



# DSA SERIES

**- Learn Coding**



Topic to be Covered today

# **Bit Manipulation**



**LETS START TODAY'S LECTURE**

**AND OPERATION**

## 231. Power of Two

```
class Solution {
public:
    bool isPowerOfTwo(int n) {
        if(n == 1 || n==2){
            return true;
        }

        if(n<=0){
            return false;
        }

        return (n&(n-1))==0;
    }
};
```

## 2401. Longest Nice Subarray

```
class Solution {
public:
    int longestNiceSubarray(vector<int>& nums) {
        int result =1;
        int i =0;
        int j =0;
        int n = nums.size();

        int mask =0;
        while(j<n){
            while((mask&nums[j]) !=0){
                mask = (mask^nums[i]);
                i++;
            }

            result = max(result,j-i+1);
            mask |= nums[j];
            j++;
        }

        return result;
    }
};
```

## 1318. Minimum Flips to Make a OR b Equal to c

```
class Solution {
public:
    int minFlips(int a, int b, int c) {
        int result = 0;

        while (a != 0 || b != 0 || c != 0) {

            if ((c & 1) == 1) {
                if ((a & 1) == 0 && (b & 1) == 0) {
                    result++;
                }
            } else {
                if ((a & 1) == 1) {
                    result++;
                }
                if ((b & 1) == 1) {
                    result++;
                }
            }
        }
    }
}
```

```
    a = a >> 1;
        b = b >> 1;
        c = c >> 1;
    }
    return result;
}
};
```



## 201. Bitwise AND of Numbers Range

```
class Solution {  
public:  
    int rangeBitwiseAnd(int left, int right) {  
        int shift = 0;  
        while (left != right) {  
            left = left >> 1;  
            right = right >> 1;  
            shift++;  
        }  
        return left << shift;  
    }  
};
```

# 231. Power of Two



# Learn coding

THANK YOU