School Library Database

```
erDiagram
    STUDENT {
        int StudentID PK "Uniquely identifies each student"
        string Name
        string Email
        string Major
    }
    BOOK {
        int ISBN PK "Uniquely identifies each book"
        string Title
        int PublicationYear
        int AuthorID FK "Links to the AUTHOR record"
    }
    AUTHOR {
        int AuthorID PK "Uniquely identifies each author"
        string Name
        string Nationality
    }
    LOAN {
        int LoanID PK "Uniquely identifies each loan"
        int StudentID FK "Links to the STUDENT record"
        int ISBN FK "Links to the BOOK record"
        int LibrarianID FK "Links to the LIBRARIAN record"
        date LoanDate
        date DueDate
    }
    LIBRARIAN {
        int LibrarianID PK "Uniquely identifies each librarian"
        string Name
        string Shift
    }

    AUTHOR ||--|{ BOOK : "writes"
    STUDENT ||--o{ LOAN : "borrows (max 4)"
    BOOK ||--|{ LOAN : "involves"
    LIBRARIAN ||--|{ LOAN : "manages"
```

School Library Database Class Diagram

This table outlines the relationships between entities in the library system.

Entity 1	Cardinality	Relationship	Entity 2	Cardinality	Description

Entity 1	Cardinality	Relationship	Entity 2	Cardinality	Description
Author	1	writes	Book	M	An Author writes one or more Books.
Student	1	borrows	Loan	0..4	A Student can have between zero and four Loans at a time.
Book	1	involves	Loan	M	A Book can be involved in many Loans over time.
Librarian	1	manages	Loan	M	A Librarian can manage many Loans.