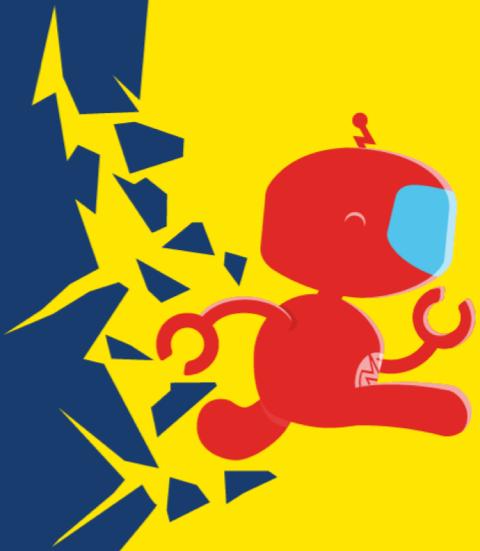


BREAK ON THROUGH



2020 KICKOFF

You, Too, Can Run an Automated Test

A Technical Overview of Sauce Labs for Non-Technical Users

Titus Fortner, Sr Solution Architect

Please go to:

<https://saucelabs-training.github.io/>

2020 KICKOFF

BREAK ON
THROUGH



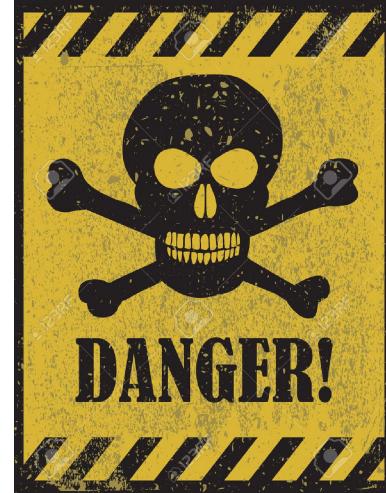
Example Code

The code lives here if you need to refer back to it later

<https://github.com/saucelabs-training/kickoff2020-testing-intro/>

What This Course Is Not...

- A programming class
 - The examples are in the Ruby programming language (because it is relatively easier to read)
- A development class
 - The environment is in GitPod (so we don't spend 2 hours setting up your laptop)
- A test automation class
 - This is just the bare minimum to get code running on Sauce Labs
 - This is not best practices
 - This will not scale

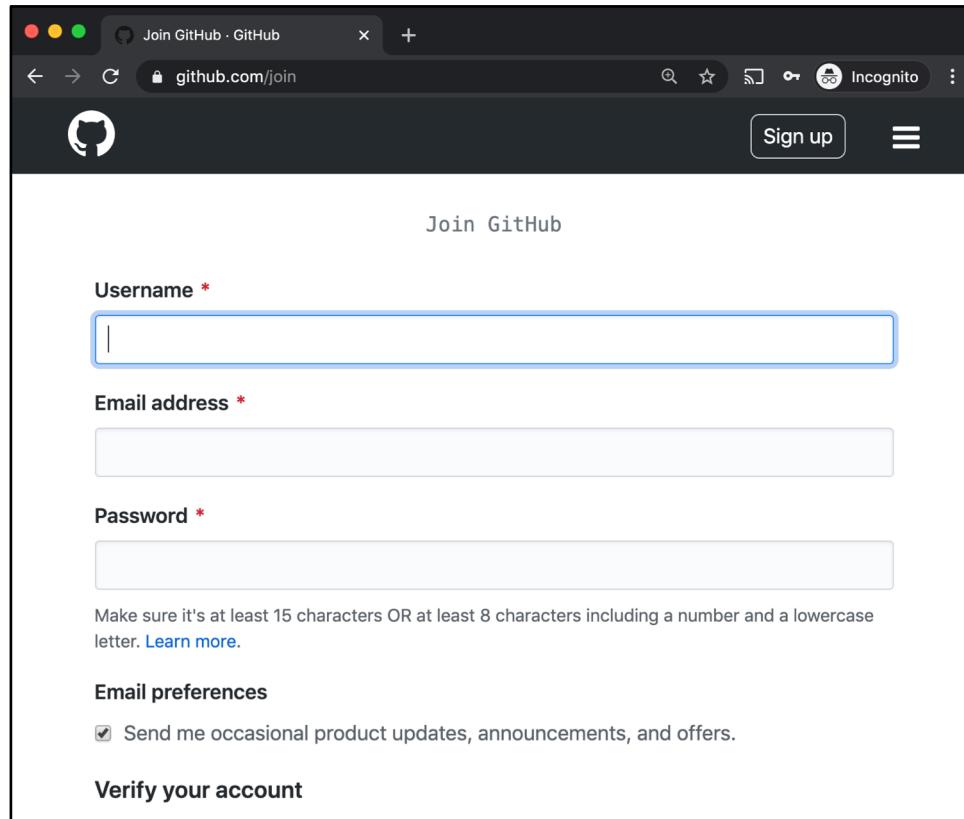




Setting Up a “Dev Environment”

