MARTIN KIESEL

SELENIUM
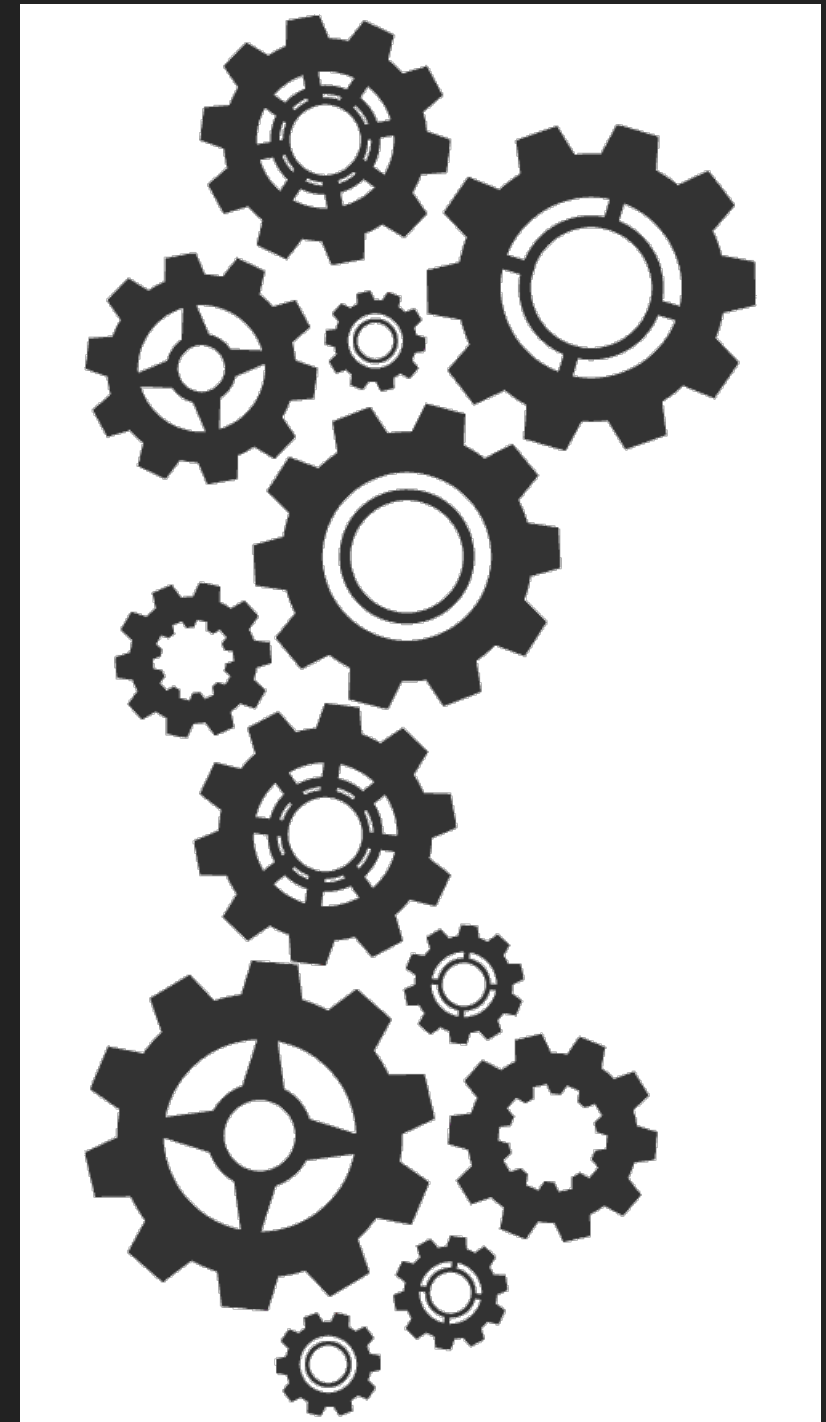## BROWSER AUTOMATION

IT HAS BECOME INFEASIBLE FOR A SOFTWARE DEVELOPER TO CONSIDER HIMSELF PROFESSIONAL IF HE DOES NOT PRACTICE TEST-DRIVEN DEVELOPMENT.

Robert Cecil Martin
"Uncle Bob"

TEST AUTOMATION

▸ control the execution of tests and the comparison of actual outcomes with predicted outcomes

▸ Unit Testing (xUnit)

▸ **Graphical User Interface Testing**

   ▸ **Selenium**

BLACK BOX VS WHITE BOX

pluses

▸ efficient for big segments of source code

▸ code access is not required

▸ perspective separation

minuses

▸ limited & blind coverage

▸ inefficiency

pluses

▸ efficient in finding problems & hidden errors

▸ helps optimising the code

▸ maximum coverage

minuses

▸ requires code access

▸ requires high level knowledge of internals of the software under test

UNIT VS INTEGRATION VS ACCEPTANCE TESTS

▸ unit (each class / method)

▸ integration (multiple units together)

▸ acceptance (functionality meets business requirements)

SELENIUM BROWSER AUTOMATION

▸ Jason Huggins at ThoughtWorks

▸ portable software testing framework

▸ C#, Groovy, Java, Perl, PHP, Python, Ruby and Scala

▸ open-source software, released under the Apache 2.0

▸ runs on Linux, OS X and Windows

SELENIUM COMPONENTS

▸ Selenium IDE

▸ Selenium client API

▸ ~~Selenium Remote Control~~

▸ Selenium WebDriver

▸ Selenium Grid

SELENIUM IDE

SELENIUM WEBDRIVER

▸ Selenium 2 codename

▸ WebDriver makes direct calls to the browser

Test Scripts		WebDriver		Browsers
C#, Python, Java	→	Selenium 2	→	Firefox, Chrome

SELENIUM 2 LIVE

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