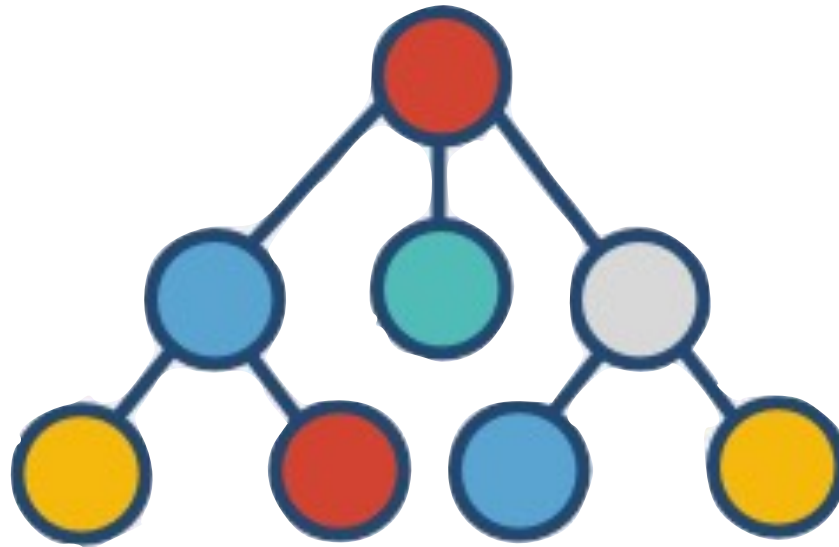


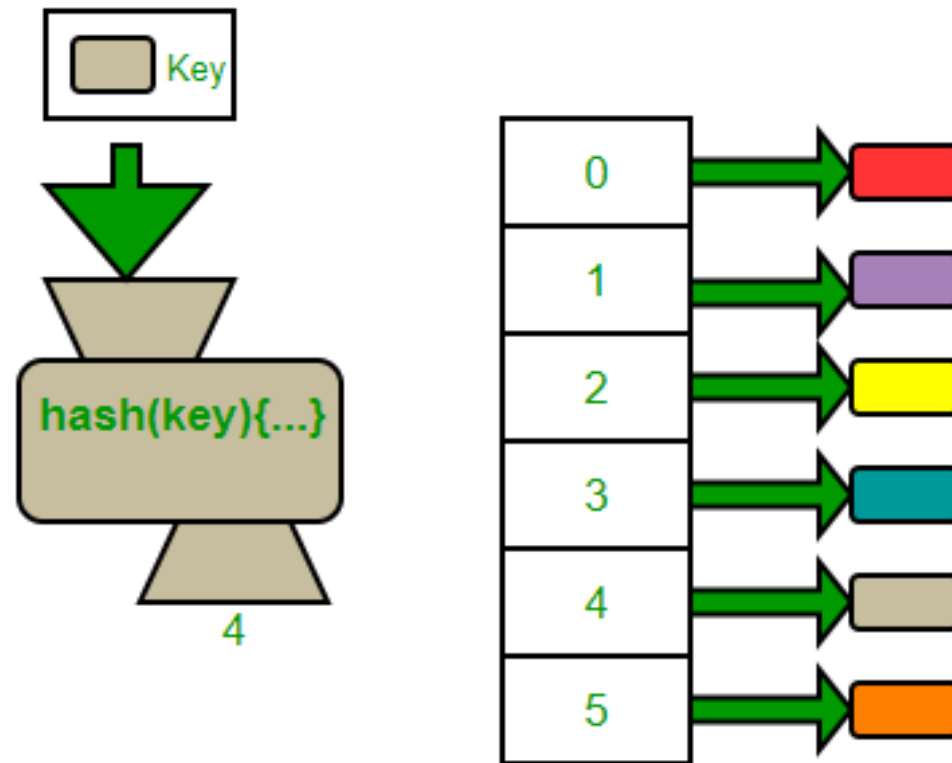
DATA STRUCTURE & ALGORITHMS



(By Prince Agarwal)
[“HELLO WORLD”]

