Practical Experiment 3:

Functional and UI/UX Testing of Search and Product Page in E-Commerce Application (Amazon/Flipkart)

𝒸ᕽ Objective:

To perform **functional testing** and **UI/UX testing** on the **search and product display functionality** of an e-commerce application (Amazon/Flipkart) to verify if the search bar works correctly, products are displayed properly, and UI elements are user-friendly.

Note:

- **UI (User Interface)**: Refers to the **visual elements** (buttons, menus, icons) of an app or website that users interact with. It's about **how it looks**.
- **UX (User Experience)**: Refers to the **overall experience** a user has when using an app or website, focusing on **how it works** and how easy or enjoyable it is to use.

🛠 Software Requirements:

- E-commerce website (Amazon/Flipkart)
- Web Browsers: Chrome, Firefox, Edge
- Testing Tools: Manual Testing, Browser Developer Tools for UI/UX checks

🖥 Hardware Requirements:

- Computer with stable internet connection

🔍 Test Scenario:

Test the **Search Functionality** and **Product Display** on an e-commerce site:

- Searching for products
- Product details display
- Sorting and filtering options
- UI/UX elements (buttons, links, layout, etc.)

Test Steps:

1. **Navigate to Website**
   - o Launch browser and open Amazon or Flipkart website.
2. **Search Functionality**
   - o Enter a product name in the search bar (e.g., "smartphone").
   - o Click the search button or press enter.
   - o Check if relevant products are displayed.
3. **Product Display Verification**
   - o Click on a product from search results.
   - o Verify that the product details (name, price, image, description, specifications) are displayed correctly.
4. **Filters and Sorting**
   - o Apply filters (e.g., price range, brand, and rating).
   - o Verify if products are filtered correctly based on the selected criteria.
   - o Use sorting options (e.g., price low to high, rating high to low) and check if the sorting works correctly.
5. **UI/UX Testing**
   - o Check if the search bar is easily accessible.
   - o Ensure that product images are clear and clickable.
   - o Validate if the "Add to Cart" and "Buy Now" buttons are easily visible and functional.
   - o Ensure that the page layout is responsive (works on mobile and desktop).
6. **Cross-Browser Testing**
   - o Repeat the above steps in different browsers (Chrome, Firefox, Edge) to ensure consistency.

▌ Test Case Document

Test Case ID	Scenario	Input/Action	Expected Result	Actual Result	Status
TC_SEARCH_001	Search functionality	Enter "smartphone" in search bar	Relevant products should appear		
TC_SEARCH_002	Product details display	Click on a product from search results	Product details (name, price, image, description) should display correctly		
TC_SEARCH_003	Filter functionality	Apply filters for price, brand, rating	Products should be filtered according to selected criteria		
TC_SEARCH_004	Sorting functionality	Sort products by price low to high	Products should appear in the correct order		

Test Case ID	Scenario	Input/Action	Expected Result	Actual Result	Status
TC_UIUX_001	UI/UX elements visibility	Check for search bar, buttons, layout	Search bar should be clearly visible; buttons should be functional		
TC_CROSSBROWSER	Cross-browser compatibility	Test in Chrome, Firefox, Edge	Search functionality and UI should be consistent across browsers		

✅ Expected Outcome:

- Search functionality should display relevant products based on the search term.
- Product details should be displayed accurately with no broken images or missing information.
- Filters and sorting should work as expected to refine search results.
- The UI should be user-friendly and responsive across devices (mobile/desktop).
- The page should load correctly and function properly in multiple browsers.

📄 Conclusion:

This experiment helps students understand how to perform **functional testing** on search and product display features while ensuring **UI/UX consistency**. It also emphasizes the importance of cross-browser compatibility and user-friendly design in real-world e-commerce applications.