



STRATEGY GUIDE

Accelerate business results

through Product Quality solutions.



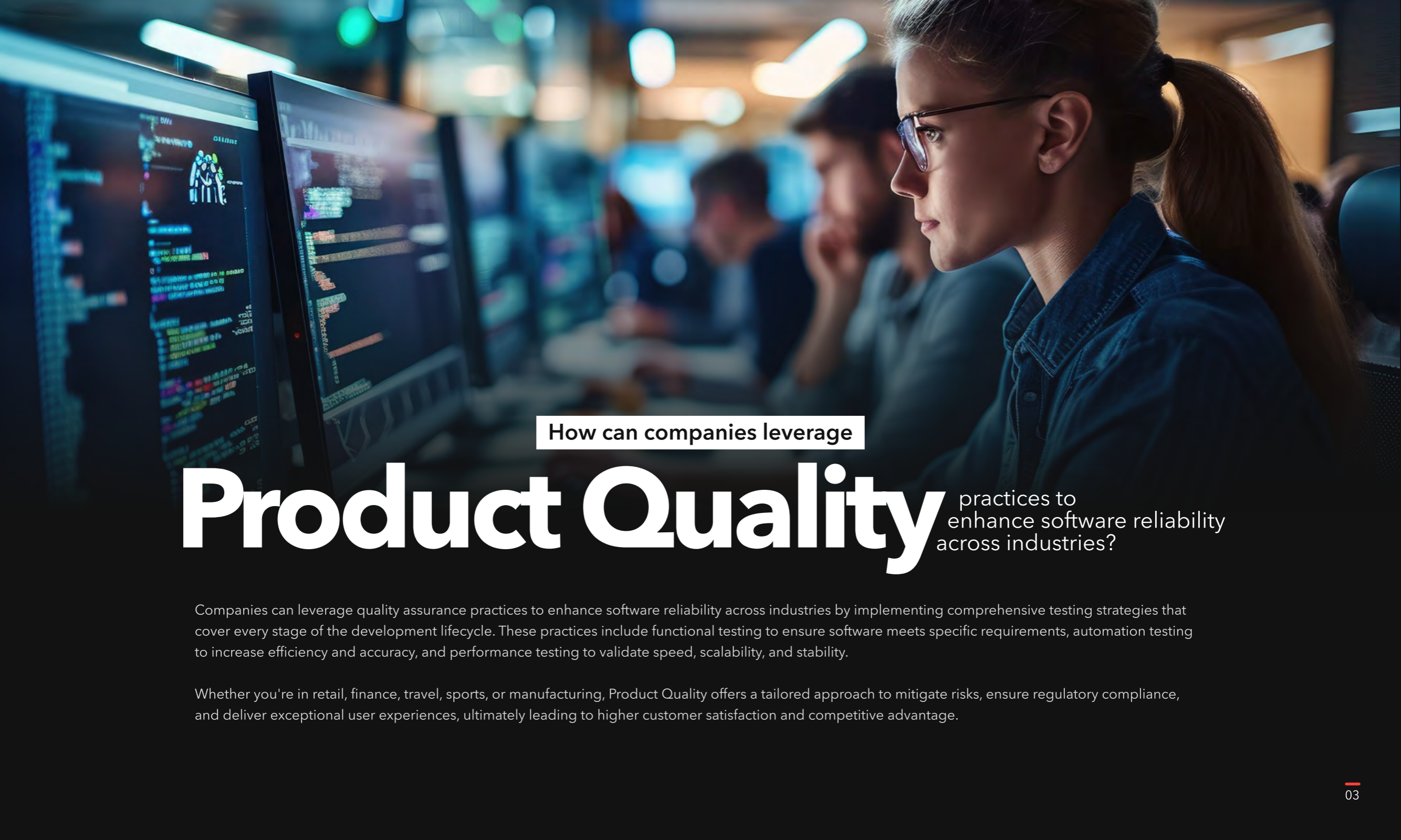


Welcome to

Your go-to guide for boosting Product Quality!

Whether you're developing cutting-edge apps or robust enterprise solutions, ensuring top-notch quality is key to success. This guide breaks down essential Quality solutions, from functional and automation to performance testing. We'll walk you through industry-specific tips, trends, and best practices, helping you enhance reliability, speed up time-to-market, and delight your users with impeccable performance.

Let's dive into the world of Product Quality and make your software solutions shine!



How can companies leverage

Product Quality

practices to enhance software reliability across industries?

