Binary data

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

```sql
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'));
```
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/contraints

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

```
Student 
  |   |
  |   |
  FirstName

Read 
  |   |
  |   |
  Date

Book 
  |   |
  |   |
  BookID

Title

StudentID

FirstName

LastName

BookID

Date
```
Relationships w/ contraints

Student

Read

Book

Title

StudentID

FirstName

Date

BookID

StudentID

FirstName

LastName

Date

BookID

Title