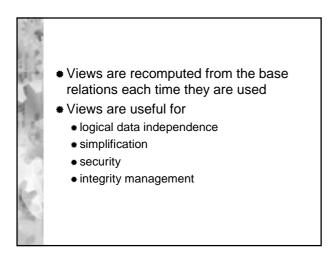
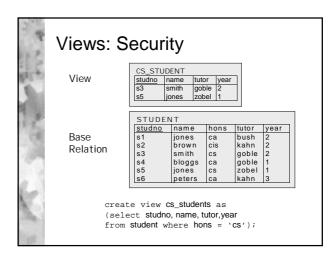
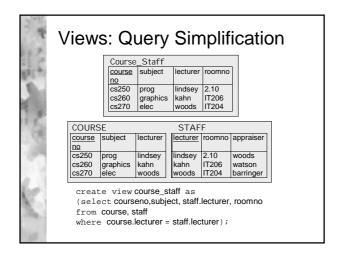


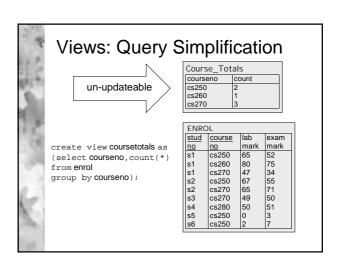
## External View of Ansi-Sparc Architecture

- In most relational DBMS a view is a virtual relation which acts as a dynamic window on the base relations
- Materialised views are a research issue and raise consistency issues
- A view can be queried as if it were a base relation, but may not be updatable as if it were a base relation



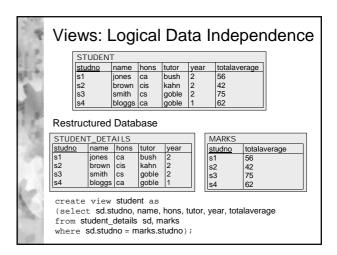






## Updatability of Views (Oracle 8)

- If the view query contains any of the following constructs it is not inherently modifiable, and you therefore cannot perform inserts, updates, or deletes on the view:
  - set operators
  - group functions
  - the DISTINCT operator
  - joins (a subset of join views are updatable if they are keypreserving- all keys to base tables must be in view and the keys in the view must still be unique and not null)
- If a view contains pseudocolumns or expressions, you can only update the view with an UPDATE statement that does not refer to any of the pseudocolumns or expressions.



## Views: Data Integrity

create view cs\_students as
(select studno, name, tutor, year
from student where hons = 'cs')
with check option constraint cs;

 Check option enforces the constraint that any insert or update on the view satisfy the where clause