Companies can leverage quality assurance practices to enhance software reliability across industries by implementing comprehensive testing strategies that cover every stage of the development lifecycle. These practices include functional testing to ensure software meets specific requirements, automation testing to increase efficiency and accuracy, and performance testing to validate speed, scalability, and stability.

Whether you're in retail, finance, travel, sports, or manufacturing, Product Quality offers a tailored approach to mitigate risks, ensure regulatory compliance, and deliver exceptional user experiences, ultimately leading to higher customer satisfaction and competitive advantage.

Navigating

The latest trends in Product Quality

Discover the latest trends influencing Quality practices across industries. These insights highlight how it is adapting to drive efficiency, enhance revenue, and leverage emerging technologies, shaping the future of software quality and reliability.

Let's dive into the world of Quality, and its latest trends:

01



Impact on revenue

Good quality contributes an average of \$156 million, or 11% to bottom-line revenues.

02



As-a-Service subscription models

Growth in as-a-service subscription models necessitates data-driven, analytically based test models for assessing customer conversion rates and lifetime value.

03



5G and IoT testing

New 5G and IoT testing solutions enhance visibility, speed up time-to-market, and optimize revenue streams, transforming Quality Engineering strategies.

04



Digital supply networks

Quality Engineering technologies are optimizing supply chain networks, shifting from traditional silos to interconnected digital networks that enhance resilience and efficiency.

These trends underscore the dynamic evolution of Quality, where innovation meets reliability to ensure sustainable growth and competitive advantage.

Embrace these insights to propel your quality initiatives forward and lead in an ever-changing digital landscape.

Sources: Forbes, Deloitte.

Solutions for reliable performance

Building on the insights gained from the latest Product Quality trends, it's clear that ensuring software reliability is paramount across industries. Now, let's delve into the solutions that elevate your software quality to new heights. From comprehensive testing frameworks to automated workflows and performance optimizations, these solutions are designed to mitigate risks, improve time-to-market, and deliver superior user experiences.

Discover how our tailored approaches can empower your business to achieve unparalleled software quality and customer satisfaction.



Enhance quality and reliability

Ensure high-quality technology products, reducing defects and errors for better user experiences, increased satisfaction, and competitive advantage.

Applications:

- Integration testing
- Performance testing
- User acceptance testing
- Test automation
- CI/CD



Reduce costs

Identify and address defects early to minimize post-release expenses, prevent costly recalls, and optimize development and testing phases.

Applications:

- Proactive testing
- Capacity planning
- Continuous monitoring
- Code reviews
- Automation tool integration



Improve time-to-market

Ensure efficient, defect-free development, reducing testing cycles and enabling continuous delivery. Automated testing enhances release speed and efficiency, accelerating time to market.

Applications:

- Faster feedback loops
- Increased test coverage
- Streamlined regression testing
- CI/CD implementation
- Automation metrics and reporting



Check the following use cases and tips on how to apply them to your industry:



Industry

Retail



Enhance
quality and reliability
by providing:

- App platform
- Point of Sale (POS) system
- In-line quality inspection

Develop user-friendly, reliable, and secure apps with accurate, error-free transactions, and continuously ensure quality through automated inspections.



Reduce
costs
by providing:

- Inventory management system
- Supply chain management
- Quality process automation

Automate tasks like data entry and order processing to ensure accurate stock levels, timely restocking, and that all products meet specified standards before reaching the store.



Improve
time-to-market
by delivering:

- Testing software releases
- Website performance
- Product design quality

Implement automated testing frameworks and performance engineering practices to speed up verification, optimize website speed and reliability, and ensure products meet quality standards with reduced defects and rework.



Industry

BFSI

(Banking, Financial Services, and Insurance)



Enhance **quality and reliability** by providing:

- Omnichannel consistency
- Customized recommendations
- Quality audits

Ensure consistent quality across all customer touchpoints by constantly refining recommendations and conducting internal and external audits for mobile apps, websites, and in-branch services.



