

CREATE [MATERIALIZED] VIEW EECS647Roster AS SELECT ... [WITH CHECK OPTION]  
DROP VIEW view\_name;  
SELECT AVG(GPA) FROM EECS647Roster;  
(in sql92 updatable views have no join, aggregation, subqueries)

GRANT/REVOKE SELECT,INSERT,DELETE,UPDATE(price) ON Sells TO/FROM login,PUBLIC [WITH  
GRANT OPTION / (CASCADE / RESTRICT)]

AP - ID a having P

AP\*\* - the source of the privilege

AP(\*) - without(with) grant option

Edge means a node was used to grant another privilege

P->Q if Q is a subprivilege

Dense/Sparse index - one index entry for each search/block

If sparse, then clustered

PRIMARY KEY - primary index (can be sparse)

UNIQUE - secondary index (usually dense)

CREATE [UNIQUE] [CLUSTERED] INDEX StudentGPAIndex ON Student(GPA);

ISAM: multilevel blocks with overflow blocks. bad for range queries

B+ tree same height and nodes are at least half full.

Degree - min number of keys. Max keys = 2\*degree

On insert, split a block or even increase tree height

On delete, can steal from siblings, else merge

Atomicity (all or none) Consistency (if transactions consistent, so is db) Isolation (of transactions) Durability (if commits, effect persist)

Undo supported by logging

START TRANSACTION; ...; COMMIT/ROLLBACK;

Implicit transactions for each statement

Serializable (acid, stale or wait) ReadComitted ReadUncommitted RepeatableRead (like RC, but second read returns same results as 1st)

<?xml version="1.0" standalone="yes" ?>

(if no:) <!DOCTYPE BARS SYSTEM "bar.dtd">

Well formed - can invent tags

Valid xml - schema compliant

<!DOCTYPE BARS [

<!ATTLIST BAR kind CDATA #IMPLIED> (implied/required)

<!ELEMENT BARS (BAR\*)>

<!ELEMENT BAR (NAME, BEER+)>

<!ELEMENT NAME (#PCDATA)>

<!ELEMENT BEER (NAME, PRICE)>

<!ELEMENT PRICE (#PCDATA)>

<!ELEMENT NAME (

(TITLE?, FIRST, LAST) | IPADDR

)>