Code Optimization, Lodash, & Use of Lodash in JavaScript Codes

Presentation by Group 1

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Questions

1. What is code optimization?

    a. Relevance of code optimization?

2. Introduction to Lodash

    a. Advantages of using Lodash in JavaScript codes

3. Demonstrate practically how to use Lodash

    a.   Install lodash

    b.   Use to demonstrate code optimization for Methods, number, arrays, and loops

Presentation objectives

Class would have a shared understanding of and familiarize ourselves with:

1. Code optimization & its relevance
2. Lodash & Advantages of using Lodash in JavaScript codes
3. Use lodash for code optimization in JavaScript codes
   - Methods, number, arrays, and loops

What is code optimization?

- Optimization is the process of modifying a system to make some aspect of it work more efficiently or use fewer resources.

- Is any method of code modification to improve code quality & efficiency

- Optimization of code by removing unnecessary lines as well as rearranging the statements of the code

- Is a program transformation techniques which tries to improve the code by making it use less resources like memory

Relevance of code optimization

- Less use of memory
- Increase the speed of the machine since less memory is used
- Makes the code cleaner
- Better code readability
- High consistency of the code

Relevance of code optimization

- Faster sites
- Efficient refactory
- Straight forward debugging
- Improved workflow
- Easier code maintenance
- Quicker feature development
- Smaller technical debt

Introduction to Lodash

- Lodash means **"low dash"**[2] _underscore
- A modern JavaScript **utility library** delivering **modularity**, **performance** & **extras**[1].
- It helps programmers **write more concise** and **maintainable** JavaScript.
- It can be broken down into several main areas but not limited to:
  - Objects
  - Arrays
  - Functions
  - *One-liner*

Advantages of using Lodash in JavaScript codes

- Keeps your code minimal and neat
- It is compatible with most of the web browsers.
- Helps programmers to write more concise and easier to maintain JavaScript codes
- It makes it easier to work with arrays, numbers, objects, strings, etc.
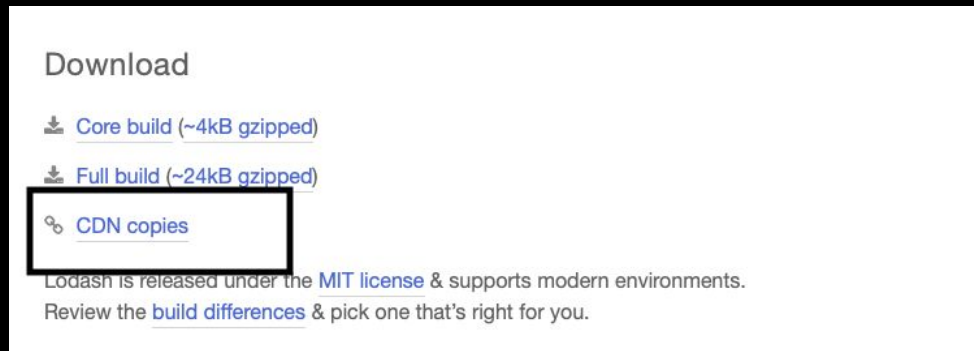
Practical demonstration of Lodash use in JavaScript Codes

Lodash Installation

2 ways to Lodash installation[3]

1. Install via npm
    a. Go to terminal > **type**

    `npm install lodash`

    b. Checking version of lodash installed

    `npm  lodash  -v`

Lodash Installation

2. Go to https://lodash.com

3. Copy

<script src =https://cdn.jsdelivr.net/npm/lodash@4.17.20/lodash.min.js><script>

Adding Lodash to a file

- Open your file
- Type

    const _ = require("lodash");

    or

    import _ from 'lodash'

PRACTICAL DEMONSTRATION IN VSCODE

References

1. https://lodash.com
2. The Beginner's Guide to Lodash