Tathastu DSA Series (Introduction)

Tathastu (by Twowaits) brings a DSA Series covering 300+ problems on Leetcode and GeeksForGeeks covering almost every topic of DSA (mentioned below).

This program covers DSA for interviews of companies like *Amazon, Adobe, Yatra, Samsung* etc and CTC range of *5-12 LPA*.

Check the Introductory video : YouTube

Register for Tathastu DSA Series : Register

What do you get?

- Recorded video solutions along with code for each problem mentioned below in C++, JAVA and Python.
- Not just problems, theory for each topic is also provided.
- Daily LIVE Doubt classes at 8 PM for 60 days from date of joining.
- Lifetime access to video, codes and other study material.
- Certificate after completion of 60 days program.
- All tutorials are in English. Doubts can be asked in Hindi/English.

Join our Whatsapp Group for daily practice and sharing FREE study materials : Link to group

If you have any doubts you can contact us at : (+91) 9456056603

Reviews for Tathastu DSA Series by students :

- Suharsh Mahajan, HBTU Kanpur (Linkedin) :

  "*I am having a very great learning experience with Tathastu Data Structures and Algorithms course and I am continuing with the course and the course is very much informative and a very good decision to join the course. I am getting my concepts in DSA cleared very nicely and side by side the practice questions and very helpful for further interview purposes as well.*"

- Manish Vishwakarma, BIET Jhansi (LinkedIn) :

  "First time when I joined Twowaits DSA Course I wasn't sure that I will be benefited by any way because they are taking very less and what they will provide, but I was wrong when I start seeing their video lectures my concept start growing more and more now I am able to think the approach of any question in many ways I am able to tackle the question. Thank You Two Waits for providing such a good platform with such a low amount."

- Utkarsh Srivastava, RKGIT Ghaziabad (GitHUB) :

  "*Tathastu is providing one of the best workshops and series which are extremely helpful for overall development in skills and interview preparation for B.Tech students."*

- Akhil Kumar Singh, JSS Noida (LinkedIn) :

  "*Twowaits is a great platform to learn anything about DSA, Software development and it really helping tons of students specially tier 3 students."*

Few among many reviews of Tathastu DSA Series...

Day 1 (Arrays) :

---------- Sample Videos & Solutions ----------

1. Two Sum (Leetcode)
   Code : C++ | JAVA | Python
   Video Solution : YouTube

2. Third Maximum Number (Leetcode)
   Code : C++ | JAVA | Python
   Video Solution : YouTube

3. Move Zeroes (Leetcode)
   Code : C++ | JAVA | Python
   Video Solution : YouTube

4. Rotate Array (Leetcode)
   Code : C++ | JAVA | Python
   Video Solution : YouTube

5. Find the Duplicate Number (Leetcode)
   Code : C++ | JAVA | Python
   Video Solution : YouTube

Day 2 (Arrays) :

---------- To access more solutions http://bit.ly/TathastuDSA ----------

6. Next Permutation (Leetcode)

7. Sort an array of 0's, 1's and 2's (Leetcode)

8. First Missing Positive (Leetcode)

9. Majority Element II (Leetcode)
10. Maximize Distance to Closest Person (Leetcode)

Day 3 (2D Arrays) :

11. Search a 2D Matrix (Leetcode)
12. Spiral Matrix (Leetcode)
13. Set Matrix Zeroes (Leetcode)
14. Sort the Matrix Diagonally (Leetcode)
15. Kth Smallest Element in a Sorted Matrix (Leetcode)

Day 4 (Strings) :

16. Valid Palindrome (Leetcode)
17. Add Binary (Leetcode)
18. Count and Say (Leetcode)
19. First Unique Character in a String (Leetcode)
20. Longest Common Prefix (Leetcode)

Day 5 (Strings) :

21. Permutations of a given string (GFG)
22. Reverse Words in a String (Leetcode)

23. Find and Replace Pattern (Leetcode)
24. Compare Version Numbers (Leetcode)
25. Restore IP Addresses (Leetcode)

Day 6 (Strings) :

