# DSA Timetable for Beginners

This 8-week DSA timetable is designed to help beginners build a strong foundation in data structures and algorithms. The plan includes daily topics, suggested problems, and time allocations to ensure consistent progress.

## Week 1: Arrays and Basic Mathematics

|  |  |  |
| --- | --- | --- |
| Day | Topics / Questions to Solve | Time (Hours) |
| Day 1 | Array traversal, max/min in array | 2 |
| Day 2 | Reverse an array, check if sorted | 2 |
| Day 3 | Kth smallest/largest element, Sieve of Eratosthenes | 3 |
| Day 4 | Practice questions from LeetCode (Easy-Medium) | 3 |
| Day 5 | GCD/LCM problems, prime checks | 2 |
| Day 6 | Revise all concepts and practice new questions | 3 |
| Day 7 | Weekly review (attempt a mix of Easy/Medium problems) | 3 |

## Week 2: Strings and Hashing

|  |  |  |
| --- | --- | --- |
| Day | Topics / Questions to Solve | Time (Hours) |
| Day 1 | String basics, reverse string, palindrome check | 2 |
| Day 2 | Character frequency counting, anagram checks | 2 |
| Day 3 | Longest substring without repeating characters | 3 |
| Day 4 | Solve Easy-Medium questions on strings | 3 |
| Day 5 | Hashmaps: frequency problems and advanced concepts | 3 |
| Day 6 | Revise all concepts and practice | 3 |
| Day 7 | Weekly review with mock problems | 3 |

## Week 3: Recursion and Backtracking

|  |  |  |
| --- | --- | --- |
| Day | Topics / Questions to Solve | Time (Hours) |
| Day 1 | Basics of recursion: factorial, Fibonacci | 2 |
| Day 2 | Generate subsets of an array | 3 |
| Day 3 | Permutations of a string | 3 |
| Day 4 | N-Queens problem | 3 |
| Day 5 | Practice backtracking questions from LeetCode | 3 |
| Day 6 | Revise recursion and backtracking | 3 |
| Day 7 | Weekly review (mix of Medium/Hard problems) | 3 |