## Engineering Animuthyam Java DSA – Course. Part - 43

## **Binary Search**

## **Course Link:**

https://www.youtube.com/playlist?list=PLjzLBp9HHZWhVXBSPS1VqxXXDoVk07gd9

**Website Link:** 

https://www.vigneshreddyjulakanti.in/

Hello machas, Bagunnara

**Binary Search Real World Example** 

https://www.youtube.com/watch?v=9LN67KQni0Y

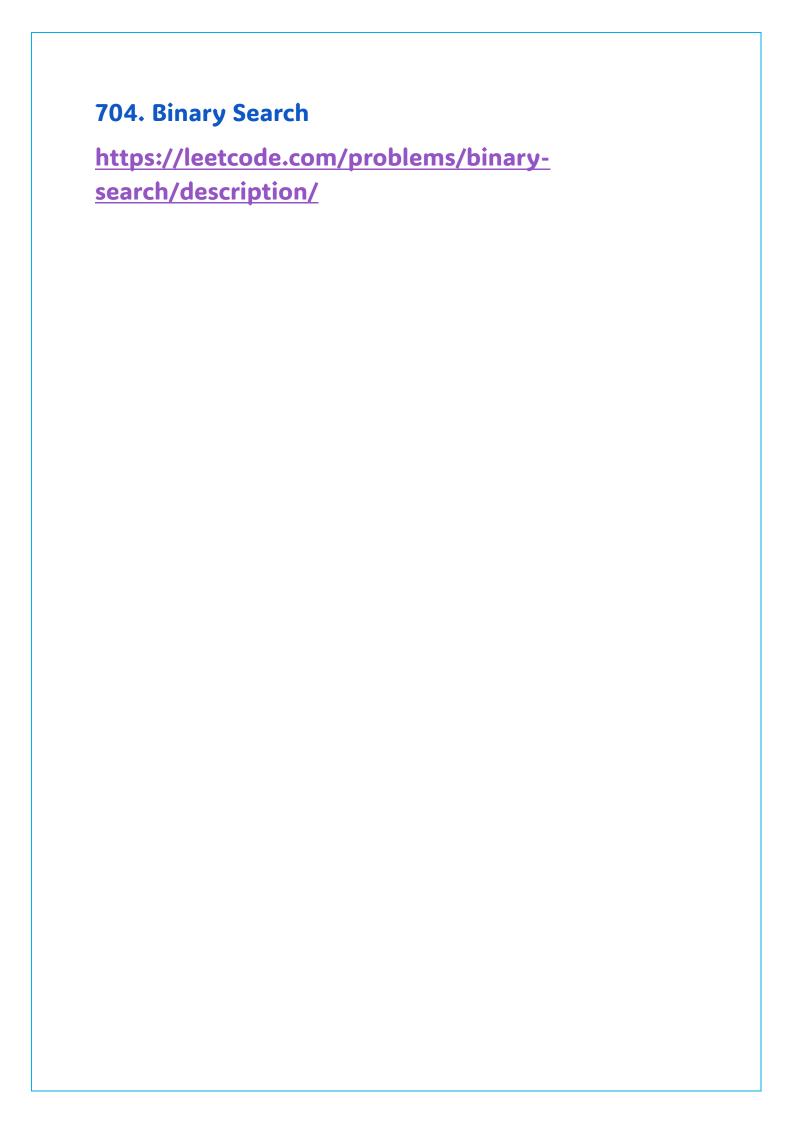
Find a number in a array

2->3

**Examples** 

**Linear Search Time Complexity – O(n)** 

**Binary Search Time Complexity – O(logn)** 



```
class Solution {
        public int search(int[] nums, int target) {
            int 1 = 0;
 4
            int r = nums.length - 1;
            while(l<=r){
                int m = (1 + r)/2;
 6
                if(nums[m] == target){
                    return m;
                 }else if(nums[m] > target){
                    r = m - 1;
10
11
                 }else{
12
                    1 = m + 1;
13
14
15
            return -1;
16
17
18
```

```
Integer Overflow
Int m = l + (r-l)/2;
```