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Webinar

Test Smarter, Release Faster: Roadmap to Integrating AI into Your QA Workflows

Date – May 15, 11 AM EDT/ 8 AM PST / 8.30 PM IST

MEET OUR PRESENTER

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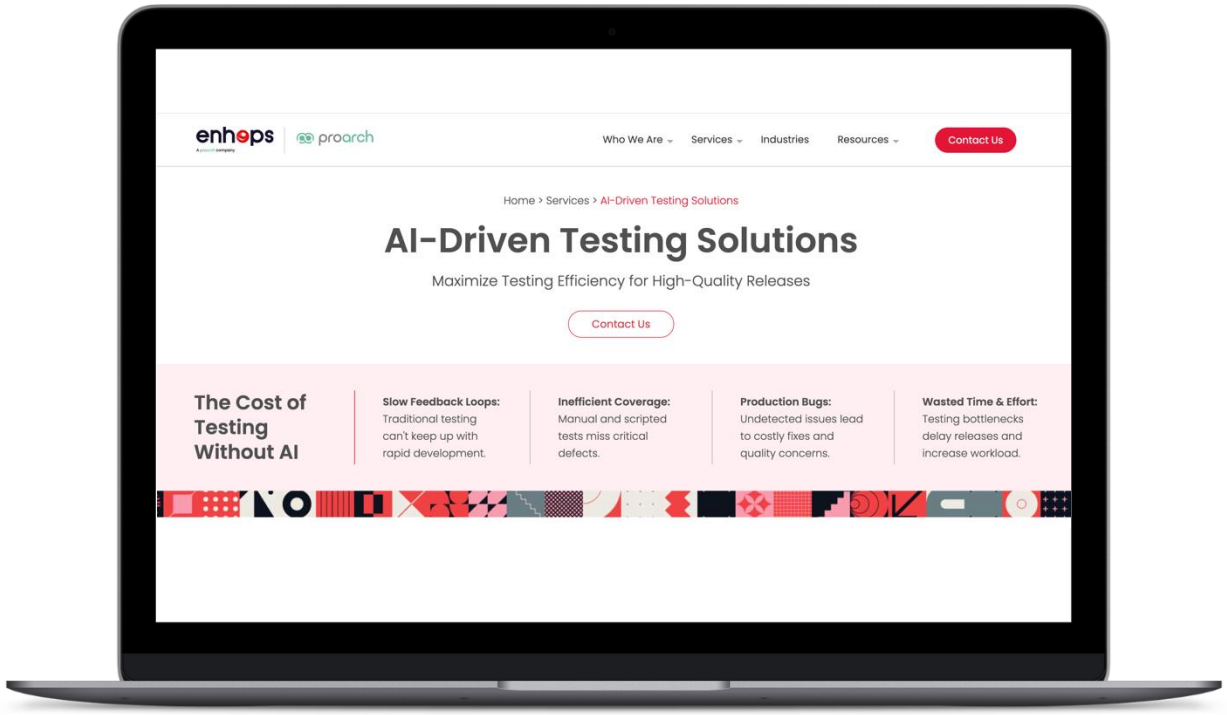
AVP – Solution Architect & Customer Service

Data, AI & App Dev Practice lead

What We'll Cover

- Why AI Will Transform QA?
- AI Beyond Test Generation in QA
- Business Benefits & ROI
- Unified Demo
- Art of Possibilities with AI-Driven Testing
- Q&A



Why AI Will Revolutionize QA

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Rising Application Complexity & Manual Costs

Modern apps span web, mobile, APIs, micro-frontends and integrations—hand-crafting and maintaining exhaustive test suites is prohibitively expensive.

Manual test maintenance eats up 30% of SDET time

Data-Driven Insights & Continuous Improvement

AI analytics on test execution, failure patterns, and coverage metrics guide smarter prioritization—so you spend time on the tests that matter most.

Test Maintenance Overhead

Flaky locators, UI changes, and evolving requirements lead to brittle suites. AI-assisted locator repair and self-healing suggestions cut down on triage and rewrites.

Speed-to-Market & Continuous Delivery

Agile/DevOps pipelines demand rapid, reliable feedback. AI accelerates test case creation and execution so you can ship features faster without sacrificing quality.

Release cadence: from quarterly → daily

Coverage Gaps & Risk Mitigation

Manual test design often misses edge cases. AI-driven generation uncovers scenarios you might overlook, reducing production defects and customer-impacting bugs.

Resource Constraints & Skill Shortages

SDET headcount is limited. AI augments testers' productivity, letting small teams drive large test programs and focus on high-value work.

