

Data Structure and Algorithm Course Manual

Week 1 - Session 1

- **Objects and Functions The concepts of functions and Objects.**
 - How to write Javascript functions
 - The different default methods/functions in Js are needed to solve programming problems.
 - Debugging and writing clean codes.
 - Considering Edge Cases for your Functions.
 - Callbacks and arrow functions

Week 1 - Session 2

- **Big-O notation Analysis and LinkedList and Array.**
 - What is Big-O Notation and How to analyze a function against this?
 - Introduction to Data Structures
 - Introduction to Arrays, manipulating arrays.
 - LL Data Structure

Week 1 - Session 3

- **Basic Algorithm: Searching and Sorting**
 - What is an Algorithm in Software Engineering?
 - Searching Algorithm
 - Sorting Algorithm
 - Big-O Notation of functions.

Problem

- As a security analyst, your responsibility is to analyze letters received through a suspicious channel. These letters are provided in text format, and your task is to examine them and identify specific keywords or phrases that match a predefined set of watchwords. To streamline and automate this process, you aim to develop a function that can search and flag these letters. The desired outcome of the function is returning a list of flagged keywords and the threat level based on the frequency of word/phrase occurrences.

Key Words - ["betray", "sad", "trauma", "rose", "Pikachu", "Rambo", "base", "Elon", "Soccer"]

Threat_level:

- **Risky** - No word was repeated
- **Critical** - Double repetition of any word
- **Demon** - Triple or more repetition of any word

Return: {flagged_words:[], threat_level: ""}

SCHEDULE (Class Meet Time)

Wednesday - 8 PM WAT, 3 PM EST

Friday - 7 PM WAT, 2 PM EST

Sunday - 6 PM WAT, 1 PM EST

(Office Hours)

Thursday - 3 PM WAT - 6 PM WAT, 10 PM EST - 1 PM EST

Venue: Google Meet

Tools: Visual Studio Code

Participants

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