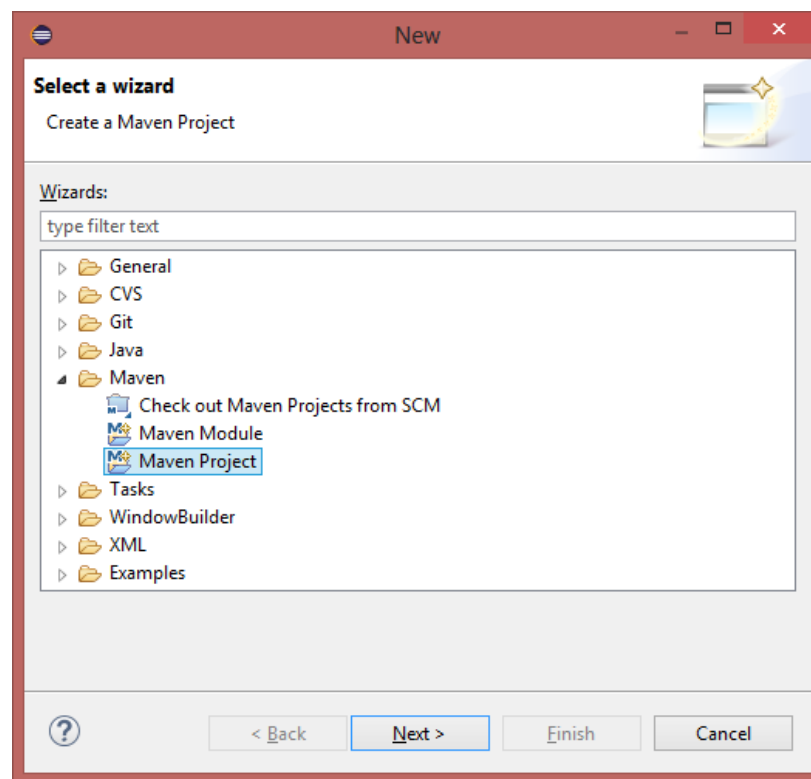


1

Getting Started



New Maven Project

New Maven project
Select project name and location

Create a simple project (skip archetype selection)

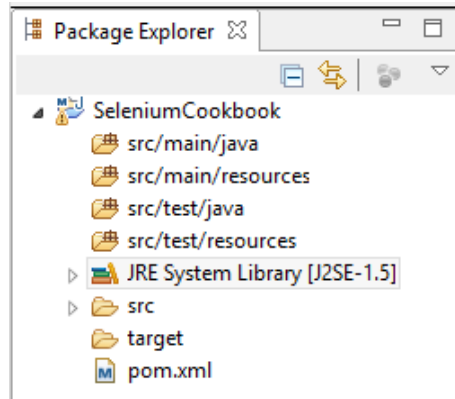
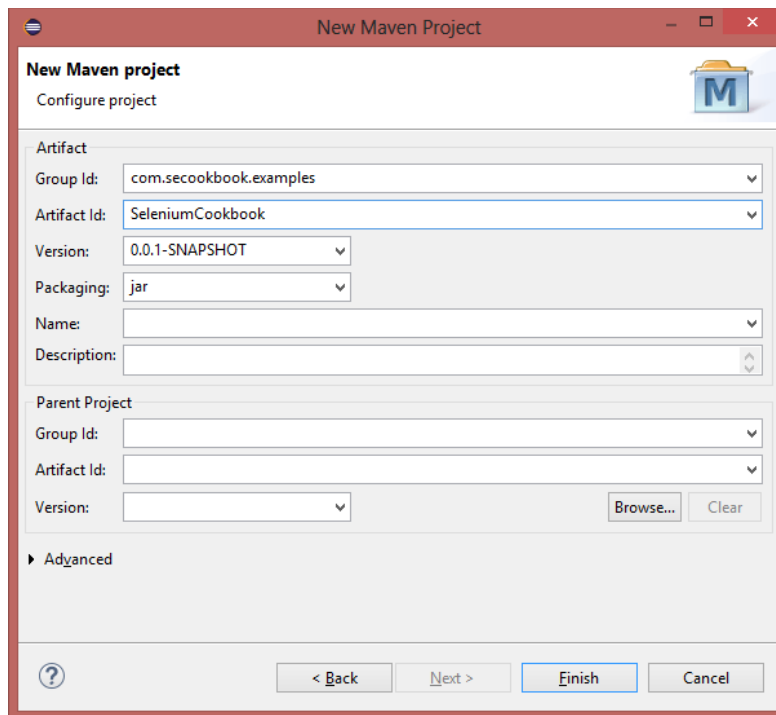
Use default Workspace location

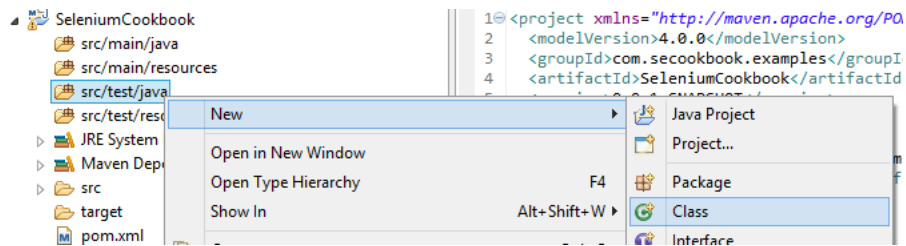
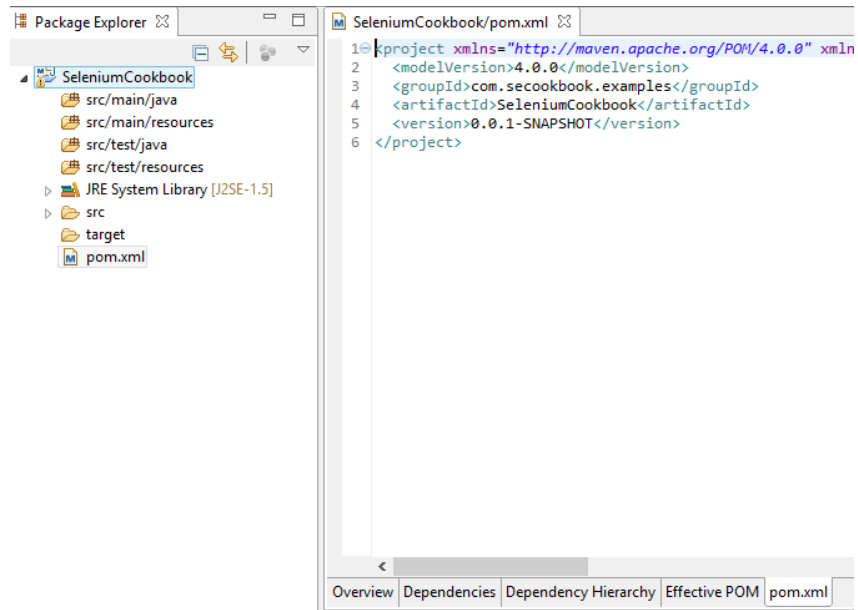
Location:

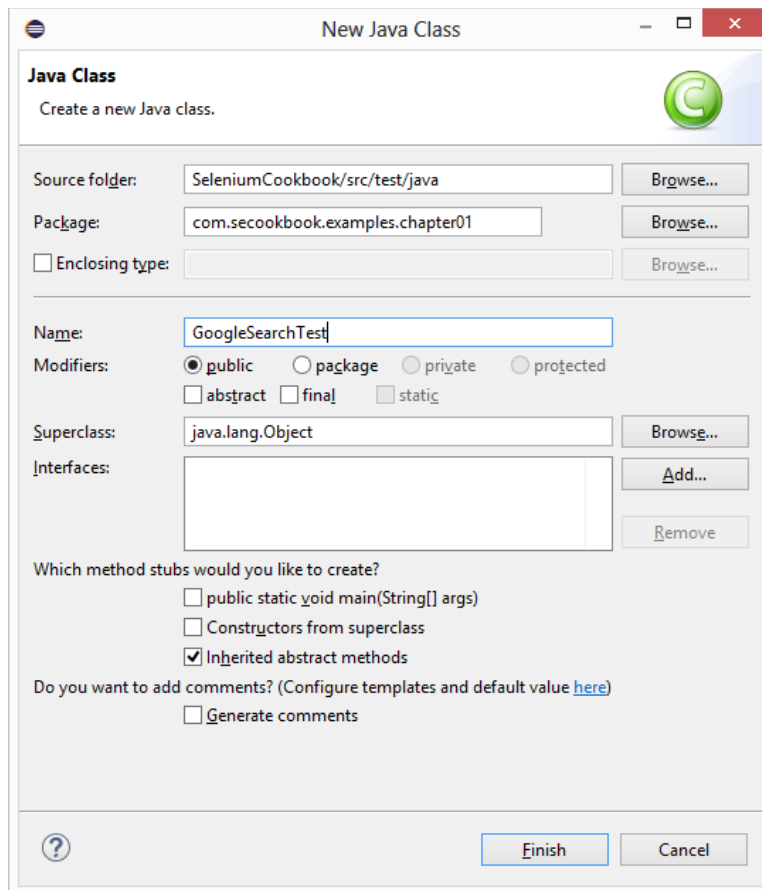
Add project(s) to working set

Working set:

