

Schedule for the rest of semester:

April 9 - finish up index, explain plan

April 11 - deadlock detection

April 16 - homework due, error recovery schemes

April 18 - NO CLASS

April 23 - presentations, limit to 10 minutes per group, treated as a homework grade

April 25 - Exam 3

If not taking Exam 3, comprehensive final will be given during finals week.

Take Exam 3, done with class.

B tree - contains data

B+ tree - data does not reside in the tree, indexes are in the tree, used to keep the tree small in terms of size (not terms of level)

B stands for balanced, not binary

Hashing

Hashing function - $\text{key} \bmod \# \text{ prime pages}$

Page # - keeps up with prime pages and overflow pages

Prime pages and overflow pages - when prime pages fills up, use overflow

Step 1 - initialize

a. set page 0

b. initialize prime pages

Step 2 -

Bitmap Index

Index is unique

Secondary index is not unique

Bitmap index -

Similar to 20Q

Locking

Going on the assumption that auto commit is turned off because a commit frees up all locks (so does rollback)

Closing the connection does as well

Row level lock - select for update

Deadlock condition - two people are waiting conjunctively for two actions to finish, but that never happens

Circular deadlock - A waits on B, B waits on C, C waits on A

Resource Allocation Wait Table

1. If a process requests and obtains a resource, draw the arrow from the resource to the process, otherwise, reverse.
2. If a process is waiting, follow the arrows. If the arrows point back to me, a deadlock has occurred.