

# ENSURE YOUR USERS EXPERIENCE

A trip around end user  
validation automation tools



RICK CLYMER (@CLYMERRM)

SENIOR SOFTWARE QUALITY ENGINEER

AARON GLASS (@DOUBLE\_A\_QA)  
SENIOR ENGINEER DEVELOPER IN TEST



# MULTIPLE LAYERS





# “BAD” ARCHITECTURE

NO  
SUPPORT





WANT  
TO  
CODE

NO OTHER  
CHOICE



WHO ARE WE – RICK CLYMER  
Senior Software Quality Engineer



**Started quality journey in the early 2010's**



**Loves python but has realized the benefits of some other languages**



**Got to hold my one-day old daughter throughout the fourth quarter of Game 7 in 2016**

# WHO ARE WE – AARON GLASS

## Senior Engineer Developer In Test



**Started quality journey in the late 2000's**



**Love tinkering with anything, it's all just letters and numbers**



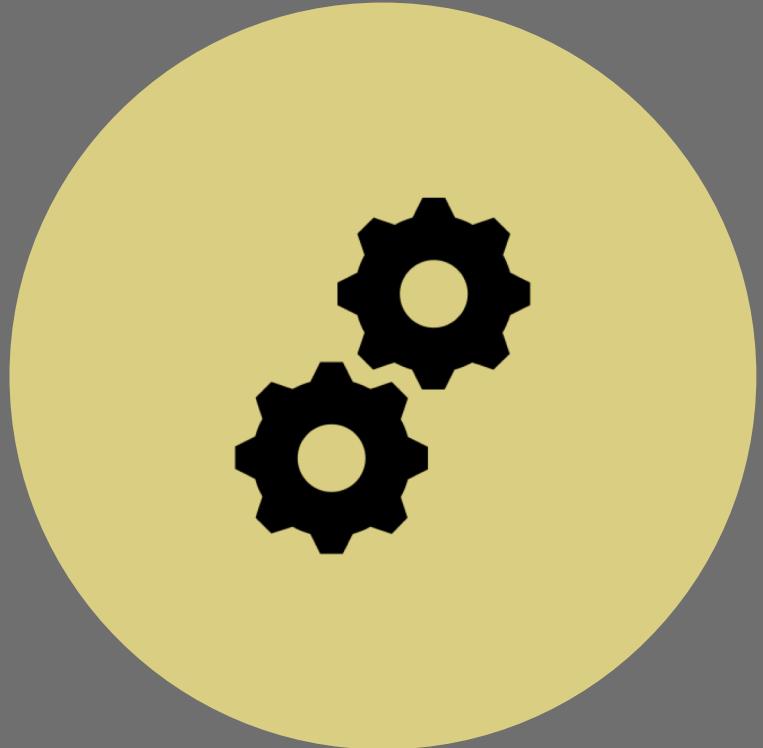
**Built a retro arcade for him and his twin boys**



