HackerRank Online Judge

Prepared by: Mohamed Ayman

Algorithm Engineer at Valeo

Deep Learning Researcher and Teaching Assistant

at The American University in Cairo (AUC)

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sw.eng.MohamedAyman@gmail.com

facebook.com/cs.MohamedAyman

linkedin.com/in/cs-MohamedAyman

github.com/cs-MohamedAyman

codeforces.com/profile/Mohamed_Ayman

HackerRank Online Judge - Phase 1
Functional Programming

Lecture Agenda

We will discuss in this lecture the following topics

1- Introduction [25 problems]
2- Recursion [20 problems]
3- Functional Structures [10 problems]
4- Memoization [10 problems]
5- Ad-Hoc [15 problems]
6- Misc [5 problems]


Let's
START UP

Lecture Agenda

Section 1: Introduction

Section 2: Recursion

Section 3: Functional Structures

Section 4: Memoization

Section 5: Ad-Hoc

Section 6: Misc

HackerRank - Introduction

[01] https://www.hackerrank.com/challenges/fp-solve-me-first/problem
[02] https://www.hackerrank.com/challenges/fp-hello-world/problem
[03] https://www.hackerrank.com/challenges/fp-hello-world-n-times/problem
[04] https://www.hackerrank.com/challenges/fp-list-replication/problem
[05] https://www.hackerrank.com/challenges/fp-filter-array/problem
[06] https://www.hackerrank.com/challenges/fp-filter-positions-in-a-list/problem
[07] https://www.hackerrank.com/challenges/fp-array-of-n-elements/problem
[08] https://www.hackerrank.com/challenges/fp-reverse-a-list/problem
[09] https://www.hackerrank.com/challenges/fp-sum-of-odd-elements/problem
[10] https://www.hackerrank.com/challenges/fp-list-length/problem
[11] https://www.hackerrank.com/challenges/fp-update-list/problem
[12] https://www.hackerrank.com/challenges/eval-ex/problem
[13] https://www.hackerrank.com/challenges/area-under-curves-and-volume-of-revolving-a-curv/problem
[14] https://www.hackerrank.com/challenges/lambda-calculus-reductions-1/problem
[15] https://www.hackerrank.com/challenges/lambda-calculus-reductions-2/problem
[16] https://www.hackerrank.com/challenges/lambda-calculus-getting-started/problem

HackerRank - Introduction

[17] https://www.hackerrank.com/challenges/lambda-calculus-understanding-the-syntax/problem

[18] https://www.hackerrank.com/challenges/lambda-calculus-evaluate-the-expression/problem

[19] https://www.hackerrank.com/challenges/functions-or-not/problem

[20] https://www.hackerrank.com/challenges/lambda-march-compute-the-perimeter-of-a-polygon/problem

[21] https://www.hackerrank.com/challenges/lambda-march-compute-the-area-of-a-polygon/problem

[22] https://www.hackerrank.com/challenges/lambda-calculus-reductions-3/problem

[23] https://www.hackerrank.com/challenges/lambda-calculus-reductions-4/problem

[24] https://www.hackerrank.com/challenges/lambda-calculus-evaluate-the-expression-1/problem

[25] https://www.hackerrank.com/challenges/lambda-calculus-evaluate-the-expression-2/problem

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- ✔ Section 1: Introduction
- **Section 2: Recursion**
- Section 3: Functional Structures
- Section 4: Memoization
- Section 5: Ad-Hoc
- Section 6: Misc

HackerRank - Recursion

[01] https://www.hackerrank.com/challenges/functional-programming-warmups-in-recursion---gcd/problem
[02] https://www.hackerrank.com/challenges/functional-programming-warmups-in-recursion---fibonacci-numbers/problem
[03] https://www.hackerrank.com/challenges/pascals-triangle/problem
[04] https://www.hackerrank.com/challenges/string-mingling/problem
[05] https://www.hackerrank.com/challenges/string-o-permute/problem
[06] https://www.hackerrank.com/challenges/string-compression/problem
[07] https://www.hackerrank.com/challenges/prefix-compression/problem
[08] https://www.hackerrank.com/challenges/string-reductions/problem
[09] https://www.hackerrank.com/challenges/functional-programming-the-sums-of-powers/problem
[10] https://www.hackerrank.com/challenges/sequence-full-of-colors/problem
[11] https://www.hackerrank.com/challenges/filter-elements/problem
[12] https://www.hackerrank.com/challenges/convex-hull-fp/problem
[13] https://www.hackerrank.com/challenges/super-digit/problem
[14] https://www.hackerrank.com/challenges/lambda-march-concave-polygon/problem
[15] https://www.hackerrank.com/challenges/functions-and-fractals-sierpinski-triangles/problem
[16] https://www.hackerrank.com/challenges/fractal-trees/problem
[17] https://www.hackerrank.com/challenges/crosswords-101/problem