HASHING

HASHING



Hello world

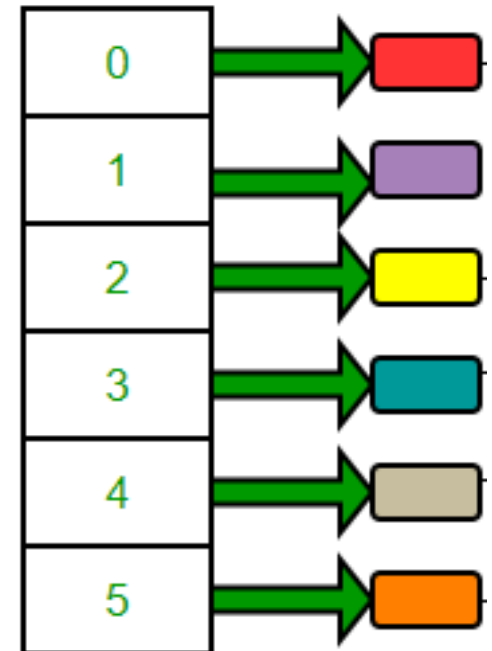
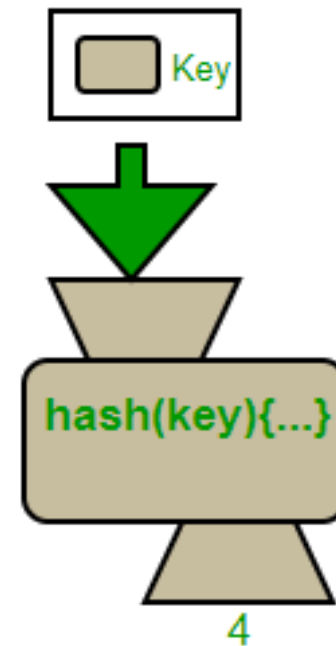
HASHING

HASHING

Key	Value
Cuba	Havana
England	London
France	Paris
Spain	Madrid
Switzerland	Berne

simply count the number of characters

Cuba has a hash code (length) of **4**



Hello world

HASHING

HASHING

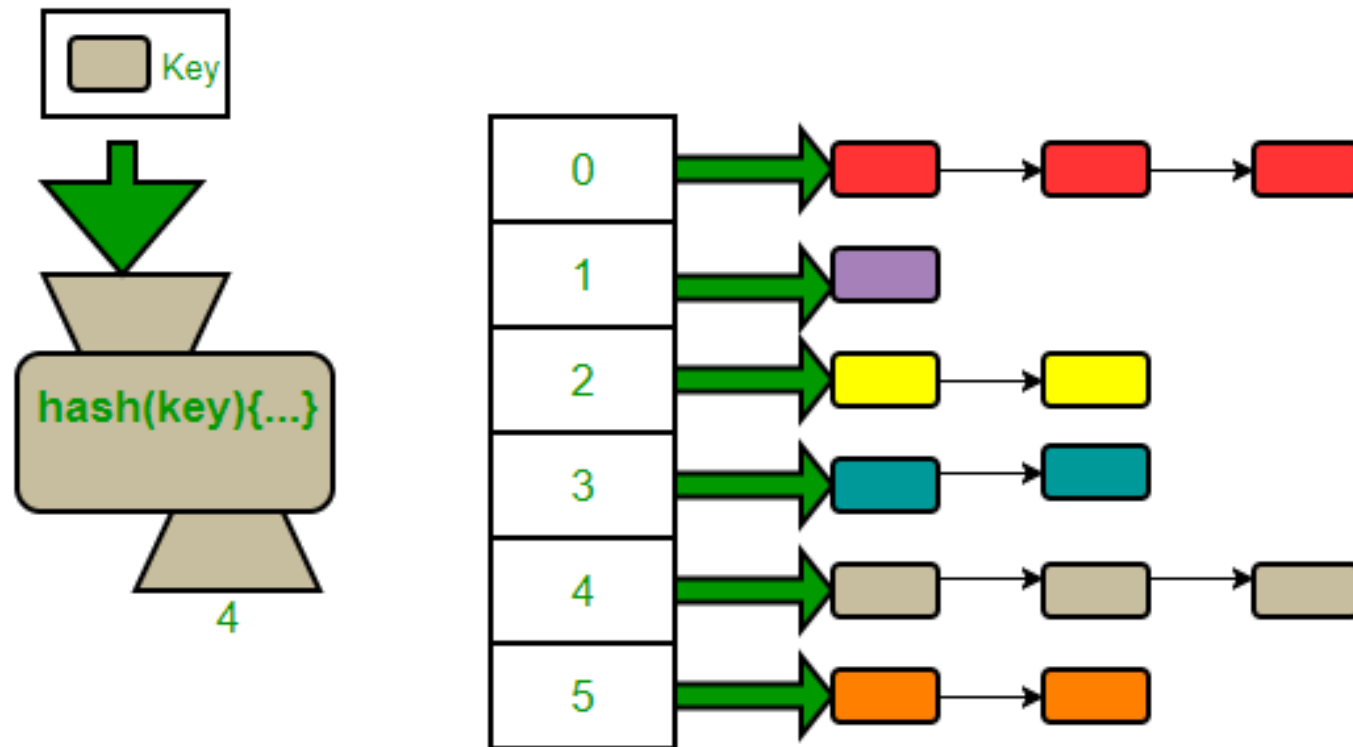
Position (hash = key length)	Keys array	Values array
1		
2		
3		
4	Cuba	Havana
5	Spain	Madrid
6	France	Paris
7	England	London
8		
9		
10		
11	Switzerland	Berne

