

# TTT: Automation

Within this page of TTT (Tutorials, Tips and Tricks) you may find some useful articles related with automation, including a vast collection of tutorials for all sorts of frameworks (e.g. Cucumber, JUnit, TestNG, etc), in all sort of languages (e.g. Java, C, C#, Ruby, Perl, Python, etc) and all types of testing (e.g. web, cloud, mobile).

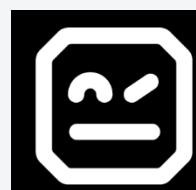
- Examples by programming language
- Examples by testing framework report
- Examples by target environment

## Examples by programming language

blocked URL	C#	C/C++	JS	blocked URL	blocked URL	blocked URL	blocked URL
<ul style="list-style-type: none"><li>• Integration with Gradle</li><li>• Load testing using Gatling and JUnit in Scala</li><li>• Model-Based Testing using GraphWalker and Java</li><li>• Testing Android Applications using Appium and JUnit in Java</li><li>• Testing iOS applications using Appium and JUnit in Java</li><li>• Testing REST services and APIs in Java using REST Assured and JUnit</li></ul>	<ul style="list-style-type: none"><li>• Testing using NUnit in C#</li><li>• Testing using Selenium WebDriver and NUnit in C#</li><li>• Testing using SpecFlow and Gherkin scenarios in C#</li><li>• Testing using Specflow and NUnit in C#</li><li>• Testing using UFT Pro (LeanFT) and NUnit in C#</li><li>• Testing using xUnit in C#</li></ul>	<ul style="list-style-type: none"><li>• Testing using Google Test in C++</li></ul>	<ul style="list-style-type: none"><li>• Code Quality Analysis with SonarQube</li><li>• E2E testing web apps locally or in the cloud (Sauce Labs) using Nightwatch.js and WebDriver in Javascript</li><li>• E2E web testing locally, remote or in the cloud (BrowserStack, SauceLabs) using TestCafe in JavaScript</li><li>• Headless testing web applications using Jest and Puppeteer in JavaScript</li><li>• Performance and load testing with k6</li><li>• Testing mobile apps in the cloud (Sauce Labs) using Webdriver and Mocha in Javascript</li><li>• Testing Node.js apps using Cucumber.js in JavaScript</li><li>• Testing using CasperJS and PhantomJS in JavaScript</li><li>• Testing using Cypress and Cucumber in JavaScript</li><li>• Testing using Jasmine (Node.js) in JavaScript</li><li>• Testing using Mocha in JavaScript</li><li>• Testing using WebDriverIO and Cucumber in JavaScript</li><li>• Testing web and mobile applications using CodeceptJS in JavaScript</li><li>• Visual Testing using PhantomCSS in JavaScript</li></ul>	<ul style="list-style-type: none"><li>• Testing mobile apps in the cloud (BrowserStack, SauceLabs) using Appium and Cucumber in Ruby</li><li>• Testing using Cucumber in Ruby /Ruby</li><li>• Testing using MiniTest in Ruby</li><li>• Testing using Selenium and RSpec in Ruby</li></ul>	<ul style="list-style-type: none"><li>• Testing using PHPUnit in PHP</li></ul>	<ul style="list-style-type: none"><li>• Model-Based Testing using AltWalker and Python</li><li>• Testing using Behave in Python</li><li>• Testing using pytest in Python</li><li>• Testing using Robot framework and xUnit reports</li><li>• Testing using Robot Framework integration in Python or Java</li><li>• Testing using the Robot Framework and xUnit reports</li></ul>	<ul style="list-style-type: none"><li>• Testing using Cucumber in Perl</li></ul>

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| <ul style="list-style-type: none"> <li>• Testing using Cucumber in Java</li> <li>• Testing using Cucumber in Ruby / JRuby</li> <li>• Testing using Robot framework and xUnit reports</li> <li>• Testing using Robot Framework integration in Python or Java</li> <li>• Testing using Selenium and JUnit4 in Java</li> <li>• Testing using Selenium WebDriver and Gauge in Java</li> <li>• Testing using Serenity and JUnit in Java</li> <li>• Testing using Serenity BDD and Cucumber in Java</li> </ul> |  |  |  |  |
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## Examples by testing framework report

