



Course Content

Course Description:

Ruby Test Automation teaches the usage of Ruby as a test automation framework to automate Cucumber cukes. Primary focus is on the use of specific Ruby gems for interacting with and manipulating files, databases and invoking networked resources.

The **Ruby Test Automation** course focuses on understanding areas of application development common in enterprise systems. The goal is to understand what these technologies are and how to use Ruby to test them.

For instance, testing a web service would require:

Understanding of networking

Invocation of the web service

Parsing the XML or JSON response from the web service.

The **Ruby Test Automation** outline below provides the groundwork for successfully testing such an application.

Prerequisites:

N/A

Topics:

Module 1: Getting Started

- Setting up and running Ruby
- What is SCM and why you need it
- Introduction to Testing
- Tools for Ruby Test Automation
- Best practices in Ruby script creation

Module 2: Regular Expressions

- Introduction to Regex
- Patterns
- Classes
- Qualifiers

Module 3: File Input/Output Processing

- Reading file data
- Iterating through files
- Writing data to files
- Creating test data using Faker

Module 4: XML Processing

- Benefits of the XML format
- Constraining XML using XML Schema Documents (XSD)
- XML DOM Parsing
- XML SAX Parsing
- Modifying XML content
- Searching for content in XML using XPath

Module 5: Other Data Formats: CSV and JSON

- Parsing CSV data
- What is JSON?
- Reading and creating JSON content

Module 6: Webservices

- SOAP based Web Services
- REST Based web services
- Invoking webservices using Ruby



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Course ID#: 1110-300-00-W

28 Hrs

Module 7: Databases

- How Ruby interacts with DBMS
- SQL Data Definition Language (DDL)
- SQL Data Manipulation Language (DML)
- DBI Connectivity
- Transaction Management

Module 8: Networking with Ruby

- Introduction to standard network protocols
- Sockets programming
- Sending email (SMTP) using Ruby
- HTTP/HTML processing in Ruby
- Brief introduction to Watir

Module 9: Packaging and Executing Ruby

Scripts

- What are gems
- Installing gems
- Creating your gems
- Deploying your gems