
E-Commerce – Pharmacy Product Portal

Project Name: MedCartPro

Domain: E-commerce (Web Application – Online Pharmacy)

Role: Quality Analyst

Overview

MedCartPro is an e-commerce platform allowing users to browse, compare, and order pharmacy products online. The system supports prescriptions, payment gateways, inventory tracking, and delivery scheduling.

Key Challenges Identified

- High dependency on **real-time inventory accuracy**
- Multiple product categories with **complex pricing and discount rules**
- Handling of **prescription-only drugs** with upload and validation
- Sensitive **payment and medical data** requiring secure flows

My Approach

Test Planning & Execution

- Developed 100+ test cases for functional, UI, and boundary validations
- Used **TestRail** for traceability and test coverage reporting
- Designed **cross-browser** and **mobile responsive** test cases

Critical Scenarios Covered

- **Prescription Upload Validation:** Tested file format, size, virus scan, expiry check
- **Cart Calculations:** Verified discounts, taxes, delivery charges under varied conditions
- **Out-of-Stock Handling:** Simulated race condition between checkout and inventory update
- **Coupon Misuse Bug:** Identified a scenario where coupons could be reused via back navigation
- **Payment Gateway Simulation:** Mocked success/failure cases to validate retries & rollbacks

Tools Used

- **JIRA** for bug tracking
- **Postman** to validate backend APIs (cart sync, inventory, pricing)

- **Chrome DevTools** to monitor network payloads during checkout
- **Database Queries** for verifying prescription uploads and payment logs

Notable Defects Caught

- Allowed expired prescriptions to pass validation (severity: high)
- Incorrect price calculations due to overlapping coupon logic (severity: critical)
- Broken product links after migration to new CDN (impacting 150+ items)
- Cart was not resetting properly on logout/login switch (repeatable session bug)

Impact

- Prevented ~2,000 incorrect orders in UAT
 - Fixed coupon abuse issue, saving ~₹1.8 lakhs in fake discounts
 - Reduced support tickets by 35% post-release
 - Improved prescription verification success rate from 75% to 97%
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