



Kavin School Presents:

# Selenium Web Test Tool Training Using Ruby Language

**Discover the automating power of Selenium**

**Presented by:**

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1

Day

# Selenium Overview

## Selenium IDE Introduction

# History of Selenium

- In 2004 invented by Jason R. Huggins and team.
- Original name is **JavaScript Functional Tester** [JSFT]
- Open source browser based integration test framework built originally by Thoughtworks
- 100% Javascript and HTML
- Designed to make test writing easy
- Ability to run whole suites of tests or individual tests
- Ability to step through individual tests
- Cross browser – IE 6/7, Firefox .8+, Opera, Safari 2.0+

# Story about Selenium

- Developed by ThoughtWorks to test the new time and expenses system

MyThoughtWorks Version 0.7.3.2 - Ex...

**ThoughtWorks**

home members next time expenses

you are here: home » expenses » expense\_edit\_form

nford my preferences log out

### Add Expense Report

Project.subproject: some\_client

expense type	date (e.g. 19 Jun 2005)	amount	currency	description	vendor	payment type	attendees	personal
1 Airfare & Upgrades	21 Feb 2006	363.23	USD	Airfare ATL-ORD	Delta	TW Travel Dept. Paid		<input type="checkbox"/>
2			USD					<input type="checkbox"/>
3			USD					<input type="checkbox"/>
4			USD					<input type="checkbox"/>
5			USD					<input type="checkbox"/>

add row

remove this project

add project

save ☐ also Submit as Final

Return to Expense Home

This is how the need for Selenium started.

# Story about Selenium

- Selenium is a chemical element with the atomic number **34**, represented by the chemical symbol **Se**. It is a nonmetal, chemically related to **sulfur** and **tellurium**, and rarely occurs in its elemental state in nature.

**Periodic table of the elements**

group 1* Ia**	2 IIa											13 IIIa	14 IVa	15 Va	16 VIa	17 VIIa	18 0
1 H												5 B	6 C	7 N	8 O	9 F	10 Ne
2 Li	4 Be											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
3 Na	4 Mg	3 IIIb	4 IVb	5 Vb	6 VIb	7 VIIb	8 VIIIb	9 VIIIb	10 VIIIb	11 Ib	12 IIb	13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
55 Cs	56 Ba	57 La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
87 Fr	88 Ra	89 Ac	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 (Uub)	113 (Uut)	114 (Uuq)	115 (Uup)	116 (Uuh)		
lanthanide series		6 58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm				
actinide series		7 90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md				

\* Numbering system adopted by the International Union of Pure and Applied Chemistry (IUPAC).  
 \*\* Numbering system widely used, especially in the U.S., from the mid-20th century.  
 \*\*\* Discoveries of elements 112–116 are claimed but not confirmed. Element names and symbols in parenthesis are temporarily assigned by IUPAC.

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Selenium.

- Selenium is used for treating Mercury Poisoning

# Story about Selenium

- Mercury Quality Center (MQC) is developed by Mercury Interactive Corporation (Now HP owns it)

Group →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
↓ Period																		
1	1 H																	2 He
2	3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
3	11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6	55 Cs	56 Ba	* 	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra	** 	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Uub	113 Uut	114 Uuq	115 Uup	116 Uuh	117 Uus	118 Uuo
* Lanthanoids				57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
** Actinoids				89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr

- Professionals used MQC, QTP, WinRunner, LoadRunner and TestDirector
- Selenium users usually known at least any one of the Mercury Products

Discover the automating power of Selenium

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# What is Selenium?

- Selenium is a portable software testing framework for web applications.
- The tests can be written as HTML tables or coded in a number of popular programming languages and can be run directly in most modern web browsers.
- Selenium can be deployed on Windows, Linux, and Macintosh.
- Selenium is used for UAT (User Acceptance Test)

# Selenium Overview

- Selenium consists of
  - Selenium Core
  - Selenium RC
  - Selenium Grid
  - Selenium on Rails
  - Selenium IDE



# Selenium IDE

- Selenium IDE (SIDE) is a complete **Integrated Development Environment (IDE)** for Selenium tests (previously known as Selenium Recorder).
- Firefox extension that allows recording and editing of tests
- Allows easier development of tests
- Can output Ruby for it's Ruby based **(Application Programming Interface)** API

# Selenium IDE Features

- Record and playback
- Intelligent field selection will use IDs, names, or XPath as needed
- Auto complete for all common Selenium commands
- Walk through test cases and test suites.
- Debug and set breakpoints
- Save tests as HTML, Ruby scripts, or other formats
- Support for Selenium user-extensions.js file
- Option to automatically assert the title of every page
- Rollup common commands

# Selenium IDE License

- Selenium was developed by a team of programmers and testers at ThoughtWorks.
- Selenium is open source software, released under the Apache 2.0 license and can be downloaded and used without charge.
- The Selenium Grid provides a hub allowing the running of multiple Selenium tests concurrently on any number of local or remote systems, thus minimizing test execution time.

# Selenium Overview - Questions?

1. What are the Testing Tools you know?
2. Do you know any testing Tool which tests cross-browser compatibility?
3. Find any five testing tools. Provide brief description about the tool.
4. Find any 5 differences between the Functional Unit Test Tools you know and Selenium.
5. What is a Open Source Project?
6. What is a GPL (General Public License)?
7. What are the web development mark-up languages you know?
8. What are the scripting languages you know?