SOURCE

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Dynamic Programming & It's Pattern

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Pattern ->1D Dynamic Programming

- 1) Climbing Stairs
- 2) Frog Jump
- 3) Frog Jump with K
- 4) Maximum sum of Non-adjacent elements
- 5) House robber 2
- 6) Ninja's Training

Pattern -> Dynamic Programming On Grids / 2D

- 1) Grid Unique Paths
- 2) Unique Paths
- 3) Minimum path sum in Grid
- 4) Tringle (Fixed Starting Point and Variable Ending Point)
- 5) Minimum/Maximum Falling Path Sum
- 6) Cherry Pickup 2

Pattern -> Dynamic Programming On Strings

- Print Length Of Longest Common Subsequence
- 2) Print Longest Common Subsequence
- 3) Longest Palindromic Subsequence
- 4) Minimum Insertion to Make String Palindrome
- 5) Minimum Insertions/Deletions to Convert String A -> B
- 6) Shortest Common SuperSequence
- 7) Distinct Subsequence
- 8) Edit Distance
- 9) Wildcard Matching

Pattern -> Dynamic Programming On Subsets / Subsequence

- 1) Subset Sum Equals to Target
- 2) Partition Equals Subset Sum
- 3) Partition A subset into 2 subset with minimum absolute sum diff.
- 4) Count Subsets With Sum K
- 5) Count Partitions with given difference
- 6) 0/1 Knapsack
- 7) Minimum Coins
- 8) Target Sum
- 9) Coin Change 2
- 10) Unbounded Knapsack 1 D array
- 11) Rod Cutting 1 D array

Pattern -> Dynamic Programming On Stocks

- Best Time To Buy and Sell Stock (Buy Ones & Sell Ones)
- 1) Best Time To Buy and Sell Stock 2 (Unlimited Time Buy & Sell)
- 1) Best Time To Buy and Sell Stock 3 (At Max 2 Times Buy & Sell)
- 1) Best Time To Buy and Sell Stock 4 (K times Buy & Sell)
- 1) Best Time To Buy and Sell Stock 5 (Buy & Sell With Cooldown)
- 1) Best Time To Buy and Sell Stock 6 (Buy & Sell With Extra Fee)

Pattern -> Dynamic Programming On Longest Increasing Subsequence (LIS)

-) Print Length Of Longest Increasing Subsequence
- 2) Print Longest Increasing Subsequence
- 3) Largest Divisible Subset
- 4) Longest String chain
- 5) Longest Bitonic Subsequence

6) Number Of Longest Increasing Subsequence

Pattern -> Hardest Dynamic Programming On partition

- 1) Matrix Chain Multiplication
- 2) Minimum Cost To cut The Stick
- 3) Burst Balloons
- 4) Evaluate Boolean
- 5) Palindrome Partitioning 2
- 6) Partition Array For Maximum Sum
- 7) Maximum Rectangle Area with all 1's (Dp on Rectangle)

8) Count Square Submatrices with all ones (Dp on Rectangle)


Thank
you