Product Requirements Document (PRD)

Product Name: Daraz Platform – Software Quality Assurance (SQA)

Version: 1.0

Owner: QA Team Lead

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# 1. Introduction

Daraz is a multi-vendor e-commerce platform where buyers can browse, purchase, and pay for goods sold by third-party sellers. To ensure customer trust and smooth operations, the platform requires a robust SQA process that validates every release—covering web, mobile apps, backend services, logistics, and payment systems.  
  
The PRD defines the SQA objectives, requirements, processes, and success criteria to maintain a high-quality, secure, and reliable shopping experience.

# 2. Objectives

- Prevent critical defects in checkout, payment, and order management.  
- Ensure cross-platform consistency (Android, iOS, Web).  
- Validate performance under flash sales & campaigns.  
- Secure customer data (privacy, payment, authentication).  
- Automate high-priority regression scenarios to speed up releases.  
- Provide visibility of quality metrics to stakeholders.

# 3. Scope

In-Scope:  
- Buyer journey (browse → add to cart → checkout → payment → delivery).  
- Seller portal (inventory, pricing, promotions).  
- Logistics/tracking integration.  
- Payment gateways (cards, bKash, COD, vouchers).  
- Mobile & Web apps.  
- API services (product search, order management, payment services).  
  
Out-of-Scope:  
- Third-party vendor systems outside Daraz control.  
- Hardware-level issues (e.g., mobile device limitations).

# 4. Functional Requirements (QA Coverage)

Buyer Side:  
1. Authentication & User Management  
 - Login, Signup, OTP, Password reset.  
 - Social login (Google, Facebook).  
 - Multi-device session handling.  
2. Product Discovery  
 - Search (keywords, filters, sorting).  
 - Product detail page (images, reviews, stock info).  
3. Cart & Checkout  
 - Add/remove products.  
 - Apply coupons/vouchers.  
 - Multiple shipping addresses.  
4. Payment  
 - Cash on Delivery (COD).  
 - Wallet/bKash/SSLCommerz integration.  
 - Refund/return handling.  
5. Order & Logistics  
 - Order placement & confirmation.  
 - Shipment tracking.  
 - Cancel/return/refund workflows.  
  
Seller Side:  
- Product upload & inventory management.  
- Order processing & packaging.  
- Promotions & discount setup.  
  
Admin/Operations:  
- Seller verification & approvals.  
- Campaign setup (11.11, Flash Sales).  
- Reporting dashboards.

# 5. Non-Functional Requirements

- Performance: Handle 1M+ concurrent users during campaigns.  
- Scalability: Auto-scale infra for sales peaks.  
- Security: PCI DSS compliance for payments.  
- Availability: 99.9% uptime for core flows.  
- Compatibility: Support Android 7+, iOS 13+, modern browsers.

# 6. QA Approach

Testing Types:  
- Functional Testing (UI, API, DB validation).  
- Regression Testing (manual + automated).  
- Performance Testing (load, stress, spike).  
- Security Testing (SQLi, XSS, authentication bypass).  
- Compatibility Testing (devices, OS, browsers).  
- UAT (real-user simulation for major releases).  
  
Test Automation Scope:  
- Smoke & regression suites for login, checkout, payment.  
- API automation (order, product, payment endpoints).  
- CI/CD pipeline integration with Jenkins/GitHub Actions.

# 7. Test Deliverables

- Test Strategy Document.  
- Test Cases & Test Data.  
- Automation scripts & reports.  
- Defect reports (severity, priority).  
- QA sign-off report before release.

# 8. Success Metrics

- Defect Leakage Rate: < 2% in production.  
- Automation Coverage: 70% of regression suite.  
- Release Confidence: 95% tests pass before deployment.  
- Page Load Time: < 3 sec (under 100k users).  
- Crash-free sessions: 99.5% (mobile apps).

# 9. Risks & Mitigation

- High traffic during campaigns → Pre-load testing.  
- Payment gateway downtime → Fallback & retries.  
- Device fragmentation (low-end phones) → Device lab testing.  
- Third-party logistics delays → Mock API for testing.

# 10. Release & QA Sign-off

- QA must sign off on functional + non-functional coverage.  
- Critical/blocker defects = must be fixed before release.  
- Minor defects may be deferred with Product approval.