**LC#338: COUNTING BITS**

**APPROACH:**

**->i>>1 gives the number without the last 1 bit=>n/2**

**-> i&1 checks whether the bit is 1 or not and returns the same**

class Solution {

    public int[] countBits(int n) {

        int res[] = new int[n+1];

        for(int i = 0 ;i <=n;i++)

        {

            res[i] = res[i>>1]+(i&1);

        }

        return res;

    }

}

**APP2:**

class Solution {

public int[] countBits(int n) {

int[] res = new int[n + 1];

for(int i = 1; i <= n; i++) {

res[i] = res[i & (i - 1)] + 1;

}

return res;

}

}