Reduce **costs** by providing:

- Automated testing
- Self-service portals
- Quality process automation

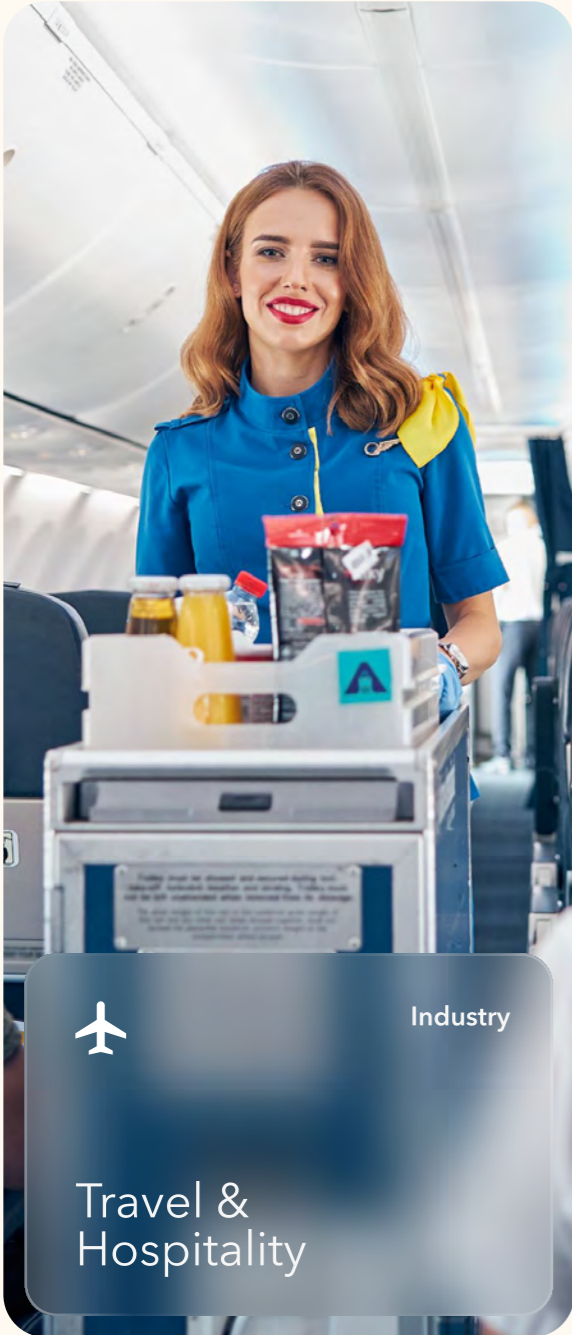
Ensure software quality and reliability by automating repetitive tasks, allowing customers to seamlessly manage accounts, make payments, and submit claims without extensive manual testing.



Improve **time-to-market** by delivering:

- Security automated testing
- App performance
- Product design quality

Reduce manual effort to accelerate the release of compliant, secure products while enhancing app performance and reliability to mitigate risks. Address potential issues early to reduce defects, ensure compliance, and accelerate time to market.



Industry

Travel & Hospitality



Enhance **quality and reliability** by providing:

- Website and mobile app testing
- Booking system reliability
- Systems automation testing

Ensure flawless functionality of booking platforms across devices and browsers, handle high transaction volumes securely, and guarantee high-quality software releases to enhance user experience and reduce bugs.



Reduce **costs** by providing:

- Automated testing
- Inventory management optimization
- Quality process automation

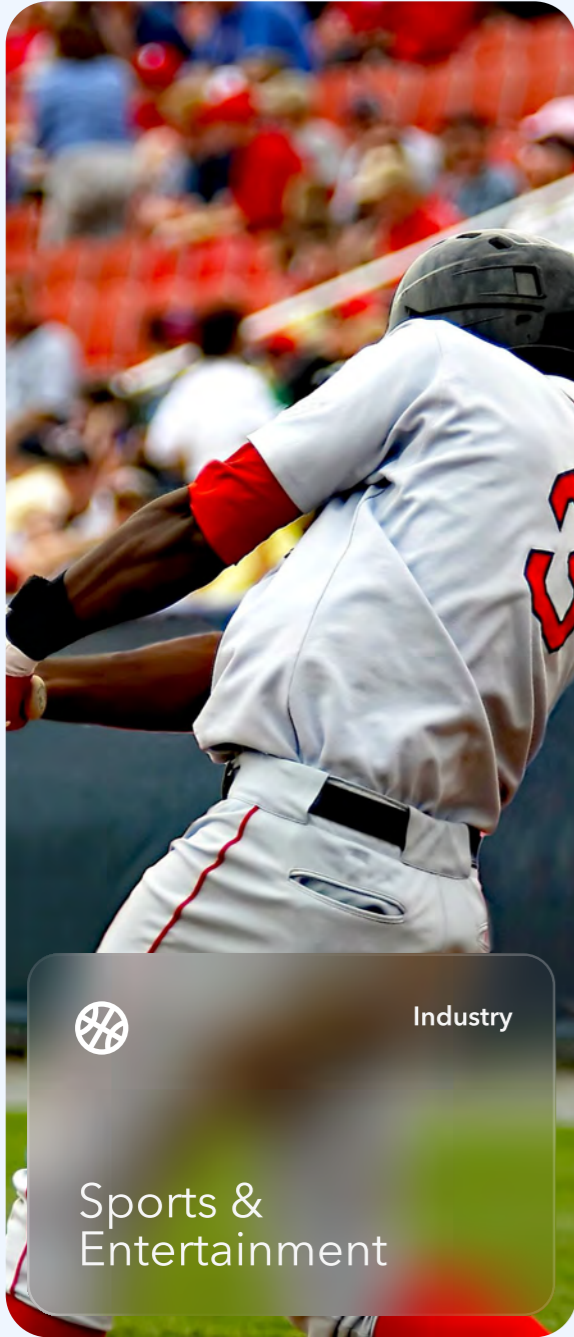
Ensure high-quality software releases and improve user experience in booking systems by automating testing, managing supplies efficiently to reduce waste, and automating tasks such as confirmation emails, check-in/check-out processes, and room allocation.



