**CSE221: Algorithms**

**Lab 01**

**Spring 2025**

**Assignment 01:**

Link: <https://vjudge.net/contest/695445>

Password: Lab-01cse221s25

Deadline: 11:59 pm, March 1, 2025

**No submission will be considered after the deadline ends.**

**Account opening Instruction:**

* Open an account at <https://vjudge.net/>
* Set your Official Name as the username while opening your account.
  + If your full name exceeds the character limit, use your first two names or first name.
  + If your name has been already used by someone else, then use numeric value with your name to resolve the issue.
* **Set the nickname with student ID and section (Your ID\_Your Section e.g., 12345678\_15)**
* After opening your account please fill up the google form - [Link](https://forms.gle/Fkq8NpajYsaraWP9A)

**Learning Outcome:**

* Understand the basics of Online Judge platforms.
* Become familiar with standard Input/Output (I/O) formats used in Online judge
* Learn about common judge verdicts, including Accepted (AC), Wrong Answer (WA), Time Limit Exceeded (TLE), and Runtime Error (RE).
  + For a **1-second** time limit, most OJs allow approximately **10⁸ operations**.
  + For python select PyPy over Python if available, as PyPy is faster
* Review sorting algorithms such as Bubble Sort, Selection Sort, and Insertion Sort.
  + Learn to sort with multiple parameter
  + Understand the use case of stable sort
* Explore Fast I/O techniques (self-study):
  + **Python**: Using sys.stdin for faster input handling.
  + **C++**: Using ios\_base::sync\_with\_stdio(false); and cin.tie(nullptr)
  + **Java**: Using BufferedReader for efficient input reading.
  + The fast i/o can reduce program execution time on Online Judge platforms.

**Solution of Reported Issues:**

* If you face the following issue after submitting your code on vjudge, then submitting the same code again will fix this issue.