psuedoantidisestablishmentarianistically

Hello world

HASHING

HASHING



Hello world

HASHING

■ HASHING

MAX == 1000

You have Given An Array contains both positive and non-positive numbers,
element are in the range from -MAX to +MAX

11	2	-3	4	-10
----	---	----	---	-----

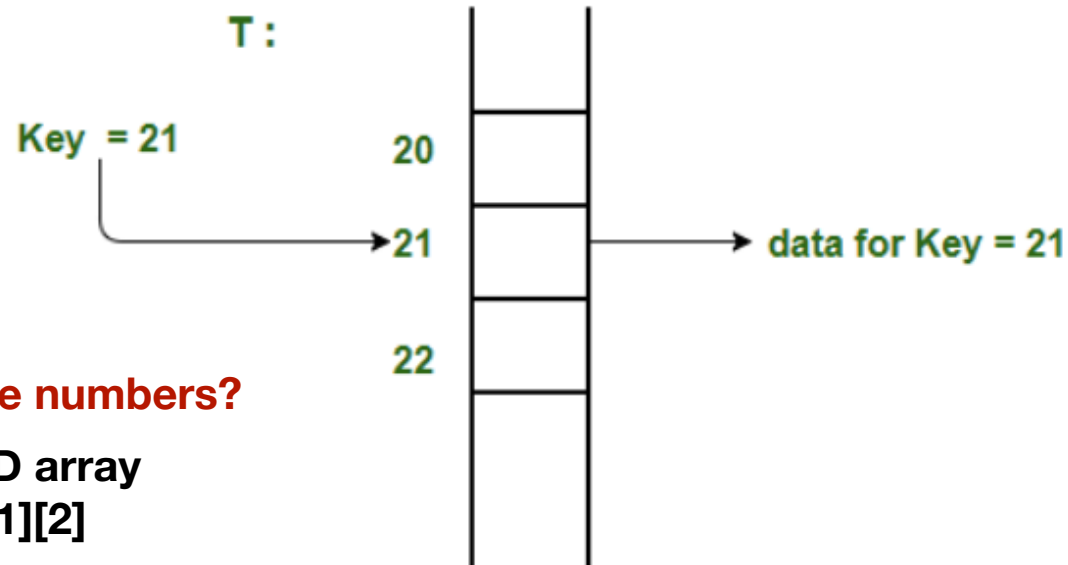
Hello world

HASHING

■ HASHING

You have Given An Array contains both positive and non-positive numbers,
element are in the range from $-MAX$ to $+MAX$

Our task is to search if some number is present in the array or not in $O(1)$ time.



How to handle negative numbers?

The idea is to use a 2D array
of size $\text{hash}[MAX+1][2]$

Hello world

HASHING

HASHING

You have Given An Array contains both positive and non-positive numbers,
element are in the range from $-MAX$ to $+MAX$

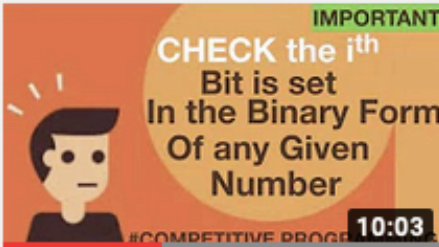




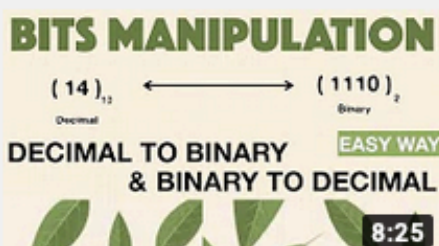
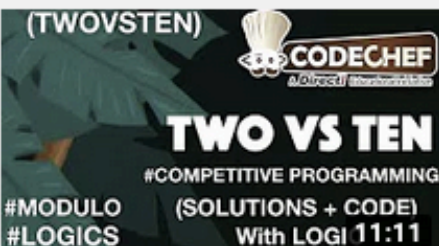








Our task is to search if some number is present in the array or not in $O(1)$ time.

How to handle negative numbers?