26. Longest Palindromic Substring (Leetcode)
27. Longest Substring Without Repeating Characters (Leetcode)
28. Maximum Number of Occurrences of a Substring (Leetcode)
29. Substring with Concatenation of All Words (Leetcode)
30. Minimum Window Substring (Leetcode)

Day 7 (Stacks) :

31. Valid Parentheses (Leetcode)
32. Evaluation of Postfix Expression (GFG)
33. Sort a stack (GFG)
34. Min Stack (Leetcode)
35. Remove K Digits (Leetcode)

Day 8 (Stacks) :

36. Next Larger Element (GFG)

37. Evaluate Reverse Polish Notation (Leetcode)
38. Basic Calculator (Leetcode)
39. Online Stock Span (Leetcode)
40. Largest Rectangle in Histogram (Leetcode)

Day 9 (LinkedList) :

41. Add Two Numbers (Leetcode)
42. Rotate List (Leetcode)
43. Merge Sort List (Leetcode)
44. Insertion Sort List (Leetcode)
45. Odd Even Linked List (Leetcode)

Day 10 (LinkedList) :

46. Intersection of 2 Linked Lists (Leetcode)
47. Merge 2 Sorted Lists (Leetcode)
48. Copy List with Random Pointer (Leetcode)
49. Design Linked List (Leetcode)
50. Remove Zero Sum Consecutive Nodes from Linked List (Leetcode)

Day 11 (LinkedList) :

51. Check if Circular Linked List (GFG)
52. Find Pairs with given sum in Doubly Linked List (GFG)
53. Reverse a DLL in groups of given size (GFG)
54. Sort a K Sorted DLL (GFG)
55. Flatten a Multilevel DLL (GFG)

Day 12 (Queue) :

56. Implement Queue using Stacks (Leetcode)
57. Queue Reversal (GFG)
58. Interleave the first half of the queue with second half (GFG)
59. First non-repeating character in a stream (GFG)
60. LRU Cache (GFG)

Day 13 (Queue) :

61. Design Circular Queue (Leetcode)
62. Circular Tour (GFG)
63. Task Scheduler (Leetcode)
64. Sliding Window Maximum (Leetcode)
65. Design Front Middle back Queue (Leetcode)

Day 14 (Properties of Binary Tree I) :

66. Height of a Binary Tree (GFG)
67. Diameter (Leetcode)
68. Right Side View (Leetcode)
69. Symmetric Tree (Leetcode)
70. Lowest Common Ancestor (Leetcode)
71. Same Tree (Leetcode)

Day 15 (Properties of Binary Tree II) :

72. Maximum Depth of Binary Tree (Leetcode)
73. Check Completeness of Binary Tree (Leetcode)
74. Maximum Width of Binary Tree (Leetcode)
75. Balance Binary Tree (Leetcode)
76. Leaf-Similar Tree (Leetcode)
77. Check if Tree is Isomorphic (GFG)

Day 16 (Traversals of Binary Tree I) :

78. Inorder Traversal (Leetcode)

79. Preorder Traversal (Leetcode)

80. Postorder Traversal (Leetcode)

81. Level Order Traversal (Leetcode)

82. Zigzag Level Order Traversal (Leetcode)

Day 17 (Traversals of Binary Tree II) :

83. Vertical Order Traversal (Leetcode)

84. Construct Binary Tree from Inorder and Postorder Traversal (Leetcode)

85. Construct Binary Tree from Preorder and Postorder Traversal (Leetcode)

86. Construct Binary Tree from Preorder and Inorder Traversal (Leetcode)

87. Flip Binary Tree to Match Preorder Traversal (Leetcode)

Day 18 (Binary Tree - Sum & Path) :

88. Binary Tree Paths (Leetcode)

89. Path Sum II (Leetcode)

90. Sum of notes of longest path from root to leaf node (GFG)

91. Transform to Sum Tree (GFG)

92. Binary Tree Maximum Path Sum (Leetcode)

Day 19 (Binary Tree - Construct & Convert) :

