

Recap of Mar 4: File Organization

- Major concepts:
 - Files are made up of records; records are made up of fields
 - Disk blocks are smaller than files and larger than records; files must be split into disk blocks for storage (and the records in a file must be grouped somehow for storage on disk blocks, independent of the file organization)
- Fixed-length records
- Variable length records
- Block structure: fixed-packed or slotted page
- File structure: heap, sequential, hashed, or clustered
- Details of the above file structures

Data Dictionary

The data dictionary (also called system catalog) stores metadata -- data about data. For example:

- Information about relations
 - names of relations
 - names and types of attributes of each relation
 - names and definitions of views
 - integrity constraints
- User and account information, including passwords

Data Dictionary

- Statistical and descriptive data
 - number of tuples in each relation
- Physical file organization information
 - how relation is stored (sequential, hash, clustered, etc.)
 - physical location of relation -- operating system file name or disk addresses of blocks containing records of the relation
- Information about indices
 - (about which more after the midterm, when we cover chapter 12)