

GitHub: <https://github.com/Vincent33168/CaseStudyVChan.git>

Case Study

E-Commerce online Shopping Application.

Idea

The purpose of this project is to help a footwear company to streamline their working processes by changing from manual order placement process to become an on-line shopping platform placing the orders by their clients through the system directly. The ultimate goal is to improve their efficiency of the order placement process. Eliminate the manual process of taking orders by the sales representatives. Hence increase sales volume and improve the data accuracy.

User Stories

For new customers, sales team required to verify the customer background and provide the information for system administrator to create a login for them.

As a customer user, he/she will need a login name and password to login to the system to search the products.

As a customer user, he/she will need to select the product and put it to the shopping cart.

As a customer user, he/she will need to view the ordered items in shopping cart including the product name, ordered quantity, the price and total anytime before checkout.

As a customer user, he/she will need to confirm the order in shopping cart by the checkout process.

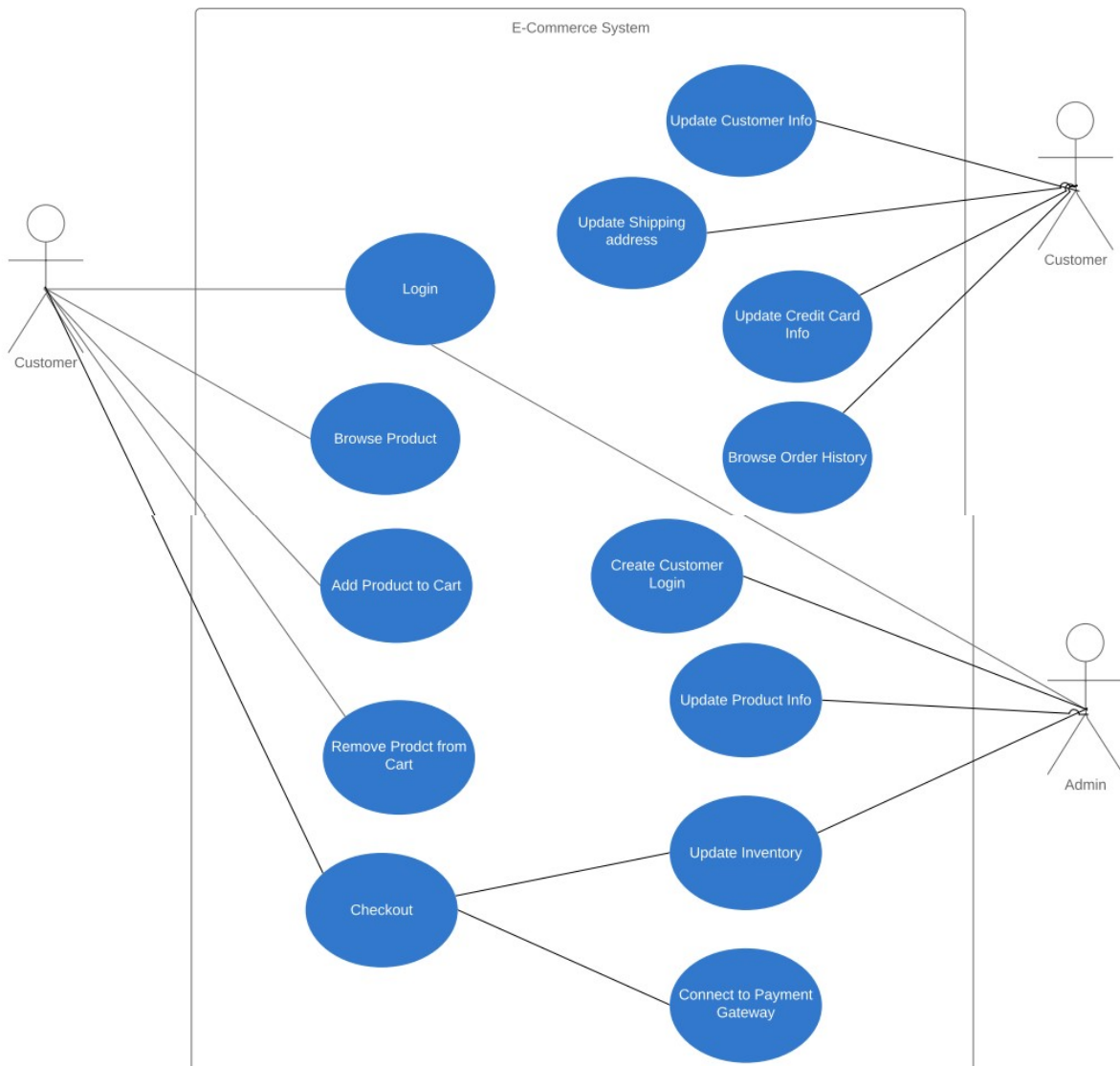
As a customer user, he/she will need view the order history, including the order#, order date, order amount, order details.

