There are total 241 dp tagged problems in LeetCode as of Today, and 26 of them are locked so I only solved the public ones.

* First of all, I participated the monthly challange April & May, so this really helped me to build a habbit of daily problem solving
* Then I started to solve DP problems and kept updating my monthly problem list here.  
  <https://leetcode.com/discuss/general-discussion/665187/everyday-dp-challenge-list>
* The average pace was about 1 problem per day.
* I read these great articles to learn the general dynamic programming knowledge & patterns  
  <https://leetcode.com/discuss/general-discussion/458695/Dynamic-Programming-Patterns>  
  <https://leetcode.com/discuss/general-discussion/662866/DP-for-Beginners-Problems-or-Patterns-or-Sample-Solutions>

The followings are my categorization of the all 215 DP problems. (In each category, problems are sorted by LeetCode difficulty)  
Table version of the list: <https://chuka231.blogspot.com/2021/01/leetcode-all-dynamic-programming.html>

| **1.Linear DP** |
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<https://leetcode.com/problems/climbing-stairs/>  
<https://leetcode.com/problems/best-time-to-buy-and-sell-stock/>  
<https://leetcode.com/problems/min-cost-climbing-stairs/>  
<https://leetcode.com/problems/divisor-game/>  
<https://leetcode.com/problems/decode-ways/>  
<https://leetcode.com/problems/unique-binary-search-trees/>  
<https://leetcode.com/problems/house-robber/>  
<https://leetcode.com/problems/perfect-squares/>  
<https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-cooldown/>  
<https://leetcode.com/problems/coin-change/>  
<https://leetcode.com/problems/counting-bits/>  
<https://leetcode.com/problems/integer-break/>  
<https://leetcode.com/problems/count-numbers-with-unique-digits/>  
<https://leetcode.com/problems/wiggle-subsequence/>  
<https://leetcode.com/problems/partition-equal-subset-sum/>  
<https://leetcode.com/problems/maximum-length-of-pair-chain/>  
<https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-transaction-fee/>  
<https://leetcode.com/problems/delete-and-earn/>  
<https://leetcode.com/problems/domino-and-tromino-tiling/>  
<https://leetcode.com/problems/knight-dialer/>  
<https://leetcode.com/problems/minimum-cost-for-tickets/>  
<https://leetcode.com/problems/partition-array-for-maximum-sum/>  
<https://leetcode.com/problems/filling-bookcase-shelves/>  
<https://leetcode.com/problems/longest-arithmetic-subsequence-of-given-difference/>  
<https://leetcode.com/problems/greatest-sum-divisible-by-three/>  
<https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iii/>  
<https://leetcode.com/problems/student-attendance-record-ii/>  
<https://leetcode.com/problems/decode-ways-ii/>  
<https://leetcode.com/problems/triples-with-bitwise-and-equal-to-zero/>  
<https://leetcode.com/problems/maximum-profit-in-job-scheduling/>  
<https://leetcode.com/problems/minimum-number-of-taps-to-open-to-water-a-garden/>  
<https://leetcode.com/problems/count-all-valid-pickup-and-delivery-options/>  
<https://leetcode.com/problems/stone-game-iii/>  
<https://leetcode.com/problems/restore-the-array/>  
<https://leetcode.com/problems/form-largest-integer-with-digits-that-add-up-to-target/>  
<https://leetcode.com/problems/stone-game-iv/>  
<https://leetcode.com/problems/coin-change-2/>

| **2.Knapsack** |
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<https://leetcode.com/problems/house-robber-ii/>  
<https://leetcode.com/problems/ones-and-zeroes/>  
<https://leetcode.com/problems/target-sum/>  
<https://leetcode.com/problems/shopping-offers/>  
<https://leetcode.com/problems/2-keys-keyboard/>  
<https://leetcode.com/problems/minimum-swaps-to-make-sequences-increasing/>  
<https://leetcode.com/problems/best-team-with-no-conflicts/>  
<https://leetcode.com/problems/profitable-schemes/>  
<https://leetcode.com/problems/tallest-billboard/>  
<https://leetcode.com/problems/pizza-with-3n-slices/>  
<https://leetcode.com/problems/reducing-dishes/>

