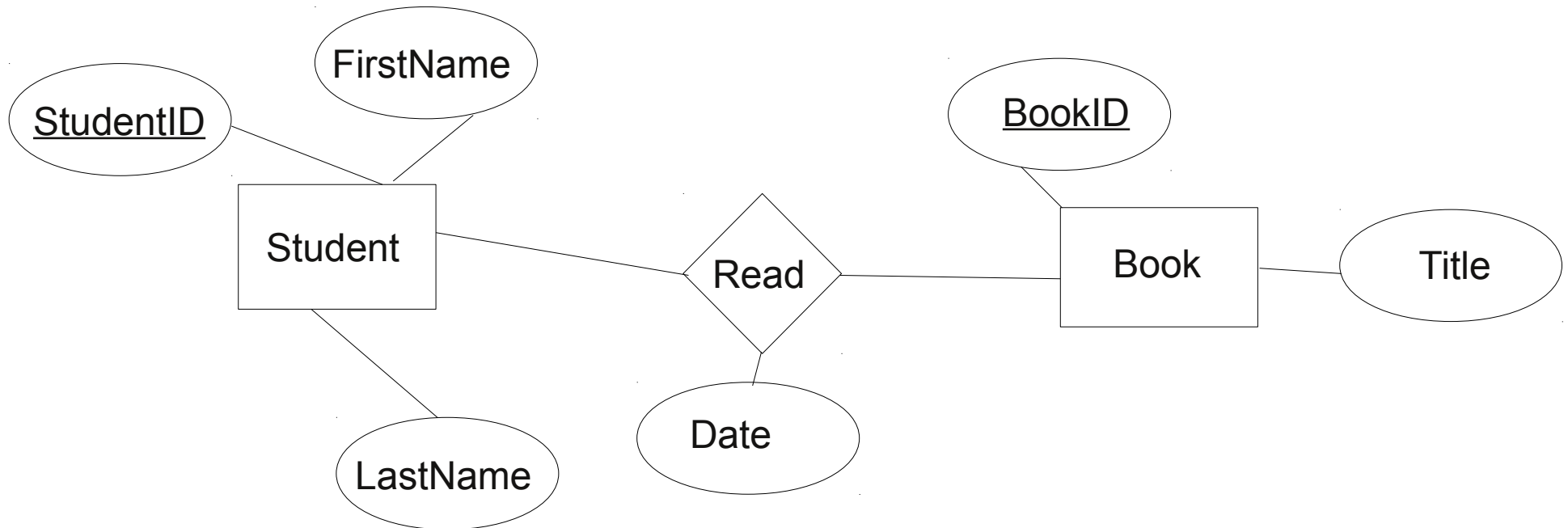


# Translation:

## E-R diagram to MySQL

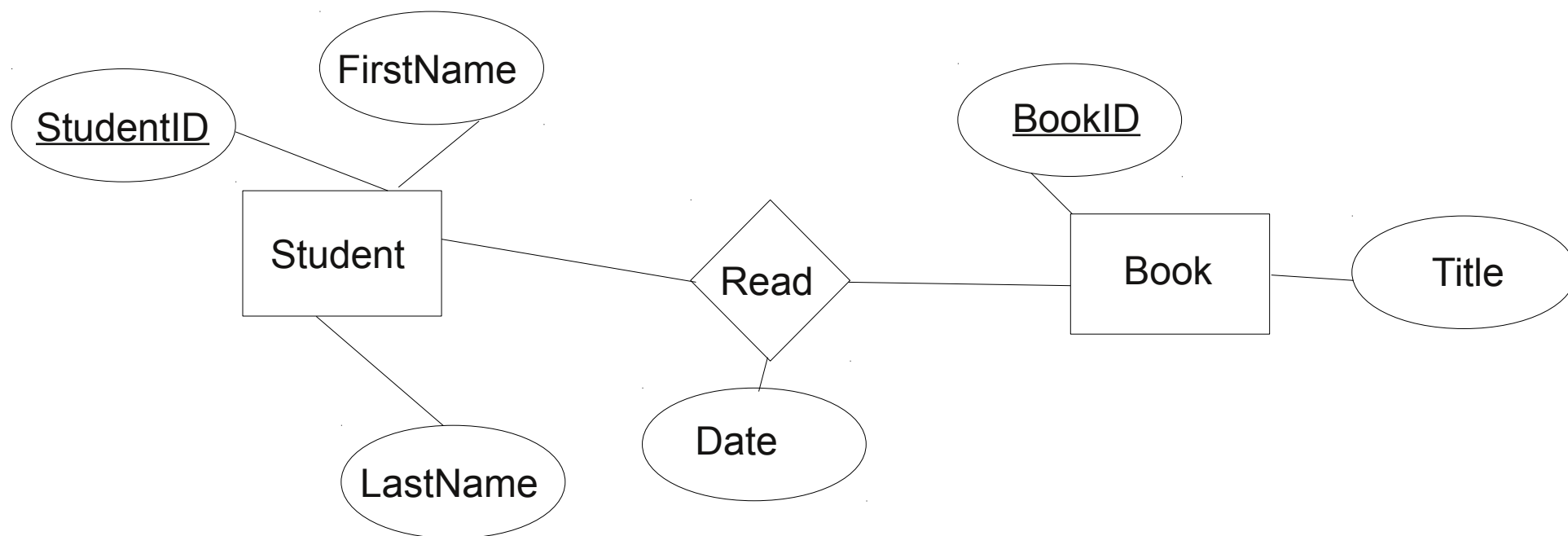
# Entities

- An entity that is not involved in a relationship with constraints can be directly translated to a table.