▶ Advanced







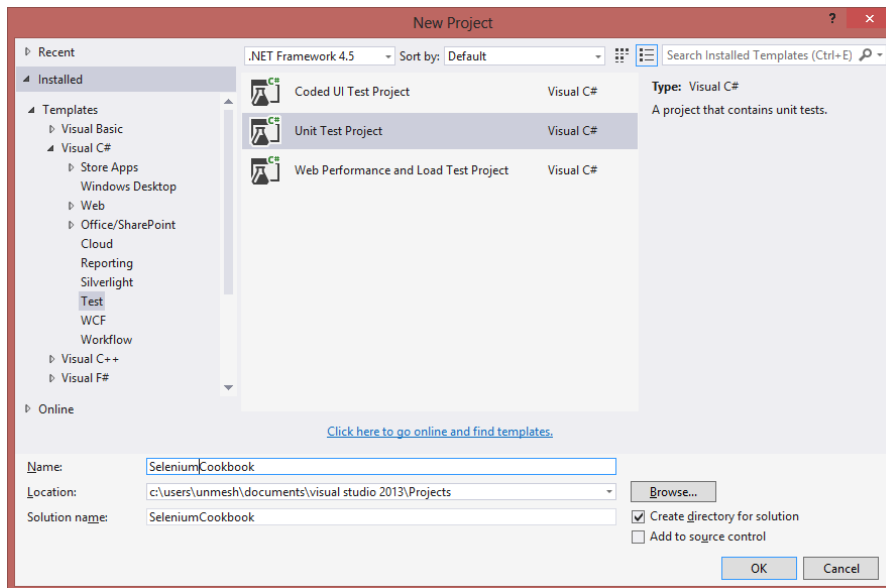
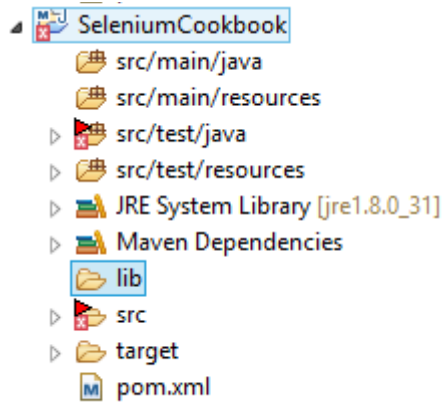
```
C:\Windows\system32\cmd.exe
Downloaded: http://repo.jenkins-ci.org/public/org/apache/maven/surefire/surefire-junit4/2.12.4/surefire-junit4-2.12.4.jar (37 KB at 22.2 KB/sec)
[WARNING] Unknown repository update policy 'monthly', assuming 'never'

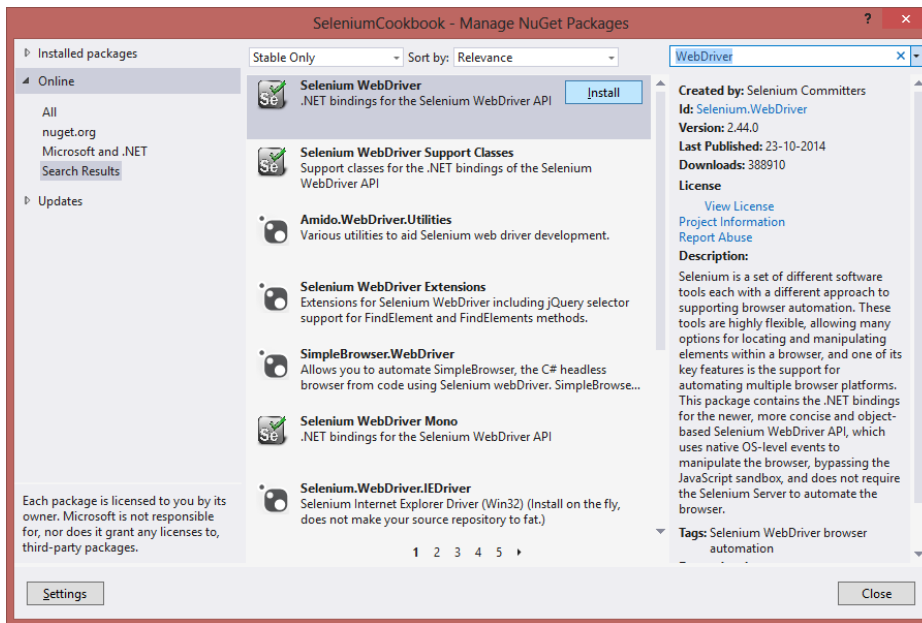
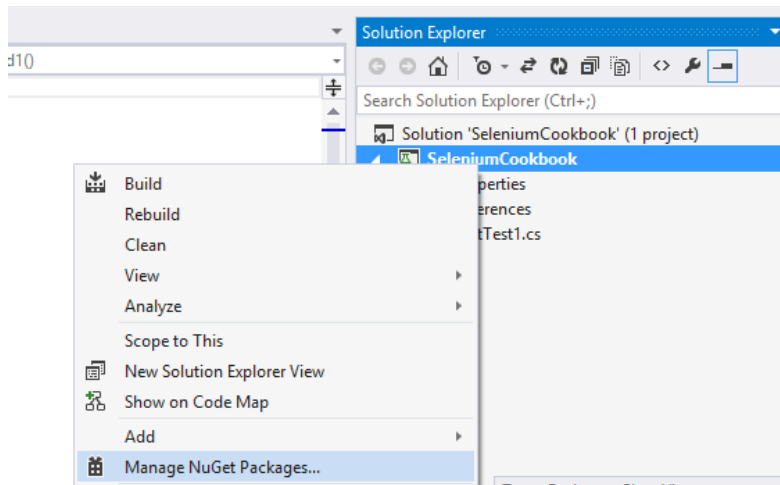
-----
T E S T S
-----
Running com.secookbook.examples.chapter1.GoogleSearchTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 67.661 sec

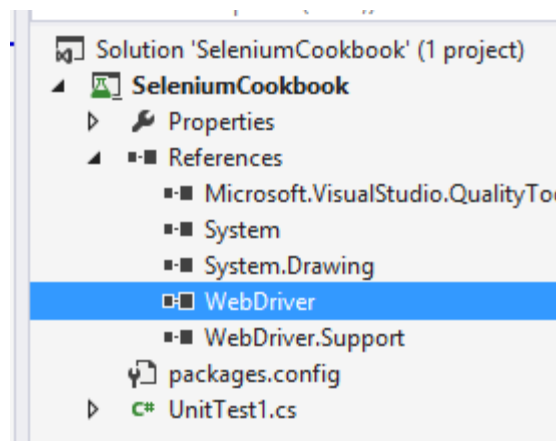
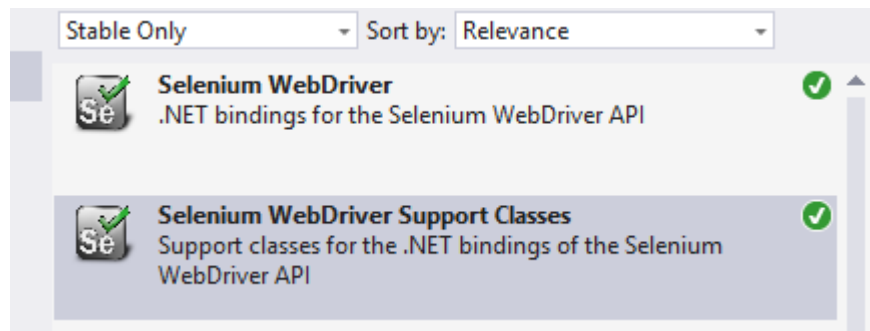
Results :

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 2:27.307s
[INFO] Finished at: Tue Oct 28 23:17:43 IST 2014
[INFO] Final Memory: 11M/62M
[INFO] -----
C:\workspace\SeleniumCookbook>
```







```
C:\Windows\system32\cmd.exe

C:\Users\UNMESH>google_search.py
test_google_search (__main__.GoogleSearch) ... C:\Python34\lib\site-packages\selenium\webdriver\firefox\firefox_binary.py:97: ResourceWarning: unclosed <socket.socket fd=344, family=AddressFamily.AF_INET, type=SocketType.SOCK_STREAM, proto=0, laddr=('0.0.0.0', 10173)>
  while not utils.is_connectable(self.profile.port):
C:\Python34\lib\site-packages\selenium\webdriver\firefox\firefox_binary.py:97: ResourceWarning: unclosed <socket.socket fd=344, family=AddressFamily.AF_INET, type=SocketType.SOCK_STREAM, proto=0, laddr=('0.0.0.0', 10176), raddr=('127.0.0.1', 10170)>
  while not utils.is_connectable(self.profile.port):
ok

-----
Ran 1 test in 28.078s

OK

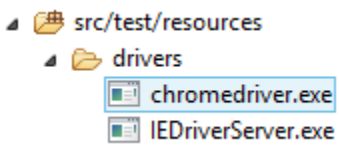
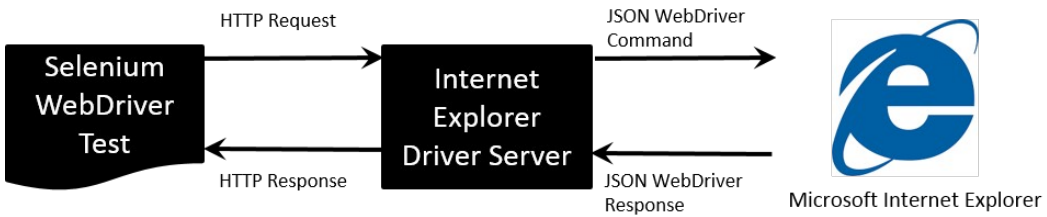
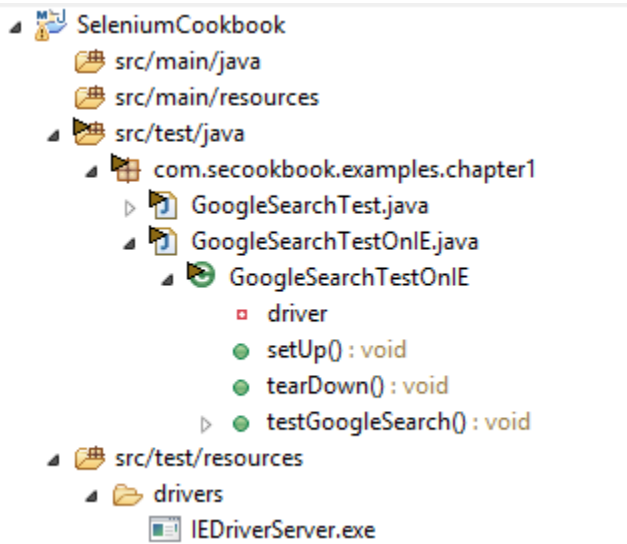
C:\Users\UNMESH>
```

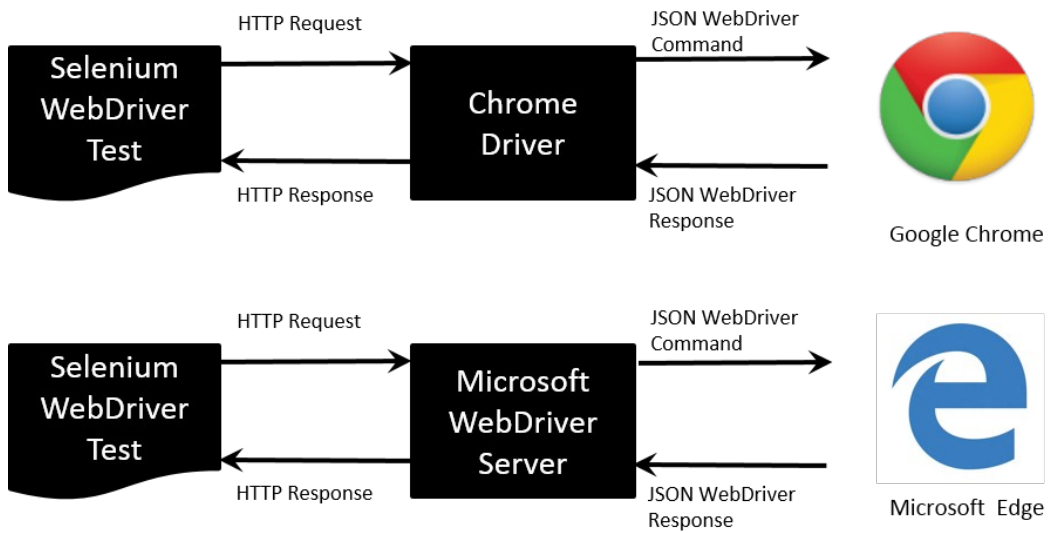


```

C:\Windows\system32\cmd.exe
C:\Users\UNMESH>google_search.rb
Run options:
# Running tests:
Finished tests in 35.377895s, 0.0283 tests/s, 0.0283 assertions/s.
1 tests, 1 assertions, 0 failures, 0 errors, 0 skips
ruby -v: ruby 2.1.3p242 (2014-09-19 revision 47630) [x64-mingw32]