93. Construct String from Binary Tree (Leetcode)
94. Construct Binary Tree from Parent Array (GFG)
95. Make Binary Tree from Linked List (GFG)
96. Binary Tree to Doubly Linked List (GFG)
97. Binary Tree to Mirror Tree (GFG)

Day 20 (Binary Tree - Subtree & Others) :

98. Subtree of Another Tree (Leetcode)
99. Find Duplicate Subtrees (Leetcode)
100. Most Frequent Subtree Sum (Leetcode)
101. Merge Two Binary Trees (Leetcode)
102. Invert Binary Tree (Leetcode)

Day 21 (BST - Properties) :

103. Validate BST (Leetcode)
104. Inorder Predecessor & Successor (GFG)
105. LCA of BST (Leetcode)
106. Two Sum IV - Input is a BST (Leetcode)
107. Kth Smallest Element in a BST (Leetcode)

Day 22 (BST - Construct & Convert) :

108. Convert Sorted Array to BST (Leetcode)
109. Binary Tree to BST (GFG)
110. Construct BST from given Preorder Traversal (GFG)
111. Merge Two Balanced BST (GFG)
112. Convert BST to Greater Tree (GFG)

Day 23 (BST - Misc) :

113. Range Sum of BST (Leetcode)
114. Check whether BST contains Dead End (GFG)
115. Unique BSTs (Leetcode)
116. Largest BST (GFG)
117. Recover BST (Leetcode)

Day 24 (Heap) :

118. Heap Sort (GFG)
119. Is Binary Tree Heap (GFG)
120. Merge Two Binary Max Heaps (GFG)
121. Kth Largest Element in an Array (Leetcode)

122. Merge k Sorted Arrays (GFG)

Day 25 (Trie) :

123. Implement Trie (Prefix Tree) (Leetcode)
124. Design Add and Search Words Data Structure (Leetcode)
125. Top K Frequent Words (Leetcode)
126. Phone Directory (GFG)
127. Word Search II (Leetcode)

Day 26 (Segment Tree) :

128. Range Sum Query - Mutable (Leetcode)
129. Range Minimum Query (GFG)
130. Count of Smaller numbers after Self (Leetcode)
131. GCD of given index ranges (GFG)
132. Falling Squares (Leetcode)

Day 27 (Suffix Array & Suffix Tree) :

133. Linear Time Suffix Array (GFG)
134. Substring Check (GFG)
135. Searching All Patterns (GFG)

136. Longest Repeated Substring (GFG)

137. Longest Common Substring (GFG)

Day 28 (Binary Indexed Tree/Fenwick Tree) :

138. Range Update & Range Queries (GFG)

139. Count Inversions in an Array (GFG)

140. Count Inversion Pairs in a Matrix (GFG)

141. Counting Triangles in a Rectangular space (GFG)

142. Queries on substring palindrome formation (GFG)

Day 29 (Analysis of Algorithms) :

Study theory of Time & Space Complexity with Examples (143-147)

Day 30 (Searching) :

148. Search Insert Position (Leetcode)

149. Sqrt(x) (Leetcode)

150. Intersection of Two Arrays (Leetcode)

151. Find K Closest Elements (Leetcode)

152. Count Complete Tree Nodes (Leetcode)

Day 31 (Searching) :

153. Find Peak Element (Leetcode)

154. Kth Smallest Element in Sorted Matrix (Leetcode)

155. Median of Two Sorted Arrays (Leetcode)

156. Nth Magical Number (Leetcode)

157. Find Minimum in Rotated Sorted Array (Leetcode)

Day 32 (Sorting) :

158. Selection Sort (GFG)

159. Bubble Sort (GFG)

160. Insertion Sort (GFG)

161. Merge Sort (GFG)

162. Quick Sort (GFG)

Day 33 (Sorting) :

163. Heap Sort (GFG)

164. Counting Sort (GFG)

165. Radix Sort (GFG)

166. Pigeonhole Sort (GFG)

167. Merge Intervals (GFG)

168. Sort List (GFG)

Day 34 (Hashing) :

