**Functional & Performance Testing**

**Shopmart Backend API Testing Report**

**Date:** 20 JULY 2025  
**Team ID:** LTVIP2025TMID48243  
**Project Name:** Shopmart   
**Maximum Marks:** 4 Marks

**Test Scenarios & Results**

| **Test Case ID** | **Scenario (What to test)** | **Test Steps (How to test)** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| --- | --- | --- | --- | --- | --- |
| **FT-01** | User Registration Validation | Submit valid and invalid registration data | Success for valid, errors for invalid | Proper validations triggered | Pass |
| **FT-02** | Product CRUD Operations | Add, update, fetch, and delete products via API | CRUD operations succeed as expected | All endpoints behave correctly | Pass |
| **FT-03** | Order Placement | Place an order via API after login | Order saved and linked to the user | Orders are correctly logged in the DB | Pass |
| **FT-04** | Role-Based Access | Try admin-only actions with a normal user token | Access is denied with the correct status code | Roles correctly enforced | Pass |
| **FT-05** | Feedback Submission | Submit feedback as a logged-in user | Feedback is stored in the database | Feedback saved successfully | Pass |
| **PT-01** | API Response Time | Measure API latency using Postman timer | < 2 seconds per request | Avg 1.7 seconds | Pass |
| **PT-02** | Concurrent API Load | Simulate 10+ requests using a load testing tool | The system handles the load without a timeout | All requests completed successfully | Pass |
| **PT-03** | Database Connection Handling | Restart the DB and retry API access | App reconnects without a crash | Connection re-established | Pass |

All major features, including **authentication**, **product management**, **order handling**, and **feedback collection,** have passed validation and performance testing under typical use scenarios.