Test Case Assignement: Product Search and Filtering

IMPORTANT NOTE FOR STUDENTS:

This assignment is a **test case review exercise** rather than an execution task. The ShopSmart application is fictional and does not exist for actual testing. Your task is to analyze the test case documentation itself, identifying issues, inconsistencies, ambiguities, or missing elements that would impact its effectiveness if someone were to execute it. This type of documentation review is a critical skill in software testing that helps identify potential issues before test execution begins.

What you are expected to do:

Approach this assignment as if you were a QA professional preparing to execute these tests. You should:

- 1. **Identify Ambiguous Requirements and Instructions** Find vague directions, unclear success criteria, or imprecise terminology. For example, what exactly constitutes "relevant results" for a search? How would a tester objectively verify this?
- 2. **Spot Logical Contradictions or Inconsistencies** Look for steps that contradict each other or expected results that don't align with actions. Are there conflicting instructions or parameters?
- 3. **Detect Missing Preconditions** Identify assumptions the test makes without establishing them as preconditions. Is specific test data needed? Are certain user permissions required?
- 4. **Recognize Incomplete Test Scenarios** Find gaps in test coverage important user paths or edge cases that aren't included. What about special characters in searches or products with no ratings?
- 5. **Highlight Testability Issues** Identify steps that would be difficult or impossible to verify in practice. How would a tester confirm that "all products matching the search term" are actually displayed?

For each issue you identify, clearly describe what's problematic about it, explain why it matters (how it could lead to missed bugs or inconsistent testing), and provide a specific recommendation to improve the test case.

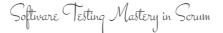
Test ID: TC-SEARCH-001

Test Objective

To verify that the product search and filtering functionality works as expected.

Preconditions

- 1. The ShopSmart application is accessible
- 2. The test user has an active internet connection
- 3. The test user is logged in to the application



Test Environment

• Browser: Chrome

• Operating System: Windows 10

• Screen Resolution: 1920 x 1080

Test Data

• Search terms: "laptop", "blue shirt", "wireless headphones"

• Price range: \$0 - \$1000

• Category: Electronics, Clothing

• Brands: Various (whatever is available in the system)

• Ratings: 1-5 stars

Test Steps

Step #	Action	Expected Result
1	Navigate to the ShopSmart homepage	The homepage loads successfully with the search bar visible at the top
2	Click in the search bar and enter the search term "laptop"	Search results page displays with laptops
3	Apply a price filter of \$500-\$800	Results are updated to show only laptops within the specified price range
4	Sort the results by "Price: High to Low"	Products are displayed in descending order of price
5	Click on the first product in the search results	The product detail page opens showing complete information about the selected laptop
6	Navigate back to the search results page	The previous search results and applied filters are maintained
7	Clear all filters	All products matching the search term "laptop" are displayed
8	Enter a new search term "blue shirt"	Search results show blue shirts
9	Apply category filter "Men's Clothing"	Only men's blue shirts are displayed
10	Apply a rating filter of "4 stars and above"	Only men's blue shirts with ratings of 4 stars or higher are displayed
11	Click the "Clear Search" button	The user is returned to the homepage with no search filters active
12	Perform a search for "wireless headphones"	Search results display wireless headphones products
13	Apply category filter "Electronics"	The search results remain unchanged
14	Apply brand filter "Sony"	Only Sony wireless headphones are displayed
15 •	Apply a price filter of \$50-\$100	Sony wireless headphones within the price range are displayed

Expected Results

- The search functionality should return relevant results based on the search terms
- Filtering options should correctly narrow down the search results
- Sorting options should arrange the products as specified
- The product detail page should display accurate information
- The system should maintain state when navigating back to search results
- The clear filters/search functionality should reset all active filters and search terms

Pass/Fail Criteria

The test case passes if all expected results are achieved.



Notes

Performance of the search functionality should be monitored. Search results should load within 3 seconds.

