

Assessment

- Open this project inside STS.
- Go to first inside src/main/resources (I have use mysql that port number will be set)
 - o **Inside that change the database name and change the password of database.**
- All relationships of classes such as User,Product ,Order and payments are done I have use ORM (Object Relational Mapping) for the relations using Hibernate Database queries are handle.
- The implementations of processOrder() and restockItems() are done in both service layers. And that will be called from Controller.
- To run this assignment :-
 - o **Right click on the project in STS -> Run as -> Spring Boot App.**
 - o Access the REST APIs though postman or Swagger to test the system.

Database Query :-

1) Write a SQL query to retrieve the top 5 customers who have purchased the most books (by total quantity) over the last yea.

Select c.customer_id , c.name , SUM(od.quantity) as total_books from Customers c INNER JOIN Orders o ON c.customer_id = o.customer_id INNER JOIN OrderDetails od ON o.order_id = od.order_id where o.order_date >= DATE_SUB(CURDATE(),INTERVAL 1 YEAR) group by c.customer_id order by total_books desc limit 5;

2) Write a SQL query to calculate the total revenue generated from book sales by each author.

Select b.author,SUM(od.quantity * price) as total_revenue from Books b INNER JOIN OrderDetails od on b.book_id = od.book_id group by b.author order by total_revenue desc;

Select b.author,SUM(od.quantity * price) as total_revenue from Books b ,
OrderDetails od where b.book_id = od.book_id group by b.author order by
total_revenue desc;

3) Write a SQL query to retrieve all books that have been ordered more than 10
times, along with the total quantity ordered for each book.

Select b.book_id , b.title, SUM(od.quantity) as total_quantity from Books b
INNER JOIN OrderDetails od ON b.book_id = od.book_id group by b.book_id
, b.title having total_quantity > 10;

Select b.book_id, b.title, SUM(od.quantity) as total_quantity from Books b ,
OrderDetails od where b.book_id = od.book_id group by b.book_id , b.title
having total_quantity > 10;