

CS 410 S18 Lecture 3B

Relational Model

Walk through this translating a Musical Instruments example.

The *relational model* for data describes data in terms of *relations*.

A relation is:

- A set of n -tuples
- With attributes
- And primary keys

Relationships

Relationships are implemented by *foreign keys* - attributes referencing the primary key of another relation.

- 1-1 relations - store PK
- One-many relations - store PK
- **Many-many relations** - need a *join relation*

Multi-Valued Attributes

- Need a separate relation, just like a 1:many join

Composite attributes

2 options:

- Ignore 'parent' attribute
- One-one relation

A note about names:

<http://www.kalzumeus.com/2010/06/17/falsehoods-programmers-believe-about-names/>

Let's Do a Database