CE205 Data Structures Week-14

Direct File Organization Indexes Binary and B Tree Structures for File

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# CE205 Data Structures

# Week-14

### Direct File Organization Indexes Binary and B Tree Structures for File

Download [DOC](ce205-week-14-direct-file-b-tree.md_doc.pdf), [SLIDE](ce205-week-14-direct-file-b-tree.md_slide.pdf), [PPTX](ce205-week-14-direct-file-b-tree.md_slide.pptx)

### 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