

Engineering Animuthyam

Java DSA – Course. Part - 48

Binary Search

Course Link:

<https://www.youtube.com/playlist?list=PLjzLBp9HHZWWhVXBSPS1VqxXXDoVk07gd9>

Website Link:

<https://www.vigneshreddyjulakanti.in/>

Hello machas, Bagunnara

1283. Find the Smallest Divisor Given a Threshold

<https://leetcode.com/problems/find-the-smallest-divisor-given-a-threshold/description/>

round to upper bound on divide

$5/2 = 3$

`Math.pow(3,4);`

`(int)Math.pow(10,6);`

```
class Solution {
    public boolean isPossible(int[] nums, int threshold,int k){
        for(int i = 0; i < nums.length; i++){
            int val = nums[i];
            int temp = val / k;
            if(val%k != 0){
                temp++;
            }
            threshold-=temp;
            if(threshold < 0){
                return false;
            }
        }
        return true;
    }
    public int smallestDivisor(int[] nums, int threshold) {
        int l = 1;
        int r = (int)Math.pow(10,6);
        while(l<=r){
            int mid = l + (r-l)/2;
            if(isPossible(nums,threshold,mid)){
                r = mid - 1;
            }else{
                l = mid + 1;
            }
        }
        return l;
    }
}
```