

# CIS452 Lecture-40 Notes

Winter 2017

**Scribe:** *Tyler Paquet*

## Announcements

- Continued to look through handout on Block Allocation

## Chapter 11 (Continued)

1. Indexed Allocation: Limitations
  - The maximum file size if the number of pointers that can fit into one index block
  - To store large files
    - Link several index blocks together
    - Multi-level index
    - Combined: use both direct index and multilevel indices (Unix File Systems)
2. UFS File Format
3. UFS Super Block
4. Linux/Unix File Allocation
5. Indirect Blocks
6. Free (Disk) Block Management
7. Bit Vector / Bitmap
8. Linked-List of Free Blocks / Free List
9. Efficiency of Disk Block Operations
10. Critical On-Disk Data Structures
11. Low-Level Filesystem Operations
12. When a new file is created
13. Database Transactions (Intent) Logs
14. Journaling / Log-Structured FS