CSE221: Algorithms
Lab 03
Summer 2025

Assignment 03 Links:

codeforces Invitation Link:

https://codeforces.com/contestInvitation/bb582b416fb354891978bf123b7692dd7cf67d48

Alternative Link:

https://codeforces.com/contests/621990

[The alternative link will **only work** after you have successfully registered using the first link.]

Assignment Deadline: Jul 19, 2025 11:59 PM
No submission can be considered after the deadline ends.

Learning Outcome:

In this lab, we will explore the **Divide and Conquer** paradigm, which is a fundamental algorithmic technique for solving problems efficiently by breaking them into smaller subproblems. Through hands-on problem-solving, students will develop a deeper understanding of recursion, algorithm design, and optimization.

Understanding the Divide and Conquer Approach

- Learn how to break a problem into **smaller independent subproblems**, solve them recursively, and combine the results.
- Understand when and why **Divide and Conquer** is preferable over brute-force approaches.
- Apply recurrence relations and the Master Theorem to analyze time **complexity**.