Selenium Tutorial
What is Selenium?

- Javascript framework that runs in your web-browser
- Works anywhere Javascript is supported
- Hooks for many other languages
  - Java, Ruby, Python
- Can simulate a user navigating through pages and then assert for specific marks on the pages
- All you need to really know is HTML to start using it right away
Where to get it?

• You can use Selenium-Core and customize everything.
• But it is easier to just get a Firefox plug-in “Selenium-IDE” that helps you “record” test cases.
• You can record how an app is being used and then play back those recordings followed by asserts.
• Get everything at: www.openqa.org/selenium/
Selenium IDE

The root of web application you want to test

The list of actions in the actual test case to execute

The log of the events that were executed, including any errors or warning that may have occurred
Selenium IDE

Execution Commands

Reference of the currently selected command

Record test actions

Try the test in the Web based TestRunner

Specify commands, including asserts
Test Creation Demo

- Create test case to log into the gallery
- Create test case to log out of the gallery
Start Pixory

Connect to the Server

Go to the Login Screen

Hit the Record Button
Type in Username and Password

IDE should update

Hit record
again to stop

Hit submit
Add `assertTextPresent` and type the text to search for

Hit play to make sure your test is successful
Creating a Test Suite

A Test Suite in Selenium is just an HTML file that contains a table of links to tests

```html
<html>
<head>
<meta content="text/html; charset=ISO-8859-1" http-equiv="content-type">
<title>Demo Test Suite</title>
</head>

<body>
<table id="suiteTable">
<tbody>
<tr><td><b>Demo Test Suite</b></td></tr>
<tr><td><a href="./testLogin.html">TestLogin</a></td></tr>
<tr><td><a href="./testLogout.html">TestLogout</a></td></tr>
</tbody>
</table>
</body>
</html>
```
Executing the Test Suite

• Selenium Core is a collection of Javascript and HTML with iFrames
• Due to security concerns Core must be deployed within the same server as the application being hosted
• The simplest way to run Pixory is to just run the Java application and let it use its own server
• Problems using Core with Pixory
• Selenium IDE is a plug-in for Firefox and thus can go around these restrictions
Running the Test Suite

- We basically want to execute the test suite using the Selenium IDE plug-in TestRunner.html

```
chrome://selenium-ide/content/selenium/TestRunner.html?
baseURL=<BASE>&test=file:///<TEST SUITE FILE>&auto=true
```

```
chrome://selenium-ide/content/selenium/TestRunner.html?
```
Test Suite

don't know your username/password?
Test Suite

Test Cases

Steps of the test case

Application being tested

Execution Control
Test Runner Control

![Selenium TestRunner](image)
Test Runner Control

- Run All Tests
- Run Selected Test
- Pause/Play Execution
- Step through Execution
- Control Speed of Execution
- Summary of the Test
- Highlight Elements in the Execution
- View the DOM of the current Page being tested
- View the log of the current execution
TestRunner Demo

- Execute Tests created inside the Firefox TestRunner