As an administrator, he/she will need to setup the customer account for new customers.

As an administrator, he/she will need to setup the login name and password the new customers.



Use Case



Roles / Functions

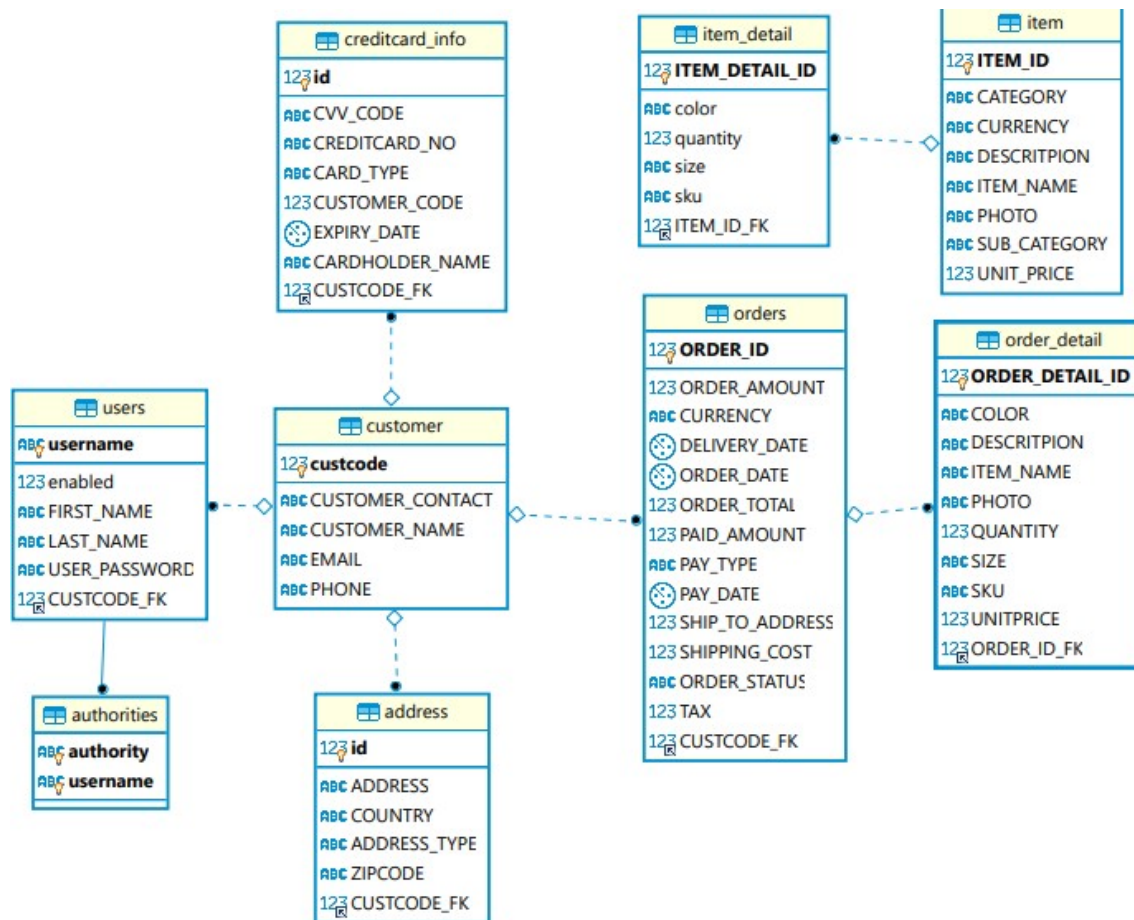
Customer Role

1. Login
2. Search Products by category
3. Check Availability of Items
4. Add Items to Shopping Cart
5. Edit Items in the Shopping Cart
6. Remove Items from the Shopping Cart
7. Check out the Shopping Cart
8. View Order History
9. Logout

