Problem Statement:

Megamart is an online application created using Spring Boot which needs to have the following functionalities:

1. Register

2. Login

3. Search Product

4. Add to cart

5. Wish list

6. Order

7. Checkout

1. IntelliJ

2. Postgresql database

Create the following tables in the database

Account table:

Column Name	Data Type
Name	varchar(15) (Primary Key)
Password	varchar(15)
Confirm Password	varchar(15)
Email	varchar(15)

Product table:

product table

Column Name	Data Type
Product_Id	varchar(5) (Primary Key)
Product_Name	varchar(50)
Description	varchar(200)
Price	Double
Discount	Double
Delivery_Charges	Double
Avg_Rating	Int
Seller_Name	varchar(15)

Cart table:

Column Name	Data Type
Cart_Id	varchar(5) (Primary Key)
Product_Name	varchar(50)
Seller_Name	varchar(15)
Quantity	Int
CartOffer_Price	Double

Order table:

Column Name	Data Type
Order_Id	varchar(5) (Primary Key)
Display_Name	varchar(50)
Category	varchar(20)
Seller_Name	varchar(15)
Price	Double
Quantity	Int
Total_Price	Double
Ordered_Date	Date
Order_Status	varchar(10)

Wish List Table

Column Name	Data Type
Wish_Id	varchar(5) (Primary Key)
Display_Name	varchar(50)
Short_Desc	varchar(50)
Category	varchar(20)

Project Implementation:

Implement an online application using Spring Boot to support the following operations

Register Module:

1. The new user should be able to register and valid data should be persisted into the Account table

2. Validate the new user with the below criteria

Error messages:

- All the fields are mandatory

- If Email-id is already used

- Name contains invalid character

- Password should contain at least an uppercase and a lowercase character, a number and a special character

- Password and Confirm Password are not matching

Login Module:

1. If the user is already registered, username and password should be checked with the Account table

2. Validate the logged-in user with the below criteria

Error messages:

- All the fields are mandatory

- Invalid username and password

Search Product Module:

We assume that the product table data is entered from the back end and kept ready with the product details

1. Enter valid product details into the product table

2. Use a drop-down list to show the list of products for user selection

3. While displaying each product, display the following details to the user

    o Display price, description, seller name, average rating, discount, and delivery charges

4. Verify that an error message is displayed when no product is found

    o Verify that buyer is able to see all the products starting with the text he/she typed

    o Verify that the extra discount is applicable on the product and effective price showed to the user on the product page as well as in his/her cart

    o Verify that the correct product details are shown to the buyer along with all the detailed information

    o Verify that price quotes are shown for the same product from all the sellers who sell that item

Add to Cart Module:

1. The user on clicking the add to cart button should be able to add the chosen items to the cart

2. Validate the following

   1. Verify that items in the cart are kept when the buyer logs in

   2. Verify those cart items are retained even if the browser is closed

   3. Verify that the total amount of the cart is shown along with a checkout button

   4. Verify that item name, quantity, price, discount, delivery charge, cart offered by the seller for each item in the cart is shown

   5. Verify that when the cart item quantity is changed or the item is deleted the total amount and delivery charge should change accordingly