

11-5-09

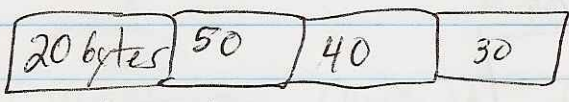
enb340pc.csee.usf.edu: 8080

Physical DB Design Continued

I. Attributes → tuple



1.) Fixed-length tuples

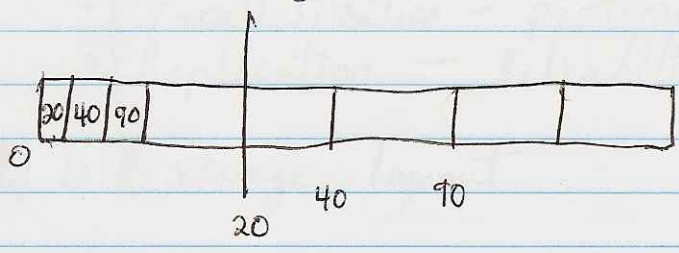


pro: direct access
 con: a waste of storage

2.) Variable-length tuples



• use something to end each value (ex: \$)
 pro: no waste of space
 con: Scanning is needed to read data

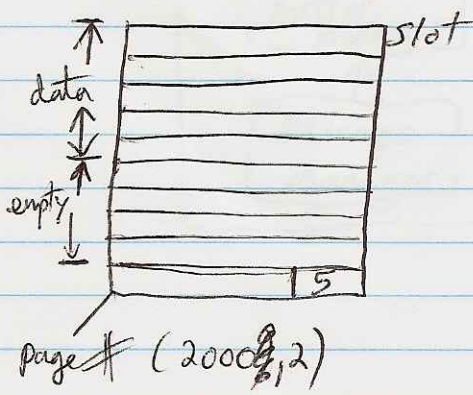


If n tuples → page

1.) Fixed-length tuples

Empty Slot Management

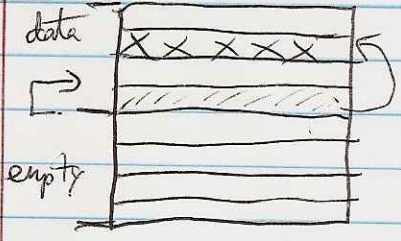
a.) packed Design



How Does DBMS id. a tuple?

Rec. id (page #, slot #)

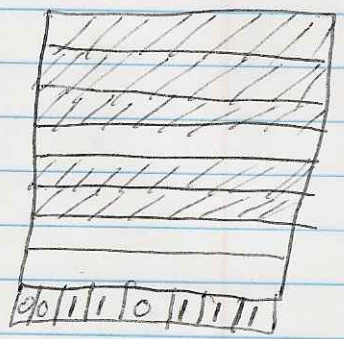
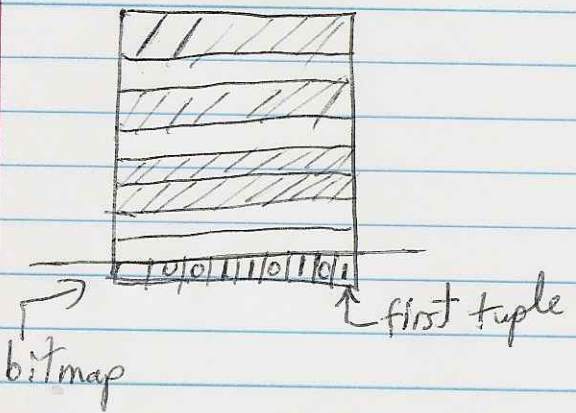
Packed Design Deletion



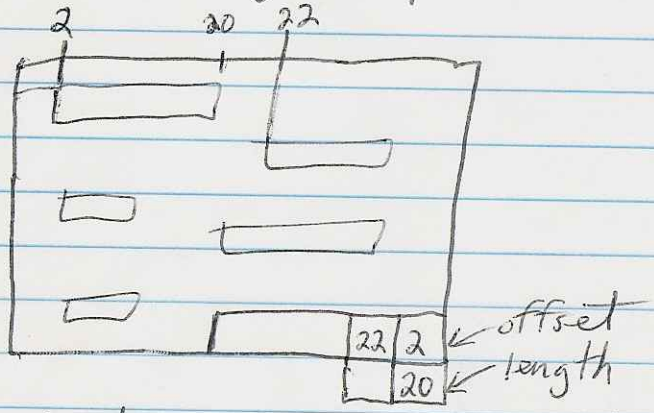
- increase empty space
- move data to deleted space
- update sbit #'s

(b) unpacked

data added to 2nd tuple



2. Variable-length tuples



Periodical compaction is needed