



QA Automation with Playwright in Health Care Domain

Client Overview



Implementation Partner : TabdeltaSolutions

Industry : Health Care
(Patient Management System)

Client Location : Boston, Massachusetts, USA

Client Team Size : 27 Employees

Project Team Size (Tabdelta) : 3 QA Automation Engineers + 1 Project Manager



Client Challenges

The client, a fast-growing health care provider, faced multiple testing challenges in their Patient Management & Electronic Health Record (EHR) System:

Manual Testing Delays



Regression testing took 6–8 days for every release.

Manual test execution could not keep up with frequent updates to patient portals and billing modules.

Regulatory Compliance Risks



Data security and privacy validation were inconsistent.

HIPAA compliance required 100% test accuracy, but manual testing left room for human error.





Cross Platform & Device Coverage



The team lacked tools for cross-browser and responsive UI testing.

Patient portals needed to work seamlessly across web, mobile, and tablets.



Unstable Legacy Test Scripts



High maintenance costs led to limited automation coverage.

Existing Selenium automation was flaky and often failed in CI/CD pipelines.



Tabdelta's Playwright Automation Solution

The client, a fast-growing health care provider, faced multiple testing challenges in their Patient Management & Electronic Health Record (EHR) System:

Key Actions Implemented

1 Robust Playwright Test Framework

- Built a TypeScript-based automation suite with reusable test components.
- Implemented data-driven testing for patient records, billing, and appointment modules.



2

End to End Test Coverage

- Automated critical patient workflows: login, appointment scheduling, billing, and prescription management.
- Covered cross-browser testing (Chrome, Firefox, Safari, Edge) and mobile device emulation.

3

Compliance Oriented Testing

- Added HIPAA compliance validation checks in test automation.
- Ensured data masking and secure test environments for sensitive health care data.



4

CI/CD Integration

- Integrated Playwright tests into Azure DevOps pipelines for nightly runs.
- Enabled parallel execution to shorten testing cycles.

5

Advanced Reporting & Monitoring

- Deployed Allure Reports and dashboards for visibility.
- Enabled trend analysis to track test stability and defect leakage.



Results & Benefits

The implementation of Playwright automation delivered measurable improvements:

05

65% reduction in regression testing time (from 8 days → less than 3 days).

04

Improved compliance confidence with automated HIPAA checks.

03

40% reduction in production defects due to early bug detection in CI/CD.

02

Faster release cycles, enabling monthly feature releases instead of quarterly.

01

100% cross-browser and cross-device coverage, ensuring consistent patient experience.



Future Roadmap



Expand Playwright automation to API Testing for EHR integrations.



Implement Visual Regression Testing to ensure UI consistency across devices.



Scale automation coverage for telemedicine and mobile health applications.



Key Takeaway



By implementing QA Automation with Playwright, Tabdelta Solutions helped the client achieve faster releases, improved patient experience, and ensured compliance with health care regulations.

01

Playwright proved to be a reliable, modern automation framework tailored for the complexities of health care applications.

02

Partner with Tabdelta Solutions

Tabdelta Solutions is a trusted QA Automation partner, specializing in Playwright, Selenium, Cypress, and AI-driven test automation for regulated industries like Health Care, FinTech, and Insurance.

1



Faster Regression Testing

2



Compliance-Ready Test Automation



3



Stable CI/CD Integrations

4



Scalable Cross-Browser & Device Coverage



Contact Tabdelta Solutions Today

Contact Tabdelta Solutions today to explore how Playwright Automation can transform your QA process in the Health Care industry.

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