CODING NINJAS

Jamboree™

Interview Preparation - Premium

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Overview

To succeed in the tech interviews, you need to understand the expectations of the interviewer. This course will train you on solving problems, writing algorithms and analysing their solutions. It will also ensure rigorous and comprehensive preparation for the major tech giants like Amazon, Samsung, Uber etc.

Highlights:

20+ hours of learning content and 300+ practice problems

3 months duration and 6 months validity

5 mock interviews

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Pre-requisites:

Previous Coding experience is not required

Course Outcome:

You will learn the most commonly used data structures and algorithms that are necessary to solve problems by programming. Eventually, it will help you in cracking the tech interviews and meet the expectations of the top tier companies.

Key Highlights:

Mentor Support

Course Pause Feature

Certificate of Completion

Course Extension

Premium Key Highlights:

Curated interview problems

Industry mentor sessions, Resume & profile building workshops

DSA based product companies Mock Test Series

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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

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

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 Back-tracking, Rat in a Maze, Hint: Sudoku, No. of num-bers without duplicates, Hint: No. of numbers - duplicates
	Introduction to Dynamic Programming	Introduction to Memoization, Introduc-tion to Dynamic Pro-gramming, Fibonacci numbers using recur-sion, memoization and dynamic programming
	Applications of Dynamic Programming	Min Steps To 1, Solution - Min Steps to 1, Solution : Min Steps to 1 (Memoiza-tion), 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 Dis-tance (Memoization), Solution : Edit Distance (DP), Matrix Chain Multi-plication, Maximum sub squares with all 0s

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

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

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

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 Hash-maps, 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,Mini-mum Spanning Trees, Cycle Detection in Graphs, Kruskal's algo-rithm, 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

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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
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

TOPIC	SUB-TOPICS	DETAILS
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
	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

TOPIC	SUB-TOPICS	DETAILS
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
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

TOPIC	SUB-TOPICS	DETAILS
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
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

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TOPIC	SUB-TOPICS	DETAILS
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
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 Pyra-mids

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About us

Founded in 2016 by IIT, Stanford and Facebook alumni Coding Ninjas is one of the largest online coding EdTech companies in India. We teach 20,000+ students annually via our online platform.
Our founders have experience of working with Amazon, Facebook, Cars24, and other top startups in India.
As pioneers in EdTech, we are on the path to become India's most loved coding education platform.

IIT Delhi, Stanford, Facebook alumni

Raised Series A funding from InfoEdge Technologies

50,000+ learners across the country

India's most loved coding platform

Founded in 2016

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