| **3.Multi Dimensions DP** |
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<https://leetcode.com/problems/triangle/>  
<https://leetcode.com/problems/combination-sum-iv/>  
<https://leetcode.com/problems/out-of-boundary-paths/>  
<https://leetcode.com/problems/knight-probability-in-chessboard/>  
<https://leetcode.com/problems/champagne-tower/>  
<https://leetcode.com/problems/largest-sum-of-averages/>  
<https://leetcode.com/problems/minimum-falling-path-sum/>  
<https://leetcode.com/problems/video-stitching/>  
<https://leetcode.com/problems/longest-arithmetic-subsequence/>  
<https://leetcode.com/problems/stone-game-ii/>  
<https://leetcode.com/problems/number-of-dice-rolls-with-target-sum/>  
<https://leetcode.com/problems/dice-roll-simulation/>  
<https://leetcode.com/problems/number-of-sets-of-k-non-overlapping-line-segments/>  
<https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iv/>  
<https://leetcode.com/problems/create-maximum-number/>  
<https://leetcode.com/problems/frog-jump/>  
<https://leetcode.com/problems/split-array-largest-sum/>  
<https://leetcode.com/problems/freedom-trail/>  
<https://leetcode.com/problems/minimum-number-of-refueling-stops/>  
<https://leetcode.com/problems/number-of-music-playlists/>  
<https://leetcode.com/problems/count-vowels-permutation/>  
<https://leetcode.com/problems/minimum-falling-path-sum-ii/>  
<https://leetcode.com/problems/minimum-distance-to-type-a-word-using-two-fingers/>  
<https://leetcode.com/problems/minimum-difficulty-of-a-job-schedule/>  
<https://leetcode.com/problems/number-of-ways-to-paint-n-3-grid/>  
<https://leetcode.com/problems/build-array-where-you-can-find-the-maximum-exactly-k-comparisons/>  
<https://leetcode.com/problems/number-of-ways-of-cutting-a-pizza/>  
<https://leetcode.com/problems/paint-house-iii/>  
<https://leetcode.com/problems/count-all-possible-routes/>

| **4.Interval DP** |
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<https://leetcode.com/problems/guess-number-higher-or-lower-ii/>  
<https://leetcode.com/problems/arithmetic-slices/>  
<https://leetcode.com/problems/predict-the-winner/>  
<https://leetcode.com/problems/palindromic-substrings/>  
<https://leetcode.com/problems/stone-game/>  
<https://leetcode.com/problems/minimum-score-triangulation-of-polygon/>  
<https://leetcode.com/problems/last-stone-weight-ii/>  
<https://leetcode.com/problems/minimum-cost-tree-from-leaf-values/>  
<https://leetcode.com/problems/stone-game-vii/>  
<https://leetcode.com/problems/burst-balloons/>  
<https://leetcode.com/problems/remove-boxes/>  
<https://leetcode.com/problems/strange-printer/>  
<https://leetcode.com/problems/valid-permutations-for-di-sequence/>  
<https://leetcode.com/problems/minimum-cost-to-merge-stones/>  
<https://leetcode.com/problems/allocate-mailboxes/>  
<https://leetcode.com/problems/minimum-cost-to-cut-a-stick/>  
<https://leetcode.com/problems/stone-game-v/>

| **5.bit DP** |
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<https://leetcode.com/problems/can-i-win/>  
<https://leetcode.com/problems/partition-to-k-equal-sum-subsets/>  
<https://leetcode.com/problems/stickers-to-spell-word/>  
<https://leetcode.com/problems/shortest-path-visiting-all-nodes/>  
<https://leetcode.com/problems/smallest-sufficient-team/>  
<https://leetcode.com/problems/maximum-students-taking-exam/>  
<https://leetcode.com/problems/number-of-ways-to-wear-different-hats-to-each-other/>  
<https://leetcode.com/problems/minimum-cost-to-connect-two-groups-of-points/>  
<https://leetcode.com/problems/maximum-number-of-achievable-transfer-requests/>  
<https://leetcode.com/problems/distribute-repeating-integers/>  
<https://leetcode.com/problems/maximize-grid-happiness/>  
<https://leetcode.com/problems/find-minimum-time-to-finish-all-jobs/>

