

VETERINARY BIOINFORMATICS PLATFORM: AI-POWERED TEST AUTOMATION

Industry: Veterinary Bioinformatics
/ Life Sciences

TWO-SIDED SHIFT STEPS



1. Readiness



2. Assess



3. Land

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CLIENT OBJECTIVES

- Modernize a legacy bioinformatics platform safely before framework migration
- Achieve automated regression coverage to replace high-risk manual testing
- Eliminate subject matter expert bottleneck during active modernization
- Establish reusable test patterns for ongoing development team use

CHALLENGE

A veterinary bioinformatics platform had zero automated tests. Complex workflows—sequence translation, homology analysis, vaccine assessment—made manual regression impractical and modernization too risky to begin.

WHAT WE DID

- Used Claude Code as AI pair programmer to explore the legacy AngularJS/.NET codebase
- Extracted and anonymized production data to drive realistic, customer-accurate test scenarios
- Built 55 reusable Cypress commands and ~10,000 lines of test code in two sprints
- Instrumented the application, automated database lifecycle, and fully onboarded the dev team

BUSINESS OUTCOMES DELIVERED

- 80–90% automated coverage of mission-critical workflows achieved in 160 hours
- Modernization project—previously blocked by regression risk—now proceeding with confidence
- Overnight test execution eliminates days of expert manual testing per release cycle
- 1,300+ lines of documentation delivered; team trained and self-sufficient at engagement close

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