

* 11-3-09

Review

R(A, B, C, D)

A, B, C → D
D → A

L	L+R	R
B, C	D, A	

the keys

(BC)⁺ = B, C

(BCD)⁺ = B, C, D, A

(BCA)⁺ = (A, B, C, D)

3NF

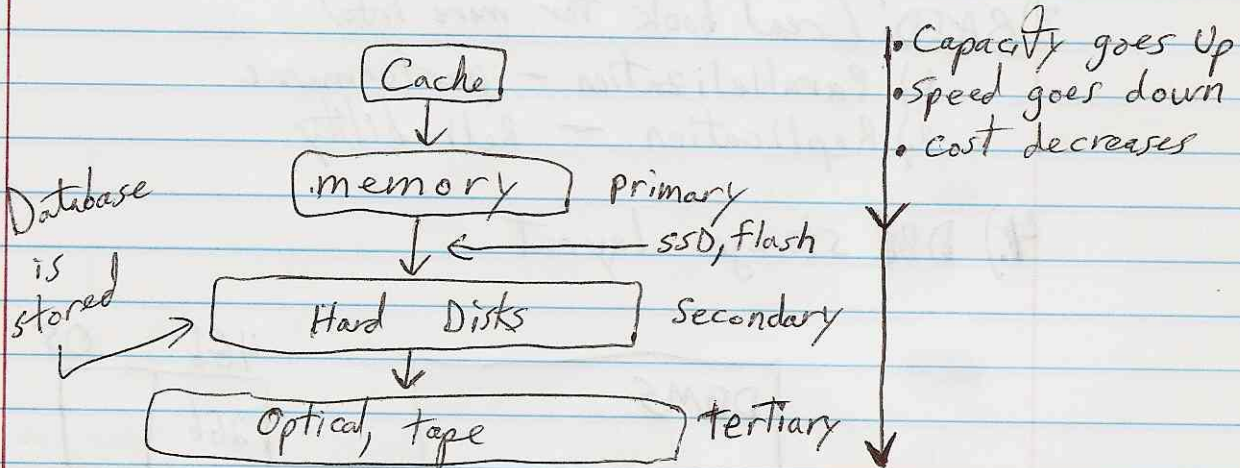
X → y

- ① X is superkey
- ② y is prime (y is some part of key)

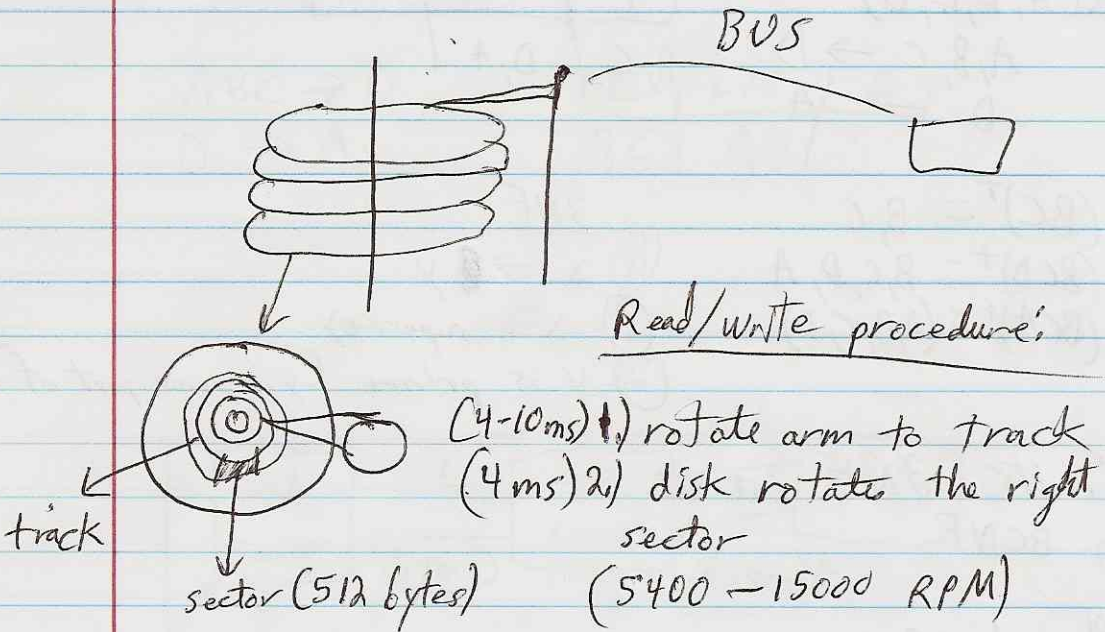
∴ its 3NF but not in BCNF

Physical DB Design

1.) Review on computer memory hierarchy



2) Hard disk performance features

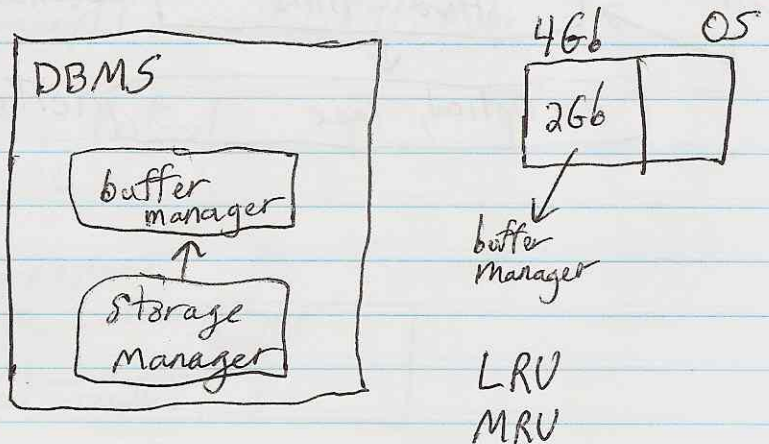


SATA 3 Gbps (never reach this bandwidth due to the slow haddisk read & write procedures)

3) RAID: (read book for more info)

- 1) Parallelization - performance
- 2) Replication - Reliability

4) DBE storage layout



Page (block) = basic unit of data storage in DBMS.

- 4K - 16K

Tuple Storage

1) Fixed length tuples