```





2

Finding Elements

BMI Calculator

Enter Your Height and Weight (in Metric) to Calculate Your BMI

Height in Centimeters: *

Weight in Kilograms: *

Your BMI is:

Category:

```

108 <header id="header" class="info">
109 <h2>BMI Calculator</h2>
110 <div>Enter Your Height and Weight (in Metric) to Calculate Your BMI</div>
111 </header>
112
113 <ul>
114
115 <li id="foli1" class="nottranslate">
116 <label class="desc" id="title1" for="heightCMS">
117 Height in Centimeters:
118 <span id="req_1" class="req">*</span>
119 </label>
120 <div>
121 <input name="heightCMS" id="heightCMS" type="number" class="field text medium" value="" maxlength="255" tabindex="1"
122 onkeyup=""/>
123 </div>
124 </li><li id="foli2" class="nottranslate">
125 <label class="desc" id="title2" for="weightKg">
126 Weight in Kilograms:
127 <span id="req_2" class="req">*</span>
128 </label>
129 <div>
130 <input name="weightKg" id="weightKg" type="number" class="field text medium" value="" maxlength="255" tabindex="2"
131 onkeyup=""/>
132 </div>
133 </li>
134 <li class="buttons">
135 <div>

```

BMI Calculator

Enter Your Height and Weight (in Metric) to Calculate Your BMI

Height in

Centimeters: *

Weight in Kilograms:

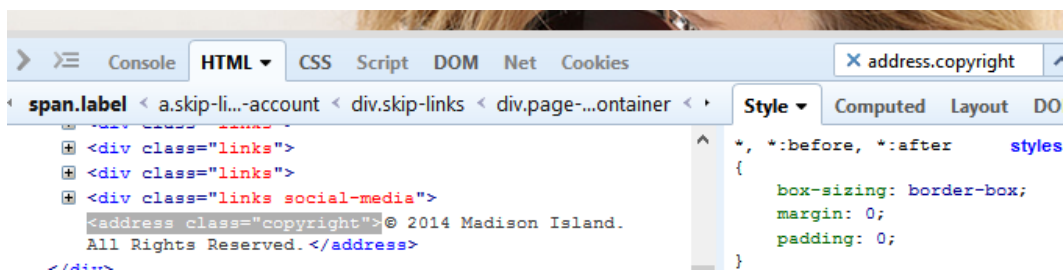
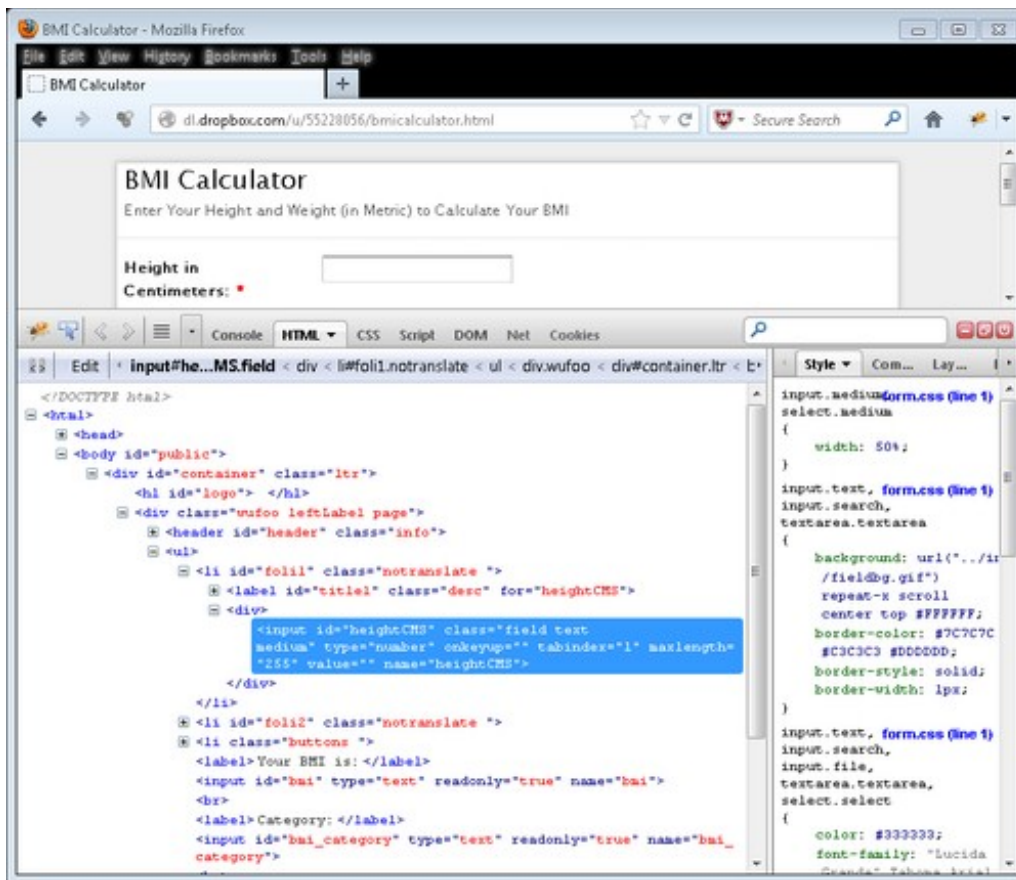
*

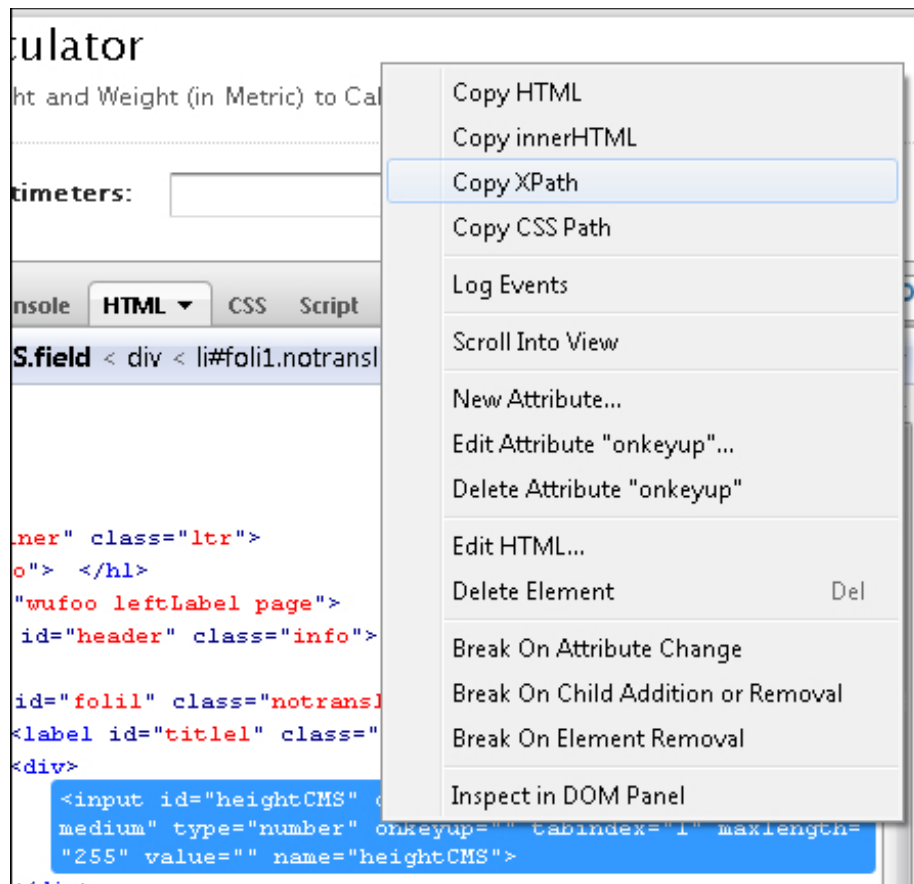
Calculate

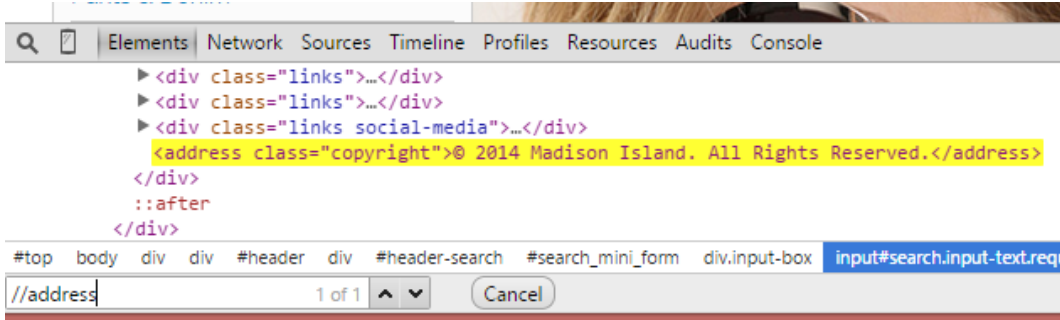
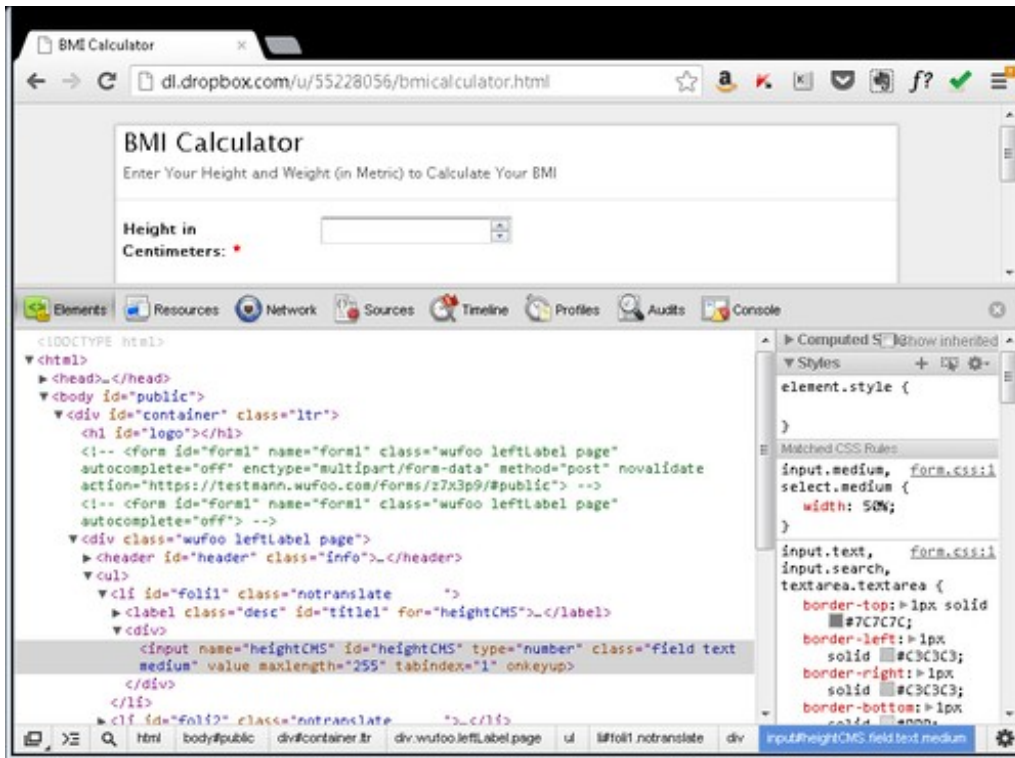
Your BMI is:

Category:

- Undo
- Cut
- Copy
- Paste
- Delete
- Select All
- DownloadHelper
- HttpWatch Basic
- Check Spelling
- Inspect Element (I)
- Inspect Element with Firebug







The image shows a web browser window displaying a BMI Calculator application. The browser's address bar shows the URL `http://dl.dropbox.com/u/55228056/bn`. The page title is "BMI Calculator". The main content area contains the following text and form elements:

BMI Calculator
Enter Your Height and Weight (in Metric) to Calculate Your BMI

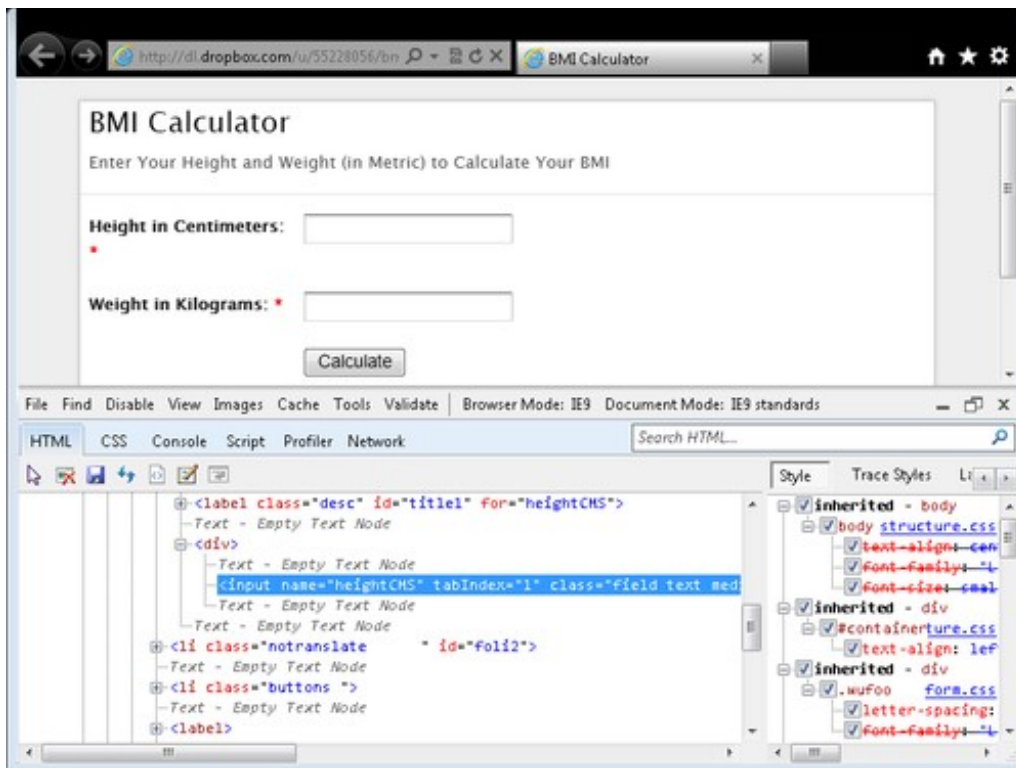
Height in Centimeters:

Weight in Kilograms:

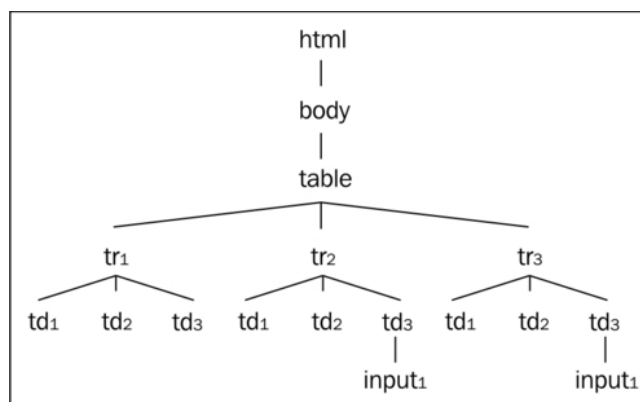
The browser's developer console is open, showing the following HTML structure:

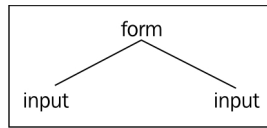
```
<!DOCTYPE html>
<html>
```

The console also shows tabs for HTML, CSS, Console, Script, Profiler, and Network. The "Style" tab is currently selected, showing "Trace Styles", "Layout", and "Attributes".



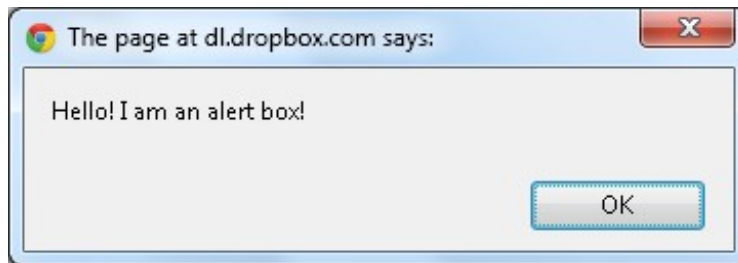
Product	Price	Qty
Product 1	\$100	12
Product 2	\$150	5





6

Working with Alerts, Frames and Windows





7

Data-driven Testing

Package Explorer JUnit

Finished after 36.064 seconds

Runs: 4/4 Errors: 0 Failures

- com.secookbook.examples.chapter07.SimpleDD
 - [0] (3.410 s)
 - testBMICalculator[0] (3.410 s)
 - [1] (3.199 s)
 - testBMICalculator[1] (3.199 s)
 - [2] (3.014 s)
 - testBMICalculator[2] (3.014 s)
 - [3] (3.717 s)
 - testBMICalculator[3] (3.717 s)

BMICalculator.dll - NUnit

File View Project Tests Tools Help

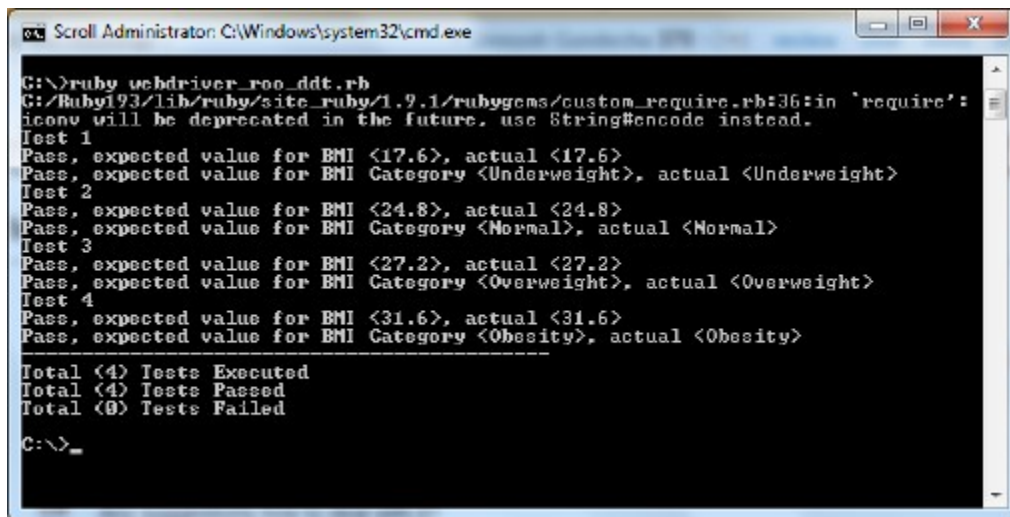
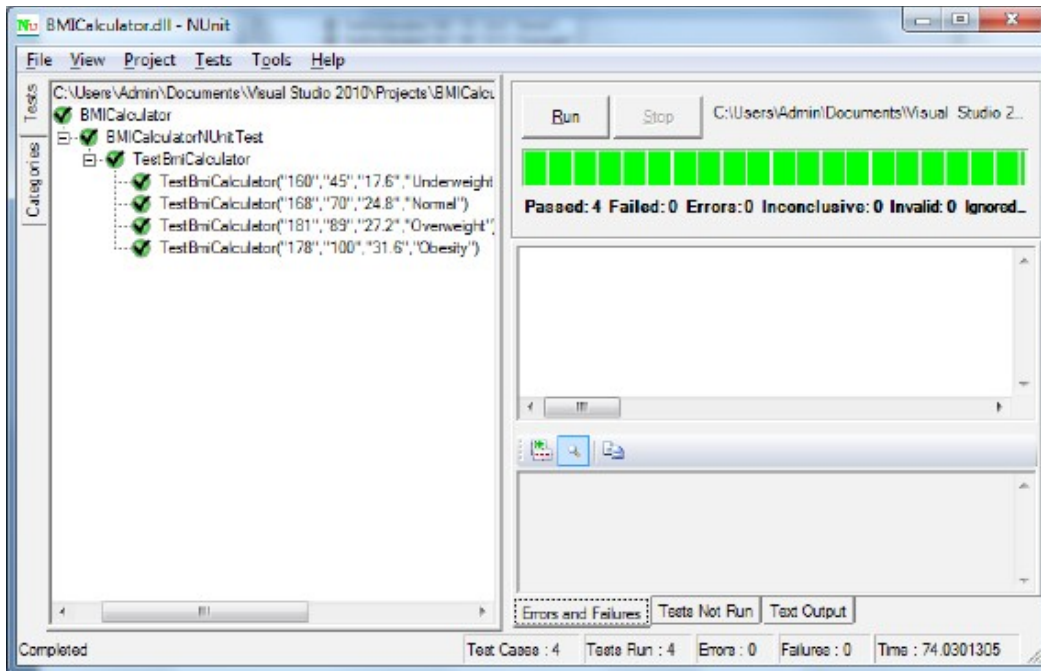
C:\Users\Admin\Documents\Visual Studio 2010\Projects\BMICalculator

