

# CE205 Data Structures Week-14

Direct File Organization Indexes Binary and B Tree Structures for File

Author: Asst. Prof. Dr. Uğur CORUH

## Contents

|          |  |          |
|----------|--|----------|
| <b>1</b> | <b>CE205 Data Structures</b>   | <b>1</b> |
| <b>2</b> | <b>Week-14</b>   | <b>1</b> |
| 2.0.1    | Direct File Organization Indexes Binary and B Tree Structures for File . . . . . | 1        |
| 2.0.2    | Outline . . . . .  | 1        |
| 2.0.3    | Indexed Sequential File Organization . . . . .                                   | 2        |
| 2.0.4    | Bits and Hashing . . . . .   | 2        |
| 2.0.5    | Binary Tree Structures . . . . .   | 2        |
| 2.0.6    | B-Trees and Derivatives . . . . .  | 2        |

## List of Figures

## List of Tables

### 1 CE205 Data Structures

### 2 Week-14

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

Download PDF<sup>1</sup>,DOCX<sup>2</sup>, SLIDE<sup>3</sup>, PPTX<sup>4</sup>

#### 2.0.2 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
- Bits and Hashing
  - Signature Hashing
  - Bloom Filters
  - Classification Hashing
  - Check Hashing
- Binary Tree Structures

---

<sup>1</sup>[pandoc\\_ce205-week-14-direct-file-b-tree.en\\_doc.pdf](#)

<sup>2</sup>[pandoc\\_ce205-week-14-direct-file-b-tree.en\\_word.docx](#)

<sup>3</sup>[ce205-week-14-direct-file-b-tree.en\\_slide.pdf](#)

<sup>4</sup>[ce205-week-14-direct-file-b-tree.en\\_slide.pptx](#)

- Binary Search Trees
- AVL Trees
- Internal Path Reduction Trees
- B-Trees and Derivatives
  - B-Trees
  - B#-Trees
  - B+ -Trees

### 2.0.3 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>

### 2.0.4 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

### 2.0.5 Binary Tree Structures

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

### 2.0.6 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*