CS 445
The Relational Model

Chapter 3

February 8, 2013

- Next Wednesday we will be in the CS Lab

- Linux skills are a must
  - ssh
  - cp
  - mv
  - cd
  - scp
  - geany
  - ls
  - cat
  - less
  - diff
  - tar

  If you don't have your zeus password, see me soon!

Relational Model

- Read Chapter 3
  - homework: page 95: 3.1, 3.4, 3.5, 3.6
  - DUE: Feb 15, 11:59 pm
- The database is a collection of *relations*
  - each relation is a table
- Data Definition Language
  - subset of SQL
- Integrity constraints
- Views

Relation

- Relation schema
  - example:
- Relation instance
  - set of {tuples|records|rows}
- Column
  - Domain
- Relational database
  - Relational database schema
  - Relational database instance

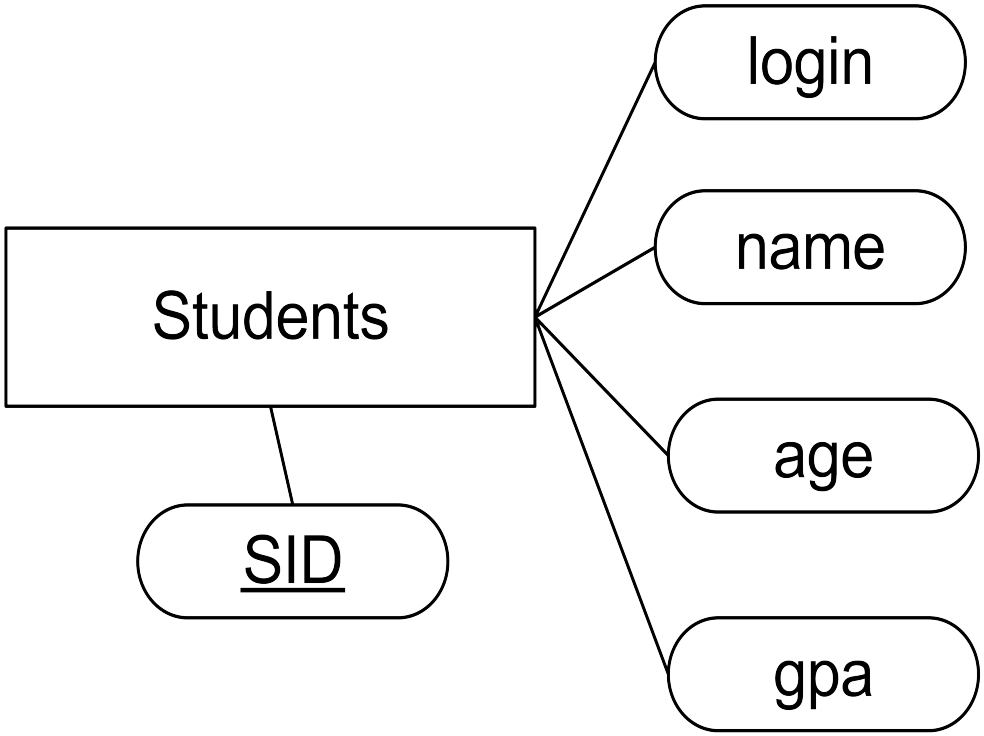
Keys

- Candidate Key
- Super Key
- Primary Key

Translation

- Translate E-R diagram to Relational Model
  - E-R Diagram to SQL!
  - must represent:

Data



Any problems with this data?

MySQL Types

- http://dev.mysql.com/doc/refman/5.5/en/data-types.html
- Char/Varchar vs Binary/Varbinary

- Int
- Real Numbers

- Date

- Blob/Text

- Set
- Enum

http://dev.mysql.com/doc/refman/5.5/en/charset.html

http://forums.mysql.com/read.php?10,417247,417412#msg-417412

Create a relation

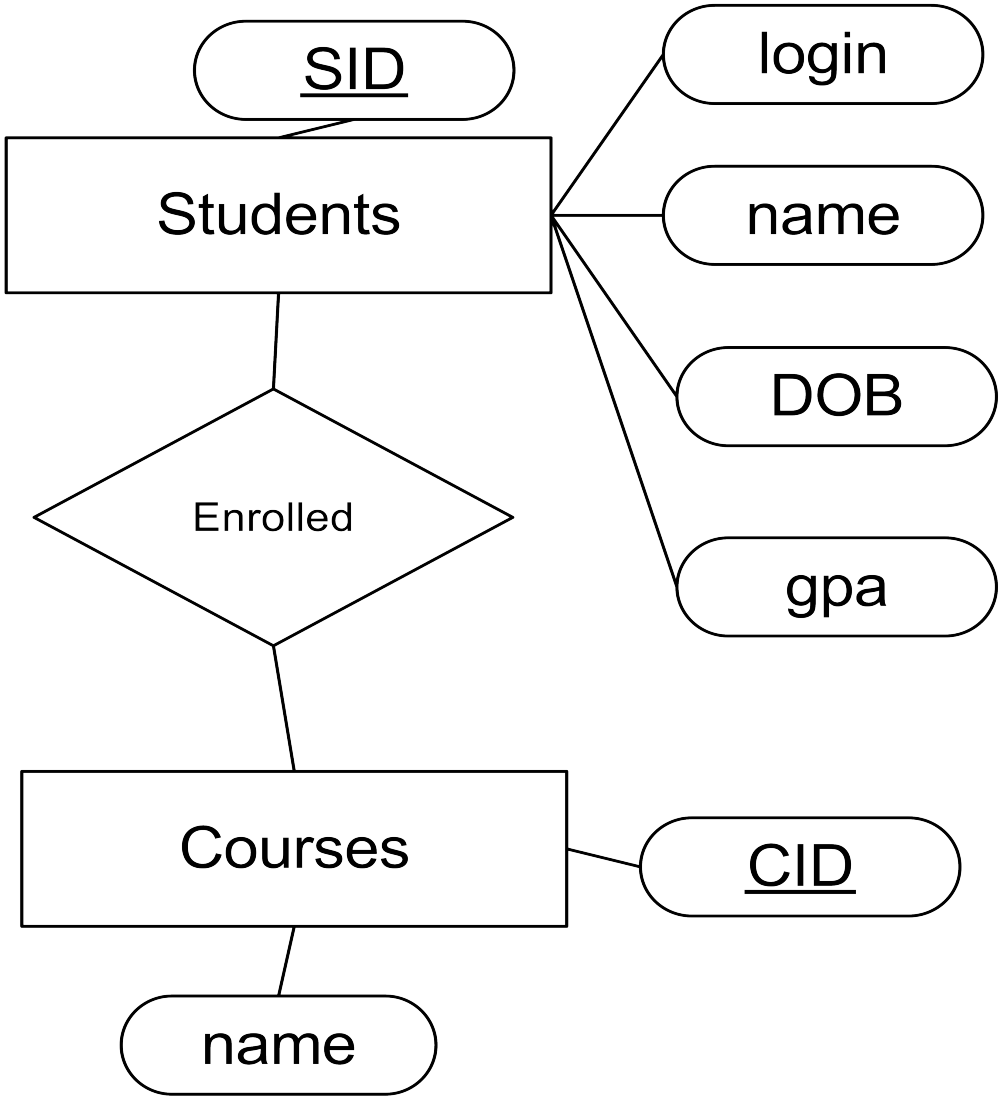
- SQL
- CREATE TABLE (

Insert

- INSERT INTO
  (

  VALUES
  (

Data



Key References

- CREATE TABLE (