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"Bit Manipulation Algorithms Part 1 | Interview Questions Java C++ | Anuj Bhaiya ✅| DSAOne Course #2

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DSA One course will study Bit manipulation, Bit magic and Bitwise operators. Bits are actually very important from Competitive programming point of view. If your submission differs by just few microseconds, then it affects your rank as well If you would be using BITWISE concepts , then your submission will be very fast. We will learn such tips and tricks in bits. You can convert any decimal number to binary using this method. Addition/subtraction works in the same way as they work in decimal numbers. In binary numbers, digits are from 0-9 but they go from 0 to 1 in binary numbers. You will get use to it when you will practice it more So this is how your binary number works. The main question is how to find the negative inverse of any number in binary is 2 's compliment. Negative inverse of a number which we have to subtract and then we will add it to the other number to get our answer. The last carry will keep on making all the extra set bits as 0 and this carry will get discarded.

In micro-processor all the additions/ subtractions are done using this way only There is no operation as Subtraction. We find the 2 's compliment and then add it with the other number. You just have to inverse all the bits and add 1. Right shift operator shifts the bits towards right. We use tilt (~) symbol to present inverse operation. We have left shift operator. When you have to perform left shift by 2 , then you will shift all the bits towards left by 2 and it will get converted to this We can replace the empty bits by zeroes This number equals to 48. We can use it whenever we need to divide a number by 2 multiple times. This is how we use to find whether a number is ODD or even. We will see more power of XOR in its 3rd video. In next video, we will see bit masking and see what we can do with the help of Bit masking. The power of the XOR operator is a very simple concept by computationally it is bit faster."

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