| **6.Digit DP** |
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<https://leetcode.com/problems/non-negative-integers-without-consecutive-ones/>  
<https://leetcode.com/problems/numbers-at-most-n-given-digit-set/>  
<https://leetcode.com/problems/numbers-with-repeated-digits/>

| **7.DP on Trees** |
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<https://leetcode.com/problems/unique-binary-search-trees-ii/>  
<https://leetcode.com/problems/house-robber-iii/>  
<https://leetcode.com/problems/maximum-product-of-splitted-binary-tree/>  
<https://leetcode.com/problems/linked-list-in-binary-tree/>  
<https://leetcode.com/problems/longest-zigzag-path-in-a-binary-tree/>  
<https://leetcode.com/problems/binary-tree-cameras/>  
<https://leetcode.com/problems/maximum-sum-bst-in-binary-tree/>  
<https://leetcode.com/problems/number-of-ways-to-reorder-array-to-get-same-bst/>

| **8.String DP** |
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<https://leetcode.com/problems/is-subsequence/>  
<https://leetcode.com/problems/palindrome-partitioning/>  
<https://leetcode.com/problems/palindrome-partitioning-ii/>  
<https://leetcode.com/problems/word-break/>  
<https://leetcode.com/problems/unique-substrings-in-wraparound-string/>  
<https://leetcode.com/problems/minimum-ascii-delete-sum-for-two-strings/>  
<https://leetcode.com/problems/longest-string-chain/>  
<https://leetcode.com/problems/longest-happy-string/>  
<https://leetcode.com/problems/longest-valid-parentheses/>  
<https://leetcode.com/problems/distinct-subsequences/>  
<https://leetcode.com/problems/word-break-ii/>  
<https://leetcode.com/problems/count-the-repetitions/>  
<https://leetcode.com/problems/concatenated-words/>  
<https://leetcode.com/problems/count-different-palindromic-subsequences/>  
<https://leetcode.com/problems/distinct-subsequences-ii/>  
<https://leetcode.com/problems/longest-chunked-palindrome-decomposition/>  
<https://leetcode.com/problems/palindrome-partitioning-iii/>  
<https://leetcode.com/problems/find-all-good-strings/>  
<https://leetcode.com/problems/string-compression-ii/>  
<https://leetcode.com/problems/number-of-ways-to-form-a-target-string-given-a-dictionary/>

| **9.Probability DP** |
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<https://leetcode.com/problems/soup-servings/>  
<https://leetcode.com/problems/new-21-game/>  
<https://leetcode.com/problems/airplane-seat-assignment-probability/>

| **10.Classic DPs** |
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A.Cadane's Algorithm  
<https://leetcode.com/problems/maximum-subarray/>  
<https://leetcode.com/problems/maximum-product-subarray/>  
<https://leetcode.com/problems/bitwise-ors-of-subarrays/>  
<https://leetcode.com/problems/longest-turbulent-subarray/>  
<https://leetcode.com/problems/maximum-subarray-sum-with-one-deletion/>  
<https://leetcode.com/problems/k-concatenation-maximum-sum/>  
<https://leetcode.com/problems/largest-divisible-subset/>  
<https://leetcode.com/problems/length-of-longest-fibonacci-subsequence/>

B.LCS  
<https://leetcode.com/problems/longest-palindromic-substring/>  
<https://leetcode.com/problems/longest-palindromic-subsequence/>  
<https://leetcode.com/problems/maximum-length-of-repeated-subarray/>  
<https://leetcode.com/problems/longest-common-subsequence/>  
<https://leetcode.com/problems/regular-expression-matching/>  
<https://leetcode.com/problems/wildcard-matching/>  
<https://leetcode.com/problems/edit-distance/>  
<https://leetcode.com/problems/interleaving-string/>  
<https://leetcode.com/problems/shortest-common-supersequence/>  
<https://leetcode.com/problems/minimum-insertion-steps-to-make-a-string-palindrome/>  
<https://leetcode.com/problems/max-dot-product-of-two-subsequences/>

C.LIS  
<https://leetcode.com/problems/longest-increasing-subsequence/>  
<https://leetcode.com/problems/number-of-longest-increasing-subsequence/>  
<https://leetcode.com/problems/russian-doll-envelopes/>  
<https://leetcode.com/problems/delete-columns-to-make-sorted-iii/>  
<https://leetcode.com/problems/minimum-number-of-removals-to-make-mountain-array/>  
<https://leetcode.com/problems/maximum-height-by-stacking-cuboids/>  
<https://leetcode.com/problems/make-array-strictly-increasing/>

