

- CODESHOWS MODULE - 9 TOPIC - DP



Tutorials

- YouTube Playlist
- Topcoder Tutorials
- Hackerearth Tutorials
- Codechef DP Tutorials



Tutorials

- Digit DP Tutorials
- DP on Trees
- DP with Bitmasking(Hackerearth)
- DP with Bitmasking(Codeforces)

Problems To Practice ...



Easy Problems

- 1. Coin change-making problem
- 2. <u>0-1 Knapsack Problem</u>
- 3. Flip array
- 4. Longest Common Subsequence
- 5. Longest Palindromic Subsequence



Easy Problems

- 1. Shortest Common Superstring
- 2. Min Sum Path in Matrix
- 3. Increasing Path in Matrix
- 4. Subset Sum Problem
- 5. Unique Paths in a Grid



Medium Problems

- 1. Repeating Subsequences
- 2. Interleaving Strings
- 3. Word Break
- 4. Max Sum Path in Binary Tree
- 5. Maximal Square



Medium Problems

- 1. Decode Ways
- 2. Unique Binary Search Trees
- 3. Palindrome Partitioning
- 4. Longest Arithmetic Subsequence
- 5. Max Product Subarray



_ Hard Problems

- 1. Edit Distance
- 2. <u>Distinct Subsequences</u>
- 3. Scramble String
- 4. Regular Expression Matching
- 5. Wildcard Matching



_ Hard Problems

- 1. Word Break II
- 2. Concatenated Words
- Smallest Sequence with given Primes
- 4. Maximal Rectangle
- 5. <u>Decode Ways II</u>



Hard Problems

- 1. Unique Binary Search Trees II
- 2. Palindrome Partitioning II
- 3. Palindrome Partitioning III
- 4. Palindrome Partitioning IV
- 5. Ways To Color 3 x N Grid



Hard Problems

- 1. Shortest Common Supersequence
- 2. Best Time to Buy and Sell Stock IV
- 3. Evaluate Expression To True
- 4. Minimum Cost to Cut a Stick
- 5. <u>Tiling a Rectangle with the Fewest</u>
 <u>Squares</u>



Extra Resource For Practise

1. Educational DP Contest (Atcoder)







KEEP CALM AND KEEP CODING

BEST WISHES FROM TEAM CODESHOWS