Improve **time-to-market** by delivering:

- Continuous improvements
- App performance
- Mobile app optimization

Ensure consistent quality and rapid deployment of new features and updates across apps and websites, handling peak loads efficiently to facilitate quicker rollouts and guaranteeing high-quality mobile app releases to enhance update cycles and user experience.



Enhance **quality and reliability** by providing:

- Apps and platforms performance
- Live broadcast quality
- Video game and simulation testing

Ensure the reliability and performance of streaming apps, fantasy sports platforms, and ticketing websites by monitoring system automation to track video and audio quality, ensuring a seamless user experience. Secure a high-quality, engaging, and reliable gaming experience to enhance player satisfaction.



Reduce **costs** by providing:

- Automated testing for apps
- Event management system
- Stadium maintenance

Implement automated testing to cut labor costs and speed up release cycles, ensuring smooth event operations with optimal scheduling, resource allocation, and communication. Utilize sensors to monitor infrastructure, enabling proactive maintenance to prevent failures.



Improve **time-to-market** by delivering:

- Streaming platforms
- Real-time events updates
- Live events website performance

Develop a high-quality and reliable streaming service that swiftly launches new features and resolves bugs. Ensure timely updates, live scores, and interactive features for tournaments, and optimize platforms to handle high traffic volumes during live events, enhancing user experience.



Enhance **quality and reliability** by providing:

- Incoming material inspection
- Monitor product quality
- Quality audits

Ensure materials meet specifications before production, detect and correct defects in real-time to prevent faulty products from advancing, and maintain compliance with quality standards through continuous improvement.



Reduce **costs** by providing:

- Defects preventive measures
- Automated systems inspection
- In-process quality control

Minimize production defects to reduce waste and rework costs by investing in real-time inspection and quality control for accurate monitoring and cost-effective labor management.



Improve **time-to-market** by delivering:

- Design quality processes
- Accelerated product testing
- Delays reduction

Identify and address potential quality issues early in development to prevent production delays, ensuring products meet standards with streamlined testing. Mitigate risks that could affect product quality or scheduled milestones proactively.

Armed with these industry-specific insights,

let's now delve into our strategies for ensuring top-notch software quality and reliability.

Starting with initial ad hoc testing, our focus shifts to managed processes ensuring compliance and reliability. As we move into defined and measured testing, integration into the development lifecycle becomes seamless, bolstered by rigorous evaluation and continuous improvement. Finally, with optimized testing practices and structured quality control, we ensure robust, high-quality software releases.

Let's navigate these stages to elevate your product quality effectively.

Maturity journey



Initial

- Undefined testing processes done in an ad hoc way after coding is completed.
- Testing objective is to show that software runs without failures.

Maturity journey



Managed

- Managed testing processes established with requirements separated from debugging.
- Testing objective is to verify compliance with requirements.

Maturity journey



Defined

- Standardized testing processes fully integrated into the development lifecycle.
- Process and procedures are consistent across projects, tailored from the organization's standard processes.

Maturity journey



Measured

- Defined and measured testing processes with programs that evaluate the process quality.
- Evaluation process is defined by quality needs, attributes, and metrics. Reviews and inspections are part of the process and used to measure product quality.

Maturity journey



Optimizing

- Defined and measured testing processes supported by an organizational structure quality control process area.
- Testing methods and techniques are constantly optimized with a focus on process improvement.