Sign up for GitHub

<https://github.com/join>



A screenshot of a web browser showing the GitHub sign-up page. The URL in the address bar is `github.com/join`. The page has a dark header with the GitHub logo and a "Sign up" button. The main content area is titled "Join GitHub" and contains three input fields: "Username *", "Email address *", and "Password *". Below the password field is a note about password requirements. Under "Email preferences", there is a checked checkbox for receiving product updates. At the bottom is a "Verify your account" section.

Join GitHub

Username *

Email address *

Password *

Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more](#).

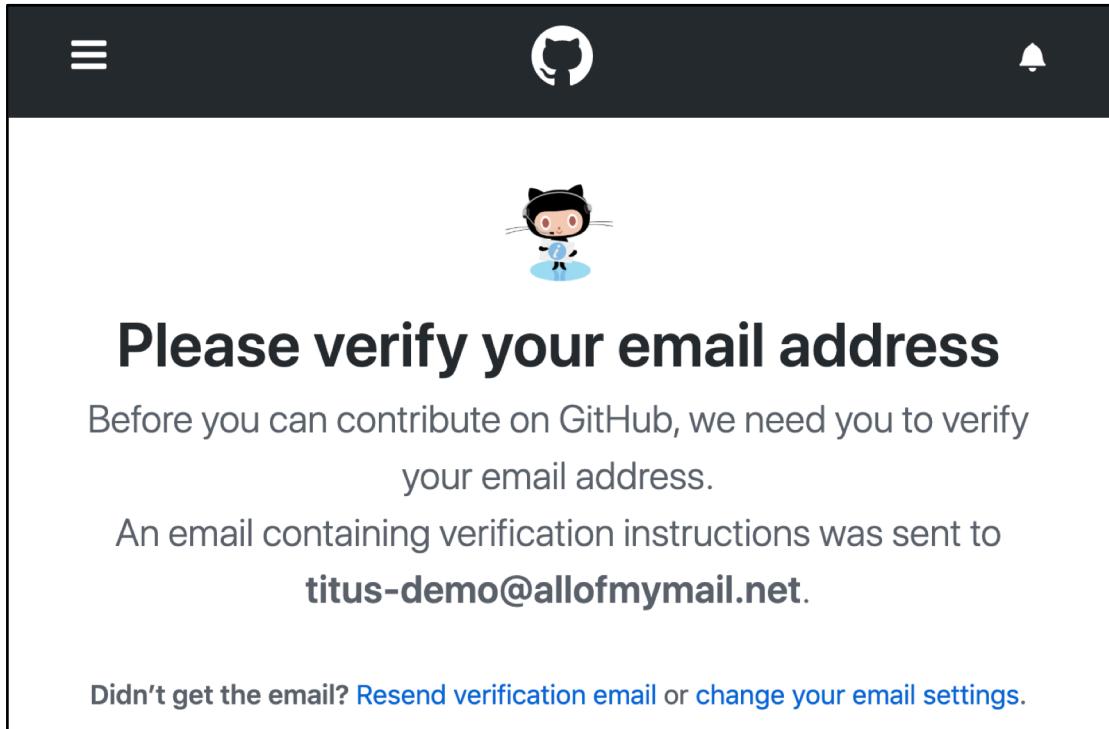
Email preferences

Send me occasional product updates, announcements, and offers.

Verify your account

Sign up for GitHub

Verify Email Address

A screenshot of a GitHub mobile application screen. At the top, there's a dark header bar with a menu icon (three horizontal lines), the GitHub logo, and a bell notification icon. Below the header is a white main area. In the center of the white area is a small, friendly-looking black cat-like character with a blue base. Below the character, the text "Please verify your email address" is displayed in a large, bold, dark font. Underneath this, there is explanatory text: "Before you can contribute on GitHub, we need you to verify your email address." This is followed by another line of text: "An email containing verification instructions was sent to". After a short line break, an email address is shown in a larger, bold, dark font: "titus-demo@allofmyemail.net.". At the bottom of the white area, there is a link in blue text: "Didn't get the email? Resend verification email or change your email settings."

