SOFTWARE TESTING COURSE (MANUAL TESTING)

Lesson-1: Introduction to Software Testing

- Why is software testing necessary?
- What is testing?
- Error, Fault & Failure
- Cause of Software Defect
- Importance of testing
- Role of Software Testing
- Testing & Quality
- Scope of Testing
- Risk Based Testing

Lesson-2: Testing – A Deep Dive

- What is testing and what are testing objectives?
- Cost of Defect
- What is Debugging?
- Testing Principles
- Fundamental Test Process
- Psychology of Testing
- Code of Ethics

Lesson-3: Testing Throughout the Software Life Cycle

- Introduction to Software Development Life Cycle (SDLC)
- Introduction to Software Development Models
  - Waterfall Model
  - V-Model
  - Iterative Development Models
    - Rapid Application Development (RAD)
    - Agile Model
- Test Levels
  - Component Testing
  - Integration Testing
  - System Testing
  - Acceptance Testing
    - Alpha – testing
    - Beta – Testing
- Test Types
  - Functional Testing
  - Non-Functional Testing
  - Structural Testing
  - Retesting & Regression Testing
  - Maintenance Testing

Lesson-4: Static Testing

- Static & Dynamic Techniques
- Reviews
- Formal Review Process
- Players in a reviewing meeting
- Success factors for Reviews
- Static Analysis by Tools

Lesson-5: Requirement Analysis

- Activities in requirement analysis
- Requirement Traceability Matrix
- Case Study

Lesson-6: Test Design Techniques

- Test Development Process
  - Identifying the Test Conditions – Test Scenarios
  - Test Design – Specifying Test Cases
  - Specifying Test Procedure & Scripts
  - Test Data Preparation
- Test Design Techniques
  - Black Box Testing Technique
    - Equivalence Partitioning
    - Boundary Value Analysis
    - Decision Table Testing
    - State Transition Testing
    - Use Case Testing
  - White Box Testing Technique
    - Statement Testing
    - Decision Testing
- Experience Based Techniques
- Choosing Test Technique

Lesson-7: Test Management Process

- Test Planning
  - Test Plan Preparation
  - Test Strategy Preparation
- Test Progress Monitoring & Control
  - Test Progress Monitoring
  - Test Reporting
  - Test Control

Lesson-8: How to Build a Test Ware

Lesson-9: Introduction to HP Quality Centre

- What is HP Quality Centre (HP QC)
- Modules in QC
  - Test Plan
  - Test Lab
  - Defects
  - Dashboard
- Defect/Incident Management
- Creating Test Cases in QC
- Executing Test Cases in QC
- Defect Logging in QC
- Reporting in QC

Lesson-10: Case Study

- Case Study
- Real time Project Activities