WHAT ABOUT YOU

# TESTING EXPERIENCE





# AUTOMATION EXPERIENCE

# LANGUAGE EXPERIENCE

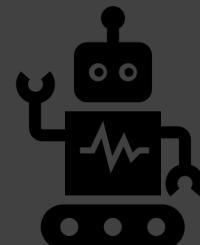


# WHAT'S THE PLAN FOR TODAY?

WHY DO IT



AUTOMATABLE



SELENIUM



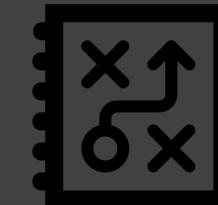
CYPRESS



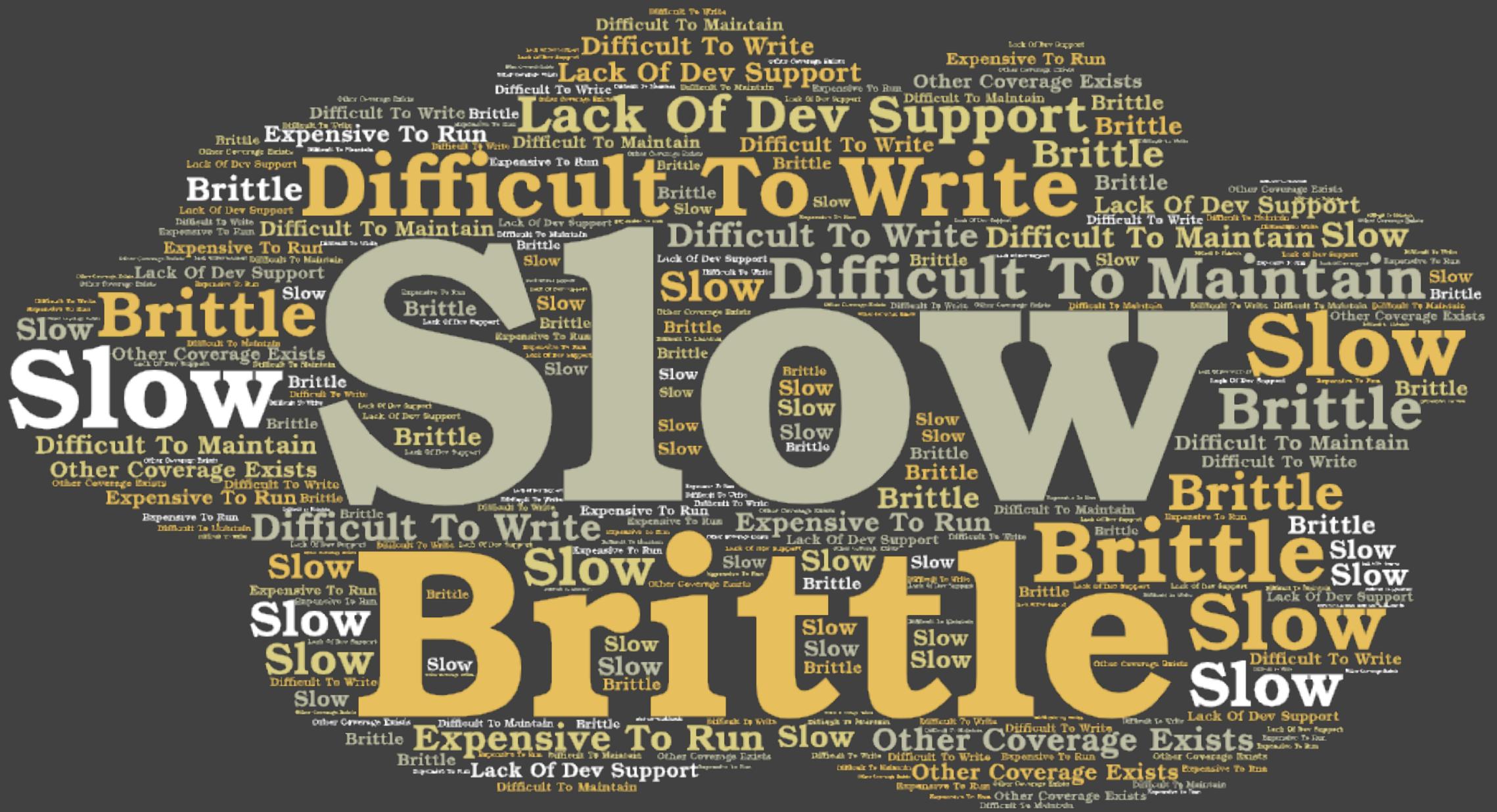
TESTCAFE



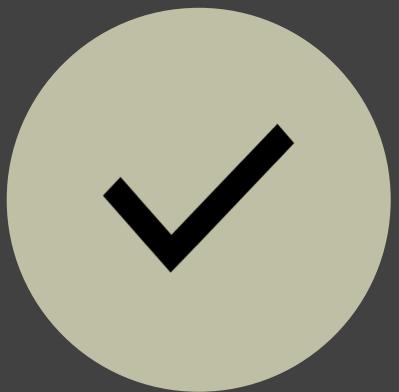
PATH  
FORWARD



# WHY HAVENT YOU USED IT BEFORE



# WHAT HAS IT COST YOU NOT HAVING IT?



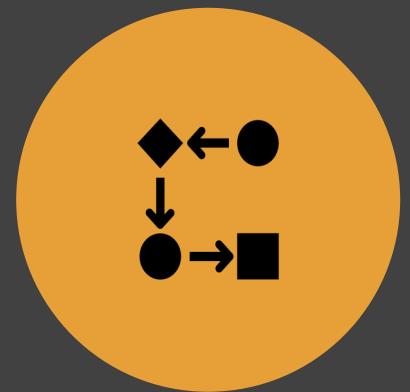
MANUALLY  
CHECKING



BROWSER  
BUGS



REGRESSIONS



FULL FLOW  
IGNORED

# SO WHY USE IT?

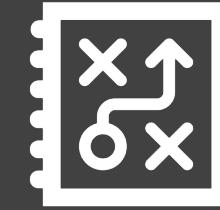
FAST FEEDBACK



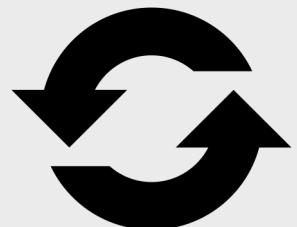
BETTER  
ENVIRONMENT



CAREER PATH



REPEATABLE



REPUTATION



LEARN



# WHY SHOULDN'T YOU USE IT?

ALL WE'VE  
EVER DONE

MANDATE  
FROM  
HIGHER UP

DEV TEAM  
DOESN'T  
WANT TO  
WRITE  
TESTS

# AUTOMATION OPTIONS



# LET'S DREAM

WHAT WOULD MAKE OUR APPLICATION MORE  
AUTOMATABLE?

```
graph TD; A((Accessible Data)) --- B((Custom Endpoints)); B --- C((Hybrid App)); C --- D((Loading Spinners)); D --- A
```

Accessible  
Data

Custom  
Endpoints

Hybrid  
App

Loading  
Spinners

# MY FAVORITE

DIV(CONTAINS(TEXT(), "LOCATORS"))

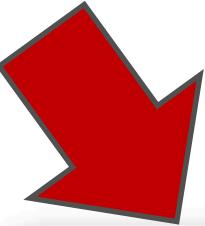
# WHERE DO WE START WITH LOCATORS

```
► <div id="gb" class="gb_0f">...</div>
▼ <div class="jhp big" id="searchform">
  ► <script nonce="sdUy+5Fa52v050lHnoaQhQ==">...</script>
  ► <div class="sfbg nojsv" style="margin-top:-20px">...</div>
  ▼ <form class="tsf nj" action="/search" style="overflow:visible" data-submitfalse="q" id="tsf" method="GET" name="f" role="search" _lpchecked="1">
    ► <div id="tophf">...</div>
    ▼ <div jsmodel="vWNDde" jsdata="MuIEvd;;CfralE">
      ► <div jscontroller="mvYTse" class="A8SBwf" jsaction="DkpM0b:d3sQLd;IQ0avd:dFyQEf;XzZZPe:jI3wzf;Aghsf:AVsnlb; iHd9U:Q7Cnrc;f5hEHe:G0jgYd;vmxUb:j3bJnb;R2c50:LuRugf;qiCKJd:ANdidc;N0g9L:HLgh3;uGoIkD:epUokb;zLdLw:eaGBS;rcuQ6b: npT2md">
        <style>.emca,.emcat,.emcav,.sbfc,.iblpc{}</style>
      ► <style>...</style>
      ▼ <div class="RNNXgb" jsname="RNNXgb">
        ▼ <div class="SDkEP">
          ► <div class="iblpc" jsname="uFM0of">...</div>
          ▼ <div jscontroller="iDPoPb" class="a4bIc" jsname="gLfyf" jsaction="h5M12e;input:d3sQLd;focus:dFyQEf;blur: jI3wzf">
            ► <style>...</style>
            <div class="vdLsw gsfI" jsname="vdLsw"></div>
```

