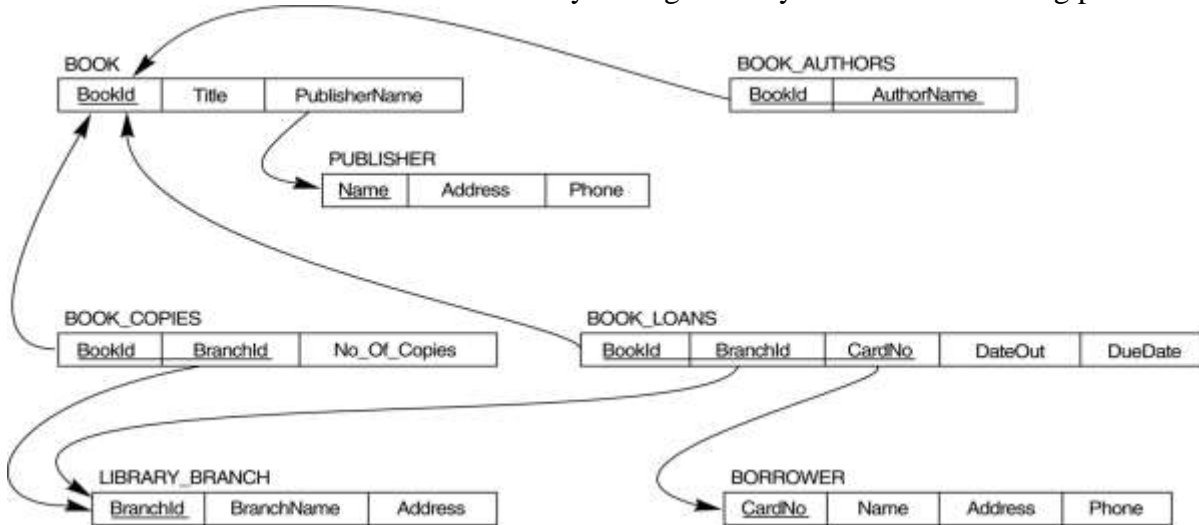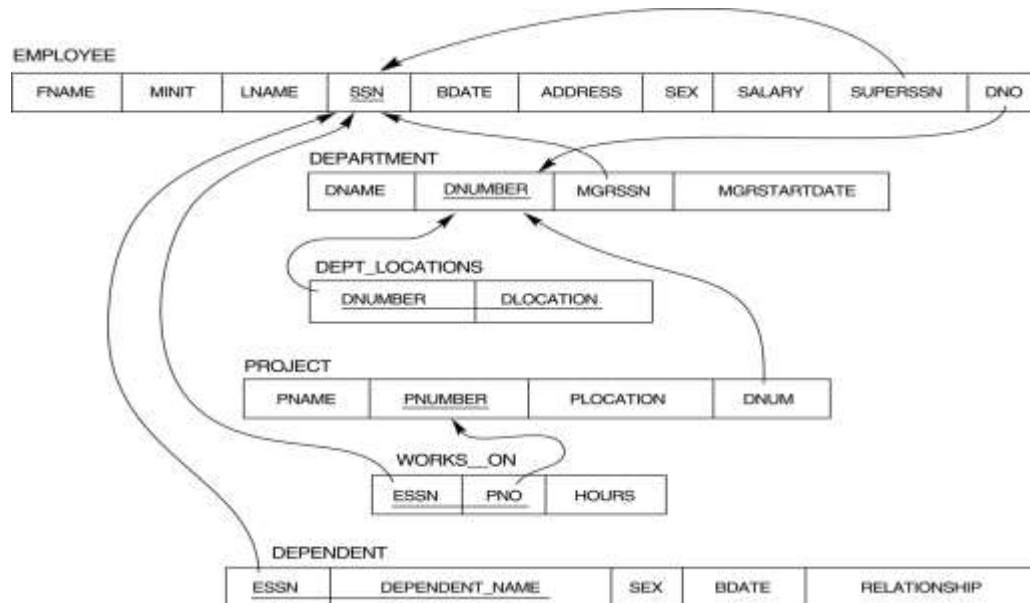# SQL EXERCISE

Retrieve the required information using SQL language.

Part I. Give a database schema for a library management system as the following picture.

1. How many copies of the book titled` The Lost Tribe are owned by the library branch whose name is "Sharpstown"?
2. How many copies of the book titled The Lost Tribe are owned by each library branch?
3. Retrieve the names of all borrowers who do not have any books 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.
5. For each library branch, retrieve the branch name and the total number of books loaned out from that branch.
6. Retrieve the names, addresses, and number of books checked out for all borrowers who have more than five books 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"

Part II Give a database schema of a company as the following picture.

1. Retrieve the names of employees in department 5 who work more than 10 hours per week on the 'ProductX' project.
2. For each project, list the project name and the total hours per week (by all employees) spent on that project if the total hours is greater than 10 hours/week
3. Retrieve the names of employees who work on every project.
4. Retrieve the names of employees who do not work on any project.
5. Find the names and addresses of employees who work on at least one project located in Houston but whose department has no location in Houston.
6. List the last names of department managers who have no dependents.
7. Find details of those employees whose salary is > the average salary for all employees. Output salary in descending order.
8. Find details of those employees whose salary is > the average salary for all employees in his/her department. Output salary in ascending order.