CS 5530 – Project Milestone 1

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# ER Diagram



# Relational Schema

User(Login, address, phone, password, full\_name)  
Video\_Data(ISBN, title, year, subject, rating)  
Keywords(key\_id, ISBN)   
KeywordLookup(key\_id, keyword)  
Cast-Crew(id, ISBN, name, role)  
Feedback(Login, ISBN, Score, short\_text)  
Trusts(login, login, trusted, trust\_total) // two unique logins from User.  
Credit\_Card(Card\_number, Login, Exp\_date, Name, CVN)  
Order\_History(Login, ISBN, Rent\_date, return\_date)

# SQL Statements

CREATE TABLE User(

Login VARCHAR(20) PRIMARY KEY,

Address VARCHAR(255),

Phone INTEGER,

Password CHAR(32) NOT NULL,

Full\_name VARCHAR(255) NOT NULL,

Card\_id INTEGER

FOREIGN KEY (Card\_id) REFERENCES CreditCard(Card\_no)  
ON DELETE CASCADE)

CREATE TABLE VideoData(

ISBN INTEGER PRIMARY KEY,

Title VARCHAR(255) NOT NULL,  
Year INTEGER,   
Subject VARCHAR(255),  
Rating VARCHAR(5),

ON DELETE NO ACTION)

CREATE TABLE Keywords(

key\_id INTEGER,

ISBN INTEGER,

FOREIGN KEY (key\_id) REFERENCES KeywordLookup(key\_id),

FOREIGN KEY (ISBN) REFERENCES VideoData(ISBN),

CREATE TABLE KeywordLookup(

key\_id INTEGER PRIMARY KEY,

Keyword VARCHAR(20))

CREATE TABLE CastCrew(

id INTEGER PRIMARY KEY,

name VARCHAR(255),

Role VARCHAR(20),

ISBN INTEGER,

FOREIGN KEY (ISBN) REFERENCES VideoData(ISBN))

CREATE TABLE Trusts(

Truster VARCHAR(20),

Trustee VARCHAR(20),

isTrusted BOOLEAN,

trust\_total INTEGER,  
CHECK(Truster <> Trustee)

FOREIGN KEY (Truster) REFERENCES User(Login),

FOREIGN KEY (Trustee) REFERENCES User(Login)

CREATE TABLE CreditCard(  
Card\_no INTEGER,

Exp\_date DATE,

Name VARCHAR(255),

cvn INTEGER,

cardOwner VARCHAR(20)  
PRIMARY KEY (Card\_no),

FOREIGN KEY (cardOwner) REFERENCES User(Login))

CREATE TABLE Feedback(

commenterLogin VARCHAR(255),

ISBN INTEGER,

Score INTEGER,

Short\_Text STRING,

FOREIGN KEY (ISBN) REFERENCES VideoData(ISBN),

FOREIGN KEY (commenterLogin) REFERENCES User(Login))

CREATE TABLE OrderHistory(  
userLogin VARCHAR(255),

ISBN INTEGER,

Rent\_date DATE,

Return\_date DATE,

Additional\_info STRING,

CHECK (Rent\_date <= Return\_date)

FOREIGN KEY (userLogin) REFERENCES User(Login),

FOREIGN KEY (ISBN) REFERENCES VideoData(ISBN))