RIGHT CLICK AND CHOOSE INSPECT ELEMENT OR

Cmd Shift J

Cmd Option J



Google Search

I'm Feeling Lucky

Who left the lights on at the North Pole? [See how little elves have a big impact](#)

# GOOGLE SEARCH INPUT

```
▼<div class="RNNXgb" jsname="RNNXgb">
  ▼<div class="SDkEP">
    ►<div class="iblpc" jsname="uFM0of">...</div>
    ▼<div jscontroller="iDPoPb" class="a4bIc" jsname="gLfyf" jsaction="h5M12e;input:d3sQLd;focus:dFyQEf;blur:jI3wzf">
      ►<style>...</style>
      <div class="vdLsw qsf1" jsname="vdLsw"></div>
      ▼<input class="gLfyf gsfi" maxlength="2048" name="q" type="text" jsaction="paste:puy29d" aria-autocomplete="both" aria-haspopup="false" autocapitalize="off" autocomplete="off" autocorrect="off" role="combobox" spellcheck="false" title="Search" value aria-label="Search" data-ved="0ahUKEwj199XPxszmAhVWHM0KHZVLB00Q39UDCAY"> == $0
        ►#shadow-root (user-agent)
        </input>
      </div>
    ►<div class="dRYYxd">...</div>
    </div>
  </div>
  ►<div jscontroller="tg8oTe" class="UUbT9" style="display:none" jsname="UUbT9" jsaction="mouseout:ItzDCd;mouseleave:MWfikb;hBEIVb:nUZ9le;YMFC3:VKssTb">...</div>
  ►<div class="FPdoLc tfB0Bf">...</div>
```

CLASS NAME = “gLfyf gsfi”

**TOP EVENTS** ▾ NCAAF 9:36 - 1st ► ESPN NCF UCF 7 1st & 10 Champ BLK 0 NFL 8:15 PM ET ESPN GB 11-3 NBA 7:00 PM ET ATL 6-24 NBA MRSH 0 MRSW 26 WGA 0 MIN 10-4 CLE 8-21 PHI 21-10 DET 11-19 TOR 21-8 IND 20-10 WSH 8-20 NY 7-23 CHI ORL >

**NFL** **NBA** **NCAAF** **NCAAM** **Soccer** **MMA** ... **ESPN+** Watch Listen Fantasy ⋮ 🔎 ⌂

 GENESIS G70 [LEARN MORE](#)

**Top Headlines**

- Carroll: 'Good chance' Seahawks sign RB Lynch
- Gonzaga No. 1, 6th team to take top spot in poll
- Sources: Steelers QB Rudolph likely out Week 17
- Source: Eagles TE Ertz suffered fractured rib
- Jerry disappointed as Dallas loses grip on division
- Pitino settles federal lawsuit against Adidas
- **ESPN+** NBA intel from the G League Showcase

**ESPN+**

[SUBSCRIBE NOW](#)

- UFC 246: McGregor vs. Cowboy
- NFL PrimeTime on ESPN+
- Detail: Kobe on Joel Embiid
- Peyton's Places
- College Basketball: Select games
- NFL on ESPN+

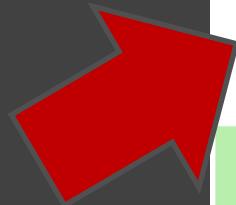


**Barnwell: What went wrong with the NFL's most disappointing teams**

# ESPN SCOREBOARD BAR

```
▼<div id="header-wrapper" data-behavior="global_header" class="hidden-print">
  ▶<section id="global-scoreboard" class="hide-fullbtn no-datepicker" role="region">...</section> == $0
  ▶<header id="global-header" class="espn-en user-account-management has-search">
    <div class="menu-overlay-secondary"></div>
    ▶<div class="container">...</div>
    ▶<nav id="global-nav" data-loadtype="client" data-wayfindsport>
      ▶<ul class="espn-en" itemscope itemtype="http://www.schema.org/SiteNavigationElement" style="display: block;">
        ::before
        ▶<li class="sports menu-nfl" itemprop="name">
          ▶<a itemprop="url" href="/nfl/" name="&lpos=sitenavdefault+sitenav_nfl">
            ▶<span>
              <span class="link-text">NFL</span>
              <span class="link-text-short">NFL</span>
            </span>
          </a>
        ▶<div>...</div>
      ▶</li>
```

ID = “global-scoreboard”



About ▾

Downloads

Projects

Documentation

Support

Blog



The Selenium project is a member of Software Freedom Conservancy, which handles legal and financial needs for the project.

Conservancy is currently raising funds to continue their mission. Consider [becoming a supporter!](#)

x

**Selenium automates browsers. That's it!**  
What you do with that power is entirely up to  
you.

Primarily it is for automating web applications for testing purposes, but is certainly not limited to just that.

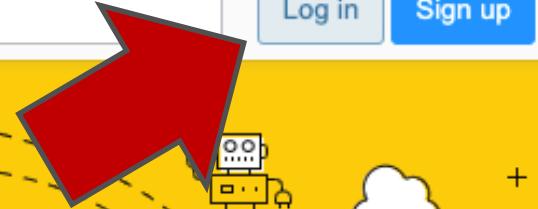
Boring web-based administration tasks can (and should) also be automated as well.

