Views

Automatic View Modifications

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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)`