



Month 1: Python Basics + Problem Solving

Week 1: Python Fundamentals

- ☐ Day 1-2: Python Installation, Variables, Data Types
- ☐ Day 3: Operators, Conditional Statements (if-else)
- ☐ Day 4: Loops (for, while)
- ☐ Day 5: Functions & Recursion
- ☐ Day 6: Lists & Tuples (Basic Operations)
- ☐ Day 7: Dictionary & Set (Basic Operations)
-  Practice: Solve 10-15 easy problems from LeetCode, GeeksforGeeks.

Week 2: Advanced Python Concepts

- ☐ Day 8: List Comprehensions, Lambda Functions
- ☐ Day 9: String Manipulation
- ☐ Day 10: File Handling & Exception Handling
- ☐ Day 11: Classes & Objects (OOPs)
- ☐ Day 12: Modules & Libraries (math, random, os)
- ☐ Day 13-14: Mini Python Project (To-Do List / Calculator)
-  Practice: Solve 10 problems based on Strings & Lists.

Month 2: Basic DSA (Arrays, Stacks, Recursion, Linked List)

Week 3: Arrays & Strings

- ☐ Day 15: Introduction to Arrays, Insertion, Deletion
- ☐ Day 16: Sorting (Bubble, Selection, Insertion)
- ☐ Day 17: Two Pointers & Sliding Window Approach
- ☐ Day 18: String Manipulation (Anagram, Palindrome)
- ☐ Day 19-20: Solve 15-20 Problems (LeetCode, GFG)

Week 4: Stack, Queue & Linked List

- ☐ Day 21: Stack (Push, Pop, Peek) + Applications
- ☐ Day 22: Queue (FIFO) & Deque
- ☐ Day 23: Linked List (Singly & Doubly)
- ☐ Day 24: Recursion Basics & Applications

- ☐ Day 25-26: Solve 10-15 problems on Stack, Queue
- ☐ Day 27-28: Solve 10-15 problems on Linked List

Month 3: Advanced DSA (Trees, Graphs, DP)

Week 5: Trees & Binary Search

- ☐ Day 29: Binary Tree Introduction (DFS, BFS)
- ☐ Day 30: Binary Search Tree (Insertion, Deletion)
- ☐ Day 31: Binary Search (Iterative & Recursive)
- ☐ Day 32: Solve 10 problems on BST & Binary Search

Week 6: Graphs & Heaps

- ☐ Day 33: Graph Representation (Adjacency List & Matrix)
- ☐ Day 34: BFS & DFS Algorithm
- ☐ Day 35: Dijkstra's Algorithm (Shortest Path)
- ☐ Day 36-37: Solve 10 problems on Graphs
- ☐ Day 38: Heap (Min Heap, Max Heap)
- ☐ Day 39-40: Solve 5-10 problems on Heaps

Week 7: Sorting, Searching & Dynamic Programming (DP)

- ☐ Day 41: Merge Sort & Quick Sort
- ☐ Day 42: Binary Search Applications
- ☐ Day 43: Introduction to DP (Top-Down & Bottom-Up)
- ☐ Day 44: Fibonacci, Knapsack Problem
- ☐ Day 45: Solve 10 problems on DP

Month 4: Problem Solving & Competitive Programming

Week 8: Revision & Competitive Coding

- ☐ Day 46-47: Solve 5 Medium-Level Problems Daily
- ☐ Day 48-49: CodeChef/CodeForces Easy Contests
- ☐ Day 50-51: Solve 5 Graph-Based Problems
- ☐ Day 52: Solve 5 DP Problems
- ☐ Day 53-54: Participate in a Live Contest (LeetCode, CodeForces)

Week 9: Mock Interviews & Final Revision

- ☐ Day 55-57: Solve 10 Problems per day (Mixed Topics)
- ☐ Day 58: Mock Interview Practice
- ☐ Day 59: Debug & Optimize Solutions
- ☐ Day 60: Revise All Topics & Take Final Contest

Additional Tips for Success

- ✓ Daily 2-3 hours DSA + Problem Solving karo.
- ✓ Consistency is key, ek bhi din gap mat do.
- ✓ Code by hand before writing in Python.
- ✓ Practice 100+ problems in 3 months for mastery.
- ✓ Participate in Coding Contests (LeetCode, CodeForces, CodeChef).