



HackerRank Online Judge

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HackerRank Online Judge - Phase 2

Data Structures



Lecture Agenda

We will discuss in this lecture
the following topics

- | | |
|-------------------------------|---------------|
| 1- Arrays & Linked Lists | [20 problems] |
| 2- Stacks & Queues | [10 problems] |
| 3- Trees & Balanced Trees | [20 problems] |
| 4- Heap & Disjoint Set & Trie | [10 problems] |
| 5- Advanced | [50 problems] |



Let's
STARTUP

Lecture Agenda

Section 1: Arrays & Linked Lists

Section 2: Stacks & Queues

Section 3: Trees & Balanced Trees

Section 4: Heap & Disjoint Set & Trie

Section 5: Advanced



HackerRank - Arrays & Linked Lists



- [01] <https://www.hackerrank.com/challenges/arrays-ds/problem>
- [02] <https://www.hackerrank.com/challenges/2d-array/problem>
- [03] <https://www.hackerrank.com/challenges/dynamic-array/problem>
- [04] <https://www.hackerrank.com/challenges/array-left-rotation/problem>
- [05] <https://www.hackerrank.com/challenges/print-the-elements-of-a-linked-list/problem>
- [06] <https://www.hackerrank.com/challenges/insert-a-node-at-the-tail-of-a-linked-list/problem>
- [07] <https://www.hackerrank.com/challenges/insert-a-node-at-the-head-of-a-linked-list/problem>
- [08] <https://www.hackerrank.com/challenges/insert-a-node-at-a-specific-position-in-a-linked-list/problem>
- [09] <https://www.hackerrank.com/challenges/delete-a-node-from-a-linked-list/problem>
- [10] <https://www.hackerrank.com/challenges/print-the-elements-of-a-linked-list-in-reverse/problem>
- [11] <https://www.hackerrank.com/challenges/reverse-a-linked-list/problem>
- [12] <https://www.hackerrank.com/challenges/compare-two-linked-lists/problem>
- [13] <https://www.hackerrank.com/challenges/merge-two-sorted-linked-lists/problem>
- [14] <https://www.hackerrank.com/challenges/get-the-value-of-the-node-at-a-specific-position-from-the-tail/problem>
- [15] <https://www.hackerrank.com/challenges/delete-duplicate-value-nodes-from-a-sorted-linked-list/problem>
- [16] <https://www.hackerrank.com/challenges/find-the-merge-point-of-two-joined-linked-lists/problem>

HackerRank - Arrays & Linked Lists



- [17] <https://www.hackerrank.com/challenges/insert-a-node-into-a-sorted-doubly-linked-list/problem>
- [18] <https://www.hackerrank.com/challenges/reverse-a-doubly-linked-list/problem>
- [19] <https://www.hackerrank.com/challenges/detect-whether-a-linked-list-contains-a-cycle/problem>
- [20] <https://www.hackerrank.com/challenges/sparse-arrays/problem>
- [21] <https://www.hackerrank.com/challenges/crush/problem>





Lecture Agenda

✓ Section 1: Arrays & Linked Lists

Section 2: Stacks & Queues

Section 3: Trees & Balanced Trees

Section 4: Heap & Disjoint Set & Trie

Section 5: Advanced



HackerRank - Stacks & Queues



- [01] <https://www.hackerrank.com/challenges/equal-stacks/problem>
- [02] <https://www.hackerrank.com/challenges/queue-using-two-stacks>
- [03] <https://www.hackerrank.com/challenges/balanced-brackets>
- [04] <https://www.hackerrank.com/challenges/castle-on-the-grid>
- [05] <https://www.hackerrank.com/challenges/down-to-zero-ii>
- [06] <https://www.hackerrank.com/challenges/largest-rectangle>
- [07] <https://www.hackerrank.com/challenges/simple-text-editor>
- [08] <https://www.hackerrank.com/challenges/waiter>
- [09] <https://www.hackerrank.com/challenges/truck-tour>
- [10] <https://www.hackerrank.com/challenges/queries-with-fixed-length>
- [11] <https://www.hackerrank.com/challenges/poisonous-plants/problem>
- [12] <https://www.hackerrank.com/challenges/and-xor-or>



