

FULL CURRICULUM • 2026

DSA with Python

Crack the interview that stands between you and the job.

Every module, every lesson — the complete syllabus, end to end.

17

MODULES

112

LESSONS

5

MONTHS

₹17,000

FULL PROGRAMME

What this course covers

1

Level 1 • Beginner

Introduction • Basics of Programming in Python • Some Important structures

1 month • 5 modules • 36 lessons • ₹4,000

2

Level 2 • Intermediate

Oops • Linked List • Stacks

2 months • 6 modules • 39 lessons • ₹5,500

3

Level 3 • Advanced

Heaps • Graphs • Most Important Graph Algorithms

2 months • 6 modules • 37 lessons • ₹7,500

The whole journey

This is the complete syllabus for DSA with Python — 17 modules and 112 lessons, in the order you will learn them. The level markers show how far each stage carries you, but the curriculum runs as one continuous path from the first lesson to the last.

1

LEVEL 1

Beginner

Introduction · Basics of Programming in Python · Some Important structures

1 month · 5 modules · 36 lessons · ₹4,000

1. Introduction

1 lessons

- Introductory Video

2. Basics of Programming in Python

10 lessons

- Flowcharts
- Variables and Data types
- Ref and Operators
- Conditional Statements
- Loops
- Jump Statements
- Pattern Printing
- Functions
- Recursion
- Scope

3. Some Important structures

9 lessons

- List
- List Questions
- Slicing and List comprehension
- 2D Lists
- Strings
- Questions on Strings
- Dictionary
- Sets
- Tuples

4. Array and String algorithms

8 lessons

- Kadane's Algorithm
- 2D Kadane's Algorithm
- 2SUM and 3SUM problems
- DNF Algorithm
- Moore's voting algorithm
- Juggling Algorithm
- KMP Algorithm
- Miscellaneous Algorithms

5. Sorting and Complexities

8 lessons

- Time Complexity
- Space Complexity
- Binary Search
- Bubble Sort
- Selection Sort
- Insertion Sort
- Quick Sort
- Merge Sort

2

LEVEL 2

Intermediate

Oops · Linked List · Stacks

2 months · 6 modules · 39 lessons · ₹5,500

6. Oops

7 lessons

- Intro to OOPS
- Constructor
- Inheritance
- Polymorphism
- Encapsulation and abstraction
- Dunder/Magic methods
- Designing a complex number class

7. Linked List

8 lessons

- LinkedList Intro
- LinkedList Operations 1
- LinkedList Operations 2
- Questions on LinkedList
- Types of LinkedList
- Questions
- Questions
- Merge Sort for LinkedList

8. Stacks

6 lessons

- Stack Intro
- Stack using LinkedList
- Questions
- Notations
- Largest Rect. in a Histogram
- Rainwater Trapping

9. Queues

3 lessons

- Queue Intro
- Stacks and Queue
- Question on Queues

10. Trees

9 lessons

- Intro to Trees
- Traversal of a Tree
- Levelorder Traversal
- Questions
- Left and Right view
- Top and Bottom view
- Construction of a Tree
- Questions
- Burning a Tree



11. Binary Trees

6 lessons

- Intro to BST
- Insertion and Deletion
- Basic Problems on BST
- Important Questions of BST
- Balancing a BST
- Largest BST in a Binary Tree

3

LEVEL 3

Advanced

Heaps · Graphs · Most Important Graph Algorithms

2 months · 6 modules · 37 lessons · ₹7,500



12. Heaps

5 lessons

- Heaps Intro
- Heaps Implementation
- Heapify Algorithm
- Heap Sort
- Questions on Heaps



13. Graphs

7 lessons

- Intro to Graphs
- DFS
- BFS
- Cycle Detections in Undirected Graph
- Cycle Detections in Directed Graph
- Minimum moves by a Knight
- Wired Connections



14. Most Important Graph Algorithms

7 lessons

- Topological Sort
- Dijkstra's Algorithm
- MST using Prim's Algorithm
- DSU for Kruskal's Algorithm
- Kruskal's Algorithm
- Bellman Ford Algorithm
- Floyd Warshall Algorithm



15. Greedy

3 lessons

- Intro to Greedy (Meeting Sch.)
- Fractional Knapsack
- Questions on Greedy



16. Backtracking and DP

12 lessons

- Backtracking Intro (Rat in a maze)
- N-Queen Problem
- Intro to Dynamic Programming
- Knapsack Problem
- Coin Change
- LCS
- LCS variations
- Questions on DP
- Longest AP
- Catalan Number
- Edit Distance
- Matrix chain multiplication

○ 17. Number Theory

3 lessons

- Number Theory (Sieve of Erathosthenes)
- GCD of 2 numbers
- Modulo Arithmetic and Binary Exponentiation

Certificates & what comes next

You receive a certificate at the end of every level you finish. Join for a single level or the full programme — the choice is yours. Learners who stand out may be invited to work on live client projects as interns; these places are merit-based, limited, and depend on projects being available.