



Views

Automatic View Modifications

Modifying views

- Once V defined, want to modify V like any table
- Modifications to V rewritten to modify base tables
- ❖ Unlike queries, cannot be automated in general

Modifications to V rewritten to modify base tables

(1) Rewriting process specified explicitly by view creator

- + Can handle all modifications
- No guarantee of correctness (or meaningful)

(2) Restrict views + modifications so that translation to base table modifications is meaningful and unambiguous

- + No user intervention
- Restrictions are significant

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Restrictions in SQL Standard for “updatable views”:

- 1) **SELECT** (no **DISTINCT**) on single table T
- 2) Attributes not in view can be **NULL** or have default value
- 3) Subqueries must not refer to T
- 4) No **GROUP BY** or aggregation

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Demo: simple college admissions database

College(cName, state, enrollment)

Student(sID, sName, GPA, sizeHS)

Apply(sID, cName, major, decision)