

You are tasked with managing a **Library Management System** that tracks the books, their authors, and the transactions (borrowed or returned) made by members. The system uses the following database schema:

- (i) Authors (author_id primary key, author_name, birth_year)
- (ii) Books (book_id primary key, title, a_id foreign key from Authors, category, price)
- (iii) Members (member_id primary key, member_name, join_date, membership_type (e.g. regular, premium))
- (iv) Transactions (transaction_id primary key, m_id foreign key from Members, b_id foreign key from Books, transaction_date, transaction_type (e.g. borrowed, returned))

1. Find the total number of books available in the library.
2. List the authors who have written more than 3 books.
3. Calculate the average price of books on 'Science' category.
4. List the members who have borrowed more than 3 books.
5. Find the name of books that have never been borrowed.
6. Get the most popular book (the one that has been borrowed the most) in the library.
7. Find the name of the books that were borrowed by members who joined after the year 2020.
8. List the books that were borrowed by members with 'Premium' membership type.