# Module 1: Introduction to Web services

* What is a web service?
* Why do we use web service?
* What is XML?
* Why XML is used for communication?
* Famous protocols used in web services
* What is WSDL?
* How SOAP UI helps us
* Java OR groovy?
* SOAP UI free version
* Soap UI Pro
* Protocols supported by SoapUI
* How one should use soap UI
* Download and install SOAP UI
* Future of web services

# Module 2: Groovy Script Test Step - Context, Test Runner

* Cloning test suite/test case and usage
* testRunner Variable
* Stop/fail a test case
* Finding status of a test
* Finding time taken to execute a test step
* Navigating to various levels with testRunner Variable
* WsdlTestRunContext object
* Accessing context object across test cases
* Executing a test step in test case from test step in same test case
* Executing a test step in test case from test step in different test case
* Executing test case step with groovy
* Executing Test Request Test Step from groovy test step if Response is not present
* Setting parameters in the request from groovy test step

# Module 3: File Reading

* Reading properties file
* Advantages of properties file
* Reading/Writing Xls Files
* Storing data in Xls files
* Making a jar file with eclipse
* Importing custom jars in SoapUI
* When do we make and import jars in soapUI
* Using log object inside the groovy class

# Module 4: Assertions

* What is assertion?
* Validating response
* Contains, not contains assertions
* Xpaths in XMLs
* Xpath Assertions
* Xpath Functions
* Regular expressions in Xpaths
* Compliance, Status and Standards Assertions
* Preventing sensitive data to be visible in response- Security assertion
* SLA Assertion
* Best way to use assertions
* Practicality for using inbuilt assertion features

# Module 5: Properties in SOAPUI

* Properties at Different Level (TestCase, TestSuite, Project, Global)
* Custom and Project Properties
* Deciding levels for properties
* Practical usage/importance of properties
* Setting properties manually
* Handling Properties at all levels with groovy
* Different ways of reading properties in groovy
* Property Expansion using Groovy/context variable
* Passing on properties in request Reading response of one request test step and passing response values in request of another test step.
* Properties test step
* Test Request test Step custom properties
* Load property from .properties file
* When do we use properties file
* Reading properties file from groovy
* Property transfer test step
* Property Expansion using Property Transfer Step

# Module 6: SOAPUI PRO / API testing – 1

* Why SOAPUI Pro?
* Difference between soapui OS and soapui pro
* Downloading/Installing SOAPUI PRO
* SOAPUI PRO with SOAP and REST
* What is REST(Representational State Transfer) Architecture
* JSON based REST Architecture
* XML based REST Architecture
* Difference between REST and SOAP
* API testing with REST
* CRUD operations
* POST, GET, PUT and DELETE requests in REST

# Module 7: REST WEB SERVICE / API Testing

* Creating a new REST service
* Deciding Service EndPoints
* Resource and Methods
* Creating GET, POST, PUT and DELETE requests
* Setting/Deciding media type
* Sending a simple POST login REST request and getting JSON response
* Sending POST request parameters in message using JSON
* Reading header information containing sessionid
* Maintaining session over subsequent requests
* Firing another REST request with session ID from previous response
* Assertion test Step in SOAPUI PRO
* Techniques to validate JSON response

# Module 8: Data Driven Framework

* DataSource Test Step
* DataSource Loop Test Step
* DataSink Test Step
* Storing/Reading test data from XLS
* Storing/Reading test data from Database
* Saving request and response in a text file for every request
* Loop a test with different sets of data
* Using DataSource, DataSource Loop and DataSink
* Preventing the flow to stop if assertion fails
* Generate xls reports
* Launch TestRunner Option
* Reporting – HTML
* Reporting - XLS