CE103 Algorithms and Programming I

Week-2

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<iframe width=700, height=500 frameBorder=0 src="../ce205-week-2-linkedlist.md_slide.html"></iframe>

Resources

WilliamFiset - YouTube

GitHub - williamfiset/Algorithms: A collection of algorithms and data structures

Data Structures Tutorials - Introduction to Algorithms

Data Structure and Types

Array Data Structure - GeeksforGeeks

Single Linked List

1. Data Structures Tutorials - Single Linked List with an example
2. https://visualgo.net/en/list

Circular Linked List

1. Data Structures Tutorials - Circular Linked List with an example | Implementation
2. Circular Linked List | Set 1 (Introduction and Applications) - GeeksforGeeks
3. Circular Linked List | Set 2 (Traversal) - GeeksforGeeks

Double Linked List

1. Data Structures Tutorials - Double Linked List with an example program
2. Doubly Linked List | Set 1 (Introduction and Insertion) - GeeksforGeeks
3. Linked List (Single, Doubly), Stack, Queue, Deque - VisuAlgo

XOR Linked List

1. XOR linked list - Wikipedia
2. XOR Linked List - A Memory Efficient Doubly Linked List | Set 1 - GeeksforGeeks
3. XOR Linked List – A Memory Efficient Doubly Linked List | Set 2 - GeeksforGeeks

Skip List

1. Skip list - Wikipedia
2. Skip List | Set 1 (Introduction) - GeeksforGeeks
3. Skip List | Set 2 (Insertion) - GeeksforGeeks
4. Skip List | Set 3 (Searching and Deletion) - GeeksforGeeks

Strand Sort

1. Strand Sort - GeeksforGeeks

Arrays

1. Array Data Structure - GeeksforGeeks
2. Data structures Tutorials - Arrays
3. Circular array - GeeksforGeeks

Array Rotations

1. Program for array rotation - GeeksforGeeks

Arrangement Rearrangement

1. Array Rearrangement - GeeksforGeeks

Searching and Sorting

1. Difference between Searching and Sorting Algorithms - GeeksforGeeks

Optimization Problems

Matrix

1. Matrix Archives - GeeksforGeeks

Sparse Matrix

1. Data Structures Tutorials - Sparse Matrix with an example