



Structured Software Testing

This course presents how to test software based on requirements in a risk-driven approach regardless of project type. It discusses all necessary documents to be used as inputs to software testing and the documents to be developed within the testing processes. Techniques and approaches to test case development are discussed in detail. This course includes practical skills necessary to effectively comprehend requirements documented in a systems requirements specification to be used as one of the inputs in writing test plans and test cases.

Training Objectives

At the end of the course, the participants will be able to:

1. Develop a focused test plan to manage evaluate software projects.
2. Develop test cases based functional and non-functional requirements.
3. Design test cases and test scenarios.
4. Use IEEE Std 829 in writing test plans.
5. Estimate testing costs and schedules using proven techniques.
6. Apply verification and validation strategies.

Training Outputs

1. Test Plans
2. Test Cases
3. Test Scenarios
4. Test Procedures
5. Test Reports
6. Bug Reports

Topics

- I. Test Planning
 - a) Test Processes
 - b) Levels of Testing
 - c) Inputs to Test Processes
 - d) Roles in Software Testing
 - e) Types of Testing
 - f) Writing Test Plans
- II. Test Case Design Approaches
 - a) Fundamental Testing strategies
 - b) Black-box vs. white-box testing
 - c) Static Testing vs. Dynamic Testing
 - d) Validation Strategies for Black-box testing
 - e) Equivalence partitioning
 - f) Boundary-value analysis
 - g) Writing Test Cases and Test Scenarios
 - h) Writing Test Procedures
- III. Test Execution
 - a) Test Execution Process
 - b) Writing Bug Reports/Test Reports

Duration 2 days