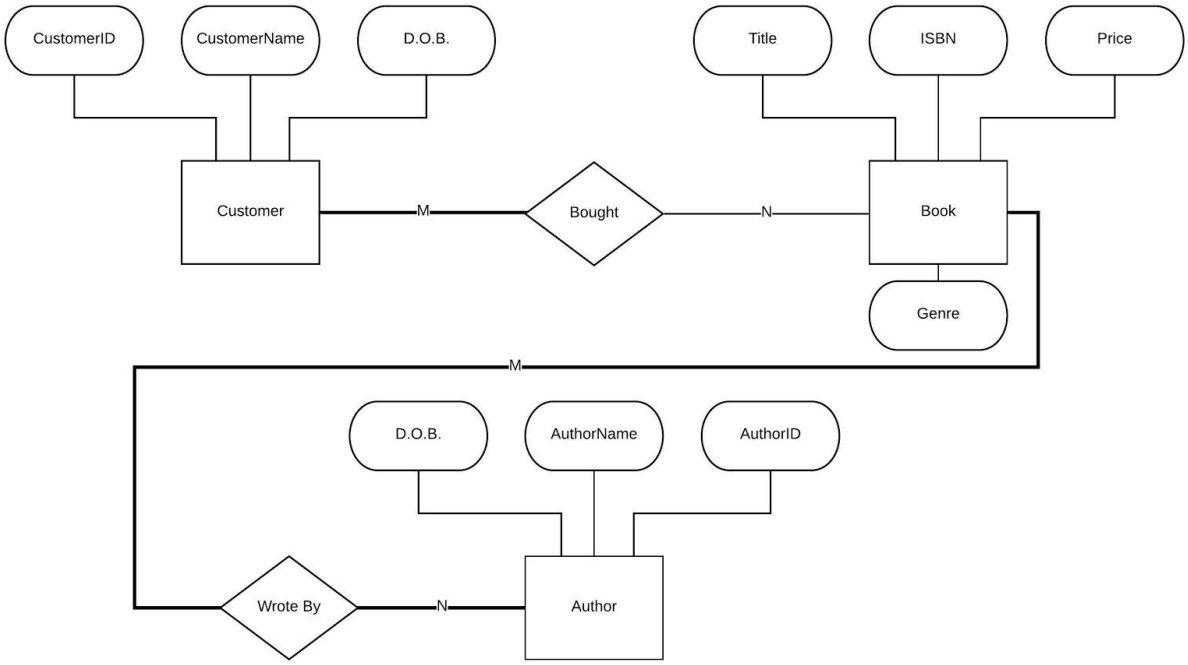
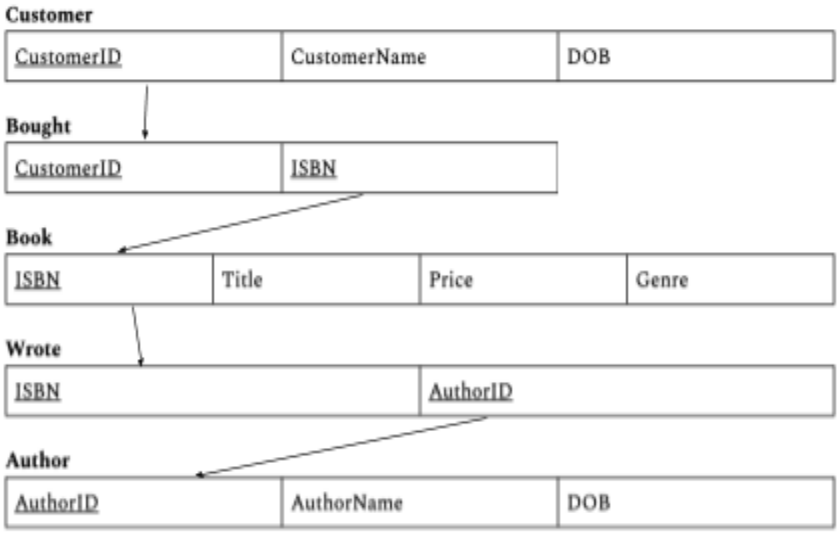
Example 2:

ERD:



Relational Map



Data Dictionary:

Customer:

Field name	Data type	NULL Constraint
CustomerID	INT	NOT NULL
CustomerName	VARCHAR(50)	NOT NULL
DOB	DATE	

Bought:

Field name	Data type	NULL Constraint
CustomerID	INT	NOT NULL
ISBN	INT	NOT NULL

Book:

Field name	Data type	NULL Constraint
ISBN	INT	NOT NULL
Title	VARCHAR(50)	NOT NULL
Price	INT	NOT NULL
Genre	VARCHAR(50)	NOT NULL

Wrote:

Field name	Data type	NULL Constraint
ISBN	INT	NOT NULL
AuthorID	INT	NOT NULL

Author

Field name	Data type	NULL Constraint
AuthorID	INT	NOT NULL
AuthorName	VARCHAR(50)	NOT NULL
DOB	DATE	

```
CREATE TABLE Customer
(
	CustomerID INTEGER NOT NULL,
	CustomerName VARCHAR(50) NOT NULL,
	DOB DATE,
	PRIMARY KEY (CustomerID)
);
CREATE TABLE Book
(
	ISBN INTEGER NOT NULL,
	Title VARCHAR(50) NOT NULL,
	Price INTEGER NOT NULL,
	Genre VARCHAR(50) NOT NULL,
	PRIMARY KEY(ISBN)
);
CREATE TABLE Author
(
	AuthorID INTEGER NOT NULL,
	AuthorName VARCHAR(50) NOT NULL,
	DOB DATE,
	PRIMARY KEY(AuthorID)
);
CREATE TABLE Bought
(
	CustomerID INTEGER NOT NULL,
	ISBN INTEGER NOT NULL,
	PRIMARY KEY (CustomerID, ISBN),
	FOREIGN KEY (CustomerID) References Customer(CustomerID),
	FOREIGN KEY (ISBN) References Book(ISBN),

);
CREATE TABLE Wrote
(
	AuthorID INTEGER NOT NULL,
	ISBN INTEGER NOT NULL,
	PRIMARY KEY (AuthorID, ISBN),
	FOREIGN KEY (AuthorID) References Author(AuthorID),
	FOREIGN KEY (ISBN) References Book(ISBN),
);
```

INSERT INTO Customer (CustomerID, CustomerName, DOB) VALUES (1, ‘John Doe’, ‘1/1/2000’);
INSERT INTO Customer (CustomerID, CustomerName, DOB) VALUES (2, ‘Jane Doe’, ‘1/1/2000’);

INSERT INTO Book (ISBN, Title, Price, Genre) VALUES (9783161484100, ‘The Logic of Scientific Discovery’, ‘10’, ‘Philosophy’);
INSERT INTO Book (ISBN, Title, Price, Genre) VALUES (9781400079278, ‘Kafka on the Shore’, ‘10’, ‘Fiction’);

INSERT INTO Author (AuthorID, AuthorName, DOB) VALUES (‘1’, ‘Karl Popper’, ‘10’, ‘7/28/1902’);
INSERT INTO Author (AuthorID, AuthorName, DOB) VALUES (‘2’, ‘Haruki Murakami’, ‘10’, ‘1/12/1949’);

INSERT INTO Bought (ISBN, CustomerID) VALUES (9783161484100, 1);
INSERT INTO Bought (ISBN, CustomerID) VALUES (9781400079278, 2);
INSERT INTO Bought (ISBN, CustomerID) VALUES (9783161484100, 2);

INSERT INTO Wrote (ISBN, AuthorID) VALUES (9783161484100, 1);
INSERT INTO Wrote (ISBN, AuthorID) VALUES (9781400079278, 2);