

Testing Solutions Catalog

Quality Assurance Excellence

About Our Company

At Mindfire Solutions, we solve complex challenges with custom-engineered software. We are a trusted technology partner for companies across the globe. Our agility, strong engineering culture, and focus on impact enable us to deliver tailored solutions with speed and precision.

From ground-up development to scaling and optimizing existing platforms, our cross-functional teams work seamlessly across the entire product lifecycle; spanning ideation, architecture, development, QA, automation, DevOps, and ongoing support.

- 25+ years old company
- 650+ workforce
- 500+ global clients
- 2000+ successful projects



Deloitte.
Technology Fast500
Asia Pacific

Manual Testing

When human judgment, usability, and exploratory depth are essential, manual testing becomes indispensable. It validates real-user behavior across UI/UX layers, workflows, and edge cases often missed by automation. At Mindfire, we ensure outcomes through key Testing types like Functional Testing, Usability Testing, Smoke Testing, Cross Browser Testing, and Session Testing.

Our manual testing approach is tightly integrated into Agile sprints—guided by precision, domain expertise, and adaptability. We go further with Regression Testing, Exploratory Testing, Acceptance Testing, Security Testing, and Data Validation to help clients deliver software that feels intuitive, reliable, and fully production-ready.

- 23+ years' experience
- 150+ member team
- ISTQB certified
- 500+ successful projects

Design for Scalability and Maintainability

Framework-Driven

Process

- Define scope & need
- Use case docs
- Test strategy design
- Plan & coverage
- Test case scripting
- Layered manual testing
- Bug & status logs
- Artifact compilation
- Summary & Sign-Off



Metrics

That Matter

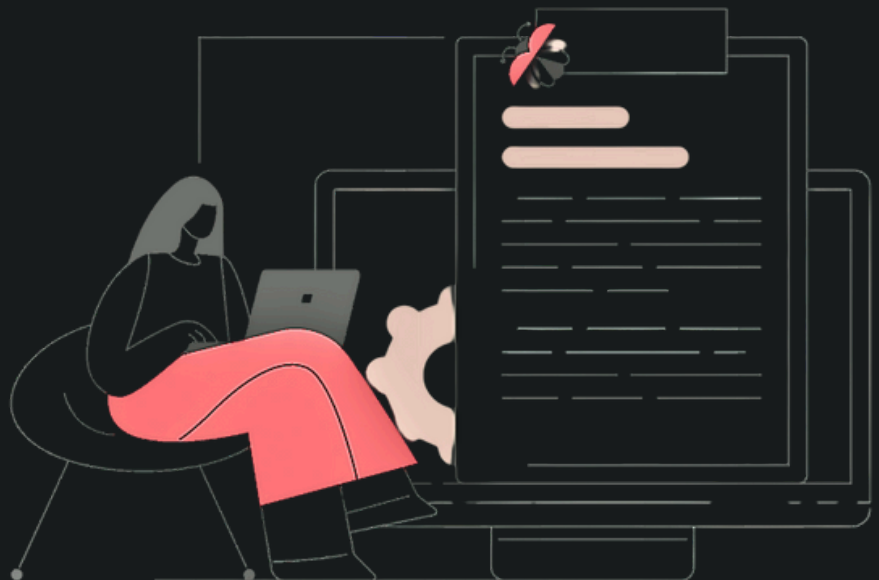
- ✓ Requirement traceability %
- ✓ Bug rejection rate
- ✓ Execution completeness (%)
- ✓ Documentation readiness score

Our Manual Testing Services

Frontend Testing

API Testing

Database Validation



Frontend Testing

We validate visual, navigational, and functional elements of websites, webapps, mobile apps, desktop apps, and IoT interfaces.

1. Scoping

Define what types of applications (web, mobile, desktop, IoT) and OS/browser combinations are in scope.

2. Strategizing

Decide on test tool usage, testing approach (scripted vs exploratory), and testing coverage priorities.

3. Setup

Prepare required devices, browsers, screen sizes, and OS combinations using real/virtual setups.

4. Scripting

Create test scenarios and cases covering UI layout, navigation flow, content accuracy, and functional checks.

5. Execution

Perform manual test case execution across platforms and screen sizes.

