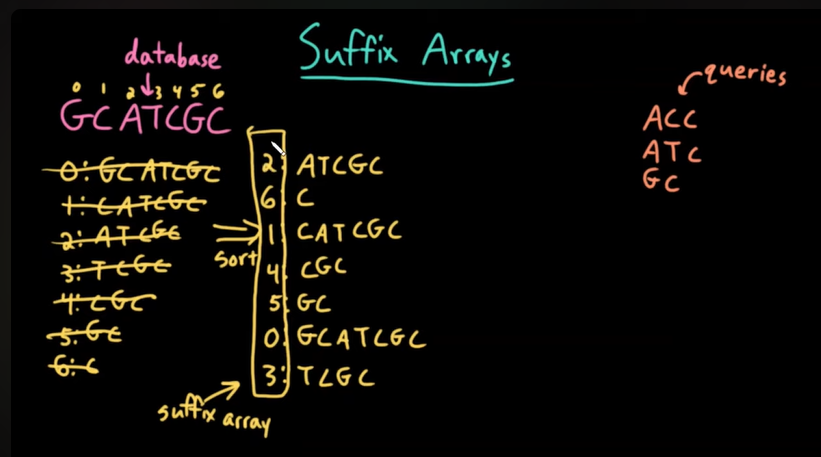
**Fenwick tree**

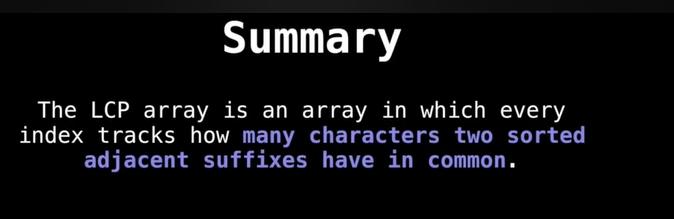
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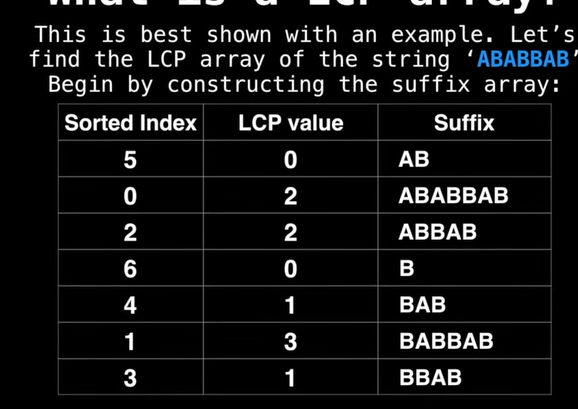
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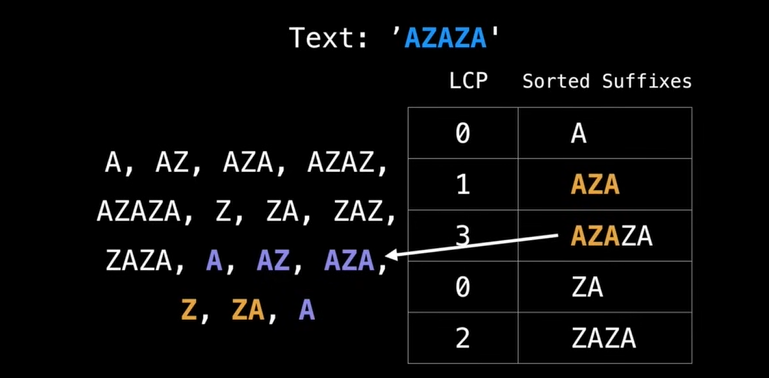
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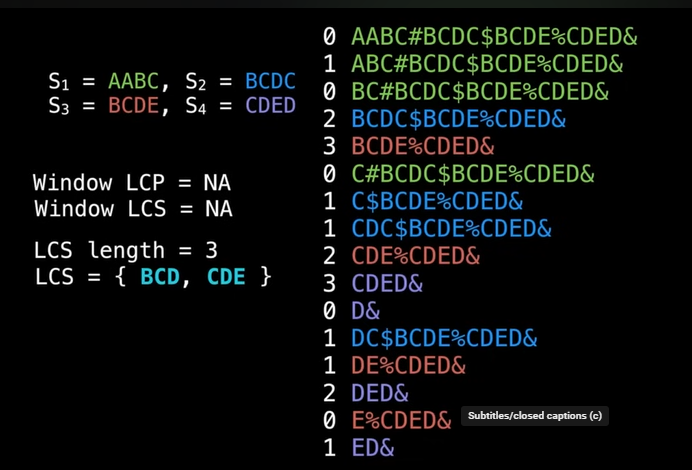
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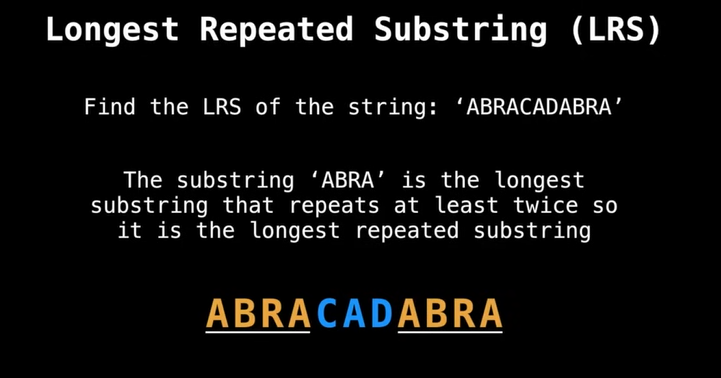
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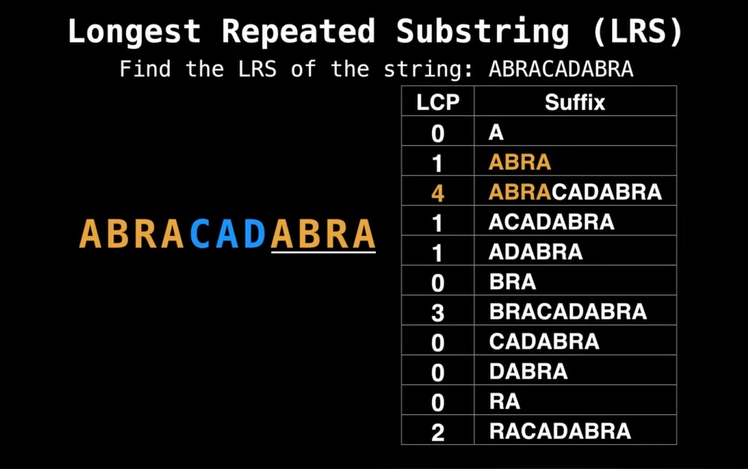
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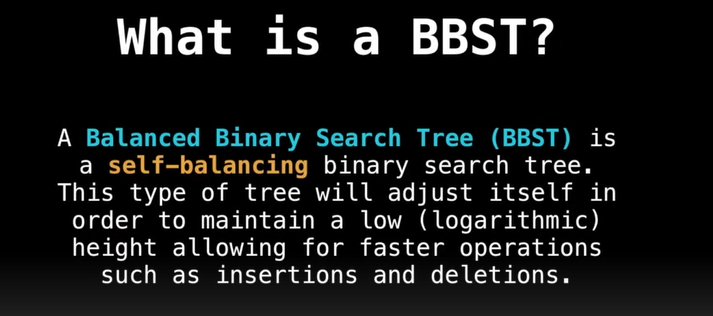
**LCS LONGEST COMMON SUBSTRING**

