

SOFTWARE QUALITY ASSURANCE: IMPLEMENTING CONSISTENT QUALITY

Course number : 134

Overview

Improve customer satisfaction and achieve consistent quality with this quality assurance training. In this course, you learn to define, design, and effectively lead Quality Assurance (QA) activities using proven techniques tailored for your life cycle model — such as conducting reviews, walkthroughs, inspections, and audits, and controlling major components using Configuration Management (CM) practices.

What you'll learn

- Implement and effectively lead Quality Assurance (QA) activities
- Write a QA plan and conduct audits
- Design metrics for your project
- Determine which life cycle model to apply

Who should attend

Pre-requis

- Familiarity with project activities or software development

Activities in this course are aligned with SEI CMMI, ISO 9001, and IEEE

Outline

[Introduction to Quality Assurance](#)

- Contrasting roles: Quality Assurance, Testing, Verification and Validation
- Comparing software development life cycles
- Documenting processes
- Defining the goals of Quality Assurance

Quality Assurance Components

Analyzing the components of quality

- Creating processes
- Choosing the best practices and implementing process improvement initiatives
- Comparing Agile and traditional QA roles and methods

Implementing a road map

- IEEE
- CMMI
- ISO 9001
- Selecting and documenting standards
- Participating in reviews and audits
- Maintaining records

Planning for Quality Assurance

Applying verification and validation techniques for error detection

- Evaluating verification and validation techniques
- Analyzing life cycle products
- Implementing a QA policy and plan
- Exploring testing levels

Detecting defects while applying inspection techniques

- Defining the inspection process
- Planning and conducting an inspection
- Communicating inspection results

Conducting Audits

The types of audits

- Comparing process, product and projects
- Implementing quality system and configuration audits
- Documenting audit findings in a report

Comparing industry standards

- Complying with industry standards and models: ISO 9001 and CMMI
- Comparing the work products against industry best practices

Initiating the auditing process

- Planning and preparing for the audit
- Reporting the results
- Monitoring noncompliance

Participating in an audit

- Reviewing documentation
- Documenting and confirming audit findings
- Presenting audit findings

Applying Configuration Management (CM)

Defining the components of a CM system

- Identifying the workflow and work products
- Assessing and managing components with release management
- Communicating product status using reports

Managing and controlling products for consistency

- Controlling QA and/or test plans
- Monitoring quality reports, audit findings and peer review documentation

Continuous Process Improvement

Fostering learning through process improvement

- Defining and implementing process improvement
- Planning process improvement initiatives

Achieving excellence through metrics

- Selecting and analyzing metrics
- Communicating organizational progress

Analyzing data through root cause analysis

- Determining the possible causes of problems utilizing a Fishbone diagram
- Narrowing down the correct course of action by creating a Pareto Analysis diagram
- Examining flow charts during the root cause analysis process

Coordinating the next steps

- Implementing corrective actions
- Focusing on prevention techniques

Schedule

Location Dates Status

Tuition

IN CLASSROOM OR ONLINE PRIVATE TEAM TRAINING

STANDARD \$3895

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FAQ

Certification