**Important Things to Note**

1. **Don’t use .size() in the for loop running condition!!!**

* Calculate the size() first and assign it to a variable and use the variable in the loop running condition instead!

1. Scan through the problem, think what is the data structure that can be used to solve the problem efficiently
2. Analyse the complexity of your approach to the problem first, if the complexity is too bad, then you may need to decrease it's complexity, and then think of what data structure you need to achieve the new lower complexity
3. Just use **long** for everything
4. log N is a very good time complexity, but just be careful of the number of queries involve