Basics of C++, Arrays, Vectors and other STL

C++'s Standard Template Library (STL) is a programmer's toolbox. It provides common data structures like lists, stacks, and arrays, but with a twist: they're flexible and can work with different kinds of data.

The STL has three key components:

- **Containers:** Imagine boxes (vectors), notepads (lists), or phonebooks (maps) that hold your data.
- **Algorithms:** These are like handy functions for searching, sorting, and manipulating your data.
- **Iterators:** Think of them as arrows that point to and let you access elements within a container.

To use the STL effectively, you'll want to be familiar with templates in C++.

Templates are like blueprints that allow you to create classes and functions that can work with any type of data.

Here are a couple of videos describing the same:

- Pairs and Vectors: C++ STL Tutorial for Beginners | Competitive Programmi...
- Nesting In Vectors: C++ STL For Beginners | Competitive Programming Cou...

(the above videos are recommended for students using C++, incase of other language, there are similar data structures which are easily accessible online, still i would recommend watching to get an idea about the concept.)

Next , considering you are already familiar with binary search , sorting, we can move to some questions :

LeetCode - 560 - Subarray Sum equals K

Try out this question first, then move on to the solution

■ Longest Subarray with sum K | Brute - Better - Optimal | Generate Subarrays

<u>LeetCode 1 - Two Sum Problem</u>

■ 2 Sum Problem | 2 types of the same problem for Interviews | Brute-Better-Optimal

Try out some questions below for a better understanding of these concepts.

- 1. Problem 1980B Codeforces
- 2. Problem 1950B Codeforces
- 3. Problem 1794B Codeforces
- 4. Longest Common Prefix LeetCode
- 5. Reverse Bits LeetCode

Extra

- ITERATORS: Pointer like structure in C++ STL | Competitive Programming Co...
- SET, UNORDERED SET & MULTISET : Beginners Tutorial for C+ STL | CP Co...
- Comparator Function in depth Tutorial using C++ Sort | CP Course | EP 34
- 1. Problem 1765M Codeforces