

TCS CodeVita Bootcamp with C++ and DSA

Solve CodeVita-style problems with confidence: live, trainer-led contest training in C++, from reading long problem statements to graphs and dynamic programming, with mock contests and a full 3-hour CodeVita mock.

MODULES	SCHEDULE	MODE
7 weekly modules	Mon–Thu, 5:30–6:30 PM IST	Live online, instructor-led
LEVEL	LANGUAGE	INCLUDES
Intermediate	C++ (STL)	2 mock contests, full 3-hour CodeVita mock

What you will learn

- How CodeVita works: rounds, scoring and hidden tests
- Reading long, story-style problem statements
- Fast input/output and the C++ STL
- Time and memory limits: choosing the right complexity
- Prefix sums, two pointers and sliding window
- Sorting, binary search on the answer, intervals
- Simulation and implementation problems
- GCD, primes, sieve and modular arithmetic
- Stacks, queues and monotonic stacks
- Recursion, backtracking and greedy strategies
- Dynamic programming: 1D, 2D, knapsack, grid paths
- Graphs: BFS, DFS, shortest paths, MST
- Testing edge cases and avoiding time-outs
- Contest strategy: which problem to attempt first

Curriculum

26 live sessions of one hour over seven weeks, 28 October to 10 December 2026. Every topic is taught through CodeVita-style problems solved live in C++. Two mock contests are reviewed in class, and the course ends with a full 3-hour CodeVita mock and its review.

Module 1 How CodeVita Works and C++ for Contests	Week 1 · 2 sessions
• CodeVita rounds, scoring, hidden test cases and the open-book format • Reading long problem statements: input, output, constraints and edge cases • C++ for contests: fast I/O, vector, string, map, set, priority_queue; time complexity	
Module 2 Arrays and Strings	Week 2 · 4 sessions
• Array and string manipulation, frequency counting and hashing with maps • Prefix sums and difference arrays • Two pointers and sliding window problems	

Module 3 Sorting, Searching and Simulation	Week 3 · 4 sessions
• Sorting with custom comparators; merging and scheduling intervals • Binary search, and binary search on the answer • Simulation and implementation-heavy problems, the CodeVita favourite	
Module 4 Maths for Contests	Week 4 · 4 sessions
• GCD, LCM, primes and the sieve of Eratosthenes • Modular arithmetic, fast exponentiation and basic combinatorics • Mock contest 1, reviewed in class	
Module 5 Recursion, Stacks and Greedy	Week 5 · 4 sessions
• Stacks, queues and monotonic stacks (spans, next greater element, brackets) • Recursion and backtracking • Greedy strategies and how to convince yourself they are right	
Module 6 Dynamic Programming	Week 6 · 4 sessions
• From recursion to DP: states, transitions and memoisation • 1D and 2D DP: coin change, knapsack, grid paths, longest increasing subsequence • Mock contest 2, reviewed in class	
Module 7 Graphs and the Full CodeVita Mock	Week 7 · 4 sessions
• Graphs on grids and adjacency lists: BFS, DFS, connected components • Shortest paths (Dijkstra), topological order and minimum spanning trees • Contest strategy, then the full 3-hour CodeVita mock and its live review	

How you learn

- Live, interactive sessions with an experienced C++ and DSA trainer
- Problems solved live in C++, with solutions shared after every session
- Two mock contests and a full 3-hour CodeVita mock, reviewed in class
- Unlimited sittings of the GeeksArray TCS CodeVita mock test while enrolled

Who should enrol

- Engineering and MCA students preparing for TCS CodeVita
- Students preparing for TCS NQT coding and campus coding rounds
- Anyone who knows basic programming (C, C++, Java or Python)

About TCS CodeVita

- TCS's global coding contest for students
- A 3-hour round: solve as many problems as you can
- Full programs, judged on hidden test cases
- Registration is with TCS, not part of this course

Course completion

Learners who attend the sessions and complete the mock contests receive a course completion certificate through GeeksArray. GeeksArray and ConfidentHire Academy are not affiliated with TCS.

Questions about batch dates, timings, fees or anything else?

Contact the course coordinator, **Kaumodini Kedar** · WhatsApp **+91 91726 23305**

Or see the course page on [geeksarray.com](https://www.geeksarray.com).