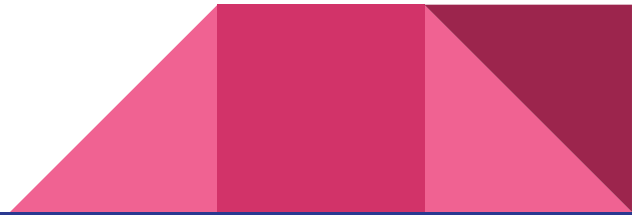
Competitive Programming


I guide others to a treasure I cannot possess.

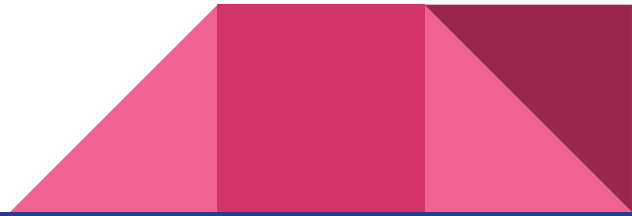
What is it?

1. Write a program to solve a problem in a competitive environment.
2. The solution should be time and memory efficient.
3. You have limited time to solve a problem.



Why do it?

- It will enhance your problem solving skills, which is very important.
- Help you in interviews.
- You also might get referrals.
- Makes you more faster and focussed.

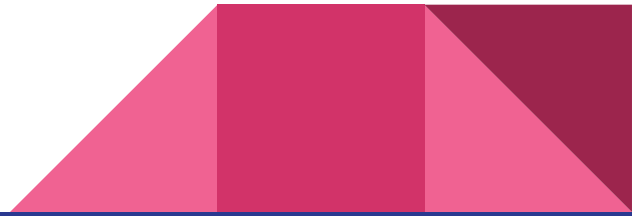


Say you want to search an element in a sorted array

As an example - arr[4] = {1, 2, 3, 4} , key = 4

You can use linear search which would be O(n)

Using binary search the time complexity would be O(logn)

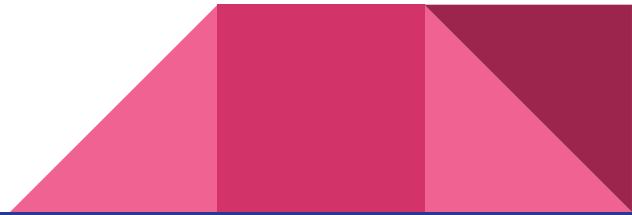


A Sample problem

https://codeforces.com/contest/1186/problem/A

There are many platforms where you can start practicing :

1. https://www.codechef.com (https://www.codechef.com/certification/data-structures-and-algorithms/prepare#foundation)
2. https://hackerearth.com or hackerrank
3. Spoj.com - Sort it according to the most solved problems
4. http://cp-algorithms.com/
5. https://atcoder.jp/contests/abc134

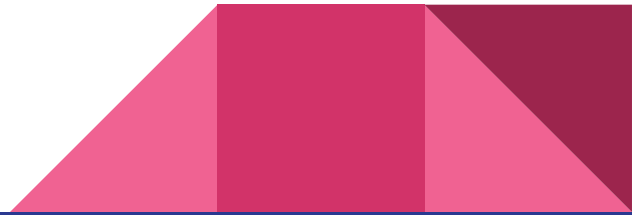


What is actually required?

If you are a beginner :

- Pick a language, can be C/C++, python or Java
- Start learning data structures and algorithms. (Shared the resources)
- Need to be good at maths.
  - https://artofproblemsolving.com/alcumus/problem
  - https://projecteuler.net (Top 50 most attempted problems)

Take part in contests as much as possible.



Competitions

- Google code Jam
- Google Kickstart
- ACM -ICPC
- Facebook Hackercup
- TopCoder Open.
- Codechef Snackdown