Getting Started

SELENIUM HOME ICON

```
<html>
► <head>...</head>
▼ <body>
  ▼<header id="header" class="header">
    ▼<a href="https://selenium.dev" class="headerLink">
      
      
      
    </a>
    <a id="dropdownButton" class="dropdownButton" onclick="toggleMenu()">MENU +</a>
    ► <nav id="navbar" class="navbar">...</nav>
  </header>
  ► <script>...</script>
  <link rel="stylesheet" href="/css/main.css">
  <link rel="stylesheet" href="/css/index.css">
  <link href="https://fonts.googleapis.com/css?family=Encode+Sans+Condensed:400,700" rel="stylesheet">
  <link href="https://fonts.googleapis.com/css?family=Encode+Sans:300,700" rel="stylesheet">
  <link rel="stylesheet" href="/css/main.css">
  ...
```

XPATH = “//\*[@id='header']/a/img[2]”



# We <3 people who code

We build products that empower developers and connect them to solutions that enable productivity, growth, and discovery.

[For developers](#)[For businesses](#)

# STACK OVERFLOW LOG IN BUTTON

```
><div class="s-popover ws2 p6" id="products-popover" role="menu" aria-hidden="true" x-placement="bottom" style="position: absolute; transform: translate3d(253px, 38px, 0px); top: 0px; left: 0px; will-change: transform;"></div>
><form id="search" role="search" action="/search" method="get" class="grid--cell fl-grow1 searchbar px12 js-searchbar" autocomplete="off">...</form>
<ol class="overflow-x-auto ml-auto --secondary grid ai-center list-reset h100 user-logged-out" role="presentation">
  ><li class="-item searchbar-trigger">...</li>
  ><li class="--ctas">
    <a href="https://stackoverflow.com/users/login?ssrc=head&returnurl=https%3a%2f%2fstackoverflow.com%2f" class="login-link s-btn s-btn__filled py8 js-gps-track" rel="nofollow" data-gps-track="login.click" data-ga="["top navigation","login button click",null,null,null]">Log in</a>
    <a href="https://stackoverflow.com/users/signup?ssrc=head&returnurl=%2fusers%2fstory%2fcurrent" class="login-link s-btn s-btn__primary py8" rel="nofollow" data-ga="["sign up","Sign Up Navigation","Header",null,null]">Sign up</a>
  </li>
  ><li class="js-topbar-dialog-corral" role="presentation">...</li>
</ol>
</div>
</header>
```

CSS SELECTOR = ".-ctas a:nth-child(1)

# EXERCISE TIME

NAVIGATE TO AUTOMATION-TODOS.COM

- NEW TASK NAME INPUT
- CREATE TASK BUTTON
- 1<sup>ST</sup> NON COMPLETED TASK NAME
- 3<sup>RD</sup> COMPLETED TASK DUE DATE
- DELETE BUTTON



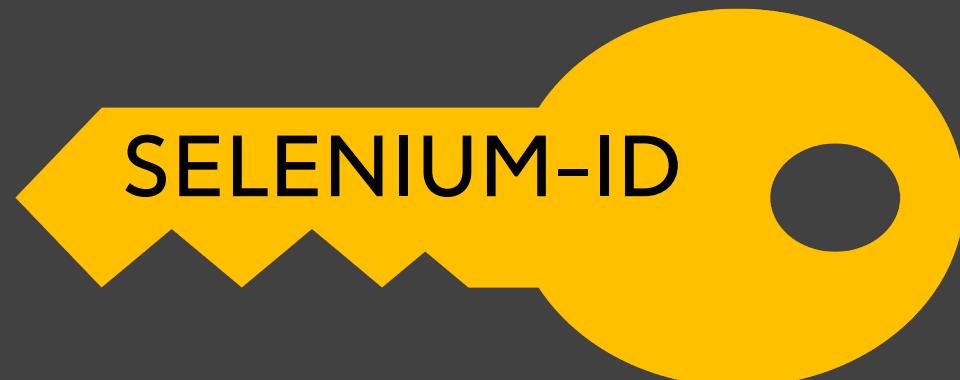


**LET'S REVIEW**  
**GO TO**  
**AUTOMATION-TODOS.COM/LOCATORS**

WHAT COULD MAKE  
OUR APP MORE  
AUTOMATEABLE

DATA TEST KEYS

# WHAT ARE DATA TEST KEYS



# EXERCISE TIME TAKE 2

NAVIGATE TO [AUTOMATION-TODOS.COM/LATEST](https://automation-todos.com/latest)

- NEW TASK NAME INPUT
- CREATE TASK BUTTON
- 1<sup>ST</sup> NON COMPLETED TASK NAME
- 3<sup>RD</sup> COMPLETED TASK DUE DATE
- DELETE BUTTON





**LET'S REVIEW**  
**GO TO**  
**AUTOMATION-TODOS.COM/LATEST/LOCATORS**

# BREAK TIME

SEE YOU IN 10?

DO YOU HAVE ALL OF THE PRE-REQ'S COMPLETED?



