

# 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](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*