Please verify your email address

Before you can contribute on GitHub, we need you to verify your email address.

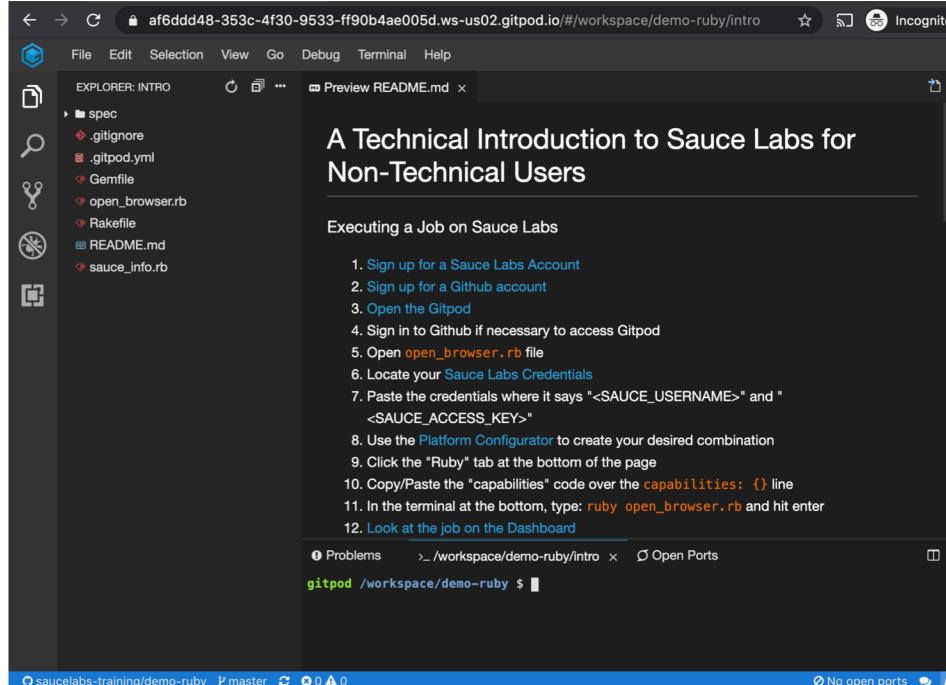
An email containing verification instructions was sent to

titus-demo@allofmyemail.net.

Didn't get the email? [Resend verification email](#) or [change your email settings](#).

