Software Quality Assurance Metrics and KPIs Training Course

Professional Development Training Course Outline

Category	Quality Assurance and ISO standards	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In the rapidly evolving software development landscape, Software Quality Assurance (SQA) has become a cornerstone for delivering reliable, efficient, and high-performing digital products. Organizations are increasingly adopting robust Software Quality Assurance Metrics and KPIs to track, measure, and enhance software performance throughout the development lifecycle. By focusing on quality-driven approaches, businesses can minimize defects, accelerate delivery cycles, and improve customer satisfaction while maintaining a competitive edge in the digital economy.

Software Quality Assurance Metrics and KPIs Training Course is designed to equip participants with the skills, tools, and methodologies needed to evaluate software quality objectively. Through data-driven approaches, participants will gain expertise in leveraging industry-recognized metrics and performance indicators to achieve higher efficiency, optimize testing practices, and ensure alignment with organizational goals. The training emphasizes practical case studies, hands-on analysis, and globally trending frameworks that resonate with modern business requirements.

Programme Curriculum

Software Quality Assurance Metrics and KPIs Training Course

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Course Objectives

1. Understand the fundamentals of Software Quality Assurance metrics and KPIs.
2. Explore trending quality assurance frameworks for agile and DevOps environments.
3. Apply defect density, defect leakage, and test execution metrics for quality measurement.
4. Learn advanced automation testing KPIs and performance monitoring techniques.
5. Integrate customer satisfaction metrics into QA reporting frameworks.
6. Analyze productivity indicators to measure QA team efficiency.
7. Implement dashboard reporting for real-time metric visualization.
8. Explore predictive analytics in software quality management.
9. Align QA metrics with strategic business outcomes.
10. Apply benchmarking techniques for continuous improvement.
11. Manage risk through defect severity and priority analysis.
12. Measure software maintainability and reliability KPIs.
13. Build a culture of quality through measurable objectives.

Organizational Benefits

1. Enhanced software quality aligned with business goals.
2. Improved delivery timelines with optimized testing efforts.
3. Increased customer satisfaction and user retention.
4. Reduced project risks through effective quality measurement.
5. Data-driven decision-making for QA and development teams.
6. Streamlined collaboration across project stakeholders.
7. Continuous improvement through benchmarking best practices.
8. Cost savings through early defect detection and prevention.
9. Stronger alignment of IT and business strategies.
10. Competitive advantage through reliable software delivery.

Target Audiences

1. Software Test Engineers
2. Quality Assurance Managers
3. Project Managers
4. Scrum Masters
5. Software Developers
6. IT Business Analysts
7. Product Owners
8. DevOps Engineers

Course Duration: 5 days

Course Modules

Module 1: Fundamentals of Software Quality Assurance Metrics

- Importance of software metrics in quality assurance
- Key types of QA metrics and KPIs
- Role of metrics in software development lifecycle
- Challenges in implementing quality assurance metrics
- Best practices for metrics adoption
- Case Study: Introduction of QA metrics in an Agile project

Module 2: Defect Metrics and Analysis

- Understanding defect density and defect severity
- Defect leakage and containment effectiveness
- Tracking defect removal efficiency
- Defect lifecycle and reporting methods
- Root cause analysis for defect reduction
- Case Study: Reducing defect leakage in a large-scale project

Module 3: Test Execution and Coverage Metrics

- Test execution status tracking
- Test case coverage analysis
- Requirement coverage metrics
- Automation coverage measurement
- Effective reporting of test coverage gaps
- Case Study: Increasing test coverage through automation adoption

Module 4: Productivity and Efficiency Metrics

- Metrics for measuring QA team productivity
- Effort variance and resource utilization
- Test case preparation and execution productivity
- Cycle time and lead time metrics
- Identifying bottlenecks using productivity indicators
- Case Study: Measuring team efficiency in iterative releases

Module 5: Customer-Centric Quality Metrics

- Importance of user satisfaction indicators
- Net Promoter Score (NPS) in software quality
- Customer-reported defect analysis
- End-user performance monitoring metrics
- Service-level agreement (SLA) compliance indicators
- Case Study: Improving NPS through targeted defect management

Module 6: Automation and Performance KPIs

- Key automation testing KPIs
- Automation ROI calculation
- Performance testing metrics and benchmarks

- Monitoring system responsiveness and throughput
- Integration of automation metrics into QA dashboards
- Case Study: Measuring automation ROI in a continuous testing environment

Module 7: Risk and Reliability Metrics

- Risk-based testing and prioritization metrics
- Defect severity and priority indicators
- Reliability and maintainability KPIs
- Mean time to failure and recovery metrics
- Risk assessment frameworks in QA
- Case Study: Managing risk in mission-critical software

Module 8: Advanced Reporting and Dashboarding

- Building real-time QA dashboards
- Visualizing quality metrics for stakeholders
- Customizing dashboards for agile and DevOps projects
- Using predictive analytics in quality reporting
- Benchmarking software quality with industry standards
- Case Study: Implementing predictive analytics in QA dashboards

Training Methodology

- Instructor-led interactive sessions
- Real-world case studies and group discussions
- Hands-on exercises with tools and metrics dashboards
- Practical assignments for real-time application
- Role-based workshops to simulate QA environments

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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