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AI in Action: Test Design to Execution

AI-Powered Test Generation Workflow

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#	Step	Action	Description	Details
1		**Upload & OCR**	Ingest requirements	• Screenshot / SRS upload / paste text • Auto-extract form fields via OCR
2		**AI-Driven Test Design**	Generate test scenarios	• LLM-powered Gherkin & unit-test skeletons • Optionally include test data & Selenium code
3		**Additional Options**	Customize generation	• Select LLM (OpenAI, Phi-4, Llama3.2…) • Set # of test cases• Add instructions (e.g. “security only”) • Apply best-practice prompts
4		**Review & Export**	Validate and retrieve outputs	• Interactive table view• Expandable Selenium snippets • Download CSV or copy code
5		**DevOps Integration**	Publish into your pipeline	• Configure in-app connector • Push tests & code to Azure DevOps / GitHub Actions • Automate CI/CD triggers

Demo

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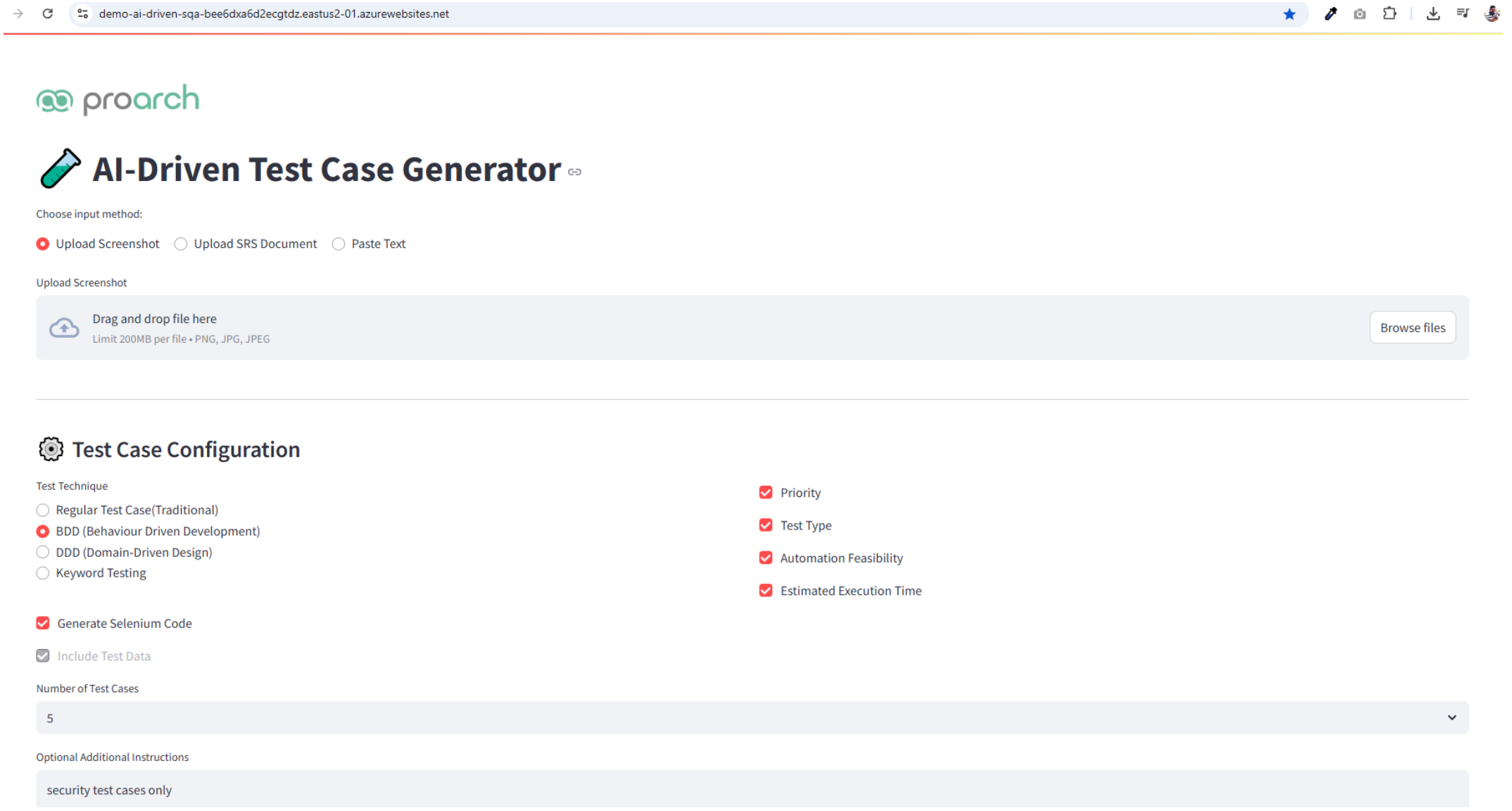

Beyond ChatGPT & Copilot: Why You Need a Dedicated AI-Driven SQA Platform

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Contextual Awareness: Knows your SRS, past defects, domain rules, and evolving code changes—so tests stay relevant.

