CODING NINJAS

INTERVIEW PREPARATION

CODING NINJAS

OVERVIEW

This course will train you in solving problems, analysing algorithms, work on solutions to different problems. Eventually, it will help you in cracking the tech interviews and meet the expectations of the top tier companies

FEATURES

LIVE MENTOR SUPPORT & STUDENT EXPERIENCE TEAM

WANT A BREAK? PAUSE YOUR COURSE

60 DAYS
PAUSE

GET AN INDUSTRY RECOGNISED CERTIFICATE

BE A PART OF THE INDUSTRY COMMUNITY

SLACK

COMPANIES HIRING

amazon

Google

Adobe

ORACLE

zomato

Paytm

COURSE OFFERINGS

BASIC

- Interview Preparation

STANDARD

- Interview Preparation
- Aptitude Preparation

PRO

- **Competitive Programming**
  - 10 industry mentor sessions
  - Resume Building Workshops
  - Help in profile building
  - 100+ curated interview problems
  - DSA mock test series to crack product companies

CODING NINJAS

PREMIUM

- **Introduction to Programming**
- **Aptitude Preparation**

    - 10 industry mentor sessions
    - Resume Building Workshops
    - Help in profile building
    - 100+ curated interview problems
    - DSA mock test series to crack
      product companies

CODING NINJAS

INTERVIEW PREPARATION

Prepare yourself for cracking the technical and interview round for your desired role.

APTITUDE PREPARATION

Enhance your Quantitative Aptitude, Logical Reasoning, Verbal Ability and Data Interpretation skills and conquer the aptitude round of the interviews.

CODING NINJAS

INTERVIEW PREPARATION MODULE:

TOPIC	SUB-TOPICS	DETAILS
COMPLEXITY ANALYSIS	Time and space complexity	Order complexity analysis, Theoretical complexity analysis, Time complexity analysis of searching and recursive algorithms, Theoretical space complexity, Space complexity analysis of merge sort
ARRAYS AND STRINGS	Arrays	Introduction to Arrays, How arrays are stored in memory, Arrays & Functions
	Strings	Introduction to strings, storage of strings and their inbuilt functions
	2D Arrays	2D arrays, Storage of 2D arrays, Example problems using 2D Arrays

CODING NINJAS

PRACTICE TEST 1

TOPIC	SUB-TOPICS	DETAILS
PROBLEM SOLVING TECHNIQUES	Recursion	Introduction to recursion, Principle of mathematical induction, Fibonacci numbers, Recursion using arrays, Recursion using strings, Recursion using 2D arrays

PRACTICE TEST 2

TOPIC	SUB-TOPICS	DETAILS
OBJECT ORIENTED PROGRAMMING	Basics of OOP	Introduction to oops, Creating objects, Getters and setters, Constructors and related concepts, Inbuilt constructor and destructor, Example classes
	Advance concepts of OOP	Static members, Function overloading and related concepts, Abstraction, Encapsulation, Inheritance, Polymorphism, Virtual functions, Abstract classes, Exception handling

TOPIC	SUB-TOPICS	DETAILS
BACKTRACKING AND DYNAMIC PROGRAMMING	Backtracking	Introduction to Backtracking, Rat in a Maze, Hint: Sudoku, No. of numbers without duplicates, Hint: No. of numbers - duplicates
	Introduction to Dynamic Programming	Introduction to Memoization, Introduction to Dynamic Programming, Fibonacci numbers using recursion, memoization and dynamic programming
	Applications of Dynamic Programming	Min Steps To 1, Solution - Min Steps to 1, Solution : Min Steps to 1 (Memoization), Alpha Code, LIS, No. of Balanced BTs, Solution : No. of Balanced BTs, No. of Balanced BSTs, Max sum subarray, Min Cost Path, Solution : Min Cost Path (Brute Force), Min Cost Path - Memoization, Min Cost Path - DP, LCS, LCS - Memoization, LCS - DP, Edit Distance, Solution : Edit Distance (Brute Force), Solution : Edit Distance (Memoization), Solution : Edit Distance (DP), Matrix Chain Multiplication, Maximum sub squares with all 0s

CODING NINJAS

PRACTICE TEST 3

TOPIC	SUB-TOPICS	DETAILS
LINEAR DATA STRUCTURES	Linkedlists	Introduction to linked list, Inserting node in linked list, Deleting node from linked list, Midpoint of linked list, Merge two sorted linked lists, merge sort of a linked list, Reversing a linked list
	Stacks and Queues	Introduction to stacks, Stack using arrays, Dynamic Stack class, Stack using linked list, Inbuilt stack, Queue using arrays, Dynamic queue class, Queue using linked list, Inbuilt queue

PRACTICE TEST 4

TOPIC	SUB-TOPICS	DETAILS
TREES	Generic Trees	Introduction to Trees, Making a tree node class, Taking a tree as input and printing, Tree traversals, Destructor for tree node class

CODING NINJAS

TOPIC	SUB-TOPICS	DETAILS
TREES	**Binary Trees**	Introduction to Binary Trees, Taking a binary tree as input and printing, Binary Tree traversals, Diameter of binary tree
	Binary Search Trees	Introduction to Binary Search Trees, Searching a node in BST, BST class, Inserting and Deleting nodes in BST, Types of balanced BSTs