- BMICalculator
 - BMICalculatorUnitTest
 - TestBmiCalculator
 - TestBmiCalculator("160", "45", "17.6", "Underweight")
 - TestBmiCalculator("168", "70", "24.8", "Normal")
 - TestBmiCalculator("181", "89", "27.2", "Overweight")
 - TestBmiCalculator("178", "100", "31.6", "Obesity")

Run Stop

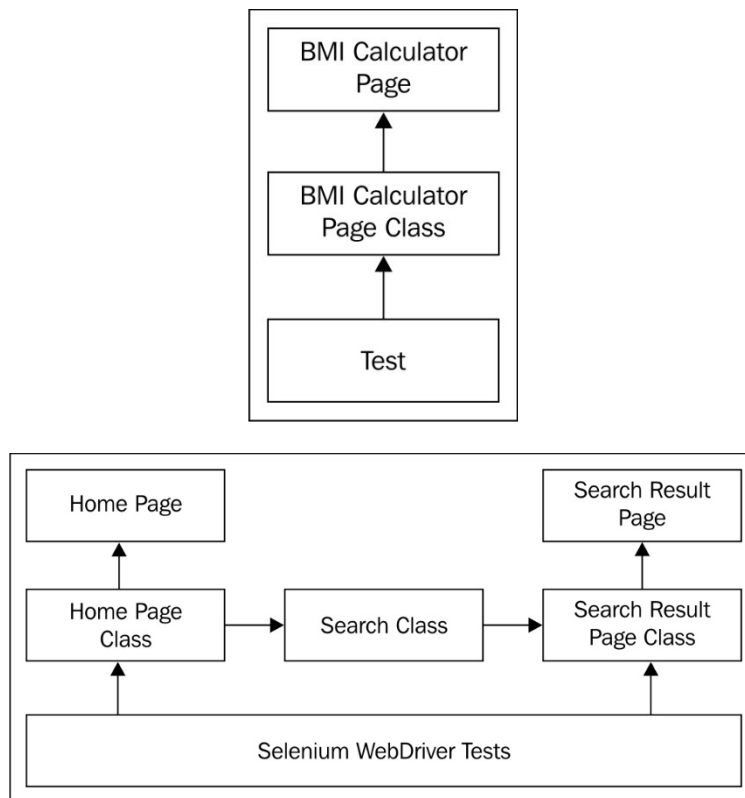
Errors and Failures Tests Not Run Text Output

Ready Text Cases : 4



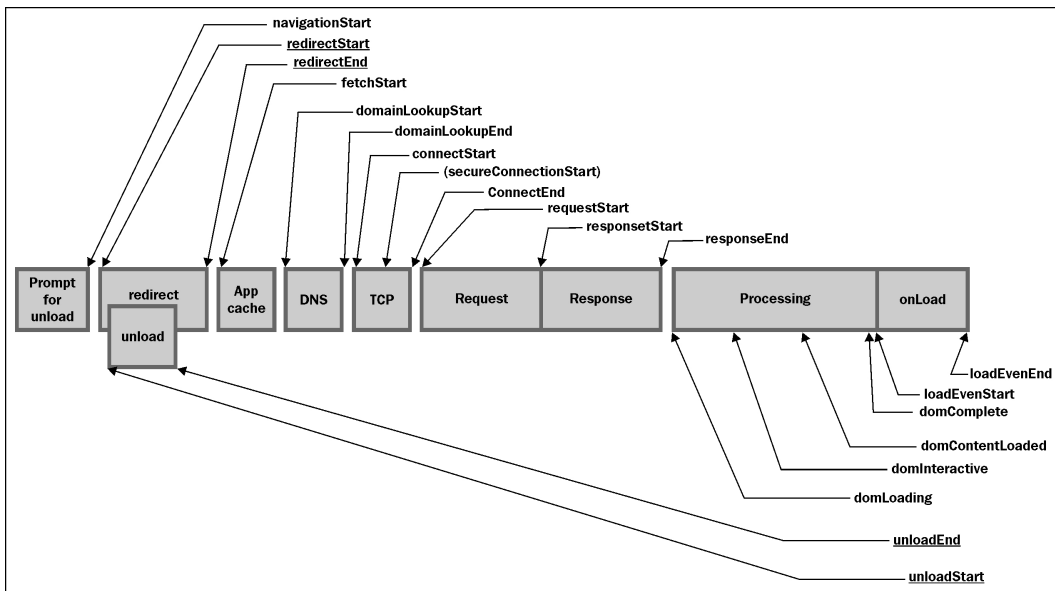
8

Using the Page Object Model



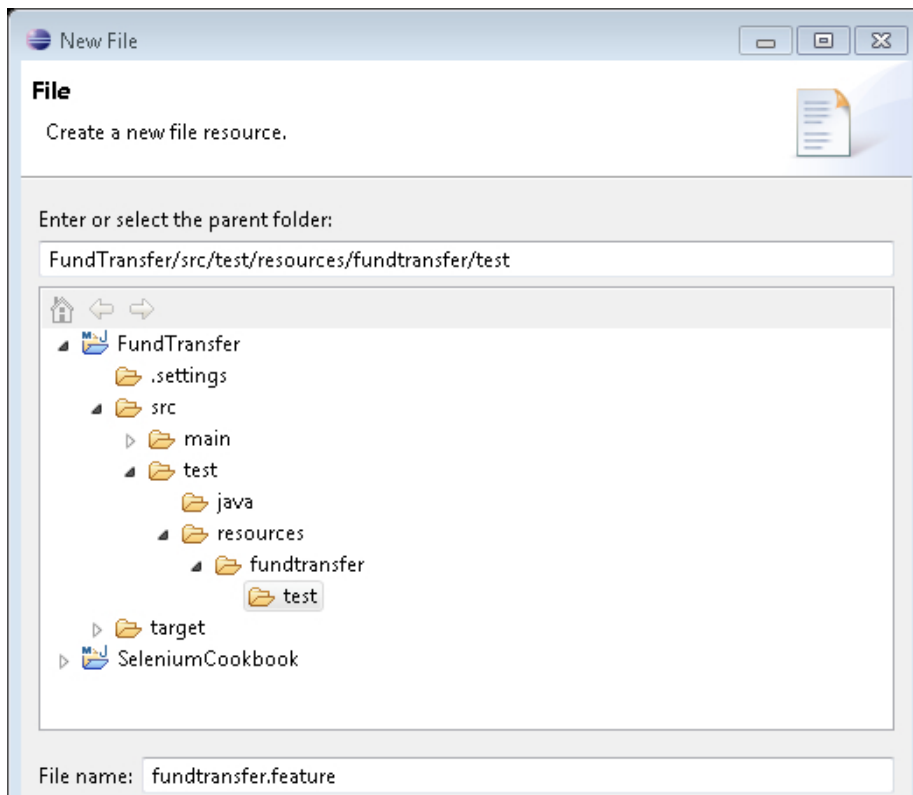
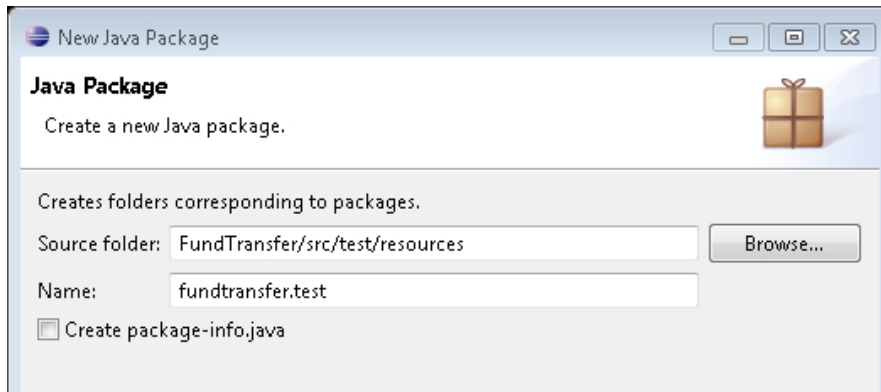
9

Extending Selenium



11

Behavior Driven Development



New Java Package

Java Package

Create a new Java package.

