

# Functional/Manual Testing Course Content

By Karthik Telajala

1. IT Organization Architecture
2. Software Introduction
  - a. Standalone Applications
  - b. Client-Server Applications
  - c. Web Applications
  - d. Mobile Application
3. Qualities of a Good Tester
4. What is Software Testing
5. Software Testing (Quality) Standards
6. Importance of Testing
7. Principles of Testing
8. Types of Testing
9. Methods of Testing
10. Levels of Testing
11. Other Types of Testing (around 30 other types of testing used in real time)
12. Software Development Life Cycle (SDLC)
13. Different SDLC Models
  - a. Waterfall (Sequential) Model
  - b. V – Model
  - c. Incremental Model
  - d. Rapid Application Development Model (RAD)
  - e. Iterative Model
  - f. Spiral Model
  - g. Agile Model
14. Software Testing Life Cycle (STLC)
15. Differences between SDLC & STLC
16. Agile Testing Methodologies
  - a. Scrum (with real time Sprint Board)
  - b. eXtreme Programming
17. Software Verification Techniques
18. Software Validation Techniques
19. Software Testing Versioning
20. Various documents need to be referred
  - a. BRD
  - b. Requirements Traceability Matrix (RTM)
  - c. Test Plan
  - d. HLD & LLD
  - e. BAA Document
  - f. TSD
  - g. Test Cases Document
  - h. Sign off Document etc...
21. Test Strategy
22. Test Plan Document & Contents
23. Differences b/w Test Strategy & Test Plan

24. Test Monitoring & Test Control
25. Branch Coverage & Statement Coverage
26. Test Summary Report
27. Test Case Design Techniques
28. How to Write Test Cases
29. Test Execution
30. Test Coverage
31. Defect Logging
32. Defect Life Cycle
33. Quality Center (HP ALM (QC))
  - a. Introduction to ALM
  - b. Modules and Workflow of ALM
  - c. Requirements creation
  - d. Test Case Designing
  - e. Mapping Test Cases to Requirements
  - f. Test Case Execution
  - g. Logging Defects
  - h. Generating Reports
  - i. Exporting Test Cases from Excel to QC
  - j. Importing Test Case\Defects from QC to Excel
34. TFS Tool (Alternate Tool)
35. Database Concepts – (T-SQL, MS SQL Server)
  - a. DBMS
  - b. RDBMS
  - c. SQL
  - d. Data Types
  - e. Basic SQL Queries
    - i. DML Commands
    - ii. DDL Commands
    - iii. DQL Command
    - iv. DCL Commands
    - v. TCL Commands
  - f. Constraints
  - g. Advanced SQL Queries
    - i. Joins
    - ii. Unions
    - iii. Indexes
    - iv. Sub Queries & Correlated Queries
    - v. Clauses
    - vi. Functions
    - vii. Ranking Functions
    - viii. CTE
    - ix. Stored Procedures
    - x. Triggers
36. Basic Domain Knowledge
37. Interview Questions
38. Mock Interviews