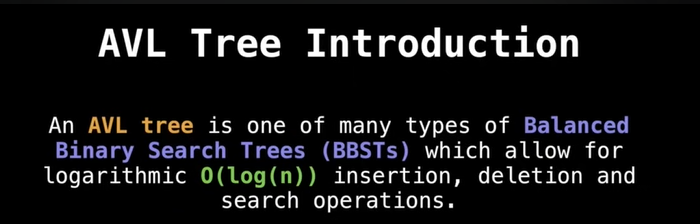
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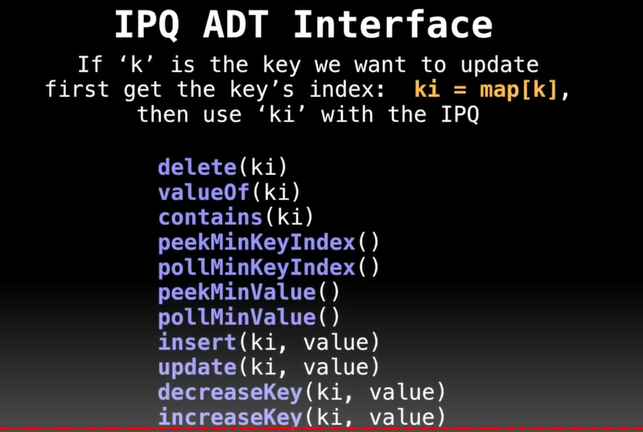
**LONGEST REPEATED SUBSTRING**

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