

## Chapter 1: Introduction of Software Testing

- What is Software?
- Types of Software
- What is Software Testing?
- What is a Quality of Software?
- Importance of Software Testing
- Why Software has bugs?
- Testing Roles in Company
- Testing Team Responsibilities
- What is Functionality?
- What is Defect, Error, and Bug?

## ~~Software Company Architecture~~

## Chapter 2: Software Development Process

- What is SDLC?
- Phases of SDLC
- SDLC work flow – detailed explanation

## Chapter 3: Testing Techniques

- Static Testing
- Dynamic Testing

*Boundary Value Analysis*  
*Equivalence Class Partitioning*

## Chapter 4: Testing Methods

- Black Box Testing
- White Box Testing
- Grey Box Testing

## Chapter 5: Levels of Testing

- Unit Testing
  - What is Unit Testing?
  - Examples of Unit Testing
  - Who will perform Unit Testing in Companies?
- Integration Testing
  - What is Integration Testing?
  - Integration Testing Types
  - Examples of Integration Testing
  - Who will perform Integration Testing in Companies?
- System Testing
  - What is System Testing?
  - Examples of System Testing
  - Who will perform system testing in Companies?
  - Types of System Testing
- User Acceptance Testing
  - What is UAT?
  - Types of UAT (Alpha & Beta Testing)

## Chapter 6: Types of Testing

- Smoke testing
- Sanity testing
- Usability Testing
- User Interface Testing
- Functionality Testing
- Re-Testing
- Regression Testing
- Data Base Testing
- Compatibility Testing
- Security Testing
- Ad-hoc Testing
- Exploratory Testing
- Installation Testing
- Recovery Testing
- Server Log File Testing
- Performance Testing
  - Load Testing
  - Stress Testing
  - Volume Testing
  - Endurance Testing

$$P_0 + egh = P_1 +$$

$$P_0 - P_1 = G$$

$$P_0 - P_1 = -\omega G$$

## Chapter 7: Software Development Models

- Waterfall Model
- Increment Model
- Prototype Model
- Spiral model
- Rapid Model
- V-Model
- Agile Model

**Others: FAQ's**

# Module 2: Software Engineering

## Chapter 1: Software engineering

## Chapter 2: QA Process and benefits of Process

- What is reusability?
- What is Process?
- Significance and Advantages

## **Chapter 3: Project Management Process**

- Initiation
- Planning
- Execution
- Monitoring
- Controlling
- Closing

## **Chapter 4: Change Management Process**

## **Chapter 5: Customer Satisfaction Survey**

## **Chapter 6: Software Configuration Management with VSS 6.0**

- What is Configuration Management?
- Significance & Advantages
- How to make best use of it
- VSS /CVS/SVN
  - Software Configuration Management
  - Purpose of SCM
  - Problems/Benefits using VSS
  - SCM process
  - Configuration of VSS/SVN
  - Navigation to VSS/SVN
  - Directory Structure used for my current project
  - Check-out files
  - Check-in files

## **Chapter 7: SEI CMMI-Levels**

- What CMMI?
- Why to go for CMMI?
- Advantages of being certified company
- CMMI Levels

## **Chapter 8: Verification and Validation**

- Verification methods
  - inspection
  - Walkthrough
  - Buddy check
  - Validation Methods

## **Chapter 9: Testing Roles and Responsibilities**

- ASE
- Software Engineer
- Sr. Software Engineer
- Team Lead
- Project Lead
- Test Manager

## **Others: FAQ's**

# Module 3: Project Testing

## Chapter 1: Project Management Plan

## Chapter 2: Requirements

- Business requirement Specification -BRS
- System requirement Specification -SRS
- Functional Requirement Specification -FRS

## Chapter 3: Introduction about Project

- Insurance /Banking Domain Knowledge
- Project Detailed Explanation
- Project Requirements explanation

## Chapter 4: Software Testing Life Cycle

- What is STLC?
- Phases of STLC
  - Test Initiation phase
    - What is Test Initiation?
    - Understanding project requirements with live show
    - Understanding UI Spec, FR Spec Documents
  - Test Planning Phase
    - What is a Test Plan?
    - Types of Test plan
    - Who will prepare Test plan documents?
    - Preparing a Test plan documents for project
  - Test Design Phase
    - What Tester will do in Test Design Phase?
    - What is Use Case?
    - What is a Scenario?
    - Preparing Scenarios for project
    - What is a Test Case?
    - Preparing Test case Template for project
    - Types of Test cases
    - Test Case design techniques
      - BVS
      - ECP
      - Decision Table
      - State Transition Diagrams
      - Error Guessing
    - Designing test cases for project
    - Test Case Status
    - Test Cases Review
    - Preparing RTM

## ➤ Test Case Execution

- When do we start test case execution?
- What is a Build?
- What is Version?
- Version Controlling and managing
- What is a Cycle?
- Builds from Development to Testing
  - Build & Deployment Process
  - Who will deploy the application
  - How to access the application
  - Significance of Host File
- Build Release Note
  - Who prepares the Release Notes?
  - When to prepare the Release Notes?
  - Significance of Release Notes
- Text cases Execution
  - Test Assignments allocation
  - Execution clarifications
- Defect Reporting and Tracking
  - What is a defect?
  - Defect Status
  - Defect Severity
  - Defect Priority
  - Types of Defects
  - Defect Life Cycle
  - Creating defects in QC
  - Defect Density
  - Result Analysis

## **Chapter 5: Defect Reporting Through Bugzilla/Jira/QC**

- Defect Management
- Creating user roles and permissions for each role
- Creating users for each role
- Defects reporting
- Defects tracking
- Defects Retesting
- Various reports generation
- Defects closing

## **Chapter 6: Agile Scrum Framework**

- Agile principles
- Agile Scrum Overview

- Scrum roles
  - Product Owner roles
  - Scrum master role
  - Team role
- Scrum Meetings
  - Sprint Planning meeting
  - Daily Scrum meeting
  - Scrum review meeting
  - Scrum retrospective meeting
  - Release planning meeting
- Scrum Components
  - Product Back log
  - Sprint Back log
  - Other components

## **r 7: Others**

- Status Reports
  - Daily status report
  - Daily defect report
  - Weekly status report
  - Retesting report
  - Reports from QC
- Project Workflow (End – To - End)
- Exit Criteria for Testing
- CV Preparation Tips
- Interview Tips & Mock Interviews



# Quality Center / ALM

- Introduction of Quality Center
  - The Quality Center Testing Process
  - Starting Quality Center
  - The Quality Center Window
- Specifying Testing Requirements
  - Defining Requirements
  - Viewing Requirements
  - Modifying Requirements
  - Converting Requirements
- Planning Tests
  - Developing Test Plan Tree
  - Designing Test Steps
  - Calling Tests With Parameters
  - Creating and Viewing Requirements Coverage
  - Generating Automation Test Scripts
- Running Tests
  - Defining Tests
  - Adding Test Sets
  - Running Test Sets Manually & Automatically
- Adding and Tracking Defects
  - How to Track the Defects?
  - Adding New Defects
  - Updating Defects
  - Linking Defects to Tests
- Analyzing
- Customizing Projects
- Reports from QC