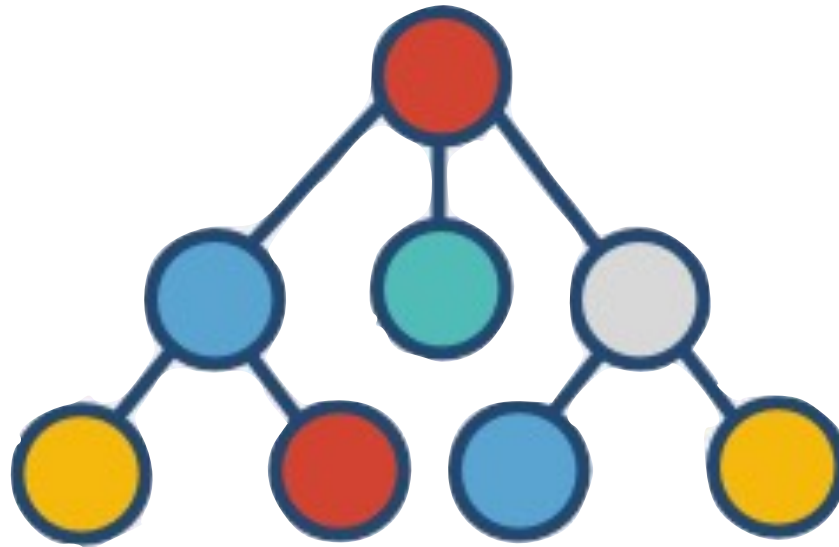


DATA STRUCTURE & ALGORITHMS



(By Prince Agarwal)
(“HELLO WORLD”)

LEETCODE

N = 8

Count 1's in binary array

0	1	2	3	4	5	6	7
1	1	1	1	1	0	0	0

We Want Approach in $O(\log N)$

There are 2 Cases Available:

We want To search 1

0	1	2	3	4	5	6	7
1	1	1	1	1	0	0	0



0	1	2	3	4	5	6	7
1	1	1	1	1	1	1	1



0	1	2	3	4	5	6	7
1	1	1	1	1	0	0	0



Hello world

LEETCODE

N = 8

 **Count 1's in binary array**

We Want Approach in $O(\log N)$

0	1	2	3	4	5	6	7
1	1	1	1	1	0	0	0



1st iteration

Low = 0

high = 7

Mid = 3

Hello world

LEETCODE

N = 8

 **Count 1's in binary array**

We Want Approach in $O(\log N)$

0	1	2	3	4	5	6	7
1	1	1	1	1	0	0	0



1st iteration

Low = 4

high = 7

Mid = 5

Hello world

LEETCODE

N = 8

 **Count 1's in binary array**

We Want Approach in $O(\log N)$

0	1	2	3	4	5	6	7
1	1	1	1	1	0	0	0



1st iteration

Low = 4

high = 4

Mid = 4

Hello world

LEETCODE

N = 8

Count 1's in binary array

0	1	2	3	4	5	6	7
1	1	1	1	1	0	0	0

We Want Approach in $O(\log N)$

There are 2 Cases Available:

We want To search 1

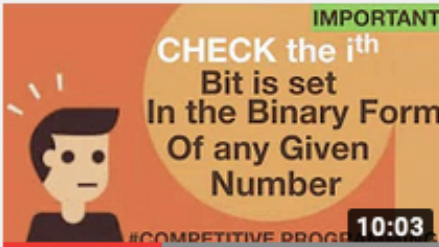




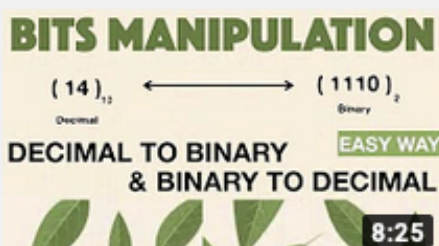
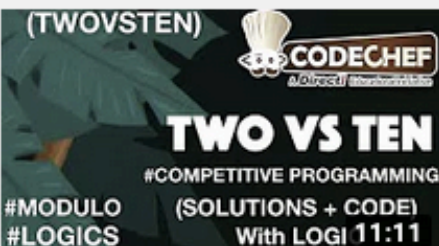








0	1	2	3	4	5	6	7
1	1	1	1	1	0	0	0



0	1	2	3	4	5	6	7
0	0	0	0	0	0	0	0



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>EASY WAY</p> <p>(FULL EXPLANATION WITH CODE)</p> <p>#BITWISE #BINARY</p> <p>HW Hello World</p> <p>#COMPETITIVE PROGRAMMING 15:28</p>	 <p>LEFT SHIFT RIGHT SHIFT BITWISE OPERATOR</p> <p>EASY WAY</p> <p>(PART - 02)</p> <p>#COMPETITIVE PROGRAMMING 15:24</p>	 <p>AND NOT XOR OR BITWISE OPERATOR</p> <p>EASY WAY</p> <p>(PART - 01)</p> <p>#COMPETITIVE PROGRAMMING 13:06</p>
<p>Check the i^{th} bit is set, in the binary form of given number...</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 operators...</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 Competitive programming...</p> <p>1.8K views • 1 year ago</p>
 <p>BITS MANIPULATION</p> <p>(14)₁₀ ↔ (1110)₂</p> <p>Decimal Binary</p> <p>DECIMAL TO BINARY & BINARY TO DECIMAL</p> <p>EASY WAY</p> <p>#8:25</p>	 <p>(TWOVSTEN)</p> <p>TWO VS TEN</p> <p>#COMPETITIVE PROGRAMMING</p> <p>#MODULO #LOGICS</p> <p>(SOLUTIONS + CODE) With LOGI 11:11</p>	 <p>(CHEFROUT)</p> <p>CHEF AND HIS DAILY ROUTINE</p> <p>#COMPETITIVE PROGRAMMING</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>SIEVE 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>SIEVE OF ERATOSTHENES</p> <p>PART - 01 (LOGIC)</p> <p>#COMPETITIVE PROGRAMMING 8:38</p>	 <p>#Concept / Program of #Prime Numbers</p> <p>CONCEPT OF PRIME NUMBERS</p> <p>#COMPETITIVE PROGRAMMING 13:38</p>	 <p>VERY IMPORTANT CONCEPTS</p> <p>#memset() function #In C/C++</p> <p>USE OF MEMSET()</p> <p>#COMPETITIVE PROGRAMMING 12:00</p>	 <p>(FANCY)</p> <p>FANCY QUOTES</p> <p>#COMPETITIVE PROGRAMMING (SOLUTIONS + CODE) With LOGI 15:46</p> <p>#Strings #getline()</p>	 <p>(ALPHABET)</p> <p>#Clears String Concept #String</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. Competitive programming...</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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