



# Real Time College

**Course: Selenium Web-Driver-3 (in Java)**

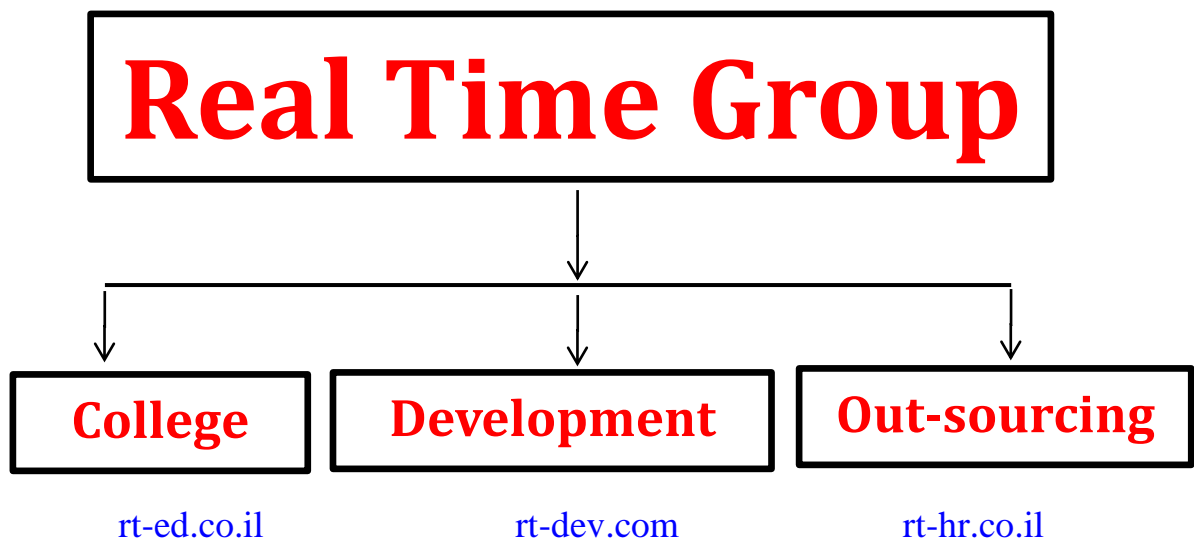
**Duration:** 30 Hours

Hands-On-Training: 75%

Real Time Group is a multi-disciplinary dynamic and innovative Real-Time O.S. and Embedded Software Solutions Center, established in 2007.

Providing Bare-Metal and Embedded Linux solutions, professional services and consulting, end-to-end flexible system infrastructure, outsourcing, integration and training services for Hardware, Software and RT-OS \ Embedded Systems.

The company is divided into the following three Divisions:



### **Training Division:**

Professional Training Services for Hardware, Software, RT-OS and Embedded systems industries.

We provide the knowledge and experience needed to enable professional engineers to Develop, Integrate and QA Hardware, Software and Networking Projects.

In order to insure experience, all courses are practical – hands-on-training. The latest Development, QA and Automation equipment which are adopted by the industry are used.

All students are supplied with Development-Boards for home-work and course projects.

## **Course Overview:**

Selenium WebDriver is an open source web UI automation tool implemented through a browser-specific browser driver, which sends commands to a browser and retrieves results.

This Selenium WebDriver -3 Practical Course, will teach you the APIs of WebDriver used in automation testing for various WebDriver implementations that are available. During the Course we will go through source code files, including HTML files, jQuery, standard test automation framework to implement test cases in the Java. In-depth explanation of how to deal with the latest features of WebDriver, using well-known design patterns through step-by-step practical exercises.

## **Who should attend:**

- This Course is for testers or programmers who are writing (or want to learn) automated tests with Selenium WebDriver.

## **Prerequisite:**

- Basic HTML and browsers concepts will be needed.
- Basic Testing concepts are required.
- Basic (very basic) Java coding skills is required, features up to (at least) version 7.

# Selenium Web-Driver in Java

## 1. Introduction to Selenium

- a. What is Selenium used for?
- b. Selenium Architecture
- c. Using API's
- d. Understanding Selenium as an API
- e. Running Test through Selenium IDE
- f. Difference in RC, WebDriver and Grid
- g. Basic Methods of Webdriver
- h. Webdriver browser methods
- i. Webdriver Java concepts Notes

## 2. Instating java and Selenium

- a. Java Installation
- b. Eclipse Installation and configuration
- c. Downloading and configuring Selenium
- d. Setting up Selenium in Eclipse Environment
- e. Selenium Project creation with Class files
- f. Setting up with Apache Maven

## 3. Running Tests on different Browsers

- a. How to run tests in Google Chrome
- b. How to run tests in Firefox
- c. How to run tests in IE
- d. Troubleshooting errors on browser invocation code

#### 4. **Creating a Fast Feedback Loop**

- a. Making it easy for developers to run tests
- b. Building our test project with Apache Maven
- c. Running your tests in parallel
- d. Parallel tests with TestNG
- e. Multiple browser support
- f. Downloading WebDriver binaries automatically
- g. Using Continuous integration
- h. Extending our capabilities by using a Selenium-Grid
- i. Dealing with stack traces

#### 5. **Identifying Elements/Objects on the Web Page**

- a. Identifying locators(id,name,linkText) with developer tools
- b. Identifying locators(className) with developer tools
- c. Identifying xpath in chrome and firefox Browsers
- d. Identifying CSS locators with chrome and firefox Addons
- e. Validating the accuracy of xpath and Css from browser

#### 6. **Handling Exceptions**

- a. NoSuchElementException
- b. NoSuchFrameException
- c. NoSuchWindowException
- d. ElementNotVisibleException
- e. StaleElementReferenceException
- f. InvalidElementStateException
- g. UnsupportedOperationException
- h. UnreachableBrowserException
- i. SessionNotFoundException
- j. WebDriverException – element is not clickable at point
- k. NoAlertPresentException