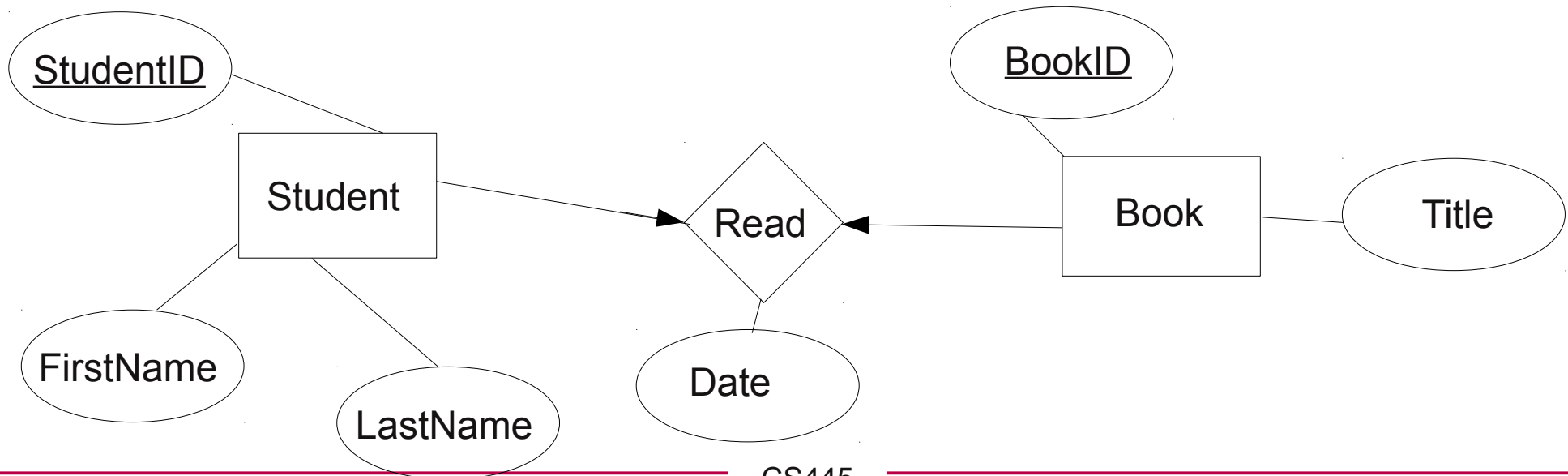
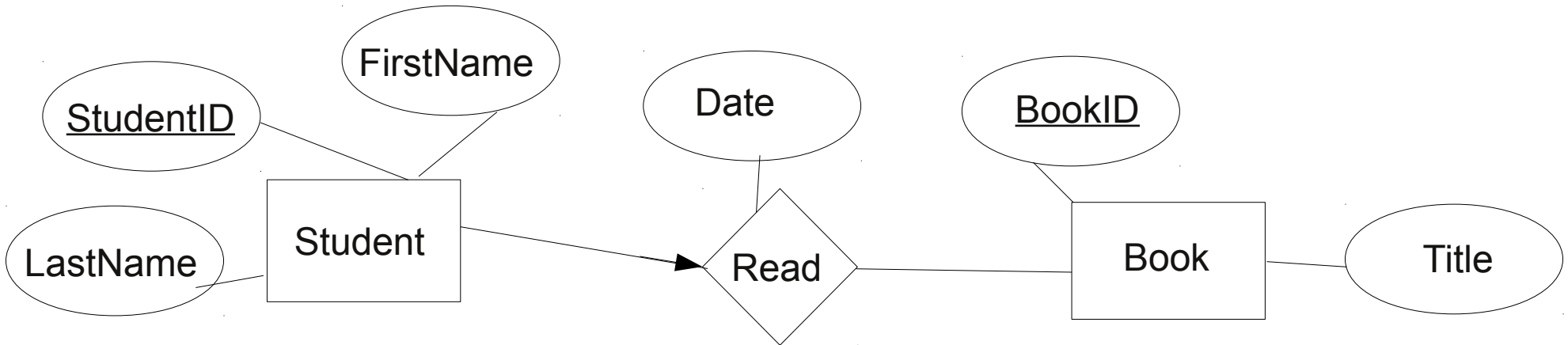
# Relationships (w/o constraints)

- Relationships w/o constraints can be translated directly into a table.
- Need to add FOREIGN KEY constraints

