CE205 Data Structures

Week-14

Direct File Organization Indexes Binary and B Tree Structures for File

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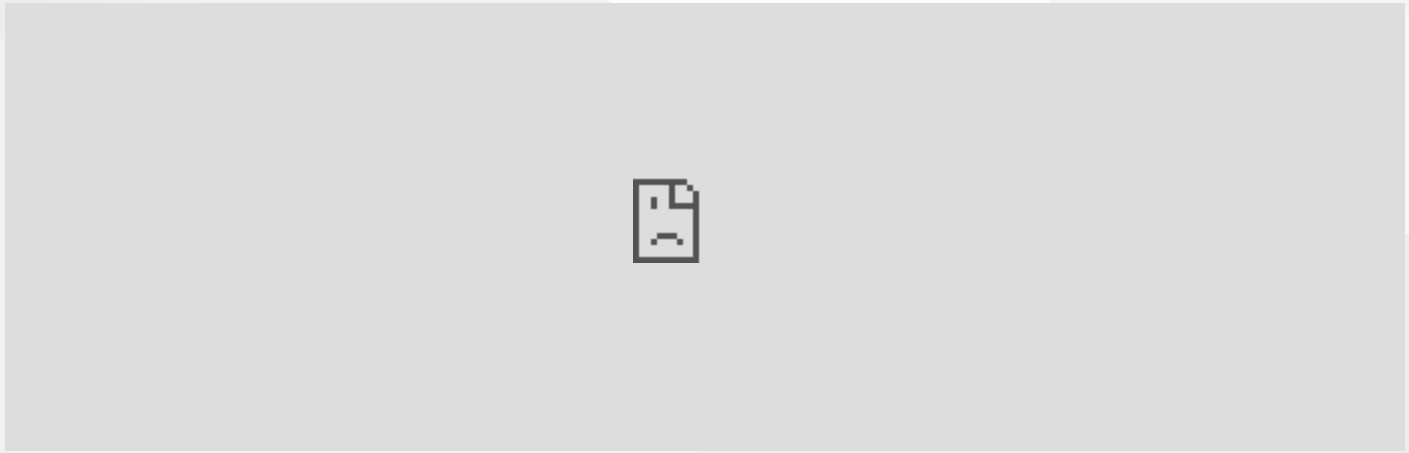

Outline

- Indexed Sequential File Organization
- Bits of Information
- Secondary Key Retrieval
  - Multilist File Organization
  - Inverted Files
  - Partial Match Retrieval with Signature Trees
  - Partial Match Retrieval with Page Signatures

Outline

- Bits and Hashing
  - Signature Hashing
  - Bloom Filters
  - Classification Hashing
  - Check Hashing

Outline

- Binary Tree Structures
  - Binary Search Trees
  - AVL Trees
  - Internal Path Reduction Trees

Outline

- B-Trees and Derivatives
  - B-Trees
  - B#-Trees
  - B+ -Trees

Indexed Sequential File Organization

- Bits of Information
- Secondary Key Retrieval
    - Multilist File Organization
    - Inverted Files
    - Partial Match Retrieval with Signature Trees
    - Partial Match Retrieval with Page Signatures
- https://www.amirajcollege.in/wp-content/uploads/2020/06/3130702-chapter-4-hashing-and-file-structure.pdf

Bits and Hashing

- Signature Hashing
  - Unique File Hashing
- Bloom Filters
  - https://www.geeksforgeeks.org/bloom-filters-introduction-and-python-implementation/
- Classification Hashing
  - https://en.wikipedia.org/wiki/Feature_hashing
- Check Hashing

Binary Tree Structures

- Binary Search Trees
- AVL Trees
- Internal Path Reduction Trees

B-Trees and Derivatives

- B-Trees
  - https://www.geeksforgeeks.org/introduction-of-b-tree-2/
  - https://web.itu.edu.tr/~bkurt/Courses/blg341/lecture11.pdf
- B#-Trees
  - .
- B+ -Trees
  - https://www.geeksforgeeks.org/introduction-of-b-tree/?ref=gcse

$$End - Of - Week - 14$$