Test Plan – "POS REACT" Project

Version: 2.0 (manual-only)

Sole Responsible Party: Jován Picado Monge (QA Engineer)

Date: July 08, 2025

1. Purpose and Objectives

This plan defines what will be tested, how, when, and with what resources—exclusively manual ones—for the POS REACT system (React JS + ASP.NET Core + SQL Server) before its delivery to production.
Specific Objectives:
Verify 100% of the critical and high requirements described in the FRS (Functional Requirements Specification).
Detect and report defects early, so that the final critical defect density is ≤ 0.8 per KLOC (thousand lines of code).
Verify key performance aspects (load time, searches, and exports) using manual measurements.

2. Reference Documents

Document	Version	Observations
FRS – POS REACT	1.0	Functional and non-functional requirements
Test Scenarios & Test Cases	Latest	Manual test case matrix (Excel)
Consolidated Bug Report	Current	Incidents registered during executions

3. Test Scope

3.1 Included Functionalities

- Login and session control
- Dashboard (KPIs and charts)
- User Administration
- Inventory (Products and Categories)
- Sales (New Sale, History)
- Sales reports and Excel export
- Basic security (authorization, XSS, SQLi, CORS, rate-limiting)
- Minimum accessibility (contrast, keyboard navigation, ARIA attributes)
- Manual performance testing: load measurement (< 2 s) and exports (< 10 s)

4. Testing Strategy and Approach

Type of Test	Objective	Method	Manual Tools
Functional	Validate each story/requirement	Step-by-step execution according to Test Cases	Browser, Excel sheets
API Integration	Verify responses and HTTP codes	Manual requests	Postman, DevTools
Smoke / Regression	Ensure critical flows always work	Short daily suite + full suite per cycle	Excel checklists
Basic Performance	Measure load, search, and export times	Stopwatch/DevTools “Timing”	Stopwatch, Lighthouse (viewer mode)
Exploratory Security	Check XSS, SQLi, permissions	Manual injections	DevTools, browser extensions
Usability & A11y	Contrast, focus, screen reader	Keyboard navigation, NVDA/VoiceOver	axe-core, Wave

5. Test Environment

Environment	URL	Key Data	Observations
STAGE	https://stage.posreact.company.com	Partial copy of production (5,000 sales, 1,000 products)	Main testing environment
Browsers	Chrome v125, Edge v125, Firefox v127, Safari v17	Windows 10 (64-bit), macOS 13	Min. resolution 1366 × 768
Support Tools	Postman, Chrome DevTools, Excel, NVDA, axe-core		All local

6. Roles and Responsibilities

Role	Responsibilities
Jovan – QA Engineer (Sole)	Planning, design, execution, defect logging, metrics, and final reporting
Product Owner – Laura R.	Clarify requirements, prioritize defects, accept final version
Dev Lead – Marco S.	Correct defects, provide builds
Stakeholders	Review reports and approve Go-Live

7. Test Schedule

Phase	Dates	Duration	Details
Requirements Review and Planning	Jul 08–10	3 days	FRS review + plan adjustments
Test Scenarios & Cases Design	Jul 11–15	5 days	248 cases in Excel
Execution Cycle #1 (Full Coverage)	Jul 16–23	6 days	Includes defect logging
Development Fixes + Retesting	Jul 24–28	3 days	QA verifies corrections
Execution Cycle #2 (Full Regression)	Jul 29–31	3 days	Must be free of critical/high defects
UAT (Led by PO)	Aug 01–05	3 days	QA support and feedback capture
QA Closure / Final Report	Aug 06–07	2 days	Final RTM (Requirements Traceability Matrix) + quality summary

8. Criteria

Entry Criteria	Exit Criteria
* Approved and stable FRS	* 0 critical/high defects
* Accessible STAGE environment	* ≥ 95% Pass rate for test cases
* Initial data loaded	* PO (Product Owner) signs UAT acceptance
* Latest build deployed	* Final QA report delivered

9. Deliverables

- Test Plan v2.0 (this document)
- Test Scenarios and Test Cases (Excel, agreed-upon columns)
- Bug Report (Excel) and evidence (screenshots)
- Updated RTM (Requirements Traceability Matrix)
- Quality Summary Report / Go-No Go Recommendation

10. Defect Management

- Tool: Azure DevOps (POS REACT project)
- Workflow: New → Validated → In Progress → Resolved → Verified → Closed
- Correction SLA (business days): Critical = 1 day, Major = 3 days, Minor = 5 days, Low = per sprint

11. QA Metrics (Manual)

Metric	Formula / Objective
% Test Cases Executed	Executed / Total = 100%
Critical/High Defects Open at Go-No Go	0
Defect Reopen Ratio	Reopened / Total ≤ 10%
Average Critical Defect Closure Time	≤ 1 day
Total Defect Density	≤ 0.8 / KLOC (thousand lines of code)

12. Risks and Mitigations

ID	Risk	Probability	Impact	Mitigation
R-1	Excessive workload for a single QA	High	Medium	Daily prioritization; use of templates and macros to streamline
R-2	Development delays	Medium	High	Daily QA-Dev meetings; re-plan tasks
R-3	Late critical defects	Medium	High	Dedicated "hot fix" window before Cycle #2
R-4	No automation = long regression cycle	Medium	Medium	Select "smoke" subset for daily validations

Final Note

Version 2.0 of the Test Plan reflects a fully manual QA process managed by a single resource, maintaining comprehensive coverage of all critical and high requirements, as well as clear controls for time, quality, and risks.