**CoffeeShop Sprint 2 Testing Project**

**1. Introduction**

The purpose of this test plan is to ensure the proper functionality and performance of the Java Servlet backend services, specifically focusing on testing the CartOrderServlet and . The servlet handles various operations related to cart orders in response to frontend commands.

**2. Objectives**

* Verify the correct implementation of the CartOrderServlet for handling GET, PUT, DELETE, and POST requests.
* Ensure that the servlet responds appropriately to various commands issued by the frontend requests.
* Confirm the reliability and accuracy of the servlet's operations, including incrementing, decrementing, removing, and adding items to cart orders.

**3. Test Scope**

The testing will focus on the following operations:

Cart-Orders：

* GET: /bestcoffee/cart-orders
* PUT: /bestcoffee/cart-orders/{id}/increment
* PUT: /bestcoffee/cart-orders/{id}/decrement
* DELETE: /bestcoffee/cart-orders/{id}/remove
* POST: /bestcoffee/cart-orders/{id}/add

Menu Management

* GET: /bestcoffee/menu
* POST: /bestcoffee/menu with request data

**4. Test Environment:**

* Backend Service: Java Servlet
* Testing Tool: Postman

| **Scenario** | **Test Case** | **Method** | **Endpoint** | **Expected Result** |
| --- | --- | --- | --- | --- |
| Retrieving Cart Orders | 1.1 | GET | /bestcoffee/cart-orders | Verify that the servlet responds correctly to retrieve cart orders. |
| Updating Cart Orders | 2.1 | PUT | /bestcoffee/cart-orders/{id}/increment | Verify that the servlet increments the quantity of the specified cart item. |
| Updating Cart Orders | 2.2 | PUT | /bestcoffee/cart-orders/{id}/decrement | Verify that the servlet decrements the quantity of the specified cart item. |
| Modifying Cart Orders | 3.1 | DELETE | /bestcoffee/cart-orders/{id}/remove | Verify that the servlet removes the specified item from the cart. |
| Modifying Cart Orders | 3.2 | POST | /bestcoffee/cart-orders/{id}/add | Verify that the servlet adds a new item to the cart. |
| Menu Management | 4.1 | GET | /bestcoffee/menu | Verify that the servlet responds correctly to retrieve the menu. |
| Menu Management | 4.2 | POST | /bestcoffee/menu | Verify that the servlet adds a new item to the menu with the provided request data. |