D.2D Grid Traversal  
<https://leetcode.com/problems/unique-paths/>  
<https://leetcode.com/problems/unique-paths-ii/>  
<https://leetcode.com/problems/minimum-path-sum/>  
<https://leetcode.com/problems/maximum-non-negative-product-in-a-matrix/>  
<https://leetcode.com/problems/where-will-the-ball-fall/>  
<https://leetcode.com/problems/dungeon-game/>  
<https://leetcode.com/problems/cherry-pickup/>  
<https://leetcode.com/problems/number-of-paths-with-max-score/>  
<https://leetcode.com/problems/cherry-pickup-ii/>  
<https://leetcode.com/problems/kth-smallest-instructions/>

E.Cumulative Sum  
<https://leetcode.com/problems/range-sum-query-immutable/>  
<https://leetcode.com/problems/maximal-square/>  
<https://leetcode.com/problems/range-sum-query-2d-immutable/>  
<https://leetcode.com/problems/largest-plus-sign/>  
<https://leetcode.com/problems/push-dominoes/>  
<https://leetcode.com/problems/largest-1-bordered-square/>  
<https://leetcode.com/problems/count-square-submatrices-with-all-ones/>  
<https://leetcode.com/problems/matrix-block-sum/>  
<https://leetcode.com/problems/maximum-points-you-can-obtain-from-cards/>  
<https://leetcode.com/problems/count-submatrices-with-all-ones/>  
<https://leetcode.com/problems/ways-to-make-a-fair-array/>  
<https://leetcode.com/problems/maximal-rectangle/>  
<https://leetcode.com/problems/max-sum-of-rectangle-no-larger-than-k/>  
<https://leetcode.com/problems/super-washing-machines/>  
<https://leetcode.com/problems/maximum-sum-of-3-non-overlapping-subarrays/>  
<https://leetcode.com/problems/number-of-submatrices-that-sum-to-target/>  
<https://leetcode.com/problems/get-the-maximum-score/>

F.Hashmap (SubArray)  
<https://leetcode.com/problems/continuous-subarray-sum/>  
<https://leetcode.com/problems/find-two-non-overlapping-sub-arrays-each-with-target-sum/>  
<https://leetcode.com/problems/maximum-number-of-non-overlapping-subarrays-with-sum-equals-target/>

| **11.DP + Alpha (Tricks/DS)** |
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<https://leetcode.com/problems/arithmetic-slices-ii-subsequence/>  
<https://leetcode.com/problems/odd-even-jump/>  
<https://leetcode.com/problems/constrained-subsequence-sum/>  
<https://leetcode.com/problems/delivering-boxes-from-storage-to-ports/>

| **12.Insertion DP** |
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<https://leetcode.com/problems/k-inverse-pairs-array/>

| **13.Graph DP** |
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<https://leetcode.com/problems/cheapest-flights-within-k-stops/>  
<https://leetcode.com/problems/find-the-shortest-superstring/>

| **14.Memoization** |
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<https://leetcode.com/problems/minimum-jumps-to-reach-home/>  
<https://leetcode.com/problems/scramble-string/>  
<https://leetcode.com/problems/tiling-a-rectangle-with-the-fewest-squares/>  
<https://leetcode.com/problems/number-of-ways-to-stay-in-the-same-place-after-some-steps/>  
<https://leetcode.com/problems/jump-game-v/>  
<https://leetcode.com/problems/minimum-number-of-days-to-eat-n-oranges/>

| **15.Binary Lifting** |
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<https://leetcode.com/problems/kth-ancestor-of-a-tree-node/>

| **16.Math** |
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<https://leetcode.com/problems/ugly-number-ii/>  
<https://leetcode.com/problems/count-sorted-vowel-strings/>  
<https://leetcode.com/problems/race-car/>  
<https://leetcode.com/problems/super-egg-drop/>  
<https://leetcode.com/problems/least-operators-to-express-number/>  
<https://leetcode.com/problems/largest-multiple-of-three/>  
<https://leetcode.com/problems/minimum-one-bit-operations-to-make-integers-zero/>