Book Relation		

Attributes	Data Type	Description
BOOKID	Numeric	**PRIMARY KEY .** This field uniquely identifies each book in the library.
Title	Text	This field defines the title of the book.
authorFirstName	Text	This field defines the book's Author's first name.
authorLastName	Text	This field defines the book's Author's last name.
Publisher	Text	This field defines the book's Publisher name.
Language	Text	This field defines the book's language, i.e. english, italian, spanish..
Genre	Text	This field defines the book's genre, i.e. fantasy, drama, science, biographies..
ISBN	Numeric	This field defines the "International Standard Book Number" of each book. The ISBN is sequence of 10 or 13 integer numbers which describes some book's characteristics.
Publication	Date	This field defines the book's date of publication.
Prize	Numeric	This field defines the book's prize.

Relation Properties	
Degree	10
Candidate Keys	ISBN
	ISBN, authorFirstName, authorLastName
	ISBN, Publisher
	ISBN, authorFirstName, authorLastName, Publisher
	BOOKID
Primary Key	**BOOKID**
Alternate Keys	none

	Borrower Relation	

Attributes	Data Type	Description
CARDNUMBER	Numeric	**PRIMARY KEY** . This field defines the Borrower's Library Card Number, which uniquely identifies each Borrower.
firstName	Text	This field defines the Borrower's first name.
lastName	Text	This field defines the Borrower's last name.
Birthdate	Date	This field defines the Borrower's date of birth.
Address	Text	This field defines the Borrower's domicile.
postalCode	Text	This field defines the Borrower's domicile's postal code.
Membership	Date	This field defines the Borrower's date of membership.
Telephone	Text	This field defines the Borrower's phone number.

	Relation Properties
Degree	8
Candidate Keys	firstName, lastName
	firstName, lastName, Birthdate
	firstName, lastName, Telephone
	firstName, lastName, Telephone, Membership
	CARDNUMBER
Primary Key	**CARDNUMBER**
Alternate Keys	none

Librarian Relation	

Attributes	Data Type	Description
LIBRARIANID	Numeric	**PRIMARY KEY.** This field uniquely identifies each librarian.
firstName	Text	This field defines the Librarian's first name.
lastName	Text	This field defines the Librarian's last name.
Birthdate	Date	This field defines the Librarian's date of birth
Address	Text	This field defines the Librarian's domicile.
postalCode	Text	This field defines the Librarian's domicile's postal code.
Telephone	Text	This field defines the Librarian's phone number

Relation Properties	
Degree	7
Candidate Keys	firstName, lastName
	firstName, lastName, Birthdate
	firstName, lastName, Telephone
	firstName, lastName, Telephone, Address
	LIBRARIANID
Primary Key	**LIBRARIANID**
Alternate Keys	none

BookLended Relation	

Attributes	Data Type	Description
TRANSACTIONID	Numeric	**PRIMARY KEY** . This field uniquely defines each transaction (lend - borrow).
BOOKID	Numeric	**FOREIGN KEY** . This field relates to the **PRIMARY KEY** of the Book's table. It defines which book has been lent.
CARDNUMBER	Numeric	**FOREIGN KEY** . This field relates to the **PRIMARY KEY** of the Borrower's table. It defines who has borrowed the book.
LIBRARIANID	Numeric	**FOREIGN KEY** . This field relates to the **PRIMARY KEY** of the Librarian's table. It defines the librarian who has lent the book.
checkOutDate	Date	This field defines the date in which the book has been lent.
returnDate	Date	This field defines the date in which the book must be returned.
paymentMethod	Text	This field defines the method of payment used by the Borrower, i.e. cash, credit card.

Relation Properties	
Degree	7
Candidate Keys	BOOKID, CARDNUMBER
	CARDNUMBER, checkOutDate
	BOOKID, CARDNUMBER, checkOutDate
	TRANSACTIONID
Primary Key	**TRANSACTIONID**
Alternate Keys	**BOOKID, CARDNUMBER, LIBRARIANID**