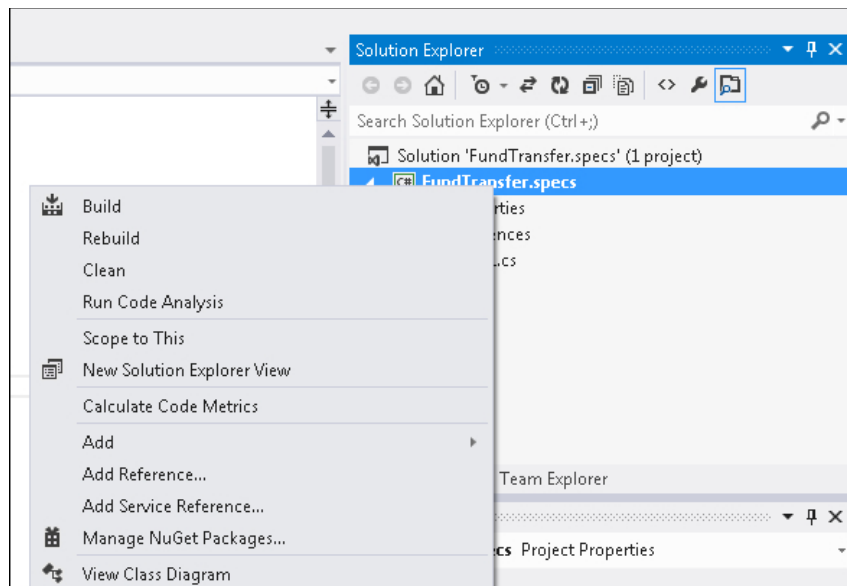
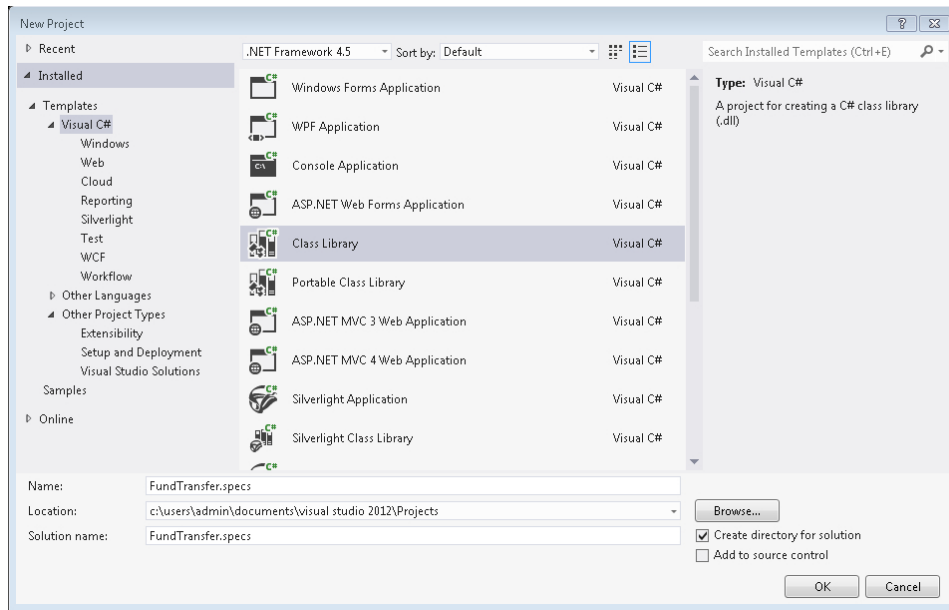
Creates folders corresponding to packages.

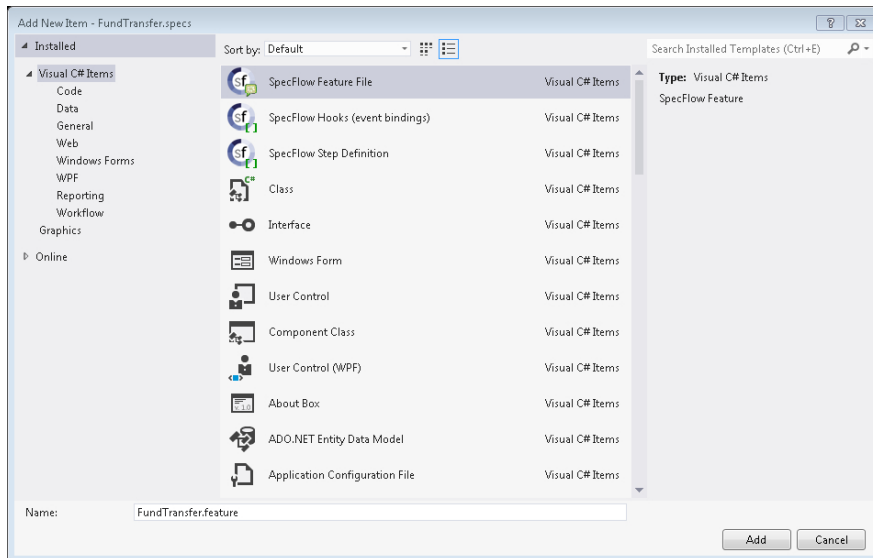
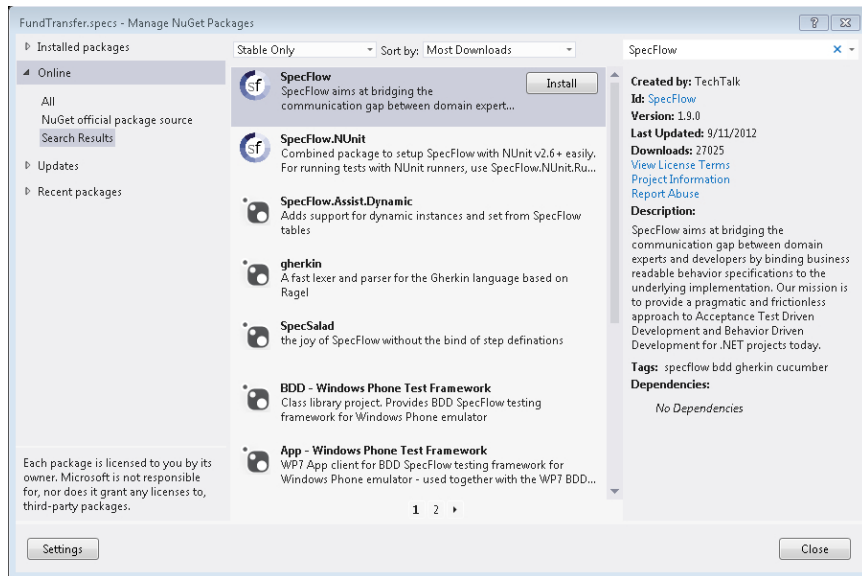
Source folder:

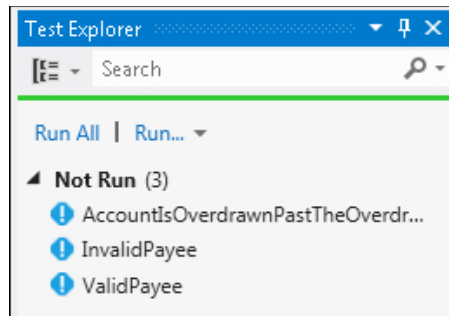
Name:

Create package-info.java

- ▼ **Feature:** Customer Transfer's Fund
As a customer, I want to transfer funds so that I can send money to my friends and family
 - ▼ **Scenario:** Valid Payee
 - Given the user is on Fund Transfer Page
 - When he enters "Jim" as payee name
 - And he enters "100" as amount
 - And he Submits request for Fund Transfer
 - Then ensure the fund transfer is complete with "\$100 transferred successfully to Jim!!" message
 - ▼ **Scenario:** Invalid Payee
 - Given the user is on Fund Transfer Page
 - When he enters "Unmesh" as payee name
 - And he enters "100" as amount
 - And he Submits request for Fund Transfer
 - Then ensure a transaction failure message "Transfer failed!! 'Unmesh' is not registered in your List of Payees" is displayed
 - ▼ **Scenario:** Account is overdrawn past the overdraft limit
 - Given the user is on Fund Transfer Page
 - When he enters "Tim" as payee name
 - And he enters "1000000" as amount
 - And he Submits request for Fund Transfer
 - Then ensure a transaction failure message "Transfer failed!! account cannot be overdrawn" is displayed







```
Administrator: C:\Windows\system32\cmd.exe
c:\>cucumber
*** WARNING: You must use ANSICON 1.31 or higher (http://adoxa.110mb.com/ansicon
) to get coloured output on Windows
Feature: BMI Calculator has a Calculate Function

  Scenario: Calculate BMI # features\bnmicalculate.feature:3
    Given I am on BMI Calculator # eatures/bnmicalculate_steps.rb:1
    When I fill in the following: # eatures/bnmicalculate_steps.rb:5
      | heightCMS | 181 |
      | weightKg  | 80  |
    When I press "Calculate" # eatures/bnmicalculate_steps.rb:9
    Then I should see following: # eatures/bnmicalculate_steps.rb:13
      | bmi          | 24.4 |
      | bmi_category | Normal |

1 scenario (1 passed)
4 steps (4 passed)
0m22.547s
```

```
C:\Windows\system32\cmd.exe
# steps\fundtransfer_steps.py:12
And he Submits request for Fund Transfer # steps\fundtransfer_steps.py:16
Then ensure a transaction failure message Transfer failed!! 'Unmesh' is not
registered in your List of Payees is displayed # steps\fundtransfer_steps.py:24

Scenario: Account is overdrawn past the overdraft limit # features\fundtransfer.feature:20
  Given the user is on Fund Transfer Page # steps\fundtransfer_steps.py:4
  When he enters Tim as payee name # steps\fundtransfer_steps.py:8
  And he enters 1000000 as amount # steps\fundtransfer_steps.py:12
  And he Submits request for Fund Transfer # steps\fundtransfer_steps.py:16
  Then ensure a transaction failure message Transfer failed!! account cannot b
e overdrawn is displayed # steps\fundtransfer_steps.py:24

1 feature passed, 0 failed, 0 skipped
3 scenarios passed, 0 failed, 0 skipped
15 steps passed, 0 failed, 0 skipped, 0 undefined
Took 0m23.962s
```

12

Integration with Other Tools

JDK

JDK installations

JDK

Name

JAVA_HOME

Install automatically

[Delete JDK](#)

[Add JDK](#)

Ant

Ant installations

Ant

Name

ANT_HOME

Install automatically

[Delete Ant](#)

Maven

Maven installations

Maven

Name

MAVEN_HOME

Install automatically

[Delete Maven](#)

[Add Maven](#)

List of Maven installations on this system

Job name

Build a free-style software project
 This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system other than software build.

Build a maven2/3 project
 Build a maven2 project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

Build multi-configuration project
 Suitable for projects that need a large number of different configurations, such as testing on multiple environments.

Monitor an external job
 This type of job allows you to record the execution of a process run outside Jenkins, even on a remote machine. See [the documentation for more details](#).

Copy existing Job
 Copy from

Source Code Management

CVS
 None
 Subversion

Modules
 Repository URL ?
 Local module directory (optional) ?

Check-out Strategy ?
Use 'svn update' whenever possible, making the build faster. But this causes the artifacts from the previous build to remain when a new build starts.

Repository browser ?

Build

Root POM ?
 Goals and options ?

[add description](#)

All +	S	W	Name ↓	Last Success	Last Failure	Last Duration	
			Selenium Cookbook	2 min 14 sec (#1)	N/A	54 sec	

Icon: S.M.L

Jenkins

Jenkins > Selenium Cookbook

- New Job
- People
- Build History
- Selenium Grid
- Manage Jenkins

[Delete Project](#)
[Configure](#)

Build History (trend)

#1 27-Sep-2012 22:18:53

[RSS for all](#)
[RSS for failures](#)

Project Selenium

[Workspace](#)
[Recent Changes](#)
[Latest Test Result \(no failures\)](#)

Permalinks

- Last build (#1), 4 min 7 sec ago
- Last stable build (#1), 4 min 7 sec ago
- Last successful build (#1), 4 min 7 sec ago

Test Result

0 failures

1 tests

Module	Fail	(diff)	Total	(diff)
SeleniumCookbook:SeleniumCookbook	0		1	+1

Build Triggers

Build whenever a SNAPSHOT dependency is built
 Build after other projects are built
 Build periodically

Schedule

Poll SCM

Job name

Build a free-style software project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system other than software build.

