

# Case Study: Large U.S. Retailer

## Accelerating Omnichannel Checkout Quality with Spec2TestAI™

### Client Background

A top-tier U.S. retailer undertook a multi-year checkout modernization across stores and digital channels (POS, curbside, web, app) to improve speed, reliability, and compliance during high-traffic seasons.

### Challenges

- **Promo/price volatility:** Rapidly changing promotions, taxes, and tender rules created ambiguous, shifting requirements.
- **SIT bottlenecks:** Defects were often discovered in System Integration Testing (SIT), causing scope churn late in the sprint.
- **Sparse legacy documentation:** Teams spent excessive time deriving scenarios from Jira epics, UX flows, and API specs.
- **End-to-end gaps:** Cross-domain journeys (Pricing → Inventory → OMS → Payments → Loyalty/Fraud) were inconsistently covered.

### Solution: Implementing Spec2Test AI™

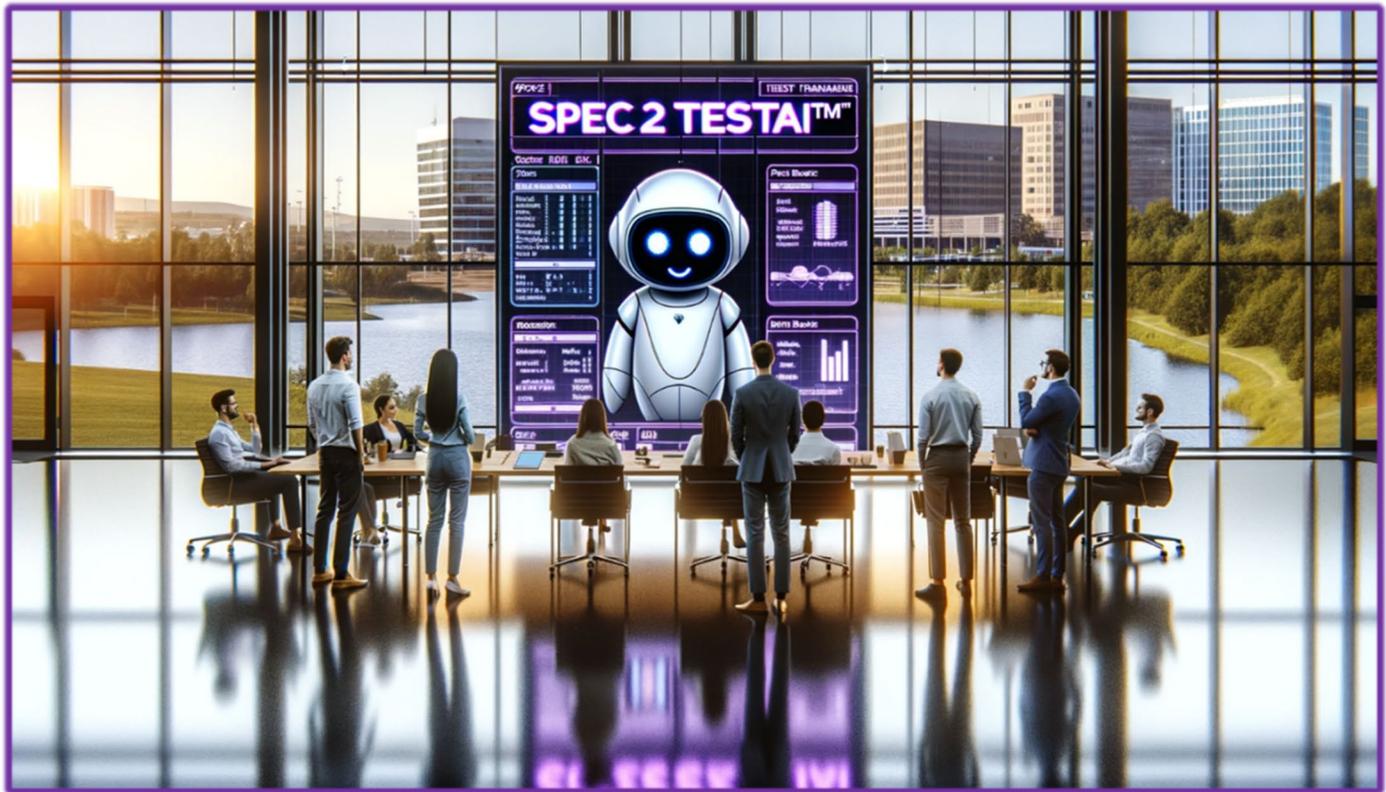
- **Requirements-to-Scenarios:** Spec2TestAI™ parsed Jira epics/stories, UX flows, and API contracts to auto-generate functional scenarios and edge/negative cases for checkout, returns, split tenders, tax exemptions, and loyalty accrual/redemption.
- **Intelligent E2E Journeys:** The AI inferred high-value cross-system paths (e.g., BOPIS partial pickup, promo stacking with gift cards, offline POS fallbacks) and proposed SIT smoke sets to de-risk handoffs.
- **Coverage & Traceability:** Live trace maps ensured each requirement had executable tests; gaps were flagged in real time before code merge.
- **Automation Boilerplate:** Spec2TestAI™ produced starter test scripts and data stubs for the team's web/mobile/POS frameworks, accelerating automation in AccelQ/Playwright pipelines.
- **Scope Guardrails:** The tool tagged “defect-as-requirement” patterns and suggested deferral rules to protect sprint scope when late changes emerged.

### Outcome

- **30–35% faster functional test design and automation** readiness for checkout and returns.
- **25–40% fewer late discoveries in SIT** for promo/tender/inventory integration paths.
- **>95% requirements traceability** across high-risk flows during peak events.
- **Stabilized releases:** Fewer scope expansions from SIT due to smarter upfront coverage and E2E smoke gates.

“Spec2TestAI™ is how we turn ambiguous requirements into executable quality—on day one. By auto-generating scenarios and automation boilerplates, preserving live requirement-to-test traceability, and surfacing high-risk journeys early, we’re cutting cycle time and defect leakage while giving leaders audit-ready confidence. This is the practical engine behind our shift from Quality Engineering to Quality Intelligence.”

— **Mhaahesh Muraleedhara**, Head of Quality Engineering (North America), Zensar Technologies



*Scan for demo*