# WELCOME TO SELENIUM

# WHAT IS SELENIUM?

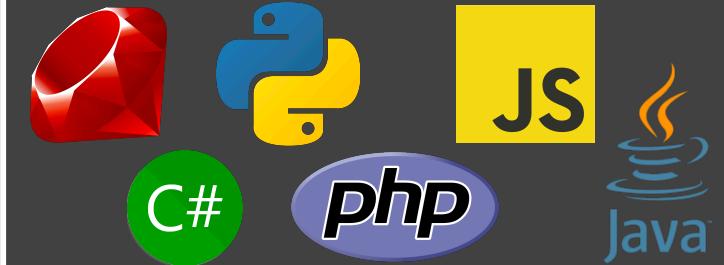
FRONT END  
TOOL



MULTI  
BROWSER



MULTI  
LANGUAGE

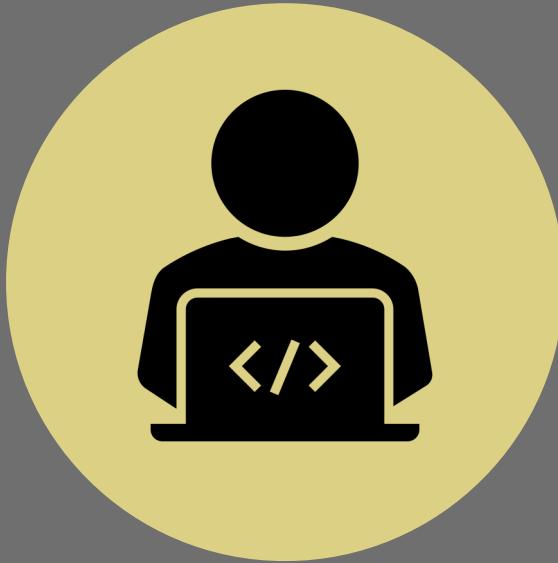


EXTENDABLE



REPORTABLE





**ARE YOU SETUP?**  
CODE EDITOR OF CHOICE  
REPO PULLED DOWN AND SETUP RAN FOR YOUR  
LANGUAGE CHOICE (JAVASCRIPT OR PYTHON)  
[GITHUB.COM/CLYMERRM/TODOAUTOMATION](https://github.com/clymerrm/todoautomation)



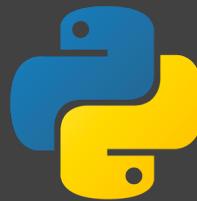
**JS**

webdriver-manager update

webdriver-manager start (will display in terminal)

Optional to run in background:

webdriver-manager start -detach

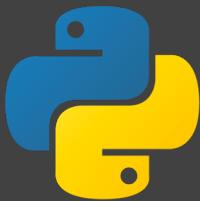


```
from webdriver_manager.chrome import ChromeDriverManager  
from selenium import webdriver  
webdriver.Chrome(ChromeDriverManager().install())
```

**JS**

If running in background,  
webdriver-manager shutdown

If not,  
exit like you would anything else from command line



driver.quit()

or

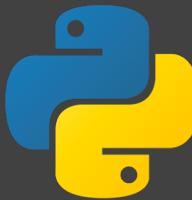
driver.close()

**JS**

Common assertion library is Chai  
(<https://www.chaijs.com/api/bdd/>)

```
const { expect } = require('chai');
driver.getTitle().then(function(title) {
  expect(title).to.equal('Google')
});
```

Use python's built in assertion library  
assert 'Google' in driver.title



Or use popular assertion human readable library is pyhamcrest  
from hamcrest import \*  
assert\_that(driver.title, equal\_to('Google'))



# JS

```
const {Builder} = require('selenium-webdriver');
const {expect} = require('chai');

async function main() {
  let driver = new Builder()
    .forBrowser('name: 'Chrome') !Builder
    .usingServer('url: 'http://localhost:4444/wd/hub') !Builder
    .build();

  await driver.getTitle().then(function (title) {
    expect(title).to.contain('Codemash')
  });

  // driver.quit();
}

main();
```

```
from webdriver_manager.chrome import ChromeDriverManager
from selenium import webdriver

driver = webdriver.Chrome(ChromeDriverManager().install())

driver.get('http://automation-todos.com/latest')
assert "Codemash" in driver.title
```

# COMMON COMMANDS – NON-ELEMENT RELATED

What Do You want To do	JavaScript	Python
Get a specific URL	get("url")	get("url")
Quit the driver and close all associated windows	quit()	quit()
Close current browser window	close()	close()
Refresh current browser session	navigate().refresh()	refresh()
Get title of page	getTitle()	title
Navigate forward in browser	navigate().forward()	forward()
Navigate backwards in browser	navigate().back()	back()
Add cookie to browser session	manage().addCookie(cookie_def)	add_cookie(cookie_def)
Clear cookies from browser session	manage().deleteAllCookies()	delete_all_cookies()
Execute any JavaScript command	executeScript(JS script)	execute_script(JS script)
Return page source	getPageSource()	page_source
Return the current_url	getCurrentUrl()	current_url

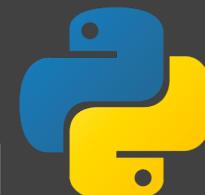
# FIND ELEMENTS ON A PAGE

How do you want to find the element	JavaScript	Python
Find element by id	By.id()	By.ID()
Find element by xpath	By.xpath()	By.XPATH()
Find element by link text	By.linkText()	By.LINK_TEXT()
Find element by partial link text	By.partialLinkText()	By.PARTIAL_LINK_TEXT()
Find element by CSS Selector	By.css()	By.CSS_SELECTOR()
Find element by class name	By.className()	By.CLASS_NAME()
Find element by name	By.name()	By.NAME()

```
driver.findElement(By.name('delete'))  
driver.findElements(By.xpath("//*[@class='delete']/button"))
```



```
driver.find_element(By.ID, "delete")  
driver.find_elements(By.CSS_SELECTOR, "div[data-test-key=task"]")
```



