**Regression Testing Strategy – Demo Web Shop**

**Objective**

I are doing regression testing to make sure that everything I tested before still works fine even after updates or new changes. This is to check that no existing feature is broken and the website works properly for the users.

**1. Risk Assessment Matrix**

| **Feature** | **What we checked / Critical Flow** | **Impact** | **Chance of Error** | **Priority** |
| --- | --- | --- | --- | --- |
| Register Account | User can register successfully | High | Low | P0 |
| Login | Existing users can login | High | Low | P0 |
| Add to Cart | Can add products to cart | High | Medium | P0 |
| Checkout | Users can complete the order | High | Medium | P0 |
| Search Products | Search works correctly | Medium | Medium | P1 |
| Sort / Filter Products | Products sort/filter properly | Medium | Medium | P1 |
| Product Images | Images are visible correctly | Medium | Medium | P2 |
| Gift Cards | Can buy gift cards | Medium | Low | P2 |
| Accessories Category | Can view and buy accessories | Low | Low | P3 |

**Main Points:**

* The most important features are Register, Login, Add to Cart, and Checkout.
* Some issues I noticed, like missing Add to Cart buttons for some products, incorrect sorting, display only 7 if selected 8 or 12 some has no images, and star icon half filled .

**2. Test Selection Strategy**

**a) Smoke Test Suite (Must-Run Tests):**

* Register a new account (used First Name: Umm E Hani, Last Name: Tester, Email: ummehani123@gmail.com, Password: hanitester123)
* Login with valid credentials
* Add a product to cart
* Checkout and complete the purchase
* Search for products
* Sort and filter products

**b) Full Regression Testing:**

* Run all test cases after big updates to make sure nothing breaks
* Cover all sections like Jewelry, Computers, Accessories, Books, Gift Cards

**c) Targeted Regression Testing:**

* Only run test cases for the parts of the website that were updated
* Example: If Jewelry is updated, check Jewelry and main flows (Register, Add to Cart, Checkout)

**d) Automation vs Manual Testing:**

* **Automation:** Login, Register, Add to Cart, Checkout
* **Manual Testing:** UI issues, images, ratings, sorting, product display, and new features

**3. Execution Framework**

**Test Case Priority:**

* **P0:** Very important, must pass (Register, Login, Add to Cart, Checkout)
* **P1:** Important (Search, Sort/Filter)
* **P2:** Medium (Images, Gift Cards)
* **P3:** Low (UI, Accessibility, Placeholder text, Newsletter)

**Regression Suite Maintenance:**

* Remove old test cases for removed features
* Add test cases for new features
* Update test data frequently

**Execution Time:**

* Smoke tests: 1–2 hours
* Targeted regression: 2–3 hours
* Full regression: 1–2 days

**Summary / Observations from Actual Testing**

* Some products in Computers → Desktops (like “Desktop PC with CDRW” and “Elite Desktop PC”) do not have “Add to Cart” buttons.
* Sorting by price (low to high / high to low) sometimes shows wrong order (example: 360 then 350).
* Display option: selecting 8 or 12 products per page shows only 7 products.
* Some products in Accessories and Electronics have missing images (“No Image Available”).
* Rating stars for some products are half-filled or not colored properly.
* Gift Cards sort by A → Z or Z → A incorrectly.
* Quantity limits work correctly (max 10,000).
* Main flows like Register, Login, Add to Cart, Checkout worked fine.