

# Take Home Task – Mock-a-Shop

Build a simple shopping web application for an e-commerce system.

## Overview

You are supposed to build an application by using Springboot web services (RESTful API) & HTML (Thymeleaf) to act as a simple e-commerce shop that used by both Customer & Shop Owner.

You may make your own decision for business logic not mentioned in the below requirements.

Project requirements:	
1. Project contains two modules <ul style="list-style-type: none"><li>Web application as user interface using templating engine e.g Thymeleaf, free marker...</li><li>Restful api to interact with database e.g H2 and return data to web application. Authorization should be implemented.</li></ul> 2. Validation inputs and paginate result set from API3. Unittesting using Junit or Mockito4. Inclusion of logging framework5. Level of completeness and clarity of analys – design document/readME	15%
Features for Customer	
1. Product page to display product list. <b>Bonus:</b> user can search for certain products2. User can add to cart multiple products with different quantity3. On the shopping cart page, user can alter cart line items4. You can skip delivery section. No live payment is needed. A dummy payment implementation should be used.5. User should be able to view/search order information based on the order id	25%
Features for Shop Owner	
1. Login is required to add products or alter existing products listed by owner You can create some predefined accounts but you cannot hardcode user account in code2. A shop owner cannot alter other shop owners' products3. Able to view the orders of their products + revenue	25%
Bonus features: (Recommended for Experience developer)	
1. Authorization: <ul style="list-style-type: none"><li>Restful API is protected with JWT token</li><li>Authorization type is Bearer</li><li>Access control is role-based: If user is a Shop Owner, they can use all features for Customer role, but a Customer cannot use features for Shop Owner e.g listing product or view revenue. Hence at least two tokens are required for Customer features and for Shop Ower features. You can pre-generate tokens and store in web app to send to API but based on current session user role, the corresponding token is sent to API</li><li>User session idle time should be 15 minutes</li></ul>	15%

## Timeline

- Expected to submit in 7 working days

## Technologies

1. Java Spring Boot project
2. H2 Database and JPA
3. Maven
4. Templating Engine e.g. Thymeleaf

## Submission

Please zip the finished project for submission, include "ReadMe.txt" to briefly describe how to run the project, good to have the user story and the rationale behind the implementation.