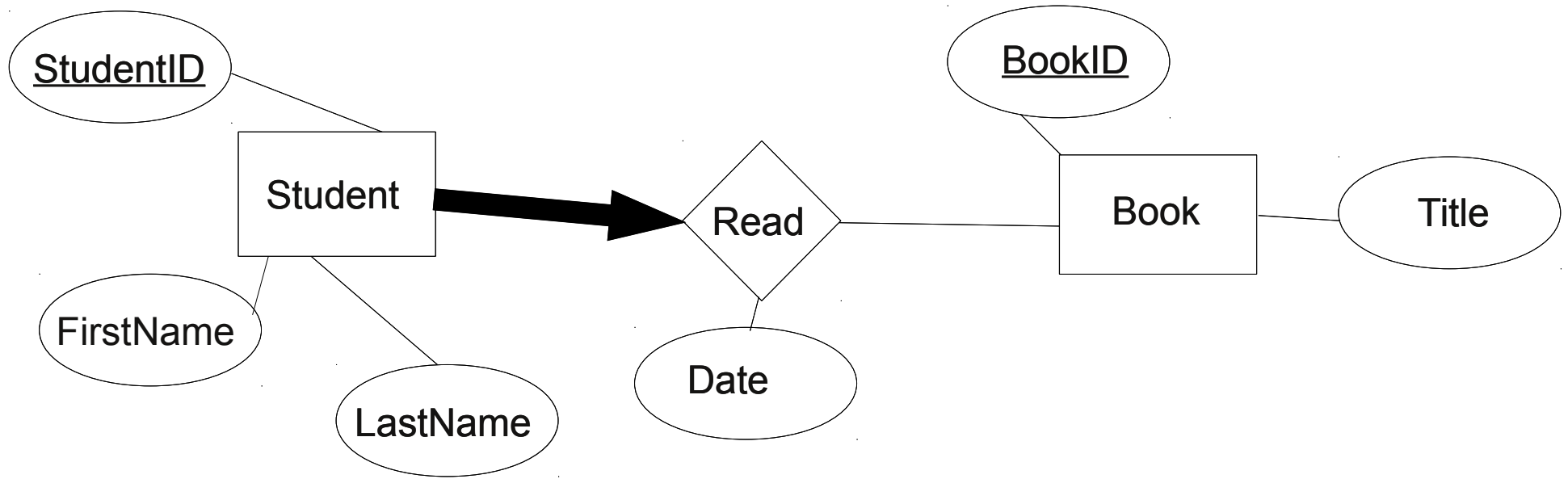
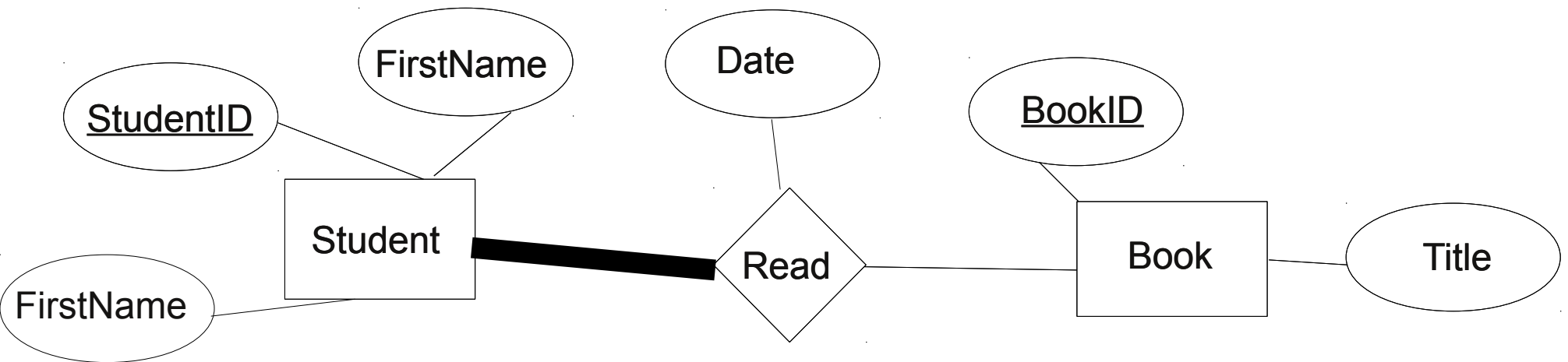


# Relationships w/ constraints

- In the diagram below, what uniquely IDs entries in Read?



# Relationships w/ constraints



# Binary data

- BLOB:  $(2^{16})-1$  bytes
- MEDIUMBLOB:  $(2^{24})-1$  bytes
- LONGBLOB:  $(2^{32})-1$  bytes

```
mysql> CREATE TABLE BinDataTable
      (FileID INT NOT NULL AUTO_INCREMENT,
      FileName VARBINARY(200),
      FileData MEDIUMBLOB,
      PRIMARY KEY (FileID)
      ) ENGINE=InnoDB;
```

```
mysql> INSERT INTO BinDataTable VALUES
      (null, 'P1.odt',
      LOAD_FILE('/home/chadd/cs445Data/P1.odt'));
```