

STP_API_Testing_Project

Project name: KSP API Testing Project

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1. Introduction

This document describes the test plan for the REST API testing of the KSP e-commerce platform. The goal is to verify that the API endpoints function correctly, handle errors properly, and ensure secure data access between the client and the server.

2. Objectives

- Validate that the KSP API returns correct data for valid requests.
- Ensure proper error handling for invalid or missing parameters.
- Verify user authentication and authorization mechanisms.
- Confirm that the API meets functional and security requirements.

3. Scope

The following endpoints will be tested:

- POST /login – user authentication
- GET /products – fetch all available products
- POST /cart – add product to user cart
- GET /cart – retrieve current cart contents
- POST /order – create a new order

4. Out of Scope

UI/UX testing of the KSP web or mobile app; Database structure and schema testing; API performance and load testing.

5. Test Environment

Tool: Postman

Base URL: <https://api.ksp.shop> (mocked)

Authentication: Bearer token

Response format: JSON

Data source: Test accounts with sample products

6. Test Types

Type	Description
Functional	Verify correct API responses and business logic
Negative	Validate error handling for invalid data

Security	Check access control and authentication
Boundary	Test input limits and edge values

7. Test Cases (Examples)

ID	Endpoint	Method	Description	Expected Result
TC_API_01	/login	POST	Login with valid credentials	Status 200 OK, response contains auth
TC_API_02	/login	POST	Login with missing password	Status 400, message 'Missing password'
TC_API_03	/products	GET	Retrieve product list	Status 200 OK, returns JSON array of p
TC_API_04	/cart	POST	Add item to cart without token	Status 401 Unauthorized
TC_API_05	/order	POST	Create order with invalid product ID	Status 404, error message returned

8. Defects Found

ID	Endpoint	Description	Status	Severity
BUG_001	/login	API returns empty 'message' field when credentials are invalid	Open	Medium
BUG_002	/cart	Allows GET request without authorization token	Open	High

9. Exit Criteria

All functional test cases executed; 95% of tests passed; No critical or blocker defects remain open.

10. Conclusion

The API is partially stable but requires fixes related to authentication and error handling. After bug corrections, a regression cycle will be executed to confirm resolution.