

Course code: **SELENIUM**

Course title: **Automation of functional tests of Web applications using Selenium and Robot Framework**

Days: 3

## Description:

### Course intended for:

Testers, programmers and quality managers in IT projects, who would like to develop their skills in creation of functional tests for Web application.

### Course objective:

The training objective is to provide the participants with sufficient knowledge for preparation of automatic tests via GUI using Selenium IDE, Robot Framework tools, with emphasis on issues that emerge in association with real applications.

### Course strengths:

The training strengths include practical classes and recommendations developed by trainers with many years of experience in testing of real Web applications used by millions of users in Poland and abroad.

### Requirements:

The training participants are required to be familiar with the issues associated with testing and experience in work with Web applications.

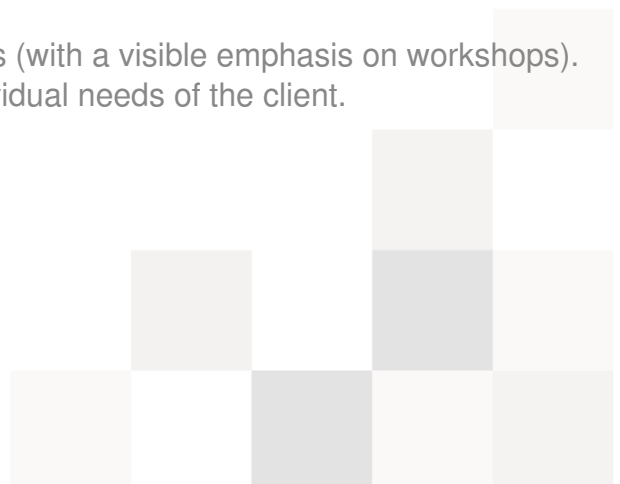
It would be good if the training participants had experience in testing and development of tests of automatic Web applications, using any tools (e.g. Quick Test Pro, Windmill etc.).

### Course parameters:

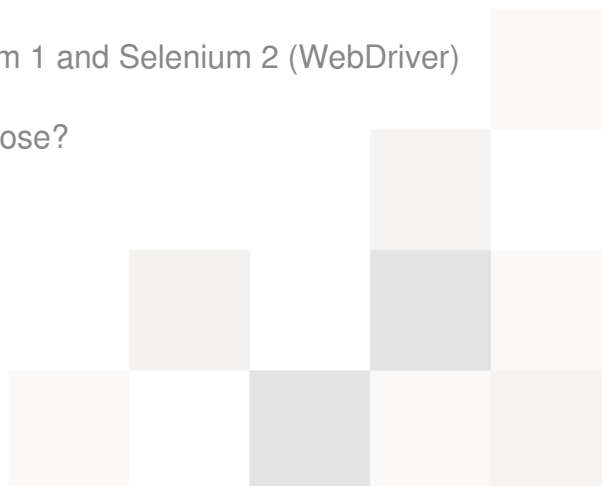
3\*8 hours (3\*7 net hours) of lectures and workshops (with a visible emphasis on workshops). The training parameters can be adapted to the individual needs of the client.

Group size: no more than 8-10 participants.

## Course curriculum:



- Introduction
  - What is this training about
- Introduction to Web applications
  - Client – server application model
  - Understanding of application structure on the client side
    - Passive components
    - Active components
      - forms
      - scripts
    - Advanced technologies
      - Java JSF and ADF
      - .NET
  - Tools for application testing
    - Firebug
    - XPath Checker
- Selenium IDE
  - The structure of Selenium
    - Selenium RC/Selenium Grid
    - Differences between Selenium 1 and Selenium 2 (WebDriver)
    - Which Selenium should I choose?
  - Test development
  - Types of keywords



- Assertions
- Interaction
- Working with Selenium IDE
  - Test recording
  - Test modification and parameterization
  - Test replaying
- Test launching
  - Export of tests to various formats
  - Test launching using a continuous integration system
    - Hudson (Jenkins)
    - TeamCity
- Advanced test development techniques
  - Test parameterization
  - For loops
- Practical exercises – tests of exemplary application
- Introduction to Robot
  - Introduction to keyword driven testing
    - In-built keyword libraries
      - utility (Strings, Collections)
      - SSHLibrary
      - SeleniumLibrary
  - Test development in Robot
    - Development of test sets



- Development of test cases
- Development of tests using Robot IDE
- Test launching
  - Test launching from IDE level
  - Test launching from command line level
    - pybot, jybot?
  - Test launching from continuous integration system
    - Hudson (Jenkins)
- Analysis of results
- Documentation
- Test development using Robot and SeleniumLibrary
  - Practical exercises using an exemplary application
- Practical aspects of test development
  - Use of Basic Authentication
  - Development of tools by adding own comments and keywords
  - Testing of Ajax application
  - Frames, windows and embedded forms
  - Development of own keywords