6. Reporting

Log defects like layout misalignment, broken flows, or inconsistent behavior; sync with teams during sprints.

Tools Stack

Execution & Debugging

- Browser Developer Tools
- Axe
- Lighthouse
- NVDA
- Voiceover
- YSlow
- GTMetrix

Cross Browser Testing

- BrowserStack
- SauceLabs
- Perfecto

Bug Tracking

- Jira
- ClickUp
- Azure DevOps
- Mantis
- Bugzilla

Test Management

- Xray
- BrowserStack Test Management
- Zephyr
- TestRail

Screen Capture

- Snagit
- Loom

API Testing

We validate API endpoints for functionality, data accuracy, and proper request-response behavior using manual test tools.

1. Scoping

Identify which API endpoints and flows require validation, including parameters and expected behavior.

2. Strategizing

Define test coverage, design request combinations, decide on input/output mapping and headers.

3. Setup

Use API tools like Swagger/Postman and prepare test tokens/headers.

4. Scripting

Manually prepare test cases and test data to verify response codes, payloads, and edge cases.

5. Execution

Execute requests, check data correctness, and validate backend logic through response analysis.

6. Reporting

Log errors in behavior, unexpected responses, and coordinate fixes with backend teams.

Tools Stack

General Tools

- Swagger UI
- Postman

Database Viewers

- Workbench

Bug Tracking

- Jira
- ClickUp
- Azure DevOps
- Mantis
- Bugzilla

Test Management

- Xray
- BrowserStack
Test
Management
- Zephyr
- TestRail

Screen Capture

- Snagit
- Loom

Database Validation

We verify the correctness of stored data and backend logic by manually executing SQL queries to ensure consistency and reliability.

1. Scoping

Identify tables, fields, and datasets that need to be validated against frontend/API transactions.

2. Strategizing

Design appropriate SQL queries and define expected outcomes to validate data accuracy and integrity.

3. Setup

Access the database via appropriate viewers or tools. Prepare test credentials and sanitize test data.

4. Scripting

Prepare SQL scripts to check CRUD operations, relational mapping, constraint validations, and triggers.

5. Execution

Run SQL queries manually to validate real-time database updates and logical correctness.

6. Reporting

Log mismatches, missing data, constraint failures, and misaligned results in the bug tracking system.

Tools Stack

Database Viewers

- Workbench
- SQLite
- PostgreSQL

Bug Tracking

- Jira
- ClickUp
- Azure DevOps
- Mantis
- Bugzilla

Test Management

- Xray
- BrowserStack
Test
Management
- Zephyr
- TestRail

Collaboration & Source Control

- Confluence
- GitHub
- SVN

Screen Capture

- Snagit
- Loom

Automation Testing

Mindfire's automation testing services enable faster, reliable, and cost-effective software delivery across platforms. Our custom-built test frameworks span UI, API, mobile, and microservices, ensuring high test coverage and reduced cycle times. Integrated into Agile and CI/CD pipelines, we help teams scale confidently without compromising quality.

With deep domain expertise and reusable assets, Mindfire drives accelerated go-to-market while minimizing risk—empowering clients to innovate rapidly with performance-backed, regression-safe releases.

- 21+ years' experience
- 120+ member team
- ISTQB, Test Automation Professional
- 200+ successful projects

Framework-Driven

Process

- Select the right toolset
- Design for scalability
- Configure Cross-platform execution
- Integrate with CI/CD pipelines
- Add layered coverage
- Embed logging & reporting mechanisms



Metrics

That Matter

- ✓ Test coverage %
- ✓ Defect leakage
- ✓ Automation RoI
- ✓ Execution time & stability
- ✓ Bug fix turnaround time

