

ユーチューブのタイムスタンプ

ノート

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# Recursion (23 Jan 21)

## Leetcode 509, 258, 125

This video will focus on:

Leetcode 509 Fibonacci Number - https://leetcode.com/problems/fibonacci-number/

Leetcode 258 Add Digits -

Leetcode 125 Valid Palindrome - https://leetcode.com/problems/valid-palindrome/

The concepts such as xxxxx are explored and two approaches and their corresponding time and space complexities are discussed.

Concept Introduction

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Recursion

Recursive algorithm structure example

Tail Recursion

Coding Recursive Approach

Fibonacci sequence – Wikipedia

Leetcode 509 Fibonacci Number Pseudocode

Java code

Leetcode 258 Add Digits

Pseudocode

Java code

Leetcode 125 Valid Palindrome

What is palindrome?

What is regex (regular expression)?

Regex java doc

* <https://docs.oracle.com/javase/tutorial/essential/regex/pre_char_classes.html>
* <https://docs.oracle.com/javase/tutorial/essential/regex/char_classes.html>
* <https://docs.oracle.com/en/java/javase/11/docs/api/java.base/java/lang/String.html#replaceAll(java.lang.String,java.lang.String)>
* <http://www.mathcs.emory.edu/~cheung/Courses/170/Syllabus/04/pre-post.html>

Java code

***References***

Recursion playlist, mycodeschool YouTube channel, <https://www.youtube.com/watch?v=_OmRGjbyzno&list=PL2_aWCzGMAwLz3g66WrxFGSXvSsvyfzCO&ab_channel=mycodeschool>

Fibonacci number, <https://en.wikipedia.org/wiki/Fibonacci_number>

Recursion, <https://www.cs.utah.edu/~germain/PPS/Topics/recursion.html>

Recursion, Geeksforgeeks , <https://www.geeksforgeeks.org/recursion/>

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<https://en.wikipedia.org/wiki/Fibonacci_number>

<https://leetcode.com/problems/fibonacci-number/>

<https://leetcode.com/problems/add-digits/solution/>

<https://en.wikipedia.org/wiki/Palindrome>

<https://docs.oracle.com/javase/tutorial/essential/regex/pre_char_classes.html>

<https://docs.oracle.com/javase/tutorial/essential/regex/char_classes.html>

<https://docs.oracle.com/en/java/javase/11/docs/api/java.base/java/lang/String.html#replaceAll(java.lang.String,java.lang.String)>

<https://leetcode.com/problems/valid-palindrome/>

<http://www.mathcs.emory.edu/~cheung/Courses/170/Syllabus/04/pre-post.html>

# Array (6 Feb 2021)

## Leetcode 344, 26 and 283

This video will focus on:

* Leetcode 344. Reverse String - https://leetcode.com/problems/reverse-string/
* Leetcode 26. Remove Duplicates from Sorted Array – <https://leetcode.com/problems/remove-duplicates-from-sorted-array/>
* Leetcode 283. Move Zeroes – <https://leetcode.com/problems/move-zeroes/>

The concepts such as what auxillary data structure is, in-place algorithm, two pointer technique are explored and above problems are solved. Their time and space complexities are also discussed.

Inplace algorithm

Auxillary data structures

Two pointer technique

344. Reverse String

26. Remove Duplicates from Sorted Array

283. Move Zeroes

**References**

1.What are auxiliary data structures?, <https://stackoverflow.com/questions/48615697/what-are-auxiliary-data-structures>

2. In-place algorithm, <https://en.wikipedia.org/wiki/In-place_algorithm>

3. Using the Two Pointer Technique, <https://medium.com/swlh/using-the-two-pointer-technique-bf642ab05661>