

Course Contents of Software Quality Testing

Basics of Software Quality Testing

- Assessing the goals of testing
- Identifying causes of software defects
- Organizing testing processes
- Planning , Controlling
- Analyzing, Designing
- Implementing and executing

Key objectives of testing

- Finding defects during the life cycle
- Implementing test levels
- Component, Integration
- System
- Acceptance

Recognizing key concepts in maintenance testing

- Identifying reasons for maintenance testing
- Performing maintenance testing

Comparing the four test types

- Functional
- Non-Functional
- Structural
- Confirmation

Implementing Static Analysis Techniques

- Defining roles and responsibilities
- Comparing formal and informal reviews
- Discussing the types of review
- Walkthrough
- Inspection
- Technical

Applying specification-based techniques

- Equivalence partitioning
- Boundary value analysis
- Use case

Utilizing structure-based techniques

- Statement
- Decision
- Condition

Deploying experience-based knowledge

- Intuition
- Experience
- Knowledge

Test Management

- Defining goals and objectives
- Assigning roles and responsibilities
- Independence
- Test leader
- Tester
- Standardizing test documentation
- Monitoring and controlling test progress

Structuring a test plan

- Writing a test plan
- Identifying objectives
- Assessing the entry and exit criteria
- Assigning appropriate resources
- Resolving defects

Managing incidents

- Recording
- Analyzing
- Closing

Addressing project and product risks

- Contractual
- Organizational
- Technical
- Assess
- Determine
- Implement

Configuration Management (CM)

- Change control
- Version control
- Traceability
- Configuration identification and audits

Evaluating objectives of CM

- Ensuring proper version control
- Generating incident reports

Adopting Test Support Tools

- Test management
- Static testing
- Test specification
- Executing and logging
- Performance and monitoring
- Other

Introducing a tool into an organization

- Recognizing potential benefits and risks
- Considering special circumstances