# COMMON COMMANDS – ELEMENT RELATED

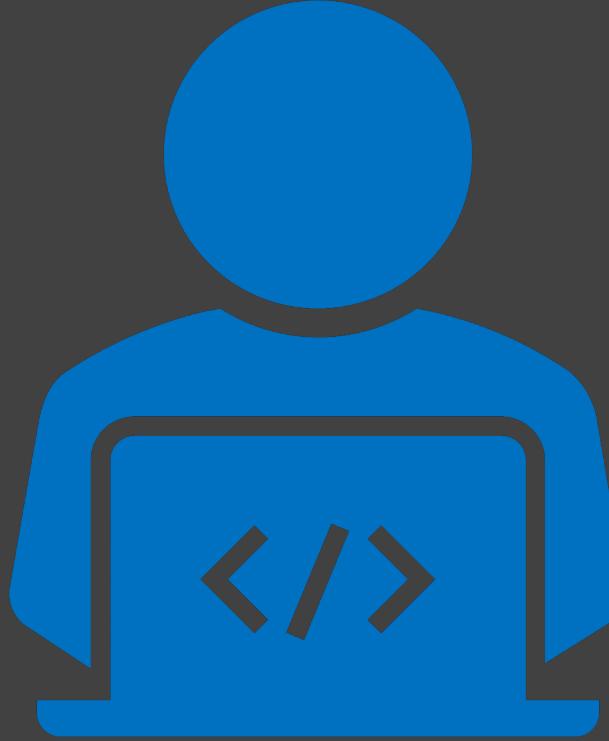
What Do You want To do	JavaScript	Python
Return text of element	getText()	text
Return attribute of element	getAttribute(name)	get_attribute(name)
Is the element displayed	isDisplayed()	is_displayed()
Is the element selected	isSelected()	is_selected()
Send text to the element	sendKeys	send_keys(value to send)
Clear text from the element	clear()	clear()
Click the element	click()	click()

```
return driver.findElement(By.name('delete')).isDisplayed()
```



```
driver.find_element(By.ID, "delete").click()
```





LET'S GIVE IT A TRY

# LET'S WRITE OUR FIRST TEST

## USING AUTOMATION-TODOS.COM/LATEST



CREATE A NEW  
TASK WITH A DUE  
DATE OF  
TOMORROW



MARK TASK AS  
COMPLETED



DELETE A NEWLY  
CREATED TASK



**LET'S REVIEW**

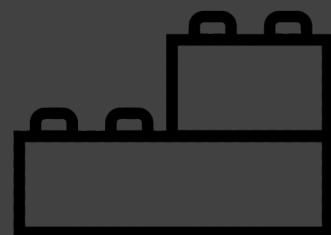
**WAS THIS SOMETHING WE  
COULD/SHOULD USE OVER AND OVER  
AGAIN FOR ALL OF TIME?**

# WE AUTOMATED SOMETHING, WHATS NEXT?

PAGE OBJECTS



FRAMEWORK



WAITING



# PAGE OBJECT



# HOW COULD WE STRUCTURE OUR PAGES?

BASE PAGE

CREATE  
TASK

TODO  
LIST

HEADER



## LET'S SEE IT IN ACTION

`part1_selenium/{language}/exercise2`

# STOP WRITING ONE MASSIVE “TEST”

FRAMEWORK



TEST SUITE



REPORTING





## LET'S SEE IT IN ACTION

part1\_selenium/{language}/exercise3



```
LAdmins-MacBook-Pro:todo-list rickclymer$ node_modules/.bin/mocha frontend_tests/javascript/tests/header_test.js

HeaderTest
Schedule – KWSQA
  ✓ should go to schedule page when clicking on link (2449ms)
Speaker Information – KWSQA
  ✓ should go to speakers page when clicking on link (3704ms)

2 passing (6s)
```



```
Checking for mac64 chromedriver:77.0.3865.40 in cache
Driver found in /Users/rickclymer/.wdm/chromedriver/77.0.3865.40/mac64/chromedriver
F
=====
FAIL: test_clicking_speakers_link (__main__.LinkTest)
-----
Traceback (most recent call last):
  File "/Users/rickclymer/Repos/todo-list/frontend_tests/python/navigate_to_links.py", line 26, in test_clicking_speakers_link
    assert 'Speakers' in self.header.return_page_title()
AssertionError

-----
Ran 2 tests in 7.117s

FAILED (failures=1)

Process finished with exit code 1
```

# WAIT BEFORE INTERACTING



## NO SLEEPING

# WAIT INSTEAD



# COMMON EXPECTED CONDITIONS

What Do You want To do	JavaScript	Python
Page title contains text	titleContains	title_contains
Element is clickable	N/A	element_to_be_clickable
Element exists on page	elementLocated	presence_of_element_located
Element visible on page	elementIsVisible	visibility_of_element_located
Text is present inside an element	elementTextIs	text_to_be_present_in_element
Alert is present	alertIsPresent	alert_is_present



## LET'S SEE IT IN ACTION

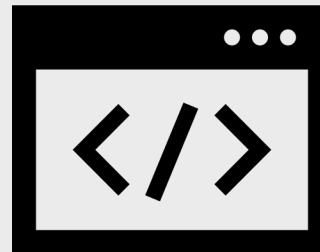
`part4_selenium/{language}/exercise4`

# WHY IS SELENIUM WHERE THEY ARE?

INDUSTRY LEADER



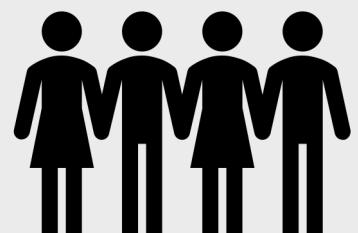
MULTI-LANGUAGE  
SUPPORT



MULTI-BROWSER  
SUPPORT



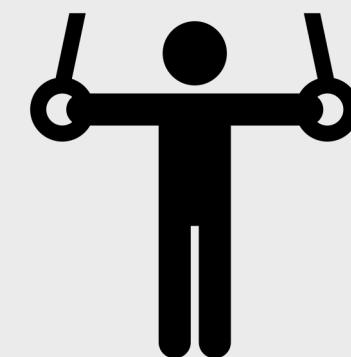
COMMUNITY  
SUPPORT



STABILITY



FLEXIBILITY



# BUT WHAT ELSE IS THERE



testim



# LET'S LOOK AT TWO OF THESE OPTIONS





WELCOME TO CYPRESS

# HOW IS THIS DIFFERENT

SAME  
ENVIRONMENT



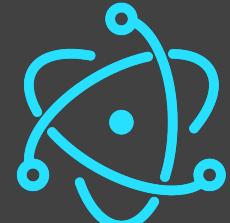
FOCUSES ONLY  
ON FRONT END

1

OPERATES  
WITH APP



BROWSER  
SUPPORT



LANGUAGE  
SUPPORT





```
cd /repos/TodoAutomation  
npm install cypress --save-dev  
run "./node_modules/.bin/cypress open"
```

