CE205 Data Structures

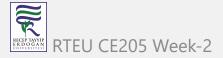
Week-2

Linked Lists and Related Algorithms Arrays and Matrices

Download DOC, SLIDE, PPTX

<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

