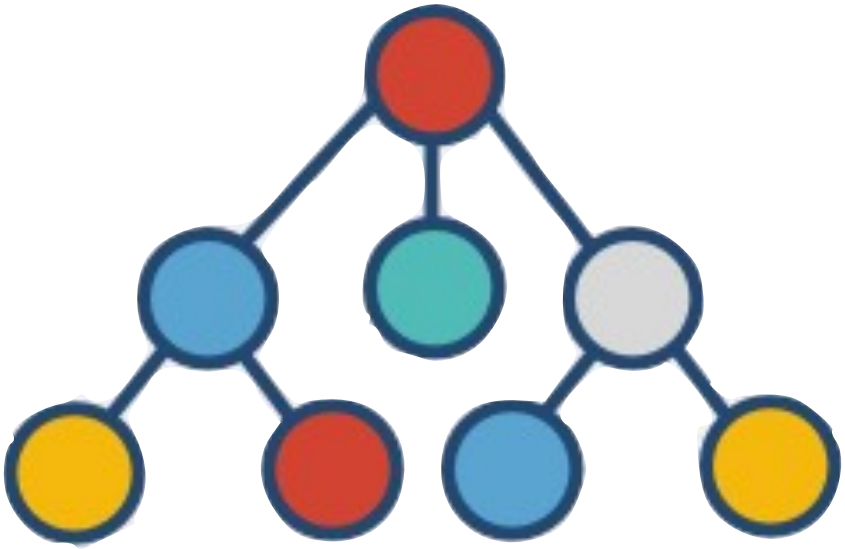
DATA STRUCTURE & ALGORITHMS

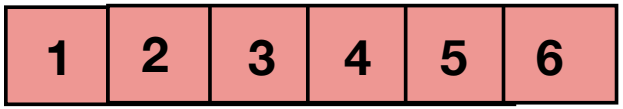


(By Prince Agarwal)

(“HELLO WORLD”)

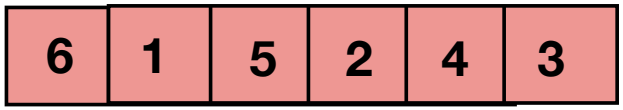
LEETCODE

Rearrange Array Alternately



Given: Array is Sorted

N = 6



One Simple Approach:

Vector< int> v ;

Alternate : push_back (max)

Then, push_back (min)

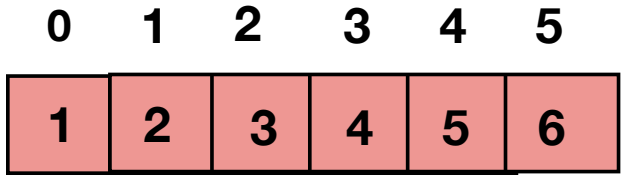
But Space Complexity : O (N)

Hello world

LEETCODE

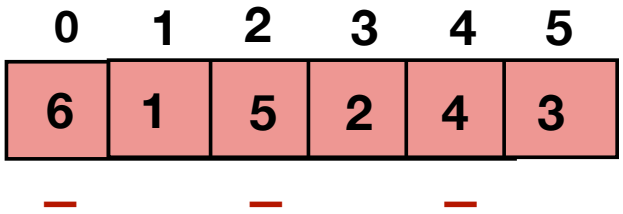
Rearrange Array Alternately

Best approach :-



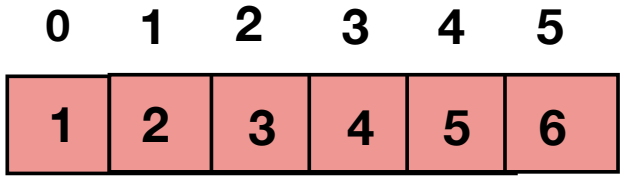
N = 6

Ans:



MAX value element —> Even Index

MIN value element —> odd Index



Hello world

LEETCODE

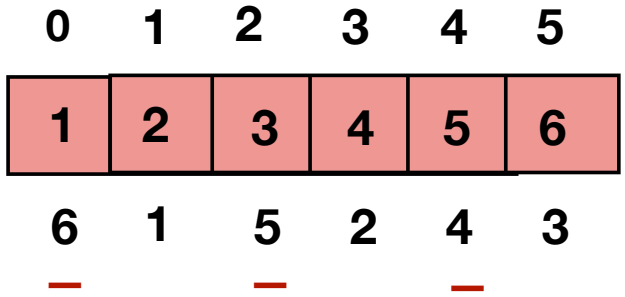
Rearrange Array Alternately — **We want 2 Values at single Place**

Dividend = Quotient * Divisor + Remainder

CASE 1:

Dividend / Divisor = Quotient

Dividend % Divisor = Remainder



Dividend = Quotient * Divisor + Remainder

New Values — **Old Values**

Hello world

LEETCODE

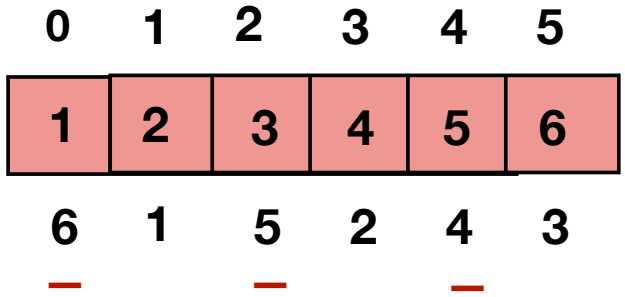
Rearrange Array Alternately — **We want 2 Values at single Place**

Dividend = Quotient * Divisor + Remainder

CASE 1:

Dividend / Divisor = Quotient

Dividend % Divisor = Remainder



Dividend = Quotient * Divisor + Remainder

- Quotient → **New Values**
- Divisor → **Max value in array (say, Max)**
- Remainder → **Old Values**

Index % 2 ==0 — **Arr [i] = (Arr [index] % Max) * Max + Arr [i]**

Hello world

LEETCODE

Rearrange Array Alternately

We want 2 Values at single Place

Dividend = Quotient * Divisor + Remainder

- Quotient → New Values
- Divisor → Max value in array (say, Max)
- Remainder → Old Values

0	1	2	3	4	5
43	2	3	4	5	6

6	1	5	2	4	3
43	9	3	4	5	6

Max = arr [n-1] + 1 ;

Max = 7 ;

10 20 30 40 50 60 70 80 90 100 110

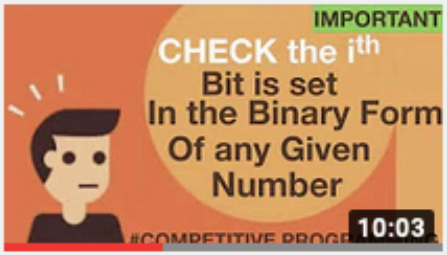
Max = 111 ;

max_index = n-1 ; min_index = 0 ;

Index % 2 ==0 Arr [i] = (Arr [max_index] % Max) * Max + Arr [i]

Index % 2 !=0 Arr [i] = (Arr [min_index] % Max) * Max + Arr [i]

Hello world



Check the ith bit is set, in the binary form of given numbe...

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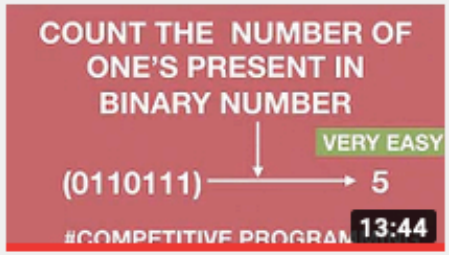

Count the number of one's in binary representation of...

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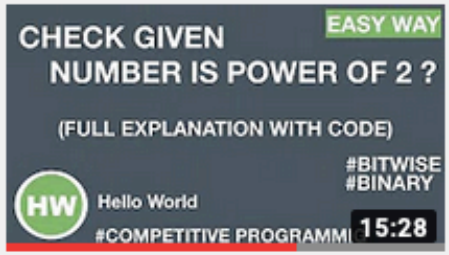

Check a given number is power of 2 | Bitwise operato...

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Left shift and right shift bitwise operator ||...

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Bitwise Operators | AND | NOT | OR | XOR || Competitiv...

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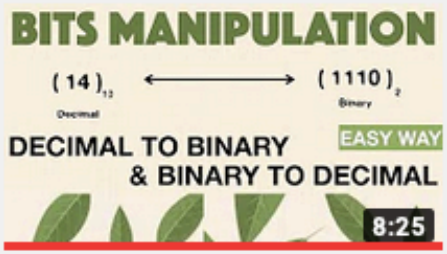

Bits Manipulation | Decimal to Binary | Binary to Decimal...

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Program of chef and his daily routine - CHEFROUT ||...

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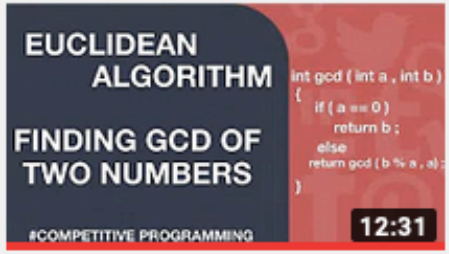

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