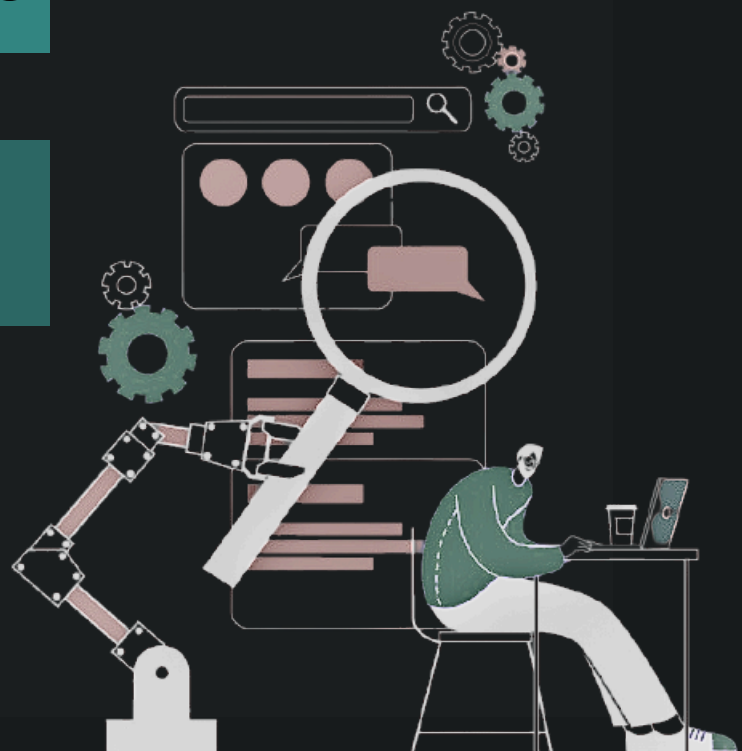
Our Automation Testing Services

Frontend Testing

API Testing

Performance Testing

Mobile Testing



Frontend Testing

We design the test structure and develop scalable, reusable scripts by logically grouping and prioritizing test cases based on impact

1. Scoping

Understand what to test and why across user journeys, aligning browser/OS coverage with sprint priorities.

2. Strategizing

Select tools, frameworks, and test data strategies aligned with the tech stack and business goals.

3. Setup

Run sanity checks and configure real-world test environments using Git, CI/CD, and containers.

4. Scripting

Develop scalable, reusable scripts by logically grouping and prioritizing test cases based on impact.

5. Execution

Run CI-integrated tests with traceability, capturing logs, screenshots, and failure insights in real time.

6. Reporting

Generate test reports with visual logs and execution metrics. Share actionable insights via CI dashboards and real-time alerts.

7. Optimization

Continuously refine flaky tests, regression packs, and coverage to align with evolving UI and reduce failures.

Tools Stack

Testing Suite

- Selenium
- Cypress
- Playwright
- TestCafe
- Protractor
- WebdriverIO

Scripting Frameworks

- Robot Framework
- PyTest
- Cucumber

AI Driven Tools

- Testim
- Katalon

Languages

- Java
- Python
- C#
- JavaScript

Test Management

- XRay

API Testing

We deliver robust API automation tailored to your architecture, workflows, and integration needs using industry-leading tools.

1. Scoping

Analyse API structure, flows, and security to define coverage boundaries.

2. Strategizing

Define tools, frameworks, and test models aligned with API architecture and business flows.

3. Designing

Design test cases for key paths, edge cases, and auth. Support JSON, XML, and text formats for accurate parsing.

4. Validation

Verify payloads, tokens, status codes, and DB-level response accuracy.

5. Execution

Automate multi-environment tests via CI with logs and traceable reports.

6. Maintenance

Align test suites with API updates and evolving service contracts.

Tools Stack

Testing Suite

- RestAssured
- HttpClient
- ReadyAPI
- SOAP API

JS-Based Frameworks

- Playwright
- Cypress

Python based API testing

- Pytest

Performance Testing

We simulate real-world load conditions to optimize system performance, scalability, and reliability using advanced performance engineering tools.

1. Environment

Set up production-like load environments with monitoring and baseline thresholds.

2. Strategy

Define tools, load models, and test types like stress or spike.

3. Scripting

Create user-centric scripts simulating ramp-ups, concurrency, and real traffic loads.

4. Integration

Embed load tests into CI pipelines with dynamic triggers and configurations.

5. Execution

Run distributed load tests and track real-time system-level performance metrics.

6. Optimization

Analyse bottlenecks and deliver actionable performance improvement roadmaps.

Tools Stack

Testing Suite

- JMeter

Additional Tools

- NeoLoad
- BlazeMeter
- LoadRunner

Integration & Support Tools

- GitHub
- CI/CD Tools

Mobile Testing

We ensure consistent mobile experiences through cross-device automation using modern frameworks and real-environment simulations.

