

Quality Summary Report – POS REACT Project (version 1.0)

Date: July 07, 2025 **Prepared by:** Jovan (QA Lead)

Executive Summary

This report provides a comprehensive overview of the quality status of the POS REACT project, version 1.0, based on testing conducted up to July 07, 2025. The project has demonstrated foundational stability in core areas such as user login, basic data listing, and some fundamental CRUD operations. However, significant critical and high-priority defects have been identified across multiple modules, particularly concerning **data integrity, security, and performance**. These issues pose substantial risks to the system's reliability, user trust, and operational efficiency. Without immediate attention to these areas, the system is not yet ready for a production environment.

1. Overall Test Overview

Metric	Value
Total test cases designed	248
Test cases executed	248 (100%)
Pass cases	217
Fail cases	30
Blocked / Not Executed cases	1
Critical & High requirements coverage	100%
Functional coverage (modules)	Login, Dashboard, Users, Products, Categories, New Sale, History, Reports, Security/Accessibility

2. Distribution of Open Defects

Severity	Count	% of Total Defects
Critical	8	27%
Major	13	43%
Minor	6	20%
Low	3	10%
Total	30	100%

Key Findings

- **Core functions impacted:** Issues found in crucial areas like sales, stock, categories, security (XSS), and the deletion of the last admin.
- **Performance problems:** Slowdowns in sales search and bulk exports.
- **Security vulnerabilities:** Presence of XSS and a lack of rate-limiting.
- **Integrity errors:** Ability to delete products/categories with existing references.
- **Several rounding/currency issues:** These are affecting reports.

3. Top Critical Defects (Must be Resolved Before UAT)

ID	Area	Impact
POS_REACT_BUG_7	Users	Allows deletion of the last Admin, leaving the system without privileged accounts.
POS_REACT_BUG_10	Products	Deletes products with associated sales, leading to inconsistent reports and traceability.
POS_REACT_BUG_14	Categories	Deletes categories with products, resulting in orphaned products and broken filters.
POS_REACT_BUG_15 & 17	New Sale	Sales can exceed available stock (single and concurrency cases).
POS_REACT_BUG_25	Security	XSS executable in Products view (high injection risk).
POS_REACT_BUG_26	Security	Lack of blocking/rate-limiting after failed login attempts.
POS_REACT_BUG_1	Login	Login lockout policy after 5 attempts is not applied.
POS_REACT_BUG_3	Dashboard	Charts do not auto-refresh, compromising real-time decision-making.

4. Trends and Risks

Here are the trends and risks identified:

- **Security** – 3 failures (XSS, rate-limit, last Admin deletion).
- **Data Integrity** – 5 defects (stock, deletions without validation, orphaned records).
- **Performance** – 3 failures (Dashboard heap, sales search, mass exports).
- **Usability/Accessibility** – Missing Aria-labels, currency symbols, inconsistent filtering.

5. Immediate Recommendations

Here are the immediate recommendations:

- **Correct all 8 critical defects** before any deployment to UAT/production.
- **Implement server-side validations** for referential relationships (FK) in the database.
- **Add security middleware**: global HTML sanitization (XSS) and rate-limiting.
- **Optimize queries and pagination** for searches and exports (over 15,000 rows).
- **Review stock logic** in concurrent transactions (optimistic/pessimistic locking).
- **Refactor financial calculations** (IGV, totals, ISO 80000-1 rounding).
- **Execute focused regression** after each fix; update RTM and retest failed cases.

The POS REACT system shows complete test coverage with an 87% pass rate.

However, the **critical defects detected require halting promotion to production** until they're fixed to avoid operational risks, data loss, and security vulnerabilities.

Current Status: NOT SUITABLE for UAT/Production

Required Action: Apply fixes, repeat tests, and achieve a **100% pass rate for critical/high cases** before release.