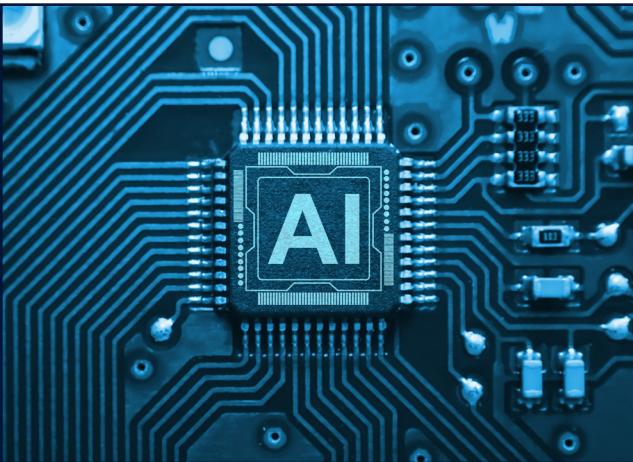


INFOSYS QUALITY ENGINEERING AI PLATFORM

In this digital age, businesses need to be interconnected, intelligent, and autonomous. To achieve this, they require software applications that can keep pace with the rapidly changing world of business. However, as software applications become increasingly complex, traditional testing methods are less effective. This is because they often struggle to cover all scenarios, leaving potential vulnerabilities untested. Generative AI has revolutionized the field of software testing, offering a new approach that promises to improve the quality and efficiency of testing. By automating repetitive tasks, simplifying integration touchpoints between development and quality engineering, and generating optimized test cases quickly, generative AI can help optimize resource allocation and drive early detection and prevention of defects. As technology continues to evolve, the need for reliable and high-quality software products is more important than ever. Generative AI is well-positioned to meet this need and is poised to become a standard practice in software testing in times to come. **The Infosys Quality Engineering AI Platform** is designed to help organizations take advantage of this testing revolution.

- Speed and efficiency
- AI-powered bug detection
- Cost-effectiveness
- Scalability and flexibility
- Improved test coverage and accuracy

Figure 1 - Drivers for Quality Engineering AI platform



The Infosys Solution

Infosys Quality Engineering AI offering has a cutting-edge platform that uses artificial intelligence to automate and improve the software testing process. It is designed to help businesses accelerate time to market, improve quality, and reduce costs. The platform is built on a connected ecosystem that enables collaboration between teams and stakeholders and provides an advanced toolkit to streamline and enhance the testing process. Infosys Quality Engineering AI Platform also provides ready-to-use pluggable generative AI use cases for all stages of the quality engineering (QE) lifecycle. The platform is designed to automate test script generation, run self-heal scripts, perform visual regression testing, optimize test suites, predict defects, and select tests based on code changes and coverage analysis. It ensures the usability, security, and accessibility of mobile apps and webpages while validating scripts according to specified configurations.

Key Features

Infosys Quality Engineering AI Platform can be seamlessly integrated with existing software testing tools and frameworks, making it easier for testing teams to adopt this technology without major disruptions to existing processes. The platform includes the following features:

- 1. Power of Generative AI:** Infosys Quality Engineering AI Platform uses the latest advancements in generative AI to go beyond traditional testing approaches. The platform generates intelligent test cases, data sets, and scenarios that replicate real-world user interactions. It helps to uncover hidden bugs and vulnerabilities that may have gone unnoticed with traditional testing methods.
- 2. Open source LLM model training:** The platform is built on the foundation of open-source large language models (LLMs), providing it with a vast knowledge base and wide range of capabilities. This ensures that the AI-powered system remains up-to-date with the latest industry standards, best practices, and emerging trends.
- 3. Domain-specific model training:** Infosys Quality Engineering AI Platform recognizes the diverse needs of software testing across

various industries. To address these, the platform incorporates domain-specific model training. This allows the AI system to adapt and optimize testing strategies based on the unique requirements and challenges of specific domains.

