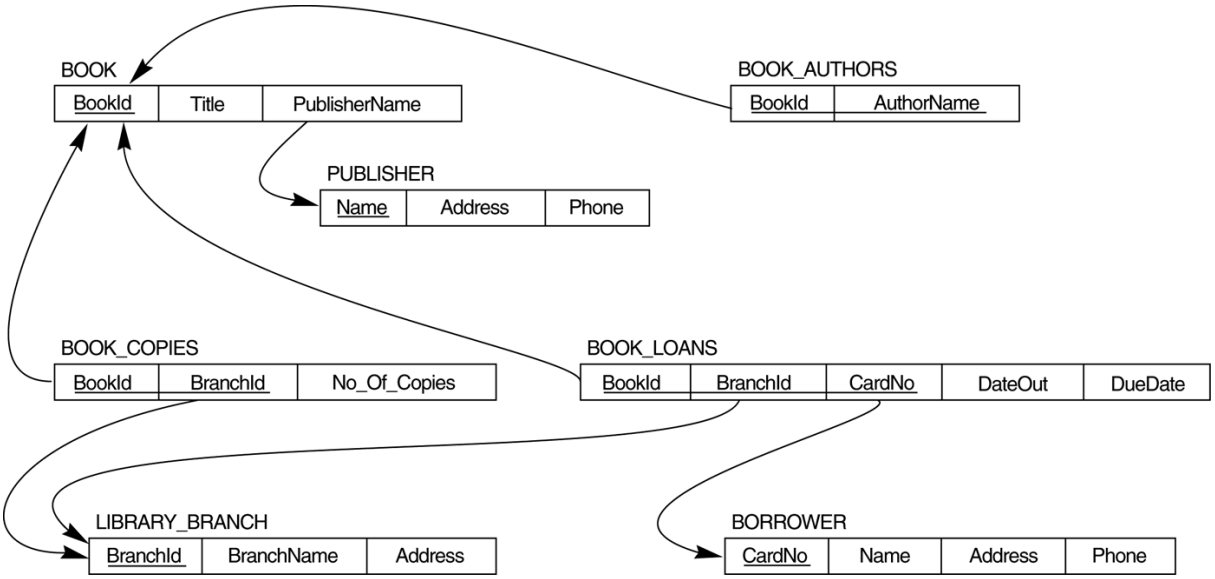
SQL EXERCISE

Given a database schema for a library management system (represented by the picture below), retrieve the required information using SQL language:



1. How many copies of the book titled The Lost Tribe are owned by the library branch whose name is "Sharpstown"?

```
Select Sum(bc.No_Of_Copies) as TotalCopies from Book b inner join Book_Copies bc
on bc.bookid=b.bookid inner join Library_Branch lb on lb.branchid=bc.branchid
Where lb.branchname='Sharpstown' AND b.title='The Lost Tribe';
```

2. How many copies of the book titled The Lost Tribe are owned by each library branch?

```
Select lb.branchname, sum(bc.No_of_Copies) as TotalCopies from Book b inner join Book_Copies bc
on bc.bookid=b.bookid inner join Library_Branch lb on lb.branchid=bc.branchid
Where b.title='The Lost Tribe'
Group by lb.branchname;
```

3. Retrieve the names of all borrowers who do not have any books checked out .

Need more clarification on this about when should consider the checked out

4. For each book that is loaned out from the "Sharpstown" branch and whose DueDate is today, retrieve the book title, the borrower's name, and the borrower's address.

```
Select b.title, bor.Name, bor.Address from book b inner join book_loans bl on bl.bookid=b.bookid inner join Library_branch lb on
lb.branchid=bl.branchid inner join Borrower bor on bor.CardNo=bl.CardNo
Where lb.branchname='Sharpstown'
And cast(bl.Duedate as date) = Cast(getdate() as date)
```

5. For each library branch, retrieve the branch name and the total number of books loaned out from that branch.

```
Select lb.branchname, sum(bc.No_Of_Copies) as TotalBooks from book b inner join book_copies bc on
bc.bookid=b.bookid inner join book_loans bl on
bl.bookid=b.bookid inner join library_branch lb on lb.branchid=bl.branchid And lb.branchid=bc.branchid
Group by lb.branchname;
```

6. Retrieve the names, addresses, and number of books checked out for all borrowers who have more than five books checked out.

Need more clarification on this about when should consider the checked out

7. For each book authored (or co-authored) by "Stephen King", retrieve the title and the number of copies owned by the library branch whose name is "Central"

```
Select b.title, Sum(bc.No_Of_Copies) as TotalCopies from book b inner join book_authors ba on
ba.bookid=b.bookid inner join book_copies bc on bc.bookid=b.bookid inner join library_branch lb on lb.branchid=bc.branchid
Where ba.authorname='Stephen King'
AND lb.branchname='Central'
Group by b.title;
```