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
START UP

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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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

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 - 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 1: Arrays & Linked Lists
- ✔ Section 2: Stacks & Queues
- ✔ Section 3: Trees & Balanced Trees
- ✔ Section 4: Heap & Disjoint Set & Trie
- **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

HackerRank - Advanced

[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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