Test Intelligence: Prioritizes and generates tests only where the code or requirements changed—maximizing ROI.

Continuous Learning: Adapts from each test run, failure, and reviewer feedback—getting smarter over time.

Autonomous Agents: Orchestrate generation, execution, and maintenance without manual intervention.

System Integration: Tightly hooks into your repos, CI/CD, issue trackers, and test-management tools for seamless traceability.

Explainability & Audit Trails: Links each AI decision back to requirements and provides human-readable rationale on demand.

ChatGPT and Copilot are powerful "generators," but they're blind to your context.

An AI-Driven SQA platform is the "enterprise brain" that **thinks**, **learns**, and **integrates**—delivering smarter, scalable QA rather than one-off snippets.

How to Embed AI into Your Current QA Workflow

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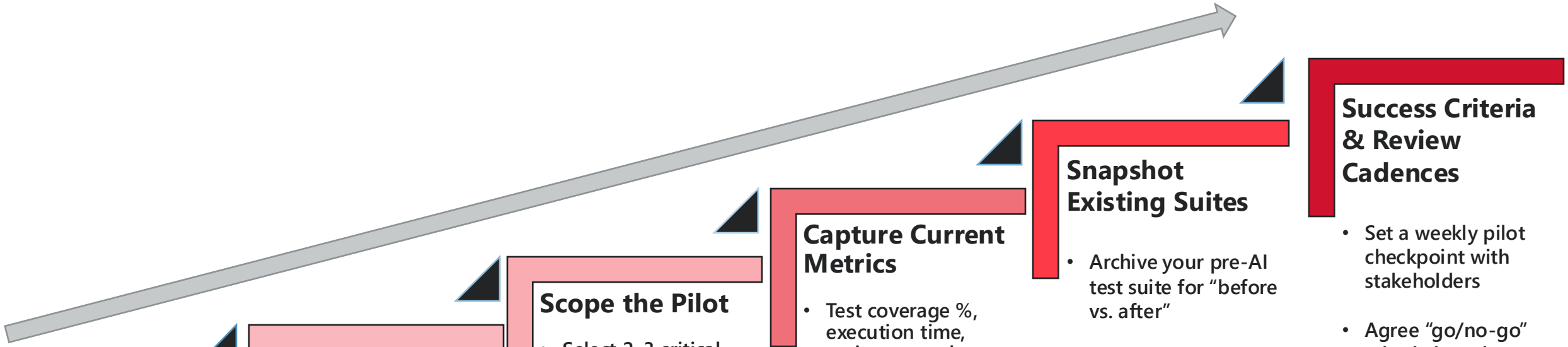


Pinpoint Pain Areas

- Inventory your top-5 most brittle tests by failure rate
- Identify manual test-creation bottlenecks

Define Clear Goals

- e.g., "Cut test-authoring time in half" or "MTTR < 1 hour"
- Assign ownership: SDET Lead + Dev Lead

Scope the Pilot

- Select 2–3 critical user journeys (UI, API, document flows)
- Balance quick wins with representative coverage

Capture Current Metrics

- Test coverage %, execution time, maintenance hours
- Flakiness rate (failures per 100 runs)

Snapshot Existing Suites

- Archive your pre-AI test suite for "before vs. after"
- Document any manual workarounds or scripts

Success Criteria & Review Cadences

- Set a weekly pilot checkpoint with stakeholders
- Agree "go/no-go" criteria based on baseline improvements