The idea is to use a 2D array
of size `hash[$MAX+1$][2]`

		0 ← MAX → MAX										
hash	0	0	0	0	0	0	0	0	0	0	0	+ve
	1	0	0	0	0	0	0	0	0	0	0	-ve

Hello world

 <p>CHECK the i^{th} Bit is set In the Binary Form Of any Given Number</p> <p>IMPORTANT</p> <p>#COMPETITIVE PROGRAMMING 10:03</p>	 <p>COUNT THE NUMBER OF ONE'S PRESENT IN BINARY NUMBER</p> <p>VERY EASY</p> <p>#COMPETITIVE PROGRAMMING 13:44</p>	 <p>CHECK GIVEN NUMBER IS POWER OF 2 ?</p> <p>(FULL EXPLANATION WITH CODE)</p> <p>#BITWISE #BINARY</p> <p>15:28</p>	 <p>LEFT SHIFT RIGHT SHIFT BITWISE OPERATOR</p> <p>EASY WAY</p> <p>(PART - 02)</p> <p>15:24</p>	 <p>AND NOT XOR OR BITWISE OPERATOR</p> <p>EASY WAY</p> <p>(PART - 01)</p> <p>13:06</p>
<p>Check the i^{th} bit is set, in the binary form of given numbe...</p> <p>1.1K views • 1 year ago</p>	<p>Count the number of one's in binary representation of...</p> <p>1.6K views • 1 year ago</p>	<p>Check a given number is power of 2 Bitwise operato...</p> <p>3.2K views • 1 year ago</p>	<p>Left shift and right shift bitwise operator ...</p> <p>1.4K views • 1 year ago</p>	<p>Bitwise Operators AND NOT OR XOR Competitiv...</p> <p>1.8K views • 1 year ago</p>
 <p>BITS MANIPULATION</p> <p>DECIMAL TO BINARY & BINARY TO DECIMAL</p> <p>EASY WAY</p> <p>8:25</p>	 <p>TWO VS TEN</p> <p>#COMPETITIVE PROGRAMMING</p> <p>#MODULO #LOGICS</p> <p>(SOLUTIONS + CODE) With LOGI 11:11</p>	 <p>CHEF AND HIS DAILY ROUTINE</p> <p>(SOLUTIONS + CODE) With LOGI 12:56</p>	 <p>EUCLIDEAN ALGORITHM</p> <p>FINDING GCD OF TWO NUMBERS</p> <p>#COMPETITIVE PROGRAMMING</p> <p>12:31</p>	 <p>SEIVE OF ERATOSTHENES</p> <p>PART - 02 (CODE)</p> <p>#COMPETITIVE PROGRAMMING 12:01</p>
<p>Bits Manipulation Decimal to Binary Binary to Decimal...</p> <p>1.5K views • 1 year ago</p>	<p>Program of Two vs Ten Codechef - TWOVSTEN ...</p> <p>1.3K views • 1 year ago</p>	<p>Program of chef and his daily routine - CHEFROUT ...</p> <p>1.7K views • 1 year ago</p>	<p>Euclidean algorithm for finding GCD of 2 numbers ...</p> <p>2K views • 1 year ago</p>	<p>Sieve of Eratosthenes -part 2 Competitive programming...</p> <p>2.2K views • 1 year ago</p>
 <p>SEIVE OF ERATOSTHENES</p> <p>PART - 01 (LOGIC)</p> <p>#COMPETITIVE PROGRAMMING 8:38</p>	 <p>CONCEPT OF PRIME NUMBERS</p> <p>#COMPETITIVE PROGRAMMING 13:38</p>	 <p>USE OF MEMSET()</p> <p>#COMPETITIVE PROGRAMMING 12:00</p>	 <p>FANCY QUOTES</p> <p>#COMPETITIVE PROGRAMMING (SOLUTIONS + CODE) With LOGI 15:46</p>	 <p>STUDYING ALPHABET</p> <p>#COMPETITIVE PROGRAMMING (SOLUTIONS + CODE) With LOGIC 24:28</p>
<p>Sieve of Eratosthenes -part 1 Competitive programming...</p> <p>3.4K views • 1 year ago</p>	<p>Program and concept of prime numbers. ...</p> <p>2.1K views • 1 year ago</p>	<p>memset() function in C/C++ and its syntax. Competitiv...</p> <p>4.3K views • 1 year ago</p>	<p>problem of Fancy Quotes getline() in strings --FANCY...</p> <p>2.1K views • 1 year ago</p>	<p>Concept of Handling the String related problems -...</p> <p>3.4K views • 1 year ago</p>

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