

Software Testing Techniques



Program Overview

To inform the participants about the fundamental concepts of software testing, to state the place and importance of software testing phase in software development life cycle, to introduce the dynamic and static verification techniques, to provide information about test planning and management concepts, to introduce test techniques in agile processes and to share experience on how to make effective reporting of test results.

Who should attend?

- O Test Engineers
- O Anyone who wants to start a career in software testing domain
- $\mathcal O$ Developers who want to develop software products with better quality

What will you learn?

- D The place and importance of software testing in the project life cycle is understood
- Fundamental test concepts and test techniques are learned
- Knowledge about test processes is gained
- O Current test techniques in agile processes are learned
- And thus, the realization of more successful projects will be achieved through performing better software testing

Structure and Content

o Fundamental Test Information

- Definition of the test
- Purpose of the test
- Fundamentals of the test process
- Common test principles
- Verification and Validation
- DO-331 and Model-Based
 Safety-Critical Software Relationship
- o Testing Through Software Life Cycle
 - Main test processes
 - Integration of test at different Software development processes
 - Test Levels
 - Unit Test
 - Integration Test
 - Software Test
 - System Test
 - Test Types
 - Functional Test
 - Performance Test
 - Smoke Test
 - Regression Test

o Dynamic Test Techniques

- Black Box Testing Technique
 - Boundary Value Analysis
 - Equivalence Class Partitioning
 - State Transitioning Testing
 - Decision Table Testing
 - Pairwise Testing
- White Box Testing
- o Static Testing Techniques
- o Execution of tests and post activities
 - Test result reporting
 - Bug tracking
 - Retesting & Regression Testing
- o Test Methods in Agile Software Development
 - Test Driven Development
 - Behavior Driven Development
 - Acceptance Test Driven
 Development