Administrator Role

1. Login
2. Create/ Edit / Delete Customer login
3. Create / Edit / Delete Customer information.
4. Update Inventory
5. Logout

Entity Diagram



Technologies Used

1. Spring MVC framework
2. Spring Security
3. Hibernate JPA
4. Java 8 & JSP
5. Application is designed to be compliance to CRUD model.
6. Application deployed on Tomcat server, and connected to MariaDB database.
7. Front end is designed with Bootstrap4 HTML.

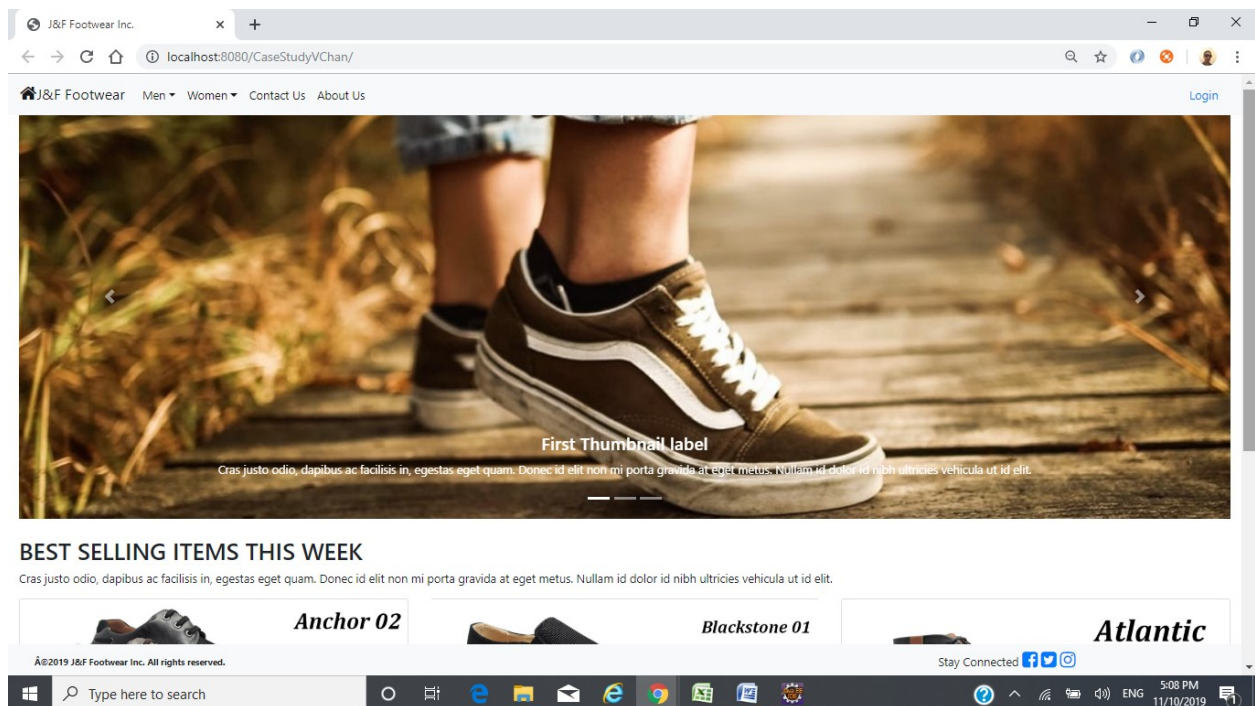
8. CSS & Java script.
9. Application is tested with junit 5.

