```
/* Query 1
The average rating for each genre across years using the publication date
*/
SELECT PublicationYear , genreName , AVG(ratingVal)  AS 'AVG_RATING'
FROM bookpantry.genres
JOIN bookpantry.books USING (genreID)
JOIN bookpantry.books_has_languages USING (bookID)
JOIN bookpantry.ratings USING (ISBN)
GROUP BY PublicationYear, genreID
ORDER BY PublicationYear DESC , AVG_RATING DESC;


/* Query 2
Publishers with ratings more than the average of all ratings of all publishers
*/

SELECT publisherName,AVG_Rating, Books_Published
FROM
(SELECT publisherName, AVG(ratingVal) AS AVG_Rating, COUNT(DISTINCT bookID) AS
Books_Published
FROM bookpantry.publishers
JOIN bookpantry.books USING (publisherID)
JOIN bookpantry.books_has_languages USING (bookID)
JOIN bookpantry.ratings USING (ISBN)
GROUP BY publisherID) a
GROUP BY publisherName,AVG_Rating, Books_Published
HAVING AVG_Rating > ( SELECT AVG(ratingVal)
FROM bookpantry.publishers
JOIN bookpantry.books USING (publisherID)
JOIN bookpantry.books_has_languages USING (bookID)
JOIN bookpantry.ratings USING (ISBN))
ORDER BY AVG_Rating DESC;


/* Query 3
Rating of the same book in different languages
*/

SELECT bookID,  Book, Language, AVG_Rating
FROM
((
```

```
SELECT bookID, book_title AS Book, languageName AS Language, AVG(ratingVal) AS
AVG_Rating
FROM
bookpantry.books_has_languages
JOIN bookpantry.books USING (bookID)
JOIN bookpantry.languages USING (languageID)
JOIN bookpantry.ratings USING (ISBN)
GROUP BY ISBN
) avg_rating_ISBN
JOIN
( SELECT bookID, COUNT(Distinct languageName) as lanCount
FROM
bookpantry.books_has_languages
JOIN bookpantry.books USING (bookID)
JOIN bookpantry.languages USING (languageID)
JOIN bookpantry.ratings USING (ISBN)
GROUP BY bookID
)language_count_bookID USING (bookID)
)
WHERE lanCount >1
ORDER BY bookID ,  AVG_Rating DESC;


/* Query 4
Rating across genres for different age groups of users
*/

SELECT
  CASE
    WHEN TIMESTAMPDIFF(YEAR, userDOB, NOW()) < 18 then 'Under 18'
    WHEN TIMESTAMPDIFF(YEAR, userDOB, NOW()) between 19 and 35 then '19-35'
    WHEN TIMESTAMPDIFF(YEAR, userDOB, NOW()) between 36 and 55 then '36-55'
    WHEN TIMESTAMPDIFF(YEAR, userDOB, NOW()) between 56 and 100 then '56-100'
  END AS age_group, genreName, AVG(ratingVal) as AVG_Rating
FROM bookpantry.users
JOIN bookpantry.ratings USING(userID)
JOIN bookpantry.books_has_languages USING (ISBN)
JOIN bookpantry.books USING (bookID)
JOIN bookpantry.genres USING (genreID)
GROUP BY age_group, genreName
ORDER BY age_group, AVG_Rating DESC;


/*Query 5
```

```
Top ten authors with highest average ratings
*/

SELECT DISTINCT CONCAT(authorFirstname, ' ', authorLastname) AS authorName,
book_title,
ROUND(AVG(ratingval),2) AS author_average_rating
FROM bookpantry.authors
JOIN bookpantry.authors_has_books USING(authorID)
JOIN bookpantry.books USING(bookID)
JOIN bookpantry.books_has_languages USING(bookID)
JOIN bookpantry.ratings USING(ISBN)
GROUP BY authorID, ISBN
ORDER BY author_average_rating DESC
LIMIT 10;


/*Query 6
Count of books in each Genre
*/

SELECT genreName AS Genre, COUNT(genreID) as `No of books`
FROM bookpantry.books
JOIN bookpantry.genres USING (genreID)
GROUP BY genreID
ORDER BY COUNT(genreID) DESC;


/*Query 7
Which Publishers had better than average ratings for which Genre?
*/

SELECT DISTINCT publisherName, genreName,
ROUND(AVG(ratingval),2) AS publisher_max_avg_rated_genre
FROM bookpantry.publishers
JOIN bookpantry.books USING(publisherID)
JOIN bookpantry.genres USING(genreID)
JOIN bookpantry.books_has_languages USING(bookID)
JOIN bookpantry.ratings USING(ISBN)
GROUP BY publisherName, genreID
HAVING publisher_max_avg_rated_genre > (SELECT AVG(ratingval) from ratings)
ORDER BY publisher_max_avg_rated_genre DESC;


/* Query 8
```

Which authors have the most books listed?
*/

```
SELECT concat(authorFirstName, ' ' , authorLastName) AS 'AuthorFullName' , count(bookID)
AS Books_Published
FROM bookpantry.books
JOIN bookpantry.authors_has_books USING (bookID)
JOIN bookpantry.authors USING (authorID)
GROUP BY authorID
ORDER BY count(bookID) DESC LIMIT 10;
```

/* Query 9
books which have pages greater than the average number of pages
*/

```
SELECT book_title, BookPagesNo, languageName
FROM bookpantry.books
JOIN bookpantry.books_has_languages USING (bookID)
JOIN bookpantry.languages USING (languageID)
WHERE BookPagesNo > ( SELECT AVG(BookPagesNo) FROM
bookpantry.books_has_languages)
ORDER BY BookPagesNo DESC;
```

/* Query 10
No of books in each language
*/

```
SELECT languageName , Count(ISBN) as NumberOfBooks
FROM bookpantry.languages
JOIN bookpantry.books_has_languages USING (languageID)
GROUP BY languageID
ORDER BY  Count(ISBN) DESC;
```