
INTERVIEW PACKET



SDE - Backend



Round 1:

1. Given an array of integers `nums` which is sorted in ascending order, and an integer `target`, write a function to search `target` in `nums`. If `target` exists, then return its index. Otherwise, return `-1`.

You must write an algorithm with $O(\log n)$ runtime complexity.

Example 1:

Input: `nums = [-1,0,3,5,9,12]`, `target = 9`

Output: `4`

Explanation: 9 exists in `nums` and its index is 4

Example 2:

Input: `nums = [-1,0,3,5,9,12]`, `target = 2`

Output: `-1`

Explanation: 2 does not exist in `nums` so return `-1`

Constraints:

- $1 \leq \text{nums.length} \leq 10^4$
 - $-10^4 < \text{nums}[i], \text{target} < 10^4$
 - All the integers in `nums` are **unique**.
 - `nums` is sorted in ascending order.
2. Implement `arraylist` without using collections.
 3. There is a class with an attribute to its ownself and you have created two instances of the same class as `obj1` and `obj2`. `Obj.object` points to `obj2` and `obj2.object` points to `obj1`. Now you set `obj1` and `obj2` to null. Tell us the impact on the garbage collection.

Round 2:

1. Find the rotation point in a sorted circular array
2. There is a retail product live at some country and it accepts payment gateway with VISA. Now they are expanding and each country has own payment gateway. How will you make the payment API ?
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4. Java Stream and Spring Questions

Round 3:

1. Explain your project and its architecture.
2. One of your API is performing slow, how would it can be handled ?
3. What is load balancer?
4. If there are 3-4 tasks in a sprint and if you don't know one of them, how will assign priorities to the ask?
5. If you are given one task and it take 5 days but you are given only 3 days to do that task. How will you approach it