QA Case Study – Payment & Reservation Flow

Project Context

Web-based reservation and payment platform including wallet rewards, external payment gateway integration (Niubiz), and administrative panel validation.

Scope Covered

- Reservation creation (user & admin flows)
- Payment validation via external gateway (Niubiz)
- Rewards wallet logic (70% cap validation)
- Multi-reservation handling & concurrency
- Room status synchronization between modules
- Admin panel payment tracking and validation

Test Execution Summary

- 50+ test cases designed and executed across multiple modules
- Critical financial flow validations (payment success, failure, interruption)
- Edge case testing on rewards percentage boundaries (≤70%, >70%, mixed days)
- Regression validation after module fixes
- Cross-module synchronization verification (Payments vs Room Status)

High Impact Bugs Identified

- Payment processed successfully but not reflected in Room Status (module desynchronization).
- Payment interruption resets reservation flow instead of resuming transaction.
- Partial payment selection redirects incorrectly and breaks user context.
- Rewards modal state lost during payment redirection (session persistence issue).
- Calendar state persists across reservations causing incorrect date selection.

Tools & Techniques

- Manual testing (Functional, Regression, Edge Cases)
- API testing with Postman
- SQL validation for data integrity
- Structured bug reporting (Observation → Impact → Recommendation)
- Test case documentation (Excel-based structured cases)

QA Approach

Focused on validating business logic rather than only UI behavior. Special attention was given to financial accuracy, concurrency handling, state persistence, and cross-module consistency. Each defect included impact analysis and technical recommendations.

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