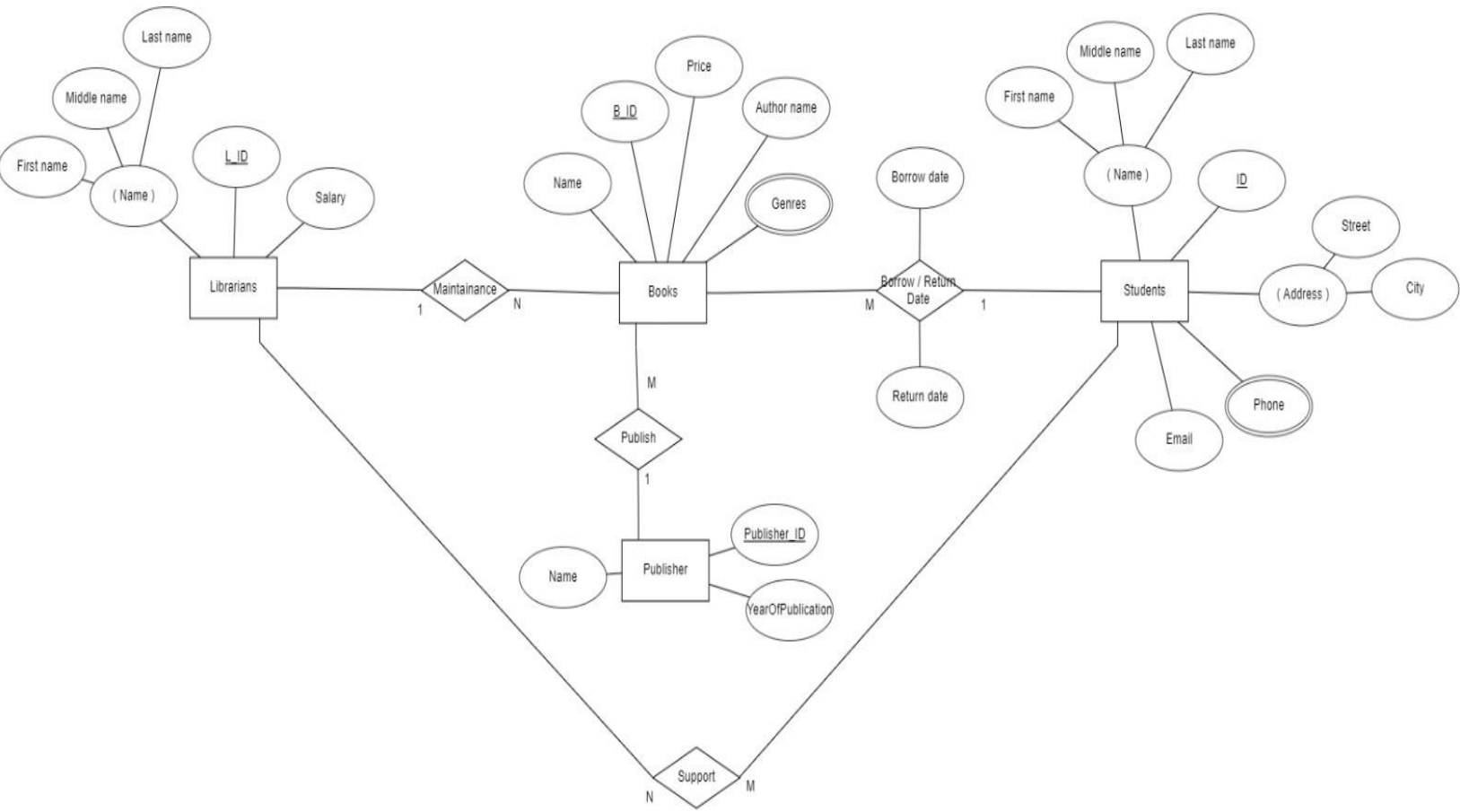
Database Idea

The idea of the project:

Faculty library system which consider each of the following

- Every librarian assigned with his (name , id , salary) maintain books through book's (name , author , genre , id , price) and keep track of borrowed and returned books and the date of each operation ,,, and the librarian also support the students to find their book .
- The system stores the publisher's information (name , id , year of publication)
- The system stores the student's information (name , id , address , email , phone)
- The system stores and organize books by it's information (name , id , genre , author name , price)

