SoapUI Pro On Demand Class Topics

**Course Overview**
- Goals and objectives
- Class structure
- Preparing for SoapUI Pro certification
- About the sample services
- Prerequisites
  - SOAP testing
  - REST testing

**SoapUI Pro Architecture**
- Embedded technology
  - Jasper
  - Jetty
  - Saxon
  - Logging
  - JDBC drivers
  - Hermes
  - Scripting
  - Monitoring
  - API
- Protocols
  - XML
  - SOAP
  - HTTP
  - JDBC
  - AMF
  - Supporting additional protocols
- Knowledge assessment

**SoapUI Projects**
- Overview and major project objects
- Preferences
- Workspaces and environments
- Events
- Properties
- Generating artifacts
- Composite projects
• Knowledge assessment

**Manual Service Interaction**
• Connecting to services
• Running basic tests
• Understanding the user interface
  o Requests & responses: SOAP
  o Requests & responses: REST
• Creating multiple requests
• Validating requests
  o WSDL for SOAP
  o WADL/XML for REST
• Reusing requests
• Knowledge assessment

**TestSuites**
• Overview
• Best practices
• Creating TestSuites
  o SOAP
  o REST
• Configuring TestSuites
  o Disabling individual TestSuites
  o Measuring coverage
  o Reporting
• Running TestSuites
  o Individually or in parallel
  o Within SoapUI or from the command line
• Knowledge assessment

**TestCases**
• Overview
• Creating TestCases
  o SOAP
  o REST
• Configuring TestCases
  o Recovering from errors
• Functional tests
• Generating load tests and security scans
• Running and debugging TestCases
  o Individually
  o In groups
• Knowledge assessment

TestSteps
• Protocol TestSteps
  o TestRequest
  o REST Test Request
  o HTTP Request
  o JDBC Request
  o AMF Request
  o Mock Response
• Flow-control TestSteps
  o Properties
  o Property Transfer
  o Conditional Goto
  o Delay
  o Groovy Script
  o Manual
  o Assertions
• Data TestSteps
  o DataSource
  o DataSource Loop
  o DataSink
  o Datagen
• Knowledge assessment

Assertions
• Overview
• Property content
  o Contains
  o Not Contains
  o XPath Match
  o XQuery Match
  o Message Content
• Compliance, status, and standards
  o Schema Compliance
  o SOAP Fault
  o Not SOAP Fault
SOAP Request/Response
- WS-Security Status
- Valid/Invalid HTTP Status Codes
- WS-Addressing Request/Response

- Script
- Service Level Agreement (SLA)
- JMS
- JDBC
- Security
- Creating dynamic assertions
- Knowledge assessment

**Data-driven Testing**
- Why using real data is so important
- DataSource types
  - Grid
  - File
  - XML
  - Groovy
  - Data connection
  - Excel
  - Directory
  - JDBC
- Configuring DataSources
- Generating queries and properties from databases
- Creating random data with Datagen
- Data-driven testing and RESTful services
- Using data to create dynamic assertions
- Knowledge assessment

**Mock Services**
- Overview
- Mock service, operation, and response
  - SOAP prerequisites
  - REST prerequisites
- Routing mock service requests
- Scripting
- Deploying mock services
  - Locally
  - Remotely
• Invoking mock services
  o Sharing among multiple users

• Knowledge assessment

Security
• SoapUI Pro security standards support
  o HTTPS
  o WS-Security
  o SAML
  o Creating multiple security profiles
• SoapUI security scans
  o Invalid Types
  o XPath Injection
  o Boundary Scan
  o SQL Injection
  o XML Bomb
  o Malformed XML
  o Malicious Attachment
  o Cross Site Scripting
  o Fuzzing Scan
• Best practices for security scans
• Knowledge assessment

Groovy
• Groovy fundamentals
• Context-based object access
• Running Groovy within SoapUI
  o TestStep
  o Setup/teardown scripts
  o Mock service scripts
  o Script assertions
• Knowledge assessment

Refactoring
• Overview
• Reloading vs. refactoring
• Refactoring messages
• Refactoring schema
• The role of developers in refactoring
• Knowledge assessment

**Reporting**
- Overview
- Goals of reporting
- SoapUI reporting options
  - JUnit-style reports
  - Data export
  - Jasper reports
- Customizing reports
- Launching reports
  - Within SoapUI
  - From the command line
- Knowledge assessment