- 4. Seamless integration and user-friendly interface:** The platform is easy to use and integrates with existing testing frameworks, tools, and workflows. Its intuitive interface makes it accessible to testers of all skill levels, regardless of their experience with AI.
- 5. Accelerated testing efficiency and quality:** By automating repetitive tasks, Infosys Quality Engineering AI Platform frees up testing teams to focus on complex scenarios and critical areas. This results in higher test coverage, faster time to market, better accuracy, and more reliable results while reducing manual effort and time spent on repetitive test case generation and execution.
- 6. Optimized cost of quality:** By leveraging open-source foundation models to generate test artifacts, the platform reduces the cost of quality by eliminating the need for commercial or third-party tools for generating automation scripts and synthetic data generation for testing.

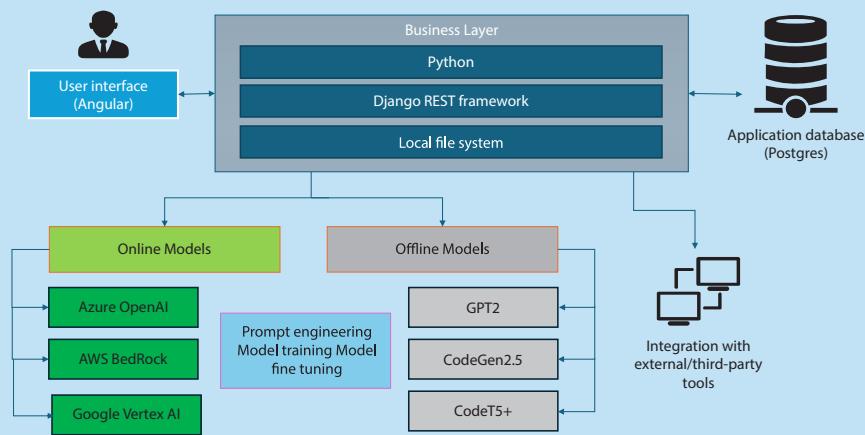


Figure 2 – Infosys Quality Engineering AI Platform

The Infosys Advantage

By leveraging Infosys Quality Engineering AI Platform, businesses can transition their digital systems to an AI-first core. The platform has the potential to transform the way work is done and can augment the capabilities of [Infosys Topaz](#).

- Prompts developed with Infosys knowledge and expertise
- Ready-to-use sets of use cases hand-picked from the entire spectrum of QE
- Trained models that cater to multiple industry-specific testing requirements from the Infosys repository of over one million test cases
- Integration with Infosys IP tools to provide end-to-end validation
- Over 500 use cases to support various activities in the QE lifecycle
- More than 10 open-source and cloud-specific LLMs trained with testing and domain specific data

Benefits

- Responsible by design: Designed to be ethical, trustworthy, and compliant with privacy, security, and other regulations
- Speed: Accelerates testing with 100% test coverage and effectiveness
- Agility: Helps businesses save time and money on testing with 60% faster time to market by leveraging reusable use cases
- Efficiency: Provides up to 40% reduction in test planning and scripting which can free up resources to focus on tasks such as development and innovation
- Quality: Generates high-quality test cases and improves the maintainability of automation code
- Reduced tech debt: Enables intelligent code acceleration using reusable open source tools

Success Stories

Improved quality of customer interactions

A government tax department was looking for a solution to improve the quality and effectiveness of customer interactions. The existing system was old and complex and did not provide comprehensive test coverage or a smooth user experience across lines of business (LoBs). Infosys used generative AI tools to automate manual test efforts and improve the system. The team used a multi-step approach for model training and finetuning, which resulted in a 70% increase in testing accuracy and 100% test coverage. This improved the quality of customer interactions by 80% and reduced maintenance overheads and system complexity.

Simplified retail web and mobile applications

An Australia-based retail client with multiple store formats and a significant web presence collaborated with Infosys to simplify their resource-intensive retail web and mobile application. Open-source foundation models were trained with more than 1500 use cases to generate automation scripts specific to the customer's requirements with 70% accuracy. This resulted in a 60% faster response turnaround for web and mobile applications, leading to increased sales productivity. Customers can now access real-time information with 100% accuracy, better convenience, and higher flexibility.

Reach out to us at iqe_marketing@infosys.com to understand how Infosys Quality Engineering AI Platform can support automated testing and validation to reduce time-to-market and increase efficiency and coverage.



Scan this code
to get in touch with us!

For more information, contact askus@infosys.com

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