

# Effective Software Testing

## (Two day Workshop)

### About the Course

This workshop provides comprehensive coverage of the testing processes available to support the development and delivery of quality software. A project, under strict vigilance of testing, invariably fetches customer satisfaction (a key for business success).

While high level of testing calls for more investment, inadequate testing leads to enormous customer dissatisfaction. Hence there is a need for optimisation on test-investment (resource and infrastructure) in line with customer requirements.

This workshop provides an insight into the entire framework of testing which includes:

- ❖ Testing an integral part of “SDLC” and “Quality Models” (like ISO/CMMI)
- ❖ Gathering unambiguous and verifiable requirements
- ❖ Developing an inventory of test-assets (like strategy, plan, script, data and reports)
- ❖ Familiarity with levels of testing
- ❖ Exposure to testing-techniques
- ❖ Defect management (during testing)
- ❖ Measuring effectiveness (associated with testing and defect-handling)
- ❖ Industrial best practices

### Workshop objectives

After attending this work shop, the participants (like business analysts, developers and testers) can comfortably adopt industrial best practices by

- ❖ Consolidating comprehensive test-requirements through timely involvement of stake holders (including customer)
- ❖ Developing appropriate test strategy, approach, plan and related assets
- ❖ Handling test-defects effectively and also building defect database (for future defect-prevention)
- ❖ Defining and monitoring “operational effectiveness” (through a set of meaningful metrics)

## **Workshop Contents**

The two day workshop would cover the topics as noted below.

### **Introduction**

#### **Standards and Testing**

- Testing – Quality Assurance (QA) and Quality Control (QC) activities
- Testing – Quality Models ISO 9001 and SEI CMMI

#### **SDLC Models and Testing**

##### **Test Assets**

- Understanding Test Requirements
- Test Strategy and Test Plans
- Test Scripts
- Test Data and Test Reports

##### **Testing Techniques**

- Black Box and White Box testing

##### **Test Design**

- Equivalence Partitioning
- Boundary Value Analysis

##### **Testing Types**

- Unit and Integration Testing
- Functional Testing
- Regression Testing
- System Testing

##### **Other Testing**

- Risk based Testing

##### **Defect Management**

- Workflow in defect tracking
- Defect Data and Analysis
- Defect Database (Defect Prevention)

##### **Test Metrics**

- Testing defect related metrics
- Testing operation related metrics

##### **Wind up**

- Question answer session and workshop-closure

There would be exercises and sample case studies at appropriate junction points to elaborate and understand the concepts