Assessment

* Open this project inside STS.
* Go to first inside src/main/resources (I have use mysql that port number will be set)
  + **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 :-
  + **Right click on the project in STS -> Run as -> Spring Boot App.**
  + 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;