blocked URL	TestNG		blocked URL	
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<ul style="list-style-type: none"> <li>• Accessibility testing using Axe-Playwright</li> <li>• Code Quality Analysis with SonarQube</li> <li>• Developing and testing APIs using Postman</li> <li>• E2E web testing locally, remote or in the cloud (BrowserStack, SauceLabs) using TestCafé in JavaScript</li> <li>• Headless testing web applications using Jest and Puppeteer in JavaScript</li> <li>• Import Execution Results</li> <li>• Import Execution Results - REST</li> <li>• Integrating with Testing Frameworks</li> <li>• Integration with Azure DevOps</li> <li>• Integration with Bamboo</li> <li>• Integration with CircleCI</li> <li>• Integration with Concourse</li> <li>• Integration with GitHub</li> <li>• Integration with GitLab</li> <li>• Integration with Jenkins</li> <li>• Integration with JUnit-based test runners</li> <li>• Integration with TeamCity</li> <li>• Jenkins pipeline integration</li> <li>• Load testing using Gatling and JUnit in Scala</li> <li>• Model-Based Testing using AltWalker and Python</li> <li>• Performance and load testing with Gatling</li> <li>• Performance and load testing with k6</li> <li>• Performance and load testing with Locust</li> <li>• Taking advantage of JUnit XML reports</li> <li>• Testing Android Applications using Appium and JUnit in Java</li> <li>• Testing Android apps using Espresso in Java or Kotlin</li> <li>• Testing Angular apps using Protractor in JavaScript</li> <li>• Testing APIs using Karate DSL</li> <li>• Testing APIs using Katalon Studio</li> <li>• Testing APIs using Pact.js</li> </ul>	<ul style="list-style-type: none"> <li>• Integrating with Testing Frameworks</li> <li>• Integration with TestNG-based test runners</li> <li>• Taking advantage of TestNG XML reports</li> <li>• Testing using TestNG in Java</li> <li>• Testing web apps in the cloud (BrowserStack) using Selenium and TestNG in Java</li> <li>• Testing web apps in the cloud (Sauce Labs) using Selenium and TestNG in Java</li> <li>• Using Generic Tests for Automation</li> </ul>	<ul style="list-style-type: none"> <li>• Import Execution Results</li> <li>• Integrating with Testing Frameworks</li> <li>• Integration with NUnit-based test runners</li> <li>• Taking advantage of NUnit XML reports</li> <li>• Testing using NUnit in C#</li> <li>• Testing using Selenium WebDriver and NUnit in C#</li> <li>• Testing using Specflow and NUnit in C#</li> <li>• Testing using UFT Pro (LeanFT) and NUnit in C#</li> <li>• Using Generic Tests for Automation</li> </ul>	<ul style="list-style-type: none"> <li>• Automated Steps Library</li> <li>• Export Cucumber Features</li> <li>• Gherkin (BDD Tests)</li> <li>• Import Execution Results</li> <li>• Import Execution Results - REST</li> <li>• Integrating with Testing Frameworks</li> <li>• Integration with Bamboo</li> <li>• Integration with Cucumber and variants</li> <li>• Integration with GitLab</li> <li>• Integration with Jenkins</li> <li>• Integration with TeamCity</li> <li>• Testing in BDD with Gherkin based frameworks (e.g. Cucumber)</li> <li>• Testing mobile apps in the cloud (BrowserStack) using Appium and Cucumber in Ruby</li> <li>• Testing Node.js apps using Cucumber.js in JavaScript</li> <li>• Testing using Calabash and Xamarin Test Cloud in Ruby</li> <li>• Testing using Cucumber in Java</li> <li>• Testing using Cucumber in Perl</li> <li>• Testing using Cucumber in Ruby/JRuby</li> <li>• Testing using Cypress and Cucumber in JavaScript</li> <li>• Testing using Serenity BDD and Cucumber in Java</li> <li>• Testing using SpecFlow and Gherkin scenarios in C#</li> <li>• Testing using WebDriverIO and Cucumber in JavaScript</li> <li>• Testing web applications using Gwen and Selenium</li> </ul>	<ul style="list-style-type: none"> <li>• Import Execution Results - REST</li> <li>• Integrating with Testing Frameworks</li> <li>• Integration with Robot framework</li> <li>• Taking advantage of Robot XML reports</li> <li>• Testing using Robot framework and xUnit reports</li> <li>• Testing using Robot Framework integration in Python or Java</li> <li>• Testing using the Robot Framework and xUnit reports</li> <li>• Using Generic Tests for Automation</li> </ul>
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## Examples by target environment

Browser/Web testing	Mobile Testing	Testing in the Cloud
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<ul style="list-style-type: none"> <li>• E2E testing web apps locally or in the cloud (Sauce Labs) using Nighwatch.js and WebDriver in Javascript</li> <li>• E2E web testing locally, remote or in the cloud (BrowserStack, SauceLabs) using TestCafé in JavaScript</li> <li>• Headless testing web applications using Jest and Puppeteer in JavaScript</li> <li>• Testing APIs using Katalon Studio</li> <li>• Testing mobile apps in the cloud (Sauce Labs) using Webdriver and Mocha in Javascript</li> <li>• Testing using CasperJS and PhantomJS in JavaScript</li> <li>• Testing using Selenium and JUnit4 in Java</li> <li>• Testing using Selenium and RSpec in Ruby</li> <li>• Testing using Selenium WebDriver and Gauge in Java</li> <li>• Testing using Selenium WebDriver and NUnit in C#</li> <li>• Testing using Serenity and JUnit in Java</li> <li>• Testing using Serenity BDD and Cucumber in Java</li> <li>• Testing web applications using Gwen and Selenium</li> <li>• Testing web apps in the cloud (BrowserStack) using Selenium and TestNG in Java</li> <li>• Testing web apps in the cloud (Sauce Labs) using Selenium and TestNG in Java</li> </ul>	<ul style="list-style-type: none"> <li>• Testing Android apps using Espresso in Java or Kotlin</li> <li>• Testing iOS apps using XCTest in Swift</li> <li>• Testing mobile apps in the cloud (BrowserStack) using Appium and Cucumber in Ruby</li> <li>• Testing mobile apps in the cloud (Sauce Labs) using Webdriver and Mocha in Javascript</li> <li>• Testing the UI of iOS apps using XCTest and XCUITest in Swift</li> <li>• Testing using Calabash and Xamarin Test Cloud in Ruby</li> <li>• Testing web and mobile applications using CodeceptJS in JavaScript</li> </ul>	<ul style="list-style-type: none"> <li>• E2E testing web apps locally or in the cloud (Sauce Labs) using Nighwatch.js and WebDriver in Javascript</li> <li>• Integration with GitLab</li> <li>• Testing mobile apps in the cloud (BrowserStack) using Appium and Cucumber in Ruby</li> <li>• Testing mobile apps in the cloud (Sauce Labs) using Webdriver and Mocha in Javascript</li> <li>• Testing using Calabash and Xamarin Test Cloud in Ruby</li> <li>• Testing web apps in the cloud (BrowserStack) using Selenium and TestNG in Java</li> <li>• Testing web apps in the cloud (Sauce Labs) using Selenium and TestNG in Java</li> </ul>
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