# Regression Testing Strategy — Demo E-commerce (Playwright JS)

## Risk Assessment Matrix

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| --- | --- | --- | --- | --- |
| Area | Criticality | Change Freq | Risk | Notes |
| Auth/Registration | High | Medium | High | Blocks all purchases |
| Catalog Navigation | High | Medium | High | Affects discoverability |
| Cart & Pricing Math | Critical | Medium | Critical | Revenue & trust |
| Checkout (Billing/Shipping) | Critical | Medium | Critical | Blocks conversion |
| Payment Integration | Critical | Low–Med | Critical | External deps |
| Order Confirmation | High | Low | High | Proof of purchase |
| A11y/UI Responsiveness | Medium | Medium | Medium | Usability & compliance |

Critical Journey: Register → Browse → PDP → Cart → Checkout → Confirm.

## Test Selection Strategy

- Smoke (every PR):

- Load homepage  
 - Register & sign in  
 - Add product to cart  
 - Cart math check  
 - Checkout (Check/Money Order)  
 - Confirm order & capture order #

- Targeted Regression: Run area-specific suites based on diff (e.g., payment, cart).

- Full Regression: Pre-release/major refactor. Include cross-browser & responsive.

- Automation vs Manual: Automate deterministic flows; keep external/3DS/email partially manual.

## Execution Framework

- Prioritization: P0/P1 first, then P2/P3

- CI: PR smoke (Chromium); nightly full (Chromium/Firefox/WebKit)

- Artifacts: Trace/video/screenshots on failure

- Maintenance: POM, data-driven tests, tag/skip flaky, periodic selector audit