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✓ Section 1: Arrays & Linked Lists

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HackerRank - Trees & Balanced Trees



- [01] <https://www.hackerrank.com/challenges/tree-preorder-traversal/problem>
- [02] <https://www.hackerrank.com/challenges/tree-postorder-traversal/problem>
- [03] <https://www.hackerrank.com/challenges/tree-inorder-traversal/problem>
- [04] <https://www.hackerrank.com/challenges/tree-height-of-a-binary-tree/problem>
- [05] <https://www.hackerrank.com/challenges/tree-top-view/problem>
- [06] <https://www.hackerrank.com/challenges/tree-level-order-traversal/problem>
- [07] <https://www.hackerrank.com/challenges/binary-search-tree-insertion/problem>
- [08] <https://www.hackerrank.com/challenges/binary-search-tree-lowest-common-ancestor/problem>
- [09] <https://www.hackerrank.com/challenges/tree-huffman-decoding/problem>
- [10] <https://www.hackerrank.com/challenges/swap-nodes-algo/problem>
- [11] <https://www.hackerrank.com/challenges/is-binary-search-tree/problem>
- [12] <https://www.hackerrank.com/challenges/self-balancing-tree/problem>
- [13] <https://www.hackerrank.com/challenges/square-ten-tree/problem>
- [14] <https://www.hackerrank.com/challenges/balanced-forest/problem>
- [15] <https://www.hackerrank.com/challenges/jenny-subtrees/problem>
- [16] <https://www.hackerrank.com/challenges/array-and-simple-queries/problem>

HackerRank - Trees & Balanced Trees



- [17] <https://www.hackerrank.com/challenges/median/problem>
- [18] <https://www.hackerrank.com/challenges/kittys-calculations-on-a-tree/problem>
- [19] <https://www.hackerrank.com/challenges/array-pairs/problem>





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✓ Section 1: Arrays & Linked Lists

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Section 4: Heap & Disjoint Set & Trie

Section 5: Advanced



HackerRank - Heap & Disjoint Set & Trie



- [01] <https://www.hackerrank.com/challenges/qheap1/problem>
- [02] <https://www.hackerrank.com/challenges/jesse-and-cookies/problem>
- [03] <https://www.hackerrank.com/challenges/components-in-graph/problem>
- [04] <https://www.hackerrank.com/challenges/contacts/problem>
- [05] <https://www.hackerrank.com/challenges/merging-communities/problem>
- [06] <https://www.hackerrank.com/challenges/kundu-and-tree/problem>
- [07] <https://www.hackerrank.com/challenges/find-the-running-median/problem>
- [08] <https://www.hackerrank.com/challenges/minimum-average-waiting-time/problem>
- [09] <https://www.hackerrank.com/challenges/maximum-cost-queries/problem>
- [10] <https://www.hackerrank.com/challenges/no-prefix-set/problem>



