

CS 445

The Relational Model

Chapter 3

September 14, 2009

Relational Model

- Read Chapter 3
- 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}
- Relational database
 - Relational database schema
 - Relational database instance

Translation

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

Create a relation

- SQL

- CREATE TABLE (

```
    CONSTRAINT          PRIMARY KEY (
    )
)Type=INNODB;
```

- INSERT INTO

```
(
)
VALUES
(
);
```

Unique

- CREATE TABLE (

```
CONSTRAINT UNIQUE ( )  
);
```

Key References

- CREATE TABLE (

```
CONSTRAINT          PRIMARY KEY
(
CONSTRAINT          FOREIGN KEY (
  REFERENCES        )
Type=INNODB;      )
```