PRACTICE TEST 5

TOPIC	SUB-TOPICS	DETAILS
ADVANCED DATA STRUCTURES	**Priority Queues**	Introduction to Priority Queues, Ways to implement priority queues, Introduction to heaps, Introduction to Complete Binary Trees and its implementation, Insert and Delete operations in heaps, Implementing priority queues, Heap sort, Inbuilt Priority Queue

TOPIC	SUB-TOPICS	DETAILS
ADVANCED DATA STRUCTURES	Hashmaps	Introduction to Hashmaps, Inbuilt Hashmap, Hash functions, Collision handling, Insert and Delete operation implementation in hashmap, Load factor, Rehashing
	Tries	Introduction to Tries, Making a Trie Node class, Insert, Search and Remove operation implementation in Tries, Types of Tries, Huffman Coding
	Graphs	Introduction to Graphs, Graph Terminology, Graph implementation, Graph Traversals (DFS and BFS), Weighted and Directed Graphs, Minimum Spanning Trees, Cycle Detection in Graphs, Kruskal's algorithm, Prim's Algorithm, Dijkstra's algorithm

TOPIC	SUB-TOPICS	DETAILS
BIT MANIPULATION	Bitwise Operators	Introduction and shift operators, Remaining bitwise operators, Check ith bit, Flip ith bit, Check odd-even & power of 2, No. of 1s, Clear all bits from LSB

APTITUDE PREPARATION:

TOPIC	SUB-TOPICS	DETAILS
NUMBERS	Introduction to Number System	Number System, Remainder theorem, Unit Digit
	Progressions	Arithmetic progression, Geometric progression
	HCF and LCM	Finding factors of a number, Shortcuts for finding prime number, Concept of HCF, Problem Solving on HCF, Concept of LCM, Problem Solving on LCM

CODING NINJAS

TOPIC	SUB-TOPICS	DETAILS
AVERAGES AND MIXTURES	**Averages**	Introduction to Averages, Assumed average approach, Standard Situation in Averages, Concept of Weighted Averages, Standard Situations involving weighted average
	Alligations	Introduction to alligations, Standard problems involving using alligations
ARITHMETIC AND WORD PROBLEMS	**Percentages**	Concept of percentages, Concept of percentage change, Percentage Change Graphic, PCG applied to Product change, PCG Applied to Product Constancy, Product Constancy Table, The fractional view to the product constancy table, PCG applied to successive percentage change

TOPIC	SUB-TOPICS	DETAILS
ARITHMETIC AND WORD PROBLEMS	Ratio, Proportion and Variation	Concept of Ratios, Multiplier logic, Concept of proportion Variation and its types
	Profit and loss	Basic concept of Profit and loss, Concept of Simple Interest, Concept of Compound Interest
	Time and work	Introduction to Time and Work, Time and work (Man Days), Men, Women and Children
COUNTING	Probability	Basics of Probability, Problems on Coins, Problems Based on Dice, Problems Based on Cards, Problems Based on Balls from the Box, Word Based problems on Probability
	Permutation and Combination	Introduction to Permutation and Combination, The selection Formula, Distribution of Identical Objects, Formula for Arrangements, Circular arrangement

CODING NINJAS

TOPIC	SUB-TOPICS	DETAILS
TIME, SPEED AND DISTANCE	**Introduction to Time, Speed and Distance**	Introduction to Time, Speed, Distance The proportionalities in equations. Solving problems on TSD
	Relative Speed	The concept of Relative Speed. Questions based on Relative Speed
	Application of TSD	Concept of Circular Motion, Train problems Boats and Stream problems, Races and Games
REASONING	**Recognising Patterns**	Recognising alphabetical patterns, Recognising numerical patterns, Coding Decoding Question Patterns
	Syllogisms	Introduction to Syllogisms, Problems on Syllogisms
	Blood relation and calendars	Solving problems on Blood Relations, Concept of Calendar, Problems on Calendar

TOPIC	SUB-TOPICS	DETAILS
ENGLISH	Reading Comprehension	Reading effectively reading comprehension, How to find main idea, Solving reading comprehension
	Sentence completion/Fill ups	Theory of Fill Ups/ sentence completion, Questions on sentence completion
	Vocab, Antonym and Synonyms	Introduction to English, Vocab-Root Words, Synonyms and Antonyms
DATA INTERPRETATION	Basic Concept of Data interpretation	Introduction to Data interpretation, Problems on Data interpretation
	Charts	Reading Pie charts, Reading Bar Charts, Reading tables and X-Y Charts, Problems on Charts

TOPIC	SUB-TOPICS	DETAILS
MISCELLANEOUS TOPICS	Set theory	Introduction to Set Theory, Problems on Set theory
	Log	Introduction to logs, Problems on logs
	Mensuration	Cubes and Cuboids, Spheres and Cylinders, Cones, Prisms and Pyramids

TESTIMONIALS

ANUJRAAJ GOEL

"If Step 1 to programming is printing hello world, step 0 is attending a lecture by Ankush bhaiya. Immensely grateful to him and Coding Ninjas for providing me the platform to build my skills."

APOORVA BALYAN

"This course really helped me to strengthen my concepts and definitely played a big role in getting placed. A big thanks to the faculty members. Now, I don't doubt my coding skills at all."

RAHUL JAIN

"The experience of learning from Coding Ninjas was overwhelming. I was taught problem-solving and not just languages. Teaching assistants were always helpful, and appropriate support was provided whenever needed."