

Test Plan:

Types of Functional Test to prioritise:

1. **Exploratory Tests:**

Helps understand core workflows in the absence of detailed requirements and uncover unexpected behaviours not covered by predefined test cases

2. **Smoke Tests:**

Verify the core functionality of the demoblaze website (homepage loads, categories visible, login works, cart/checkout flow accessible)

3. **User Authentication Tests:**

Sign up, Log in, Log out flows with valid and invalid inputs.

4. **E-commerce Flow Tests:**

Adding products to cart, removing products, verifying totals, placing an order.

5. **Boundary/Negative scenarios Tests:**

Invalid usernames, passwords, same username validation check, empty cart checkout, unsupported inputs.

6. **Cross-browser basic validation:**

Verify the website's functionalities at least in Chrome and Edge browser since its a web app.

Rationale for chosen approach:

1. **Exploratory testing** is useful here because DemoBlaze intentionally has inconsistencies - it helps uncover unexpected issues quickly.

2. Prioritising **smoke + functional + regression testing** ensures stability in critical paths before going into edge cases.

3. **Core user flows** (auth, cart, checkout) are **high-risk, high-impact**, so testing them ensures the main business goals of the site are met.

4. **Automation testing** needs to be conducted when the build is at least 80% stable. Automating repetitive, **regression-prone flows** (login, add to cart, checkout) saves time and improves reliability of test runs.

Tools/frameworks for automation:

1. **Selenium WebDriver with Python:** Widely used, good for UI flow automation, integrates easily with pytest
2. **Pytest:** Lightweight test framework, good reporting, fixture support.
3. **Alternative options:** Playwright (faster, modern for web applications, auto-waiting for elements, good for handling async behaviour).