# FIXTURES

EXTERNAL DATA  
STATIC DATA

# PLUGINS

ALL PLUGINS USED  
TO EXTEND CYPRESS  
WILL RUN BEFORE  
EVERY RUN

# INTEGRATION

ALL THE TESTS  
MULTI-FILE TYPE  
SUPPORT

# SUPPORT FILES

DEFINE BEHAVIORS  
FOR YOUR TESTS

```
/cypress
  /fixtures
    - example.json

/integration
  /examples
    - actions.spec.js
    - aliasing.spec.js
    - assertions.spec.js
    - connectors.spec.js
    - cookies.spec.js
    - cypress_api.spec.js
    - files.spec.js
    - local_storage.spec.js
    - location.spec.js
    - misc.spec.js
    - navigation.spec.js
    - network_requests.spec.js
    - querying.spec.js
    - spies_stubs_clocks.spec.js
    - traversal.spec.js
    - utilities.spec.js
    - viewport.spec.js
    - waiting.spec.js
    - window.spec.js

/plugins
  - index.js

/support
  - commands.js
  - index.js
```



```
1 describe('Page Loads Correctly', function() {  
2   if('Single Page App Loads', function() {  
3     cy.visit('/');  
4     cy.title().should('include', 'Codemash');  
5     cy.get('[data-test-key=create-task-button]').contains('Create Task')  
6   });  
7 });
```

# COMMON ELEMENT INTERACTION COMMANDS

What Do You want To do	Command
Click element	.click()
Double click element	.dblclick()
Type into an element	.type(text)
Clear an element	.clear()
Check a checkbox	.check()
Clear a checkbox	.uncheck()
Select an option	.select(value)

# BEFORE EVERY INTERACTION...

SCROLL INTO VIEW

ELEMENT NOT  
ANIMATING

ELEMENT NOT  
HIDDEN

ELEMENT NOT  
COVERED

ELEMENT NOT  
DISABLED

SCROLL PAGE IF  
STILL COVERED

ELEMENT NOT  
READ ONLY

FIRE THE EVENT AT  
COORDINATES

# ASSERTING OUR CONDITIONS

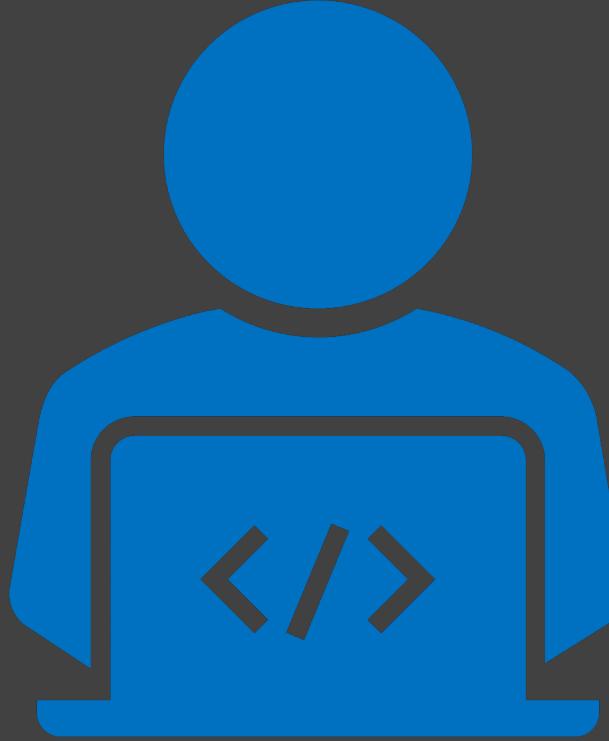


```
1 cy.get('li.selected').should('have.length', 3)
2 cy.get('test').should('be this value')
3 cy.get('homeLink').should('contain', 'Home')
4 cy.get('submitButton').should('exist')
```

# WORKING WITH RETURN VALUES



```
1 Cy.get('taskButton').should(($btn) => {  
2     expect($btn.text()).not.to.eq('some string')  
3 })
```



LET'S GIVE IT A TRY

# LET'S WRITE OUR TEST AGAIN USING AUTOMATION-TODOS.COM/LATEST



CREATE A NEW  
TASK WITH A DUE  
DATE OF  
TOMORROW



MARK TASK AS  
COMPLETED



DELETE A NEWLY  
CREATED TASK

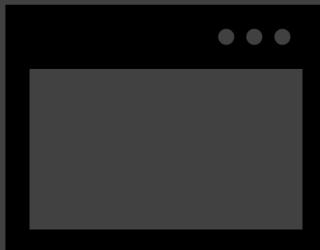


**LET'S REVIEW**

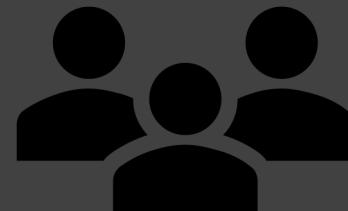
**WAS THIS SOMETHING WE  
COULD/SHOULD USE OVER AND OVER  
AGAIN FOR ALL OF TIME?**