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HackerRank - Functional Structures

[01] https://www.hackerrank.com/challenges/lists-and-gcd/problem
[02] https://www.hackerrank.com/challenges/swap-nodes/problem
[03] https://www.hackerrank.com/challenges/valid-bst/problem
[04] https://www.hackerrank.com/challenges/prison-transport/problem
[05] https://www.hackerrank.com/challenges/kmp-fp/problem
[06] https://www.hackerrank.com/challenges/john-and-fences/problem
[07] https://www.hackerrank.com/challenges/range-minimum-query/problem
[08] https://www.hackerrank.com/challenges/tree-manager/problem
[09] https://www.hackerrank.com/challenges/matrix-rotation/problem
[10] https://www.hackerrank.com/challenges/stocks-prediction/problem
[11] https://www.hackerrank.com/challenges/fighting-armies/problem
[12] https://www.hackerrank.com/challenges/order-exercises/problem
[13] https://www.hackerrank.com/challenges/mirko-at-construction-site/problem

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HackerRank - Memoization

[01] https://www.hackerrank.com/challenges/pentagonal-numbers/problem
[02] https://www.hackerrank.com/challenges/fibonacci-fp/problem
[03] https://www.hackerrank.com/challenges/different-ways-fp/problem
[04] https://www.hackerrank.com/challenges/number-of-binary-search-tree/problem
[05] https://www.hackerrank.com/challenges/dice-path/problem
[06] https://www.hackerrank.com/challenges/sherlock-and-the-maze/problem
[07] https://www.hackerrank.com/challenges/password-cracker-fp/problem
[08] https://www.hackerrank.com/challenges/reverse-factorization/problem
[09] https://www.hackerrank.com/challenges/bangalore-bank/problem
[10] https://www.hackerrank.com/challenges/expressions/problem

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HackerRank - Ad-Hoc

[01] https://www.hackerrank.com/challenges/rotate-string/problem
[02] https://www.hackerrank.com/challenges/remove-duplicates/problem
[03] https://www.hackerrank.com/challenges/huge-gcd-fp/problem
[04] https://www.hackerrank.com/challenges/missing-numbers-fp/problem
[05] https://www.hackerrank.com/challenges/common-divisors/problem
[06] https://www.hackerrank.com/challenges/subset-sum/problem
[07] https://www.hackerrank.com/challenges/jumping-bunnies/problem
[08] https://www.hackerrank.com/challenges/mango/problem
[09] https://www.hackerrank.com/challenges/captain-prime/problem
[10] https://www.hackerrank.com/challenges/minimum-multiple/problem
[11] https://www.hackerrank.com/challenges/messy-medians/problem
[12] https://www.hackerrank.com/challenges/boleyn-salary/problem
[13] https://www.hackerrank.com/challenges/kundu-and-bubble-wrap/problem
[14] https://www.hackerrank.com/challenges/puzzle-and-pc/problem
[15] https://www.hackerrank.com/challenges/game-of-kyles/problem
[16] https://www.hackerrank.com/challenges/elementary-watson
[17] https://www.hackerrank.com/challenges/convolutional-coding/problem

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HackerRank - Misc

[01] https://www.hackerrank.com/challenges/simplify-the-algebraic-expressions/problem

[02] https://www.hackerrank.com/challenges/brainf-k-interpreter-fp/problem

[03] https://www.hackerrank.com/challenges/expressions-v2/problem

[04] https://www.hackerrank.com/challenges/while-language-fp/problem

[05] https://www.hackerrank.com/challenges/intuitive-language/problem

[06] https://www.hackerrank.com/challenges/down-with-abstractions/problem

[07] https://www.hackerrank.com/challenges/infer/problem

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