1. Coverage

Define device matrix across OS, screen sizes, and geographies for realistic testing.

2. Simulation

Emulate real-world interruptions like network changes, background states, and calls.

3. Tools

Select and configure frameworks like Appium or Espresso based on app type.

4. Execution

Run parameterized mobile tests across real and virtual device environments.

5. Scaling

Enable CI integration and parallel runs via cloud device farms.

6. Reporting

Capture logs, crashes, and visualize trends through actionable mobile test reports.

Tools Stack

Testing Suite

- Appium
- Robotium

Device Configuration Options

- Real Devices
- Emulators
- Cloud-Based Devices

Integration Setup

- Test Dependencies
- CI/CD Integration

CASE STUDY



Publishing Platform – CMS Data Optimization

Manual content input was slow, inconsistent, and error-prone.

Frequent formatting issues and missed validations caused delays and content rework.

Scope of Work

Web UI testing, data
validation workflows,
content creation testing

Impact

Enabled faster test cycles
and streamlined content
publishing with backend
automation replacing
inefficient manual processes

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CASE STUDY



AI-Assisted Testing for Transport Management System

Continuous updates were making regression testing unscalable and error-prone. Maintaining test cases manually became inefficient, leading to missed defects and delayed releases.

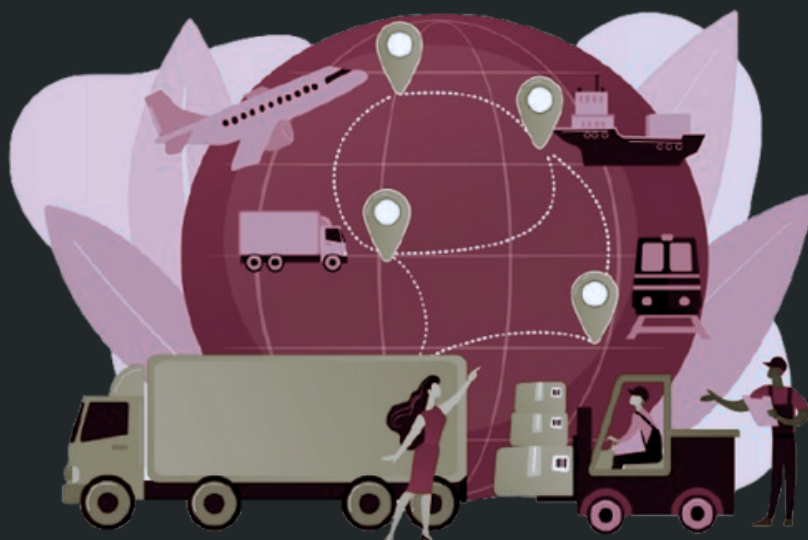
Scope of Work

Regression automation, AI-powered test prioritization, CI/CD integration

Impact

Improved test precision and accelerated coverage from 2% to over 80% using AI-assisted test generation

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CASE STUDY



Patient Transition Software

Critical patient transitions required accurate data handling across systems.

Inconsistent workflows and alert logic introduced risks to patient handoffs.

Scope of Work

Manual workflow testing,
cross-module functional
validation

Impact

Delivered a reusable test
framework that reduced
manual effort and simplified
multi-module test execution
workflows

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CASE STUDY



Health Monitoring App

Device and OS variations led to inconsistent testing results and gaps in coverage.

Manual testing couldn't scale to validate health features across all platforms.

Scope of Work

Cross-device test automation, health data validation, UI consistency

Impact

Enabled CI-integrated automated testing for iOS healthcare app, reducing manual effort and improving release stability

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CASE STUDY



Logistics Management System – End-to-End Automation

Complex supply chain workflows and integrations lacked consistent test coverage.

Manual testing couldn't keep up with frequent business logic changes.

Scope of Work

UI + API automation,
integration testing, CI/CD
pipeline setup

Impact

Reduced testing time by 80%
and effort by 60%, enabling
faster validation across
logistic workflows.

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CASE STUDY



IoT-Based Health Monitoring

Real-time sensor data required continuous validation to ensure accuracy and consistency. Manual testing couldn't handle the pace or volume of real-time streams.

