

Software Quality Assurance - Software Testing Essentials	
Session 1	<p>Software Engineering - Detailed information about SDLC - Software Development Life Cycle</p> <p>Software Development Methodologies</p> <ul style="list-style-type: none"> -V Model Waterfall, - Agile Scrum, - Sprint, - User Stories, etc <p>Software Requirement Specification documents</p> <ul style="list-style-type: none"> - Business Requirement Document(BRD) - Functional Requirement Document(FRD) <p>Roles and Responsibilities of various Software project stakeholders</p> <ul style="list-style-type: none"> - Business Analyst, Developers, Technical Architects, Testers, Configuration Management Team, End users, Client, Project Managers, QA Lead, QA Manager, etc <p>Why Testing - Goals and Objectives</p> <ul style="list-style-type: none"> - Discussion of Scenarios for defective systems - Probabilities of getting an error in an application <p>Testing trends and models – Various attributes of software systems that influences testing models like environment(Windows, Web, Mainframe, etc), type of application(Enterprise, Server-Client, Stand alone), domain(BFSI, Telecom, Mobile Apps) etc.</p>
Session 2	<p>Main Types of Testing</p> <ul style="list-style-type: none"> - White Box Testing - Black Box Testing - Non functional Testing (Scability, Reliability, interoperability)

Practise Session	<p>Different Testing types in detail</p> <ul style="list-style-type: none"> - Unit Testing - Functional Testing - System Testing - System Integration Testing - Regression Testing - Compatibility Testing - Configuration Testing - Localization/Internationalization - Smoke/Sanity Testing - Load/Stress/Performance - Browser Compatibility testing - Exploratory Testing - Security Testing
	Group Discussion on the type of testing and scenarios
	Differentiating Verification and Validation Techniques(Static and dynamic Testing) using Samples
Session 3	Being a tester 360 degree
	<p>STLC - Software Testing Life Cycle - Test Preparation</p> <ul style="list-style-type: none"> - How to formalize testing for different types of testing. - System Testing approach based on Scenarios.
	<p>Starting from</p> <ul style="list-style-type: none"> - Understanding the requirements document/ User Stories - Writing Effective Testscenarios for System Testing - Formalizing Test Data - Writing effective test cases
	<p>Test Case preparation techniques</p> <ul style="list-style-type: none"> - Boundary Value analysis - Equivalence Partitioning - Decision Table
	Hands on practise on writing Test scenarios/Test cases for various domain specific applications from BFSI, Enterprise applications, Mobile Apps, Healthcare, etc

	<p>Test Case Review</p> <ul style="list-style-type: none"> - Peer Review techniques - Checklist
Practise Session	Test Preparation and Review for Real time scenarios
Session 4	<p>Test Execution</p> <p>Test Bed setup</p> <ul style="list-style-type: none"> - Test Environment planning and Setup - Test dependencies and configurations <p>Defect Life Cycle</p> <ul style="list-style-type: none"> - Logging and Reporting <p>Defect Metrics - Analysing defects by priority/severity and categories</p> <p>Defect Fix Verification and Retesting</p> <p>Regression testing plan and execution</p>
Practise Session	Test Execution and defect logging using Real time applications using the Test cases prepared in Session 3
Session 5	<p>How to write Test plan, Scope, Strategy</p> <p>Entry and Exit Criteria</p> <p>Test Process and Approach</p> <p>Schedules and Estimation</p> <p>Requirement Traceability Matrix</p> <p>Testing Metrics - Test Coverage, Test Case Efficiency, Defect Density</p>
Practise Session	<p>Discussion on what a tester contributes to Test plan</p> <p>Using Tools for Testing and Defect Management using Free tools online</p>
Session 6	<p>Testing Internals</p> <p>White Box Testing Techniques for ,NET application using Visual Studio.NET 2012</p> <ul style="list-style-type: none"> - Unit Testing - Integration Testing - Top-Down, Bottom- Up,Hybrid, Bigbang approach <p>Code Coverage Techniques - Cyclomatic Complexity, Branch, Statement, Method/Function Coverage, Path and Conditions coverage for .NET applications</p> <p>Configuration Management using free online tools</p>