169. Single Number (Leetcode)

170. Maximum Distance between Same Elements (GFG)

171. Array Subset of another Array (GFG)

172. Count Distinct Elements in Every Window (GFG)

173. Sum of Length (GFG)

174. 4Sum (Leetcode)

Day 35 (Hashing) :

175. Valid Sudoku (Leetcode)

176. Group Anagrams (Leetcode)

177. Clone a Binary Tree (GFG)

178. Count Distinct Elements in Every Window (GFG)

179. Vertical Sum (GFG)

180. Sum of Distances in a Tree (Leetcode)

Day 36 (Greedy Algorithms) :

181. Activity Selection Problem (GFG)

182. Job Sequencing Problem (GFG)

183. Huffman Encoding (GFG)

184. Fractional Knapsack Problem (GFG)

185. Minimum Number of Coins (GFG)

Day 37 (Greedy Algorithms) :

186. Minimum Platforms (GFG)

187. Shop in Candy Store (GFG)

188. Chocolate Distribution Problem (GFG)

189. Rearrange Characters (GFG)

190. Minimum Cost of Ropes (GFG)

Day 38 (Graph - Basics) :

191. Print Adjacency List (GFG)

192. BFS of Graph (GFG)

193. DFS of Graph (GFG)

194. Count all possible paths between two vertices (GFG)

195. BFS of Disconnected Graphs (GFG)

Day 39 (Graph - Cycle) :

196. Detect Cycle in a Directed Graph (GFG)

197. Detect Cycle in an Undirected Graph (GFG)

198. Bellman Ford - Negative Weight Cycle (GFG)

199. Floyd Warshall - Negative Weight Cycle (GFG)

200. Cycles of Length n in an Undirected & Connected Graph (GFG)

Day 40 (Graph - Topological Sort & MST) :

201. Topological Sort using DFS & Kahn's (GFG)

202. Alien Dictionary using Topological Sort (GFG)

203. Prim's & Kruskals's - Minimum Spanning Tree (GFG)

204. Minimum Cost to Connect All Cities (GFG)

205. Reverse Delete Algorithm for MST (GFG)

Day 41 (Graph - Shortest Path) :

206. Dijkstra's Shortest Path Algorithm (GFG)

207. Shortest Path in DAG (GFG)

208. Word Ladder (Leetcode)

209. Cheapest Flights within K Stops (Leetcode)

210. Steps by Knight (GFG)

Day 42 (Graph - Connectivity) :

211. Count the Paths (GFG)

212. Transitive Closure of a Graph (GFG)

213. Kosaraju's Algorithms - Strongly Connected Components (GFG)

214. Bridge Edge in Graph (GFG)

215. Find the Number of Islands (GFG)

Day 43 (Graph - Misc) :

216. M-Coloring Problem (GFG)

217. Course Schedule (Leetcode)

218. Clone Graph (Leetcode)

219. Is Graph Bipartite? (Leetcode)

220. Minimum Height Trees (Leetcode)

Day 44 (Backtracking) :

221. Knight's Tour Problem (GFG)

222. Rat in a Maze Problem (GFG)

223. N-Queens Problem (Leetcode)

224. Combination Sum (GFG)

225. Hamiltonian Path (GFG)

Day 45 (Backtracking) :

226. Sudoku Solver (Leetcode)

227. Generate Parentheses (Leetcode)

228. Word Break (Leetcode)

229. Permutations (Leetcode)

230. Unique Paths III (Leetcode)

Day 46 (Dynamic Programming - Basics) :

231. Maximum Subarray (Leetcode)

232. Climbing Stairs (Leetcode)

233. 0-1 Knapsack Problem (GFG)

234. Rod Cutting (GFG)

235. Nth Catalan Number (GFG)

Day 47 (Dynamic Programming - Medium I) :

236. Minimum Path Sum (Leetcode)

237. Coin Change (Leetcode)

238. Partition Equal Subset Sum (GFG)

239. Max Length Chain (GFG)

240. Interleaved Strings (GFG)

Day 48 (Dynamic Programming - Medium II) :