ERD Diagram


Last name
Middle name
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(Name)
L_ID
Salary
Librarians
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1
N
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Price
Author name
Genres
Books
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1
Name
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YearOfPublication
Borrow date
Borrow / Return Date
M
1
Return date
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ID
Students
Street
(Address)
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Phone
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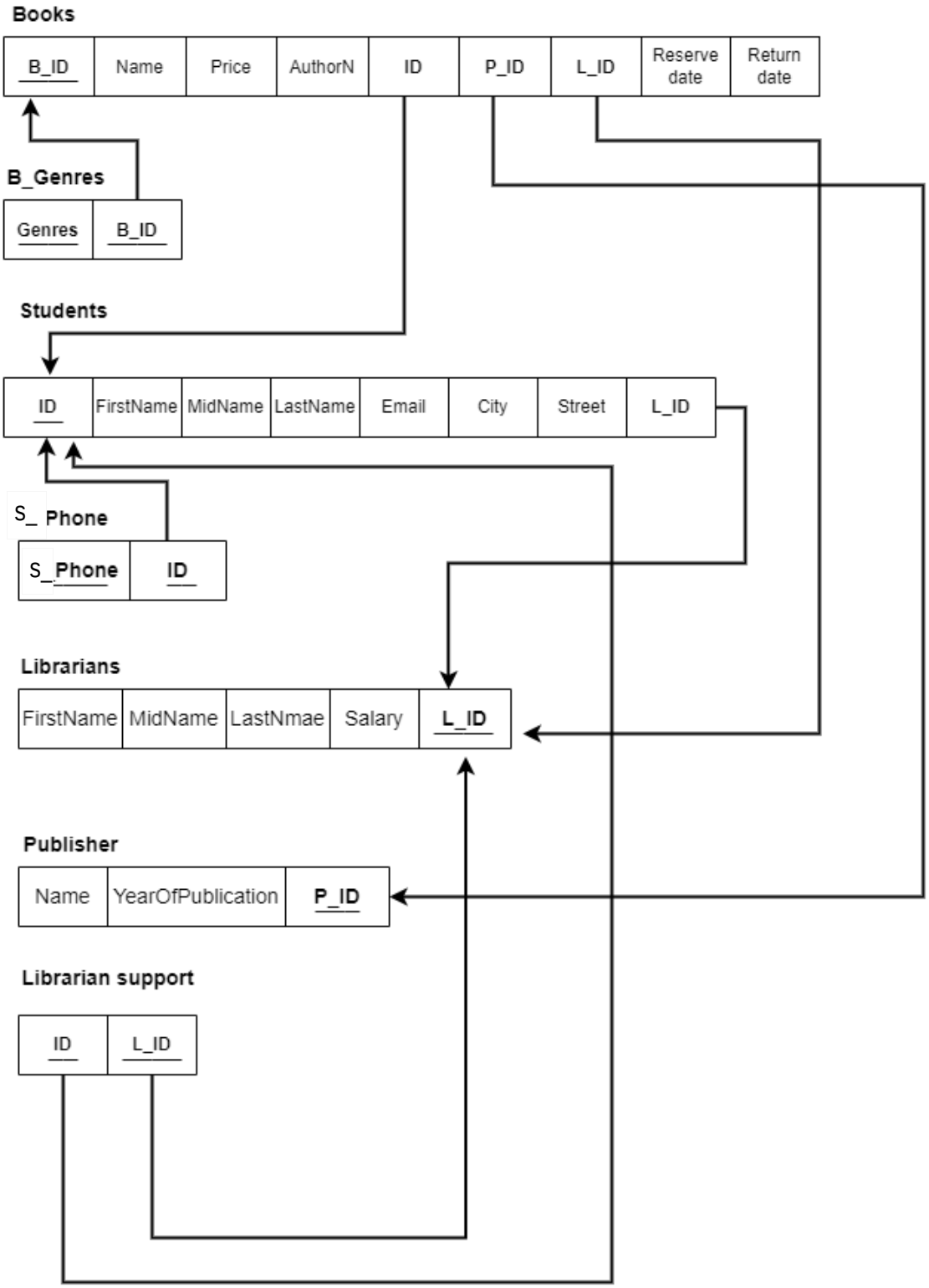
Schema Diagram



Relationship cardinalities

The relationship between Students and books:

Each student can borrow or return **Many** books

And,

Many Books can be borrowed or returned by **only one** student

So the relationship between students and books is → 1: M

The relationship between Librarians and books:

Each Librarian can maintain **Many** books

And,

Many Books can be maintained by **only one** Librarian

So the relationship between Librarian and books is → 1: M

The relationship between Students and Librarians:

Many Librarian can support **Many** students

And,

Many Students can be supported by **Many** Librarians

So the relationship between Librarian and students is → N: M

The relationship between Publishers and books:

Each Publisher can publish **Many** books

And,

Many Books can be published by **only one** Publisher

So the relationship between Publisher and books is → 1: M