Build a maven2/3 project
Build a maven2 project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

Build multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple operating systems.

Monitor an external job
This type of job allows you to record the execution of a process run outside Jenkins, even on a remote machine. See [the documentation for more details](#).

Copy existing Job
Copy from

Source Code Management

CVS
 None
 Subversion

Modules

Repository URL ?

Local module directory (optional) ?

Check-out Strategy ▼

Use 'svn update' whenever possible, making the build faster. But this causes the artifacts from the previous build to remain when a new build starts.

Repository browser ▼ ?

Build

Invoke Ant

Ant Version

Targets

Advanced...

Delete

Add build step

Post-build Actions

Publish JUnit test result report

Test report XMLs

[Fileset 'includes'](#): setting that specifies the generated raw XML report files, such as 'myproject/target/test-reports/*.xml'. Basedir of the fileset is [the workspace root](#).

Retain long standard output/error

Delete

Add postbuild action

[add description](#)

All	S	W	Name ↓	Last Success	Last Failure	Last Duration
			Selenium Cookbook	2 min 14 sec (#1)	N/A	54 sec

Icon: S.M.L

Jenkins

Jenkins Selenium Cookbook

- New Job
- People
- Build History
- Project Relationship
- Check File Fingerprint
- Selenium Grid
- Manage Jenkins

Modules

Build History (trend)

#1 [01-Oct-2012 21:57:21](#)

[RSS for all](#) [RSS for failures](#)

Project Selenium Cookbook

- [Workspace](#)
- [Recent Changes](#)
- [Latest Test Result \(no failures\)](#)

Permalinks

- [Last build \(#1\), 21 days ago](#)
- [Last stable build \(#1\), 21 days ago](#)
- [Last successful build \(#1\), 21 days ago](#)

Test Result

0 failures

1 tests
Took 27 sec.
[add description](#)

All Tests

Package	Duration	Fail	(diff)	Skip	(diff)	Total	(diff)
seleniumcookbook.examples.test	27 sec	0		0		1	+1

Build Triggers

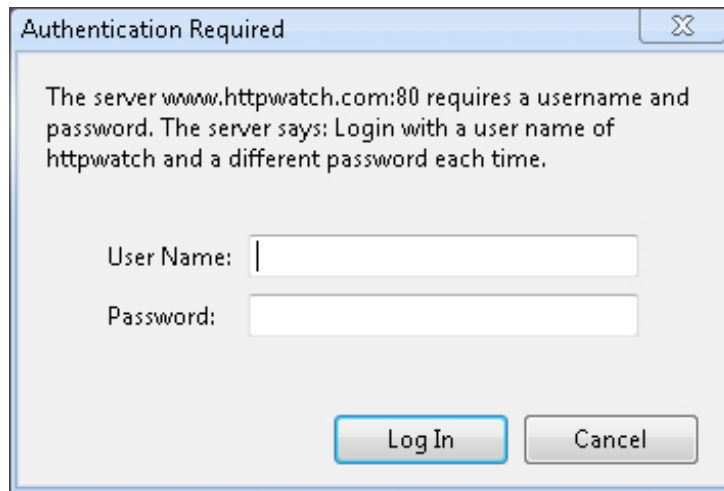
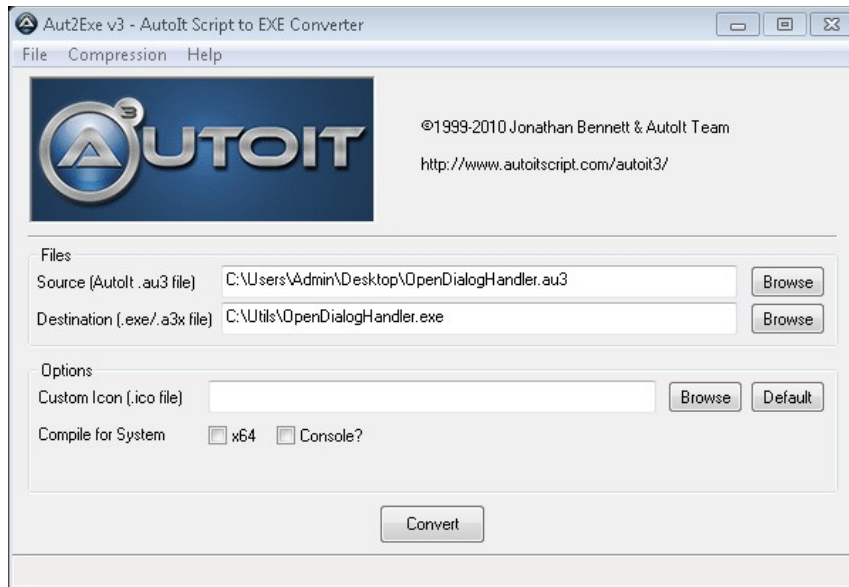
Build after other projects are built

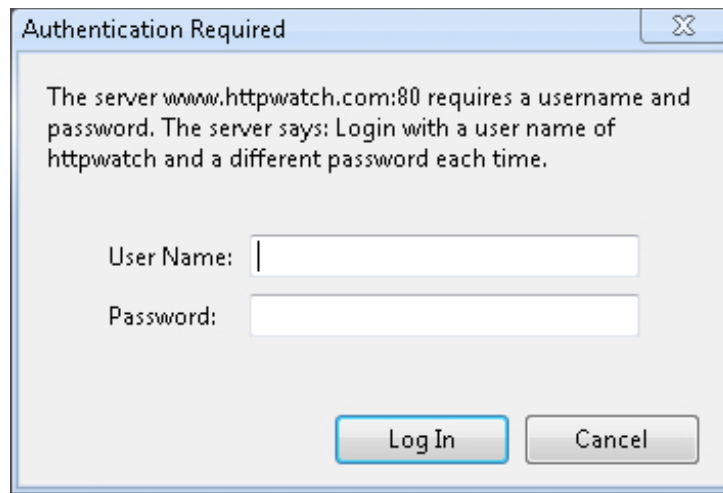
Build periodically

Schedule

Poll SCM

The screenshot shows a Windows Explorer window titled "Open" with the address bar set to "Libraries". The left sidebar shows "Favorites" (Desktop, Downloads, Dropbox, Recent Places) and "Libraries" (Documents, Music, Pictures, Podcasts, Subversion, Videos). The main pane displays the "Libraries" section with the instruction "Open a library to see your files and arrange them by ...". Below this, four library icons are visible: Documents Library, Music Library, Pictures Library (which is highlighted), and Podcasts Library. At the bottom, there is a "File name:" field, a file type dropdown set to "All Files", and "Open" and "Cancel" buttons.





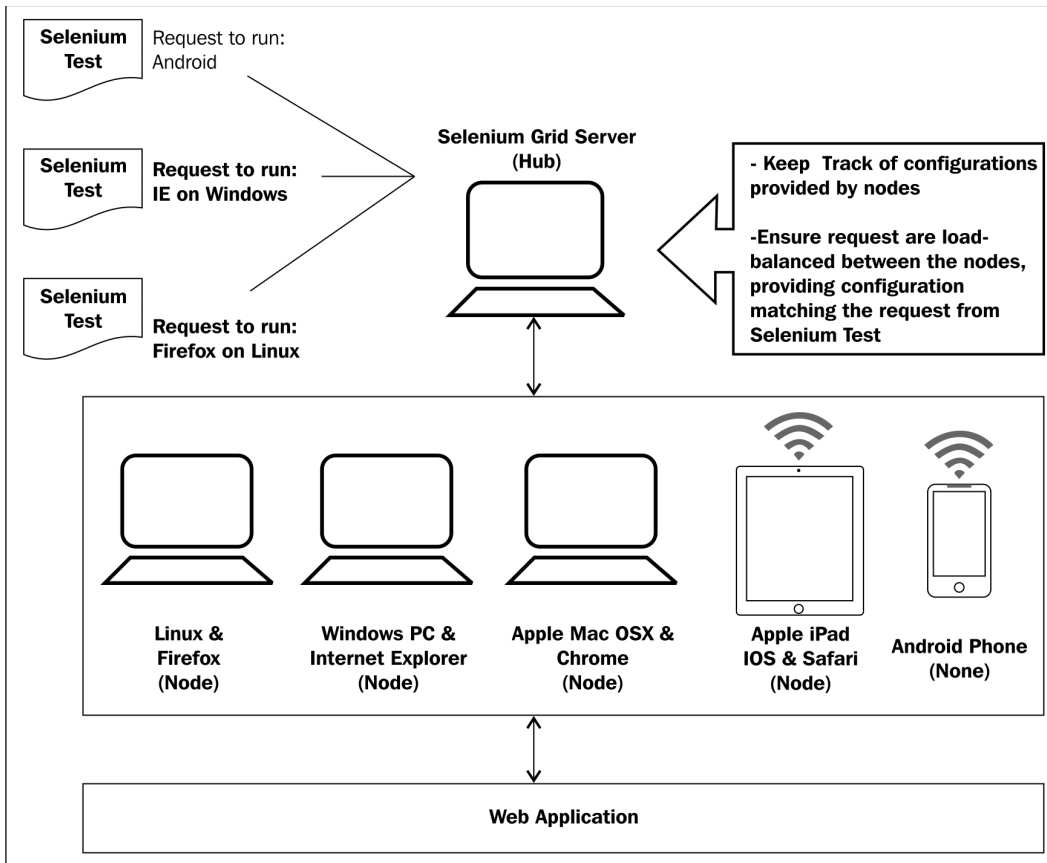
User Name:

Password:

Log In

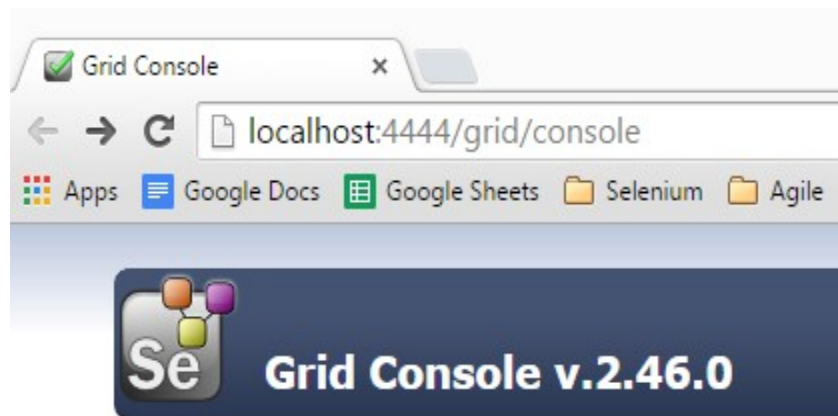
13

Cross Browser Testing



```

C:\Windows\system32\cmd.exe - java -jar selenium-server-standalone-2.46.0.jar...
c:\Selenium>java -jar selenium-server-standalone-2.46.0.jar -port 4444 -role hub
-nodeTimeout 600
22:45:00.089 INFO - Launching Selenium Grid hub
2015-06-29 22:45:06.667:INFO:osjs.Server:jetty-7.x.y-SNAPSHOT
2015-06-29 22:45:06.792:INFO:osjsh.ContextHandler:started o.s.j.s.ServletContext
Handler{/,null}
2015-06-29 22:45:06.823:INFO:osjs.AbstractConnector:Started SocketConnector@0.0.
0.0:4444
22:45:06.823 INFO - Nodes should register to http://192.168.1.5:4444/grid/regist
er/
22:45:06.823 INFO - Selenium Grid hub is up and running
  