241. Minimum Number of Jumps (GFG)

242. Wildcard Pattern Matching (GFG)

243. Count Ways to reach the nth Stair (GFG)

244. Edit Distance (GFG)

245. Egg Dropping (GFG)

Day 49 (Dynamic Programming - Hard I) :

246. Longest Valid Parentheses (Leetcode)

247. Trapping Rain Water (Leetcode)

248. Regular Expression Matching (Leetcode)

249. Burst Balloons (Leetcode)

250. Matrix Chain Multiplication (GFG)

Day 50 (Dynamic Programming - Hard II) :

251. Partition Array to K Subsets (GFG)

252. Maximum Profit (GFG)

253. Minimum Points to Reach Destination (GFG)

254. Modern Numeric Keypad (GFG)

255. Number of Palindromic Paths in a Matrix (GFG)

Day 51 (Interview Questions - Bit Manipulation) :

256. Single Number (Leetcode)

257. Power of Two (Leetcode)

258. Reverse Bits (Leetcode)

259. Counting Bits (Leetcode)

260. Sum of Two Integers (Leetcode)

Day 52 (Interview Questions - String & Array) :

261. String to Integer, Atoi (Leetcode)

262. Implement of strStr() (Leetcode)

263. Leaders of an Array (GFG)

264. Hotel Bookings Possible (InterviewBit)

265. Convert Array into a ZigZag order (GFG)

Day 53 (Interview Questions - LinkedList, Tree) :

266. Remove Duplicates from Sorted List (Leetcode)

267. Partition List (InterviewBit)

268. Serialize and Deserialize a Binary Tree (GFG)

269. Flatten Binary Tree to LinkedList (InterviewBit)

270. Maximum Edge Removal (InterviewBit)

Day 54 (Interview Questions - Heap, Graph) :

271. Find Median in a Stream (GFG)

272. Kth Largest Element in a Stream (GFG)

273. Minimum Swaps to Sort (GFG)

274. Shortest Source to Destination Path (GFG)

275. Circle of Strings (GFG)

Day 55 (Interview Questions - Hashing) :

276. Longest Consecutive Subsequence (GFG)

277. Sorting Elements of an Array by Frequency (GFG)

278. Minimum Indexed Character (GFG)

279. Winner of an Election (GFG)

280. Maximum Points on a Single Line (Leetcode)

Day 56 (Interview Questions - Greedy, Divide & Conquer) :

281. Minimize the Heights (GFG)

282. Meeting Room (InterviewBit)

283. Painter's Partition Problem (GFG)

284. Power of Numbers (GFG)

285. Kth Element of Two Sorted Arrays (GFG)

Day 57 (Interview Questions - Misc I) :

286. Product Array Puzzle (GFG)

287. Stickler Thief (GFG)

288. Check if all enemies are killed with bombs placed in a matrix (GFG)

289. Rotten Oranges (GFG)

290. Replace O's with X's (GFG)

Day 58 (Interview Questions - Misc II) :

291. Clone a LinkedList with next and random pointer (GFG)

292. Reverse a LinkedList with Groups of given Size (GFG)

293. Asteroid Collision (Leetcode)

294. Check if a given Graph is Tree or not (GFG)

295. Prerequisite Tasks (GFG)

Day 59 (Interview Questions - Misc III) :

296. Find Square Root of number upto given Precision (GFG)

297. Minimum Platforms (GFG)

298. Nuts and Bolts Problem (GFG)

299. Merge Without Extra Array (GFG)

300. Strictly Increasing Array (GFG)

Day 60 (Interview Questions - Misc IV) :

301. Best Time to Buy and Sell Stock (Leetcode)

302. Josephus Problem (GFG)

303. Binary Array Sorting (GFG)

304. Burning Tree (GFG)

305. Travelling Salesman Problem (GFG)

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Beyond this you can just practice interview problems on GFG, Leetcode, InterviewBit.