Client Success Stories

A woman with dark hair in a ponytail, wearing a dark blue uniform, is shown in profile, looking intently at a computer monitor. She is in a control room or server room, with several other monitors visible in the background. The room is dimly lit with a blue glow from the screens. Through a large window in the background, a cityscape at night is visible, with lights and a bridge structure. The overall atmosphere is professional and focused.



Accelerating Business Results with Product Quality Solutions

Overview

Financial mobile application audit at the level of architecture, code, security, UX/UI, functionality and performance, to subsequently support in those same areas improving the quality of the final product.

Challenges

- Standardize processes and implement best practices to a running project.
- Give continuity to a product and project under construction without interrupting the day-to-day value given to the customer.
- Meet the time-to-market expectations defined by the client.
- Interaction at the moment of taking control of the project from previous stakeholders (suppliers).

How we solve it

- As a result of the initial audit, the mobile application presented evident improvement points in all audited levels (architecture, code, security, UX/UI, performance and functionality).
- Best practices, development and testing standards were implemented to improve technological processes. The user interface was improved, and user experience flows were fine-tuned for better adoption and impact at launch.

Results

- Standardization of metrics collection in order to provide visibility of product quality through the implementation of best practices.
- Improvement considerations of different dimensions through functional, regression and performance testing.
- Improved code structure for better maintainability and reusability, as well as a more robust architecture to support the load expected by the customer.
- Definition of actors, responsibilities and processes that influence the development lifecycle (improved delivery times).



Enhance, ensure, and excel with Quality-centric solutions.

As we wrap up this journey through the world of quality services, it's clear that ensuring excellence isn't just about occasional efforts—it's a consistent commitment. Aristotle's timeless wisdom resonates deeply here: "Quality is not an act; it's a habit." This principle underscores our approach to Product Quality, where every step, from initial concept to final release, is guided by a dedication to reliability, precision, and innovation.

Throughout this guide, we've explored how robust testing frameworks, automated processes, and strategic quality management can elevate your software solutions across various industries. From retail and finance to travel, sports, and manufacturing, the importance of seamless user experiences, efficient operations, and compliance with stringent standards has been emphasized. By integrating these principles into your development lifecycle, you not only improve time-to-market and reduce costs but also enhance customer satisfaction and maintain a competitive edge in today's dynamic market.

Innovation in quality isn't just a goal—it's a journey of continuous improvement and adaptation. Embrace these strategies, refine your processes, and let quality become your hallmark in the ever-evolving landscape of software excellence.

Gain your competitive edge with Applaudo

Applaudo is dedicated to assisting organizations across various industries in delivering exceptional and seamless experiences on a large scale. With our extensive expertise, we comprehend the distinctive challenges and opportunities inherent in engaging audiences, optimizing operations, and maximizing revenue streams.

Partner with us to cultivate unforgettable experiences for your stakeholders, streamline your workflows, and achieve success in the ever-evolving business landscape. Explore the vast potential of Product Quality with Applaudo to enhance quality and reliability, reduce costs, and improve time-to-market for your business.

Leverage our expertise today [APPLAUDO.COM/CONTACT](https://www.applaudo.com/contact)

```
package com.ds.ucd.be.becore.solr;
import ...
public final class LocationUtils {
    /**
     * Parses Point from it's String representation.
     * @param locationString - String that represents location, as 2 double values split with
     * @return org.springframework.data.solr.core.geo.Point instance
     */
    public static Point parseLocation(String locationString) {
        Preconditions.checkNotNull(locationString, "Location String should not be null");
        Preconditions.checkNotNull(locationString.contains(","), "Location must be a comma separated string");
        locationString = locationString.trim();

        if (locationString.contains(" ")) {
            locationString = locationString.replaceAll(" ", "");
        }

        if (locationString.contains(", ")) {
            locationString = locationString.replaceAll(", ", ",");
        }

        String[] location = locationString.split(",");
        Preconditions.checkNotNull(location, "Location should be a comma separated string");
        double lat = Double.parseDouble(location[0]);
        double lon = Double.parseDouble(location[1]);

        return new Point(lat, lon);
    }
}
```





Jorge Villegas

Software Quality Testing Engineer

Jorge is a Software Quality Testing professional with over 11+ years of experience. He possesses a profound understanding of quality best practices and has successfully implemented and applied processes, strategies, and techniques across diverse sectors such as finance, airlines, retail, e-commerce, sports analytics, healthcare, education, and e-learning. Jorge is certified in ISTQB Foundation Level and ISTQB Performance Testing Engineer.



