**Functional Test Cases**

1. **Login Functionality**
   * **Test Case**: Verify that a user can successfully log in with valid credentials.
   * **Steps**: Navigate to the login page, enter valid credentials, and click "Login."
   * **Expected Result**: User is redirected to the homepage and sees a "Logout" button.
2. **Product Search**
   * **Test Case**: Verify that users can search for products using keywords.
   * **Steps**: Enter a product keyword into the search bar and click "Search."
   * **Expected Result**: Relevant products are displayed in the search results.
3. **Add to Cart**
   * **Test Case**: Verify that a product can be added to the cart.
   * **Steps**: Navigate to a product page, click "Add to Cart," and check the cart.
   * **Expected Result**: The product is displayed in the cart with the correct details.
4. **Remove from Cart**
   * **Test Case**: Verify that a product can be removed from the cart.
   * **Steps**: Add a product to the cart, then click "Remove."
   * **Expected Result**: The cart is updated, and the product is removed.
5. **Category Navigation**
   * **Test Case**: Verify that products can be filtered by category.
   * **Steps**: Click on a category (e.g., "Laptops") and view the results.
   * **Expected Result**: Only products from the selected category are displayed.

**Negative Test Cases**

1. **Invalid Login**
   * **Test Case**: Verify that the system rejects invalid login attempts.
   * **Steps**: Enter incorrect credentials and click "Login."
   * **Expected Result**: An error message is displayed, and login fails.
2. **Empty Cart Checkout**
   * **Test Case**: Verify that users cannot proceed to checkout with an empty cart.
   * **Steps**: Click "Checkout" with an empty cart.
   * **Expected Result**: An error message is displayed, preventing checkout.

**Usability Test Cases**

1. **Responsive Design**
   * **Test Case**: Verify that the website is responsive across different devices.
   * **Steps**: Open the site on various screen sizes (mobile, tablet, desktop).
   * **Expected Result**: The website layout adjusts correctly.
2. **Broken Links**
   * **Test Case**: Verify that no broken links exist on the website.
   * **Steps**: Click through various links across pages.
   * **Expected Result**: All links lead to the correct pages without errors.
3. **Loading Speed**
   * **Test Case**: Verify that all pages load within 3 seconds.
   * **Steps**: Measure page load times using tools like **Chrome DevTools**.
   * **Expected Result**: All pages load within the specified time.