Phase 1: Laying the Foundation

Phase 2: Establishing Baselines

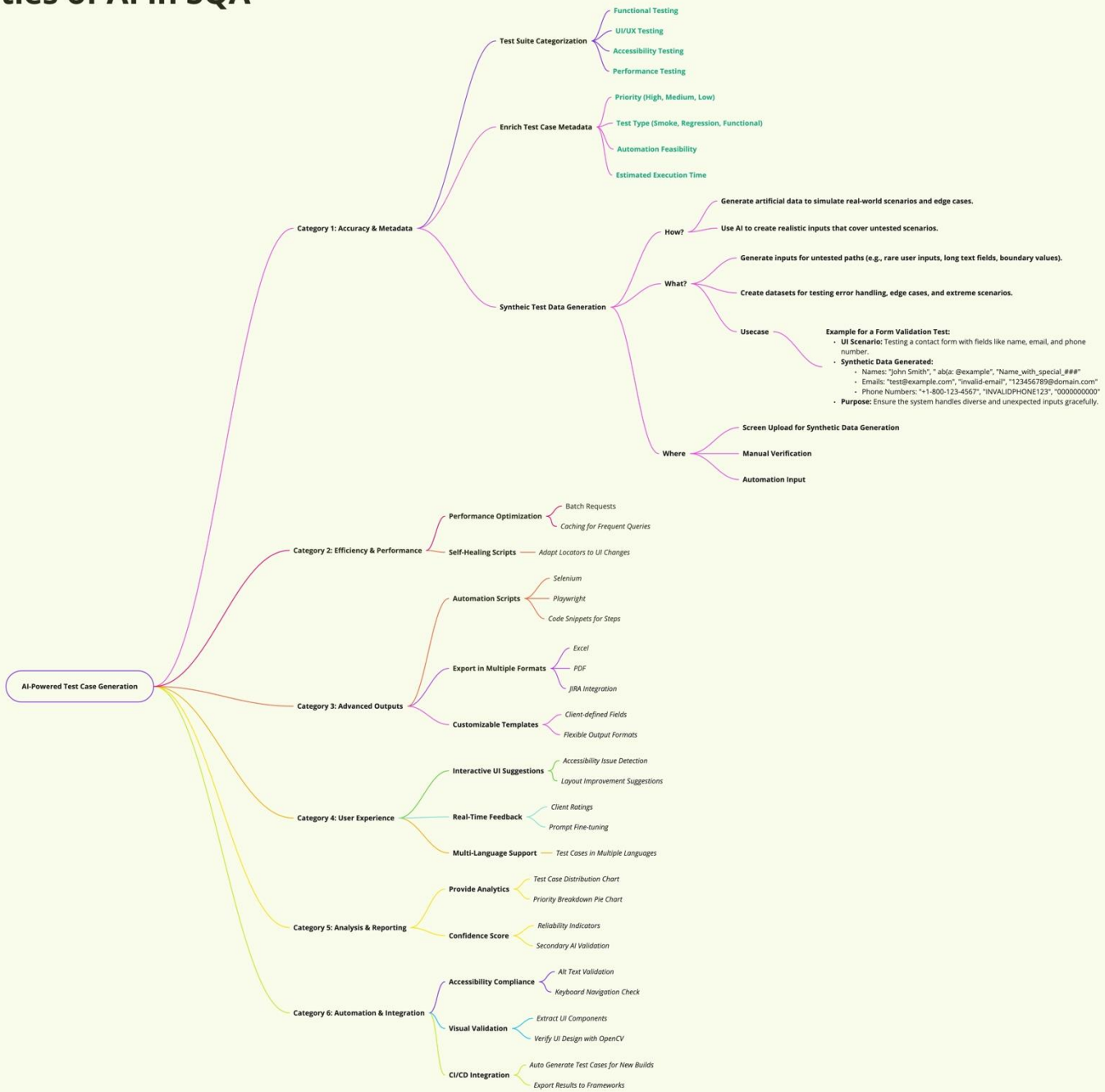
Business Benefits & ROI

Business Benefits & ROI

- ✓ **Up to 80% Reduction in Test Design Time**
  - Free your SDETs from manual scripting so they can focus on high-value exploratory and integration testing.
- ✓ **50–70% Faster Time-to-Market**
  - With AI-generated test suites and automated maintenance, shorten your sprint cycles and ship features more frequently.
- ✓ **30% Increase in Defect Detection Rate**
  - AI-driven scenario generation uncovers edge cases you'd likely miss by hand, catching more bugs before production.
- ✓ **60% Fewer Flaky Tests & 40% Lower MTTR** (Mean Time To Repair)
  - Vision-based locator repair and anomaly detection slash test brittleness—and when failures do occur, they're resolved faster.
- ✓ **Break-Even in Under 3 Months**
  - By cutting authoring and maintenance overhead, most teams recoup their AI-tooling investment within a single quarter.
- ✓ **Improved Team Productivity & Morale**
  - Automating repetitive work lets testers upskill on strategic tasks, driving higher job satisfaction and retention.

- Autonomous QA Agents
- “Continuous Learning Loops”
- “Self-Healing Tests”

Art of Possibilities of AI in SQA



Key Takeaways

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- ✓ **Start Small, Scale Smart**
  Adopting AI in QA doesn't require a massive overhaul. Begin with a focused use case and build momentum through incremental wins.

- ✓ **AI is an Enabler, Not a Replacement**
  The future of QA is not AI-only—it's AI **with** human-in-the-loop, where your expertise drives intelligent outcomes, not just automation.

- ✓ **Frameworks > Just Tools**
  Tools like ChatGPT and GitHub Copilot are helpful, but they're not complete QA solutions. You need a AI testing framework and strategy.

- ✓ **Test Case Generation is Just the Beginning**
  The real value unfolds when you tailor AI to your systems.

- ✓ **Unlock Future Possibilities**
  Build foundation for future by starting with AI now and position your organization for fully autonomous QA agents

AI Executes:
Humans Ensure Excellence

Questions?

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