

/*Q1 - What is the list of all borrowers who have borrowed at least one book from the library and have a relationship type of "friend" with the owner of the library, along with the total number of times they have borrowed a book?*/

```
CREATE VIEW View_1 AS
select borrower_id, c.Relationship, concat(b.First_name,' ',Last_name) as Full_Name,
count(borrower_id) as Number_of_times_borrowed_a_book from
books_has_borrowers a
join borrowers b on a.borrower_id = b.BorrowerId
join relationship_with_owner c on b.relationship_with_owner_id =
c.Relationship_Id
where relationship_with_owner_id=2
group by borrower_id;
```

/*Q2What is the list of top 6 most read books (by the library owner) and their corresponding authors in the library? For each book, what is the author's name, the book title, the book ID, and the number of times the book has been read?*/

```
CREATE VIEW view_2 AS
Select concat(a.first_name,' ',a.last_name) as Author_Name, c.Title as Book_Title, c.BookId, c.No_of_Times_Read from authors a
JOIN books_has_authors b using(author_id)
JOIN books c on c.BookId = b.book_id
JOIN (select BookId from books order by No_of_Times_Read DESC LIMIT 6 )as d using(BookId);
```

/*Q3- List the books whose average rating by borrowers is equal to or greater than the rating given by the Library owner.*/

```
CREATE VIEW view_3 AS
select a.book_id, a.Rating as Owner_Rating , b.Average_Rating as Average_rating_by_Borrowers, c.Title as Book_Title
from owner_recommendations a
join (select Book_id, avg(Rating) as Average_Rating from borrower_reviews group by book_id)as b using(book_id)
join books c on c.BookId = a.book_id
where a.Rating <= b.Average_Rating;
```

/*Q4 - Which book is borrowed the most and which genre does it belong to?*/

```
CREATE VIEW view_4 AS
Select a.genre_id, c.genre, a.BookId, a.Title as Book_Title,
b.Number_of_Times_book_borrowed from genres c
JOIN books a using (genre_id)
JOIN (select book_id, count(borrower_id) as Number_of_Times_book_borrowed from books_has_borrowers group by book_id order by Number_of_Times_book_borrowed desc limit 1) as b on a.BookId = b.book_id;
```

/*Q5 - Display the book that has received the most expressions of interest for borrowing, along with a list of all the people who have expressed interest and whose interest is still active, and the details of their interest such as the date they showed interest, as well as their relationship with the library owner.*/

```
CREATE VIEW view_5 AS
select  concat(a.First_name,' ',a.Last_name) as Name, d.relationship,
b.Interest_Showed_On, c.book_id, e.Title as Book_Name
from relationship_with_owner d
JOIN borrowers a on a.relationship_with_owner_id = d.Relationship_Id
join borrow_interest b on a.BorrowerId = b.borrower_id
JOIN (select book_id, count(borrower_id) as People_interested from
borrow_interest
group by book_id order by People_interested DESC LIMIT 1) as c
using(book_id)
JOIN books e on e.BookId = c.book_id
WHERE IsActive = 1 order by b.Interest_Showed_On DESC;
```

/*Q 6 - What is the list of authors who have multiple books rated by the owner, but the owner's average rating for those books is less than 7? Include the author's name, the number of books rated, the average rating, and the author's ID.*/

```
CREATE VIEW view_6 AS
Select d.Average_rating, d.Number_of_books_rated, d.author_id,
concat(e.First_name,' ',e.Last_name) as Author_name
from authors e JOIN
(select AVG(rating) as Average_rating, count(book_id) as
Number_of_books_rated, author_id from (
select a.rating, a.book_id, b.author_id from owner_recommendations a
JOIN books_has_authors b using (book_id)) as c group by author_id having
AVG(rating) < 7 and count(book_id)>1) as d using (author_id);
```

/*Q7 - What is the list of languages in the library and the number of books available for loan in each language?*/

```
CREATE VIEW view_7 AS
select a.Language_Name as Language, b.Number_of_books_available_for_loan
from books_languages a
JOIN
(select count(BookId) as Number_of_books_available_for_loan,
book_language_id from books where Is_Available_for_Loan=1 group by
book_language_id) as b
ON a.Language_Id = b.book_language_id;
```