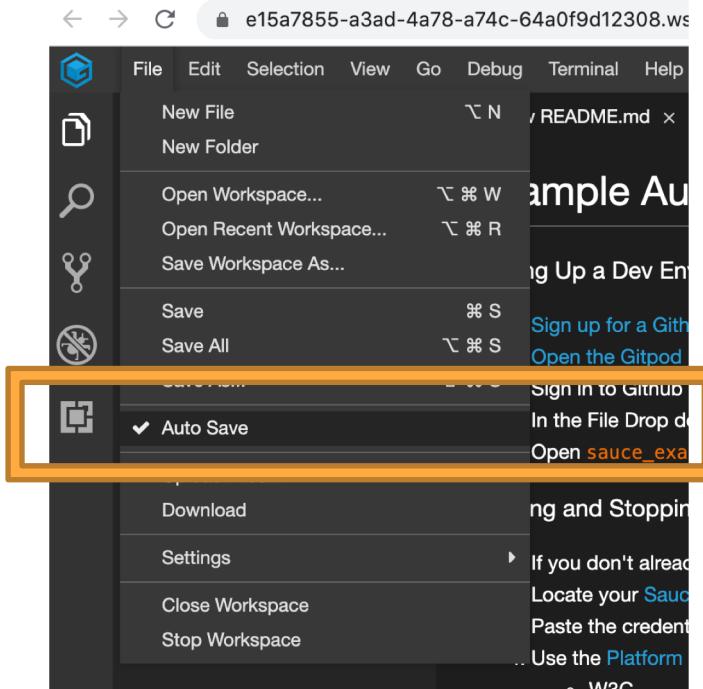
Open the GitPod

<https://gitpod.io/#github.com/saucelabs-training/kickoff2020-testing-intro>



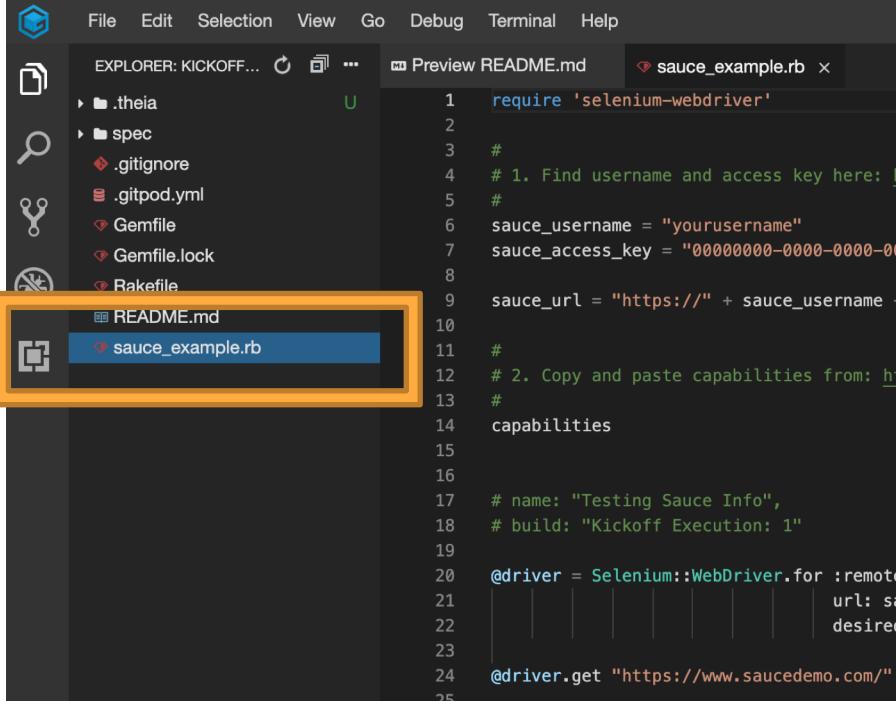
Turn on Auto Save

File Menu → "Auto Save"



Open Sauce Example File

Click "sauce_example.rb" on the left side



The screenshot shows a code editor interface with a sidebar on the left containing a file tree and a main editor area on the right.

File Tree (Left):

- .theia
- spec
- .gitignore
- .gitpod.yml
- Gemfile
- Gemfile.lock
- Rakefile
- README.md
- sauce_example.rb

Main Editor Area (Right):

```
1 require 'selenium-webdriver'
2 #
3 # 1. Find username and access key here: https://saucelabs.com/
4 #
5 # sauce_username = "yourusername"
6 # sauce_access_key = "00000000-0000-0000-0000-000000000000"
7 #
8 sauce_url = "https://" + sauce_username +
9   sauce_access_key + ".saucelabs.com/wd/hub"
10 #
11 # 2. Copy and paste capabilities from: https://saucelabs.com/
12 #
13 capabilities = {
14   browserName: "Safari",
15   platformName: "Mac OS X 10.14",
16   version: "12.1"
17 }
18 # name: "Testing Sauce Info",
19 # build: "Kickoff Execution: 1"
20 @driver = Selenium::WebDriver.for :remote
21   url: sauce_url,
22   desired_capabilities: capabilities
23
24 @driver.get "https://www.saucedemo.com/"
```



Starting and Stopping a Sauce Session

Sign up for Sauce Labs Trial

<https://saucelabs.com/sign-up>

The screenshot shows a web browser window for the "Sign Up for a Free Trial | Sauce" page at saucelabs.com/sign-up. The page features the SAUCE LABS logo at the top. Below it, a headline reads "Start testing in minutes" with the subtext "Try it, like it, buy it. No commitment for 14 days." Four input fields are provided for user information: "First name", "Last name", "Work Email", and "Company". A large red "Next" button is located at the bottom right of the form area.

First name

Last name

Work Email

Company

Next

Find Sauce Labs Credentials

<https://app.saucelabs.com/user-settings>

My Account

Team Assignment: Default Team Concurrency: 2

User Information

FIRST NAME <input type="text" value="Titus"/>	LAST NAME <input type="text" value="Fortner"/>
EMAIL ADDRESS <input type="text" value="titusontesting@gmail.com"/>	USER NAME <input type="text" value="titus_demo"/>

UPDATE

Access Key

 970b43b6-ce53-4957-a8eb-c406a581c3a9	REGENERATE ACCESS KEY
--	------------------------------

Warning:
Regenerating your access key will require update your access key value throughout your configuration. Commands containing your old access key will fail.

Past Credentials to GitPod

```
#  
# 1. Find