Challenges

This is a web-base application developed with the latest technologies Spring framework, Spring security and Hibernate JPA. The framework is powerful but also a challenge for me to apply into my application in a short period of time. I overcame it by doing a lot of research and trouble-shooting during the development process. The multiple tables relationship by using the Hibernate JPA also a challenge and took time to learn and made it work.

In general, this is a great learning experience and I really enjoy it.

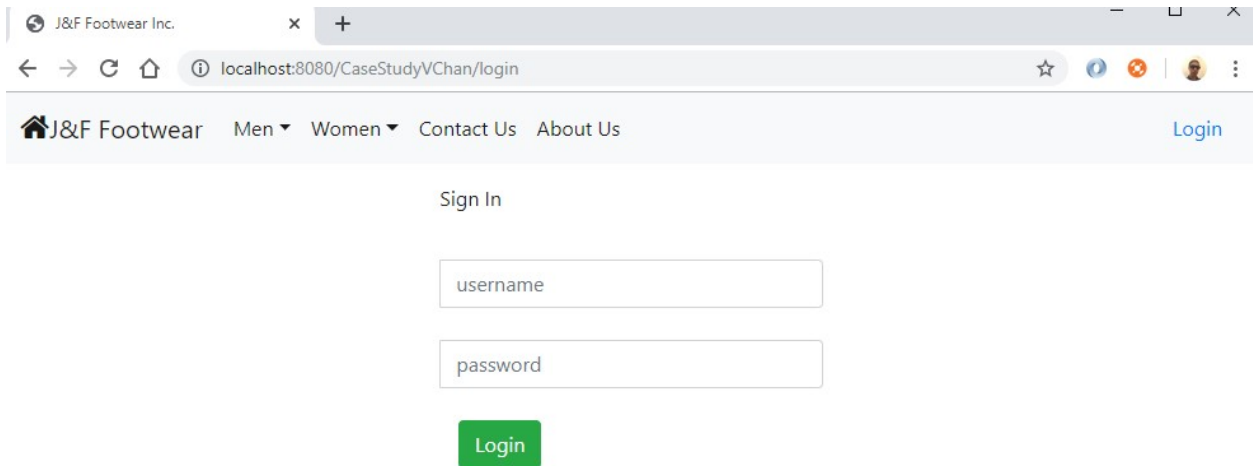
[Landing Page]



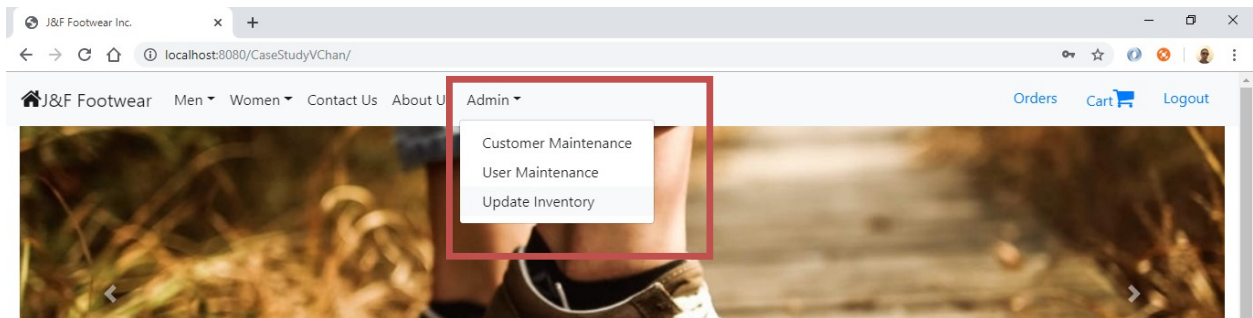
[Login]

Login: kun@gmail.com

Password: 123456



[Admin Functions]



Customer Maintenance					
Add New Customer					
#	Customer Name	Contact	Email	Phone	Action
9	Target	Max	max@target.com	123-456-789	EDIT DELETE
10	Amazon	Lucy	lucy@amazon.com	123-456-7890	EDIT DELETE

Edit Customer

Customer Code:

Customer Name:

Contact Name:

Contact Email:

