

Final Documentation

- Manual Testing Project: Automation Exercise

Module: Products

Tester: Esraa

Date: 14/11/2025

Testing Type: Manual Testing

1. Test Summary

Item	Description
Total Test Cases	27
Passed	21
Failed	6
Not Executed	3
Pass Rate	77.78%

Positive Scenarios (Passed):

- **TC_1:** Verify Product page loads successfully
 - **TC_2:** Verify search bar is visible
 - **TC_3:** Verify search functionality
 - **TC_5:** Verify search is not case-sensitive
 - **TC_7:** Verify search for non-existent product
 - **TC_9:** Verify categories are displayed
- **TC_10, TC_11, TC_12:** Verify category filtering (Women, Men, Kids)
 - **TC_13, TC_14:** Verify brand filtering
- **TC_15 to TC_20:** Verify product details and Add to Cart button
 - **TC_23:** Verify View Product button

- **TC_24 to TC_26:** Verify review submission (valid/invalid email)

3. Defects Found

Defect ID	Test Case	Description	Priority	Status
#1	TC_4	Unrelated product appears when searching for "dress"	Low	Assigned
#2	TC_8	No message displayed when no search results	High	Assigned
#3	TC_6	Search doesn't handle hyphenated words (t-shirt vs tshirt)	High	Assigned
#4	TC_21	Extra unwanted products added to cart	High	Assigned
#5	TC_22	Deleted products reappear in cart	High	Assigned
#6	TC_27	Name field accepts special chars/numbers in review	Low	Assigned

4. Test Coverage

- Search functionality
- Filtering (Category & Brand)
- Product display (image, name, price)
- Add to Cart behavior
- Product review submission
- UI validation (currency, buttons, visibility)

5. Recommendations

- إصلاح مشاكل عربة التسوق عالية الأولوية - تؤثر على تجربة المستخدم بشكل مباشر.
1. تحسين محرك البحث - يدعم الكلمات المركبة والنتائج الفارغة.
 2. تحسين رسائل المستخدم - خاصة في حالات عدم وجود نتائج.
 3. التحقق من صحة الحقول في التقييم - منع إدخال رموز غير صالحة.
 4. -----

5. -----

- API Testing Project: Automation Exercise

Tester: Esraa

Testing Type: API Testing

1. Test Summary

Item	Description
Total API Test Cases	14
Passed	14
Failed	0
Pass Rate	100%

2. API Test Cases Executed

Products & Brands APIs (Passed):

- **TC_API_1:** GET All Products List → 200 OK
- **TC_API_2:** POST All Products List → 405 Method Not Allowed
 - **TC_API_3:** GET All Brands List → 200 OK
- **TC_API_4:** PUT All Brands List → 405 Method Not Allowed
 - **TC_API_5:** POST Search Product → 200 OK
- **TC_API_6:** POST Search Product without parameter → 400 Bad Request

Authentication & User APIs (Passed):

- **TC_API_7:** POST Verify Login with valid details → 200 OK

- **TC_API_8:** POST Verify Login without email → 400 Bad Request
- **TC_API_9:** DELETE Verify Login → 405 Method Not Allowed
- **TC_API_10:** POST Verify Login with invalid details → 404 Not Found
- **TC_API_11:** POST Create User Account → 201 Created
 - **TC_API_12:** DELETE User Account → 200 OK
 - **TC_API_13:** PUT Update User Account → 200 OK
 - **TC_API_14:** GET User Details by Email → 200 OK

3. API Defects Found

بنجاح Test Cases Passed - جميع الا

4. Test Coverage

- **CRUD Operations** (Create, Read, Update, Delete)
- **HTTP Methods Validation** (GET, POST, PUT, DELETE)
 - **Authentication & Authorization**
 - **Error Handling** (400, 404, 405)
 - **Request/Response Validation**
 - **Parameter Validation**

API Endpoints Tested

Endpoint	Methods Tested	Status
/api/productsList	GET, POST	
/api/brandsList	GET, PUT	
/api/searchProduct	POST	

/api/verifyLogin	POST, DELETE	<input checked="" type="checkbox"/>
/api/createAccount	POST	<input checked="" type="checkbox"/>
/api/deleteAccount	DELETE	<input checked="" type="checkbox"/>
/api/updateAccount	PUT	<input checked="" type="checkbox"/>
/api/getUserDetailByEmail	GET	<input checked="" type="checkbox"/>

🔒 6. Security & Validation Tests

- **Method Not Allowed** (405) لمنع الوصول غير المسموح -
للبيانات الناقصة - (400)
- **Bad Request** (400) للبيانات غير الموجودة - (404)
- **Not Found** (404) تحقق من تسجيل الدخول -
- **Authentication** إنشاء، تعديل، حذف المستخدمين -
- **User Management**

Tools & Environment

- Tool Used: Postman
 - Base URL: <https://automationexercise.com>
 - Documentation: https://automationexercise.com/api_list
-

🎓 Performance Testing Summary - JMeter

Project: Automation Exercise

Tester: Esraa

Test Overview

- Scenario: Verify Login API Load Test
 - Users: 50 concurrent users
 - Requests: 50 requests total
- Endpoint: POST /api/verifyLogin

Key Results

Metric	Value	Status
Avg Response Time	1768 ms	⚠ Needs Improvement
Min Response Time	1055 ms	✓ Good
Max Response Time	1958 ms	⚠ Slow
Error Rate	0%	✓ Excellent
Throughput	~6 req/sec	⚠ Low

Findings

Strengths:

- 100% success rate - no errors
- Stable performance (low deviation)
- Reliable under 50-user load

Areas for Improvement:

- Response times exceed 1-second standard
 - Throughput needs optimization
- Inconsistent performance across users

 **Recommendations**

1. Optimize login API code efficiency
2. Improve database query performance
3. Consider implementing caching
4. Test with higher loads (100+ users)

 **Conclusion**

API is reliable but requires performance optimization for better user experience.

Ready for production with performance improvements.