# "DOWNFALLS" OF CYPRESS

STRUCTURE



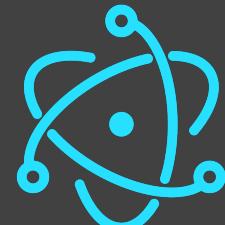
COMMUNITY SUPPORT



EXTERNAL  
INTEGRATIONS



BROWSER  
SUPPORT



LANGUAGE  
SUPPORT





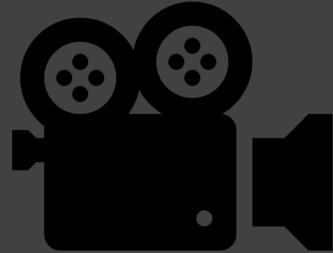
WELCOME TO TESTCAFE

# WHAT IS TEST CAFE

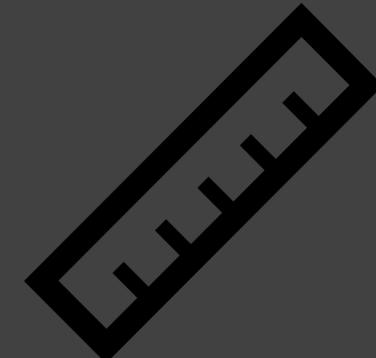
FRONT END  
TEST TOOL



IDE AVAILABLE



EXTENDABLE



BROWSER  
SUPPORT



LANGUAGE  
SUPPORT





1 node -v

2 v12.12.0

3

4 NPM INSTALL -G TESTCAFE



```
1 // Basic Test Layout
2 fixture `Task List`
3     .page `http://automation-todos.com/latest`;
4
5 test('First Test', async t => {
6     //test code
7 });
```



```
1 // Running the tests
2
3 // From Command Line
4 testcafe chrome taskTest.js
5
6 // From Package.json
7 "scripts":{
8   "test": "testcafe chrome ./feature/taskTest.js"
9 }
```

# LOCATORS ARE SELECTORS

Natively available selectors:

- CSS



```
1 const taskName = selector('form input[type=text]:nth-child(2)');
```

# SELECTOR USAGE



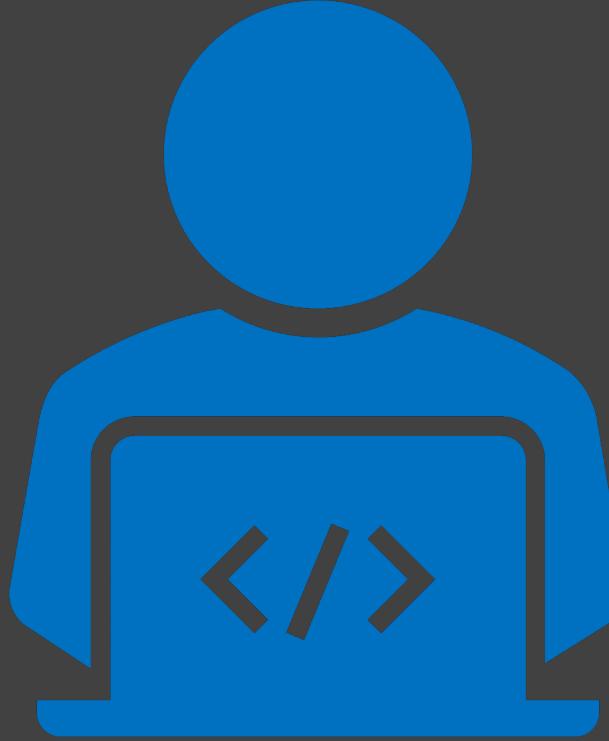
```
1 const addTask = Selector("[value='Create Task']");  
2 await t  
  .click(addTask);  
4 const taskName = Selector("[data-test-key='task-name-input']");  
5 await t.  
  typeText(taskName, 'Random Task Name');
```

# COMMON ACTIONS

What Do You Want To Do	TestCafe
Click an element	.click(selector)
Type Text	.typeText(selector, text)
Navigate to Page	.navigateTo(url)
Select Text	.selectText(selector)
Drag element	.drag(selector, dragOffsetX, dragOffsetY)
Hover over element	.hover(selector)
Press a key	.pressKey(keys)

# COMMON ASSERTIONS

What Do You Want To Do	TestCafe
Assert actual is equal to expected	.expect(actual).eq(expected)
Assert not equal to each other	.expect(actual).notEq(unexpected)
Assert actual is true	.expect(actual).ok()
Assert actual is false	.expect(actual).notOk()
Assert contains a matching value	.expect(actual).contains(expected)
Assert greater than	.expect(actual).gt(expected)
Assert greater than or equal	.expect(actual).gte(expected)



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**LET'S REVIEW**

**WAS THIS SOMETHING WE  
COULD/SHOULD USE OVER AND OVER  
AGAIN FOR ALL OF TIME?**

## PROS

FAST INERACTION

MOBILE AND  
DESKTOP SUPPORT

LESS STALE  
ELEMENTS

## CONS

NO BROWSER  
CONTROL

EVENTS ARE  
SIMULATED JS

BIT OF MAGIC  
USED



WHERE DO WE GO NOW?

# WHERE DO WE GO WITH WHAT WE LEARNED?

**PEACE OF MIND**



**INTRODUCE**



**REVIEW**



**PROOF OF  
CONCEPT**



## WHERE TO CONTINUE YOUR LEARNING

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[testautomationu.applitools.com](https://testautomationu.applitools.com)

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[codeacademy.com](https://codeacademy.com)

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Pluralsight, Udemy, Lynda

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Play around with a framework and see where it takes you

# THANK YOU FOR ATTENDING

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SENIOR SOFTWARE QUALITY ENGINEER



AARON GLASS (@DOUBLE\_A\_QA)  
SENIOR ENGINEER DEVELOPER IN TEST

PLEASE LEAVE FEEDBACK  
IN THE MOBILE APP