Contact Phone:

User Maintenance

[Create New User](#)

#	Customer Name	User Name (Email)	First Name	Last Name	Authority	Enabled	Action
9	Target	kun@gmail.com	kun	Kun	ROLE_ADMIN	true	<input type="button" value="EDIT"/> <input type="button" value="DELETE"/>
10	Amazon	test@ps.org	Max	Trump	ROLE_CUSTOMER	true	<input type="button" value="EDIT"/> <input type="button" value="DELETE"/>

Edit New User

Customer:

Authorities / Roles: ☒ Administrator ☐ Customer User

User Name(Email):

First Name:

Last Name:

Password:

Confirm Password:


[Search Product by Gender by Category]

J&F Footwear Inc. [Contact Us](#) [About Us](#) [Admin](#) [Orders](#) [Cart](#) [Logout](#)

Search by Category: **Men** **Women**

- Casual Shoes
- Dress Shoes
- Boots
- Sandals
- Slippers


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Anchor 02
Black, Brown
Navy, Tan

ANCHOR_02


MEN CASUAL USD 15.0



Barea 01
Black, Brown

BAREA_01


MEN CASUAL USD 14.0



Blackstone 01
Blk, Brn, Red, Navy

BLACKSTONE_01

MEN CASUAL USD 16.0



Bynum 01
Blk, Navy, Tan

BYNUM_01


MEN CASUAL USD 14.0

[Add Product to CART]

J&F Footwear [Men](#) [Women](#) [Contact Us](#) [About Us](#) [Admin](#) [Orders](#) [Cart](#) [Logout](#)

MEN CASUAL

ANCHOR_02



Anchor 02
Black, Brown
Navy, Tan

USD15.0 (USD180.0 Per Case)

COLOR:

SIZE:



QUANTITY:

[ADD TO CART](#)

SIZE CHART




SIZE	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10	10.5	11.0	11.5	12.0
A	2	2	2	2	2	2						
B				1	2	2	2	2	2	1		
C					1	1	2	2	2	2	1	1

[View CART]



 J&F Footwear
 Men ▾
Women ▾
Contact Us
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Orders
Cart 
Logout

Your Cart

Product successfully added to Cart!

 <p><i>Gloria</i></p> <p>Black Gold Silver</p>	<p>WOMEN DRESS</p> <p>Color : Brown</p> <p>Size : A</p> <p>SKU : 1404</p> <p>Unit Price :\$ 18.0 \$(216.0)/Case</p>	<p>QUANTITY</p> <p>2</p> <p>Update</p>	<p>\$432</p>	<p>CHECKOUT</p> <p>Sub-Total :\$ 780</p> <p>Tax :\$ 69.22</p> <p>Total :\$ 849.23</p>
 <p><i>Christopher o2</i></p> <p>Black Brown</p>	<p>MEN BOOTS</p> <p>Color : Brown</p> <p>Size : A</p> <p>SKU : 8004</p> <p>Unit Price :\$ 14.0 \$(168.0)/Case</p>	<p>QUANTITY</p> <p>1</p> <p>Update</p>	<p>\$168</p>	
 <p><i>Anchor 02</i></p> <p>Black,Brown Narrow Toe</p>	<p>MEN CASUAL</p> <p>Color : Black</p>	<p>QUANTITY</p> <p>1</p>	<p>\$180</p>	

[View Order History]

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 Men ▾
Women ▾
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Admin ▾
Orders
Cart 
Logout

Your Orders

Customer	Order #	Order Date	Total	View Detail
Target	35	2019-11-09 18:43:17.0	\$614.05	View Detail

Order Details - (Order #35)

Product Name	Description	Color	Size	SKU	Quantity	Unit Price	Sub-Total	Tax	Total
ATLANTIC	MEN DRESS	Black	A	5001	1	180.0	180.0	\$15.97	\$195.75
GLORIA	WOMEN DRESS	Brown	B	1405	1	216.0	216.0	\$19.17	\$234.9
ALASKA_25	MEN SANDALS	Black	A	1101	1	168.0	168.0	\$14.91	\$182.7

Appendix

Codebase Structure