Scope of Work

Sensor data verification,
hardware-software sync,
performance testing

Impact

Accelerated regression
testing across APIs with CI-
ready automation, enabling
rapid defect detection within
minutes

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CASE STUDY



AdTech Platform – Cypress Automation

Dynamic UI changes frequently broke test scripts and disrupted test cycles.

Maintaining script reliability across frequent UI iterations was a challenge.

Scope of Work

UI automation, stability engineering, component testing

Impact

Eliminated test flakiness and delivered reliable, low maintenance automation using Cypress across functional and visual flows

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CASE STUDY



Auscultation App – Audio Signal Testing

Ensuring accurate audio capture and playback across devices was challenging. Device limitations and audio quality issues impacted diagnostic reliability.

Scope of Work

Audio functionality testing, real-device validation, manual + automated checks

Impact

Enabled accurate audio playback validation and streamlined app regression across OS versions via automation framework

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CASE STUDY



REST API Automation

Frequent backend changes disrupted API stability and delayed release cycles.
Manual validation lacked speed and scalability for rapid backend iterations.

Scope of Work

REST API test automation,
DB validation, CI
integration

Impact

Enabled early defect
detection through API
regression, preventing
backend failures before
reaching the UI layer

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Learning & Development at Mindfire



Team Certifications (ISTQB, Agile, Selenium, etc.)

Our QA professionals pursue globally recognized certifications like ISTQB and Agile Testing to ensure standardized, industry-grade practices. Selenium proficiency is fostered for automation-heavy projects.



In-house Training Programs

Mindfire conducts regular internal training sessions to sharpen functional, exploratory, and automation testing skills. These programs are tailored to evolving client requirements and tech stacks.



Code reviews and QA knowledge sharing

Weekly peer reviews and QA sync-ups promote cross-team learning and test coverage improvement. Best practices, edge cases, and reusable scripts are documented and circulated.



Addressing gaps in JavaScript testing frameworks

To address JavaScript testing gaps, Mindfire adopted Cypress on a graphic-heavy platform—aligning with the client's JS stack. BDD with Cucumber and visual reports enabled faster onboarding and minimized reliance on specialized talent.

Our Service Models



ENGAGEMENT

Dedicated Team

A fully committed team working exclusively on your project. You retain full control while we provide the expertise. Best suited for long-term projects requiring continuity.

Staff Augmentation / Extended Team

Leverage specialized talent that complements your in-house capabilities. Ideal when you need to fill skill gaps or scale your team quickly without long-term commitments..

Project-Based

We take complete ownership of delivery. A great choice for initiatives with clearly defined goals and timelines, especially when internal tech resources are limited or unavailable.

Others

ODC : Offshore Development Center

BOT : Build - Operate - Transfer



PRICING

- T&M
- Fixed Price
- Milestone Based

Blog Library

Explore our collection of QA and testing blogs –
Real-world insights, best practices, and industry-specific solutions.

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API Security Testing

Healthcare Automation

Mobile Compatibility Testing

Banking API Performance Testing

Whitepapers

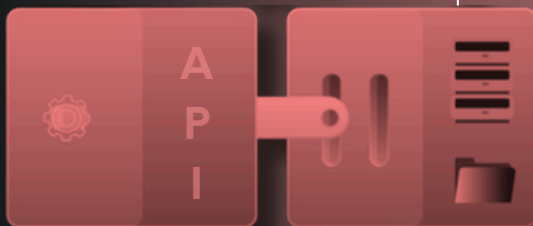
Discover our collection of whitepapers where we dive deep into emerging technologies, proven strategies, and domain-specific innovations, crafted to help you navigate complex challenges and make informed decisions.

CLICK A CATEGORY TO DIVE IN

ATDD with Robot Framework



Key Benefits of API Testing



Automated QA Dashboards



Client Testimonials

Hear directly from our clients on our quality, collaboration, and reliability. These testimonials reflect the trust and value we deliver through every engagement, across industries and project complexities.

"We were able to instantly on-board ultra-high quality QA engineers with low risk and high cooperation."

Erik Fogg



"They have been professional, conscientious, timely and strive to provide quality work."

Patrick Ashworth

"Mindfire's IT and project support team is fantastic, approachable, and always on tap for discussion and input."

Howie Jones





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