Case Study 5: Library Management System

Database Schema:

1. Books table:
   - `book_id` (Primary Key)
   - `title`
   - `author`
   - `genre`
   - `publication_year`
   - `available_copies`
2. Members table:
   - `member_id` (Primary Key)
   - `first_name`
   - `last_name`
   - `email`
   - `phone`
3. Loans table:
   - `loan_id` (Primary Key)
   - `member_id` (Foreign Key referencing Members.member_id)
   - `book_id` (Foreign Key referencing Books.book_id)
   - `loan_date`
   - `due_date`
   - `returned` (Boolean indicating if the book has been returned)

1. Retrieve all books in the "Mystery" genre.
2. List all members who have borrowed books currently overdue.
3. Calculate the total number of books borrowed by each member.
4. Update the loan status for a specific book when it is returned.
5. Identify books with low availability (less than 5 copies left).
6. Retrieve the names of members who have borrowed books authored by a specific author.
7. List the most borrowed books along with the number of times they have been borrowed.
8. Find the member who has the highest number of overdue books.
9. Retrieve the total number of active loans (books not yet returned).
10. Calculate the average loan duration (in days) for all returned books.