```



[view config](#)

id : http://192.168.1.104:5555, OS : WINDOWS

Browsers **Configuration**

WebDriver
v:10

[view config](#)

id : http://192.168.1.104:6666, OS : WINDOWS

Browsers **Configuration**

WebDriver
v:27

id : http://192.168.1.104:7777, OS : WINDOWS

Browsers **Configuration**

WebDriver
v:35

id : http://192.168.1.104:5555, OS : WINDOWS

Browsers	Configuration
WebDriver v:10	

DefaultRemoteProxy (version : 2.41.0)
id : http://192.168.1.104:6666, OS : WINDOWS

Browsers	Configuration
WebDriver v:27	

id : http://192.168.1.104:7777, OS : WINDOWS


Browsers	Configuration
WebDriver v:35	

DefaultRemoteProxy (version : 2.41.0)
id : http://192.168.1.100:8888, OS : MAC

Browsers	Configuration
WebDriver v:7	

[view_config](#)

Access Key




c6e7132c-ae27-4217-b6fa

[Generate a new access key](#)

Automated Builds **Automated Tests** Manual Tests

Tuesday, Jun 30th

 **BMI Calculator Test** started a few seconds ago by @upgundecha ⚡ 10.9 7 **Running...**

? Test **Complete**
BMI Calculator Test

Team ▼ Report Delete

Virtual Machine
OS X 10.9
safari 7

Build [Learn more about annotating tests](#)
Owner [ugundecha](#)
Started Jun 30, 2015 at 5:47PM
Ended Jun 30, 2015 at 5:47PM
Duration 25s

⚡ Sauce Connect Disabled

Watch **Commands** Logs Metadata

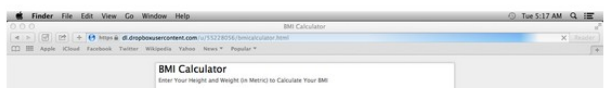
FILTER: Command Has Screenshot

▶ Play ⏪ ⏩ 2 of 13

00:00:03 00:00:20

POST /session

2s

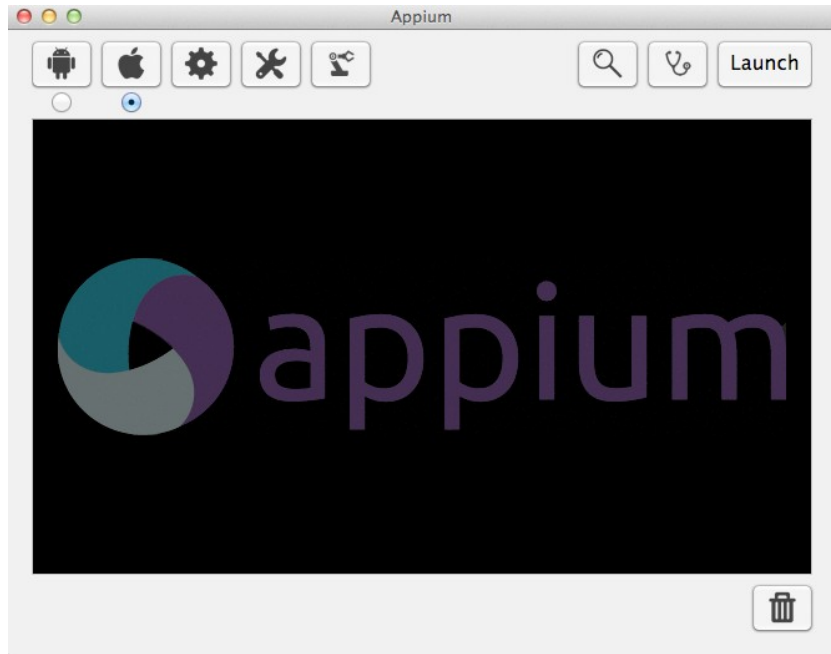


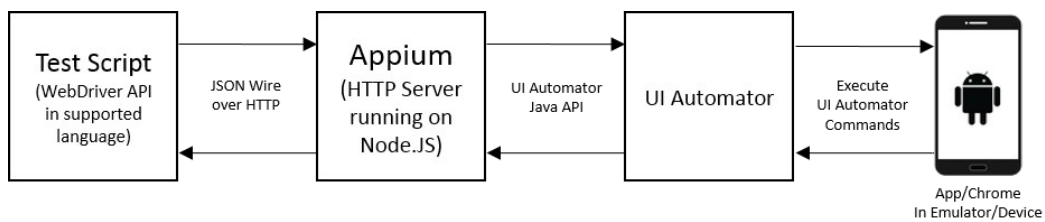
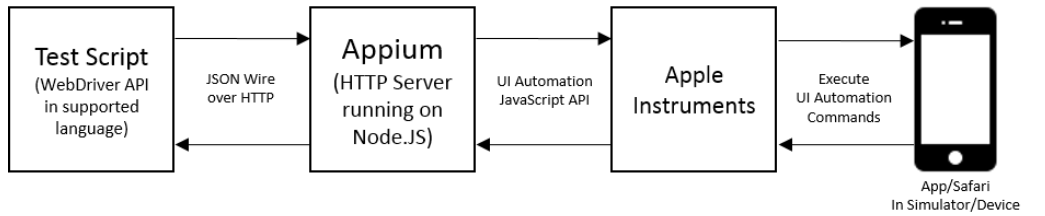
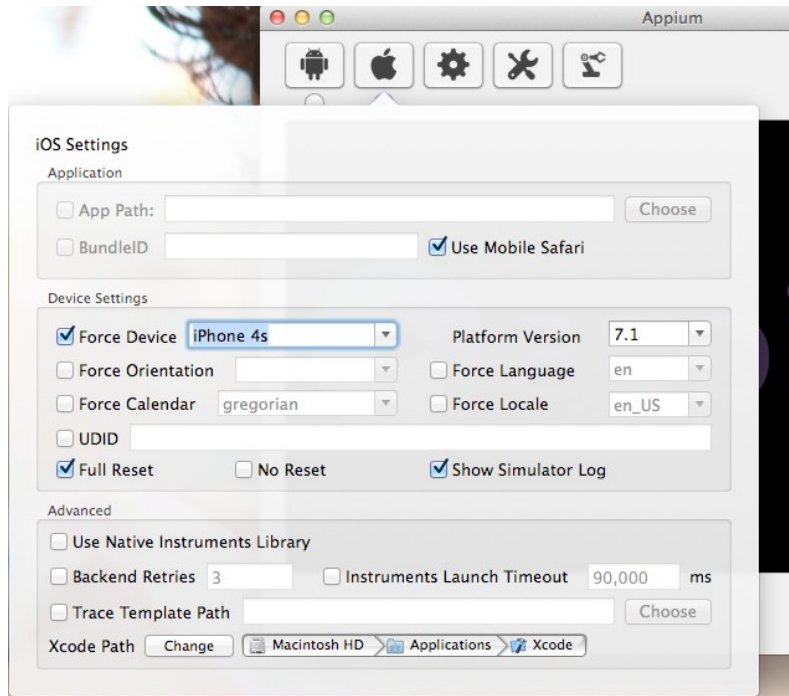
```
Jun 30, 2015 6:11:38 PM org.openqa.selenium.phantomjs.PhantomJSDriverService <init>
INFO: executable: C:\workspace\SeleniumCookbook\src\testresources\drivers\phantomjs.exe
Jun 30, 2015 6:11:38 PM org.openqa.selenium.phantomjs.PhantomJSDriverService <init>
INFO: port: 45866
Jun 30, 2015 6:11:38 PM org.openqa.selenium.phantomjs.PhantomJSDriverService <init>
INFO: arguments: [--webdriver=45866, --webdriver-logfile=C:\workspace\SeleniumCookbook\phantomjsdriver.log]
Jun 30, 2015 6:11:38 PM org.openqa.selenium.phantomjs.PhantomJSDriverService <init>
INFO: environment: {}
[INFO - 2015-06-30T12:41:52.470Z] ghostDriver - Main - running on port 45866
[INFO - 2015-06-30T12:41:53.814Z] Session [62e2cd30-1f25-11e5-a947-3d50e305fa96] - page.settings - {"XSSAuditingEnabled":false,"javascriptCanCloseWindows"}
[INFO - 2015-06-30T12:41:53.814Z] Session [62e2cd30-1f25-11e5-a947-3d50e305fa96] - page.customHeaders: - {}
[INFO - 2015-06-30T12:41:53.815Z] Session [62e2cd30-1f25-11e5-a947-3d50e305fa96] - Session.negotiateCapabilities - {"browserName":"phantomjs","version":"}
[INFO - 2015-06-30T12:41:53.816Z] SessionManagerReqHand - _postNewSessionCommand - New Session Created: 62e2cd30-1f25-11e5-a947-3d50e305fa96
[INFO - 2015-06-30T12:41:59.250Z] ShutdownReqHand - _handle - About to shutdown
```

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Testing Applications on Mobile Browsers

Automation for Apps





```
upgundecha — bash — 80x24
Last login: Sun Apr 20 17:26:36 on ttys000
Unmesh-Gundechas-iMac:~ upgundecha$ adb devices
List of devices attached
4df726365fc021e9    device
Unmesh-Gundechas-iMac:~ upgundecha$
```

```
info: Starting Appium in pre-launch mode
info: Pre-launching app
info: Looks like we want chrome on android
info: Creating new appium session a665c5af-c50a-483f-af46-05235a7a7195
info: Trying to find a connected android device
info: [ADB] Getting connected devices...
debug: executing: adb devices
info: [ADB] 1 device(s) connected
info: Setting device id to 4df726365fc021e9
debug: Pushing unlock helper app to device...
debug: executing: adb -s 4df726365fc021e9 install "/Applications/Appium.app/Contents/Resources/node_modules/appium/build/unlock_apk/unlock_apk-debug.apk"
```