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Section 5: Advanced



HackerRank - Advanced



- [01] <https://www.hackerrank.com/challenges/kindergarten-adventures/problem>
- [02] <https://www.hackerrank.com/challenges/x-and-his-shots/problem>
- [03] <https://www.hackerrank.com/challenges/jim-and-the-skyscrapers/problem>
- [04] <https://www.hackerrank.com/challenges/find-maximum-index-product/problem>
- [05] <https://www.hackerrank.com/challenges/cube-summation/problem>
- [06] <https://www.hackerrank.com/challenges/direct-connections/problem>
- [07] <https://www.hackerrank.com/challenges/palindromic-subsets/problem>
- [08] <https://www.hackerrank.com/challenges/polynomial-division/problem>
- [09] <https://www.hackerrank.com/challenges/costly-intervals/problem>
- [10] <https://www.hackerrank.com/challenges/the-strange-function/problem>
- [11] <https://www.hackerrank.com/challenges/lazy-white-falcon/problem>
- [12] <https://www.hackerrank.com/challenges/heavy-light-white-falcon/problem>
- [13] <https://www.hackerrank.com/challenges/heavy-light-2-white-falcon/problem>
- [14] <https://www.hackerrank.com/challenges/burger-happiness/problem>
- [15] <https://www.hackerrank.com/challenges/roy-and-alpha-beta-trees/problem>
- [16] <https://www.hackerrank.com/challenges/coloring-tree/problem>



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- [17] <https://www.hackerrank.com/challenges/recalling-early-days-gp-with-trees/problem>
- [18] <https://www.hackerrank.com/challenges/white-falcon-and-tree/problem>
- [19] <https://www.hackerrank.com/challenges/jagia-playing-with-numbers/problem>
- [20] <https://www.hackerrank.com/challenges/weird-queries/problem>
- [21] <https://www.hackerrank.com/challenges/rooted-tree/problem>
- [22] <https://www.hackerrank.com/challenges/net-admin/problem>
- [23] <https://www.hackerrank.com/challenges/net-admin/problem>
- [24] <https://www.hackerrank.com/challenges/subsequence-weighting/problem>
- [25] <https://www.hackerrank.com/challenges/self-driving-bus/problem>
- [26] <https://www.hackerrank.com/challenges/unique-colors/problem>
- [27] <https://www.hackerrank.com/challenges/functional-palindromes/problem>
- [28] <https://www.hackerrank.com/challenges/little-alexey-and-sum-of-maximums/problem>
- [29] <https://www.hackerrank.com/challenges/heavy-light-2-white-falcon/problem>
- [30] <https://www.hackerrank.com/challenges/starfleet/problem>
- [31] <https://www.hackerrank.com/challenges/swaps-and-sum/problem>
- [32] <https://www.hackerrank.com/challenges/arithmetic-progressions/problem>

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- [33] <https://www.hackerrank.com/challenges/coolguy-and-two-subsequences/problem>
- [34] <https://www.hackerrank.com/challenges/subtrees-and-paths/problem>
- [35] <https://www.hackerrank.com/challenges/triplets/problem>
- [36] <https://www.hackerrank.com/challenges/beautiful-segments/problem>
- [37] <https://www.hackerrank.com/challenges/taxicab-drivers-problem/problem>
- [38] <https://www.hackerrank.com/challenges/jagia-playing-with-numbers/problem>
- [39] <https://www.hackerrank.com/challenges/helix/problem>
- [40] <https://www.hackerrank.com/challenges/company-retreat/problem>
- [41] <https://www.hackerrank.com/challenges/counting-on-a-tree/problem>
- [42] <https://www.hackerrank.com/challenges/fibonacci-numbers-tree/problem>
- [43] <https://www.hackerrank.com/challenges/pair-sums/problem>
- [44] <https://www.hackerrank.com/challenges/ticket-to-ride/problem>
- [45] <https://www.hackerrank.com/challenges/number-game-on-a-tree/problem>
- [46] <https://www.hackerrank.com/challenges/almost-equal-advanced/problem>
- [47] <https://www.hackerrank.com/challenges/almost-sorted-interval/problem>
- [48] <https://www.hackerrank.com/challenges/beautiful-segments/problem>

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- [49] <https://www.hackerrank.com/challenges/ab0/problem>
- [50] <https://www.hackerrank.com/challenges/easy-addition/problem>
- [51] <https://www.hackerrank.com/challenges/find-the-permutation/problem>
- [52] <https://www.hackerrank.com/challenges/box-operations/problem>
- [53] <https://www.hackerrank.com/challenges/max-transform/problem>





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DO
MORE.