CE205 Data Structures

Week-7

Linear, Binary and Fibonacci Search, Hashing and Hash Tables with Perpect Hashing

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Outline-1

- Linear Search

- Binary Search

- Binary Search vs Linear Search

- Interpolation Search

- Interpolation search vs Binary search

- Fibonacci Search

Outline-2

- Hashing and Hash Tables
- Direct-Address Tables
    - Hash Tables
    - Hash Functions
    - Open Adressing
    - Perfect Hashing

Linear Search

- http://www.btechsmartclass.com/data_structures/linear-search.html

- https://www.geeksforgeeks.org/linear-search/

Binary Search

- http://www.btechsmartclass.com/data_structures/binary-search.html

- https://www.geeksforgeeks.org/binary-search/

- https://visualgo.net/en/bst

Binary Search vs Linear Search

- https://www.geeksforgeeks.org/linear-search-vs-binary-search/?ref=rp

Interpolation Search

- https://www.geeksforgeeks.org/interpolation-search/

Interpolation search vs Binary search

- https://www.geeksforgeeks.org/g-fact-84/?ref=rp

Fibonacci Search

- https://www.geeksforgeeks.org/fibonacci-search/

Hashing and Hash Tables

- https://www.hackerearth.com/practice/data-structures/hash-tables/basics-of-hash-tables/tutorial/
- http://www.btechsmartclass.com/data_structures/hashing.html

Direct-Address Tables

- https://www.geeksforgeeks.org/direct-address-table/

Hash Tables

- https://www.tutorialspoint.com/data_structures_algorithms/hash_data_structure.htm

Hash Functions

- https://www.geeksforgeeks.org/what-are-hash-functions-and-how-to-choose-a-good-hash-function/

- https://www.tutorialspoint.com/cryptography/cryptography_hash_functions.htm

- https://www.cs.hmc.edu/~geoff/classes/hmc.cs070.200101/homework10/hashfuncs.html

Open Adressing

- https://www.geeksforgeeks.org/hashing-set-3-open-addressing/

Perfect Hashing

- https://en.wikipedia.org/wiki/Perfect_hash_function#:~:text=In computer science%2C a perfect,constant worst-case access time.

$$End - Of - Week - 6$$