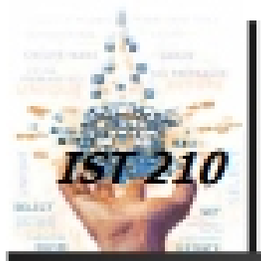
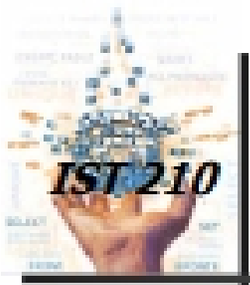


The Relational Language

Todd S. Bacastow
January 2005



History - Review

- Introduced by Codd in 1970 and provides :
  - a simple data structure for modelling all data
  - mathematically based
  - becoming a standard for implementation data models

- Consequences :
  - Simplicity means that correctness is easier to establish
  - Standardization means that distributed data can be combined more easily
  - Sharing of improvements to the facilities and the implementation can be shared easily

Description of the Relational Model - Review

- **All** of the information stored in a Relational Database is held in **relations (a.k.a. tables)**
- **No other data structures!**
- A relation may be thought of as a table

STUDENT

name	matric	exam1	exam2
Mounia	891023	12	58
Jane	892361	66	90
Thomas	880123	50	65

- A relation has:
  - a **name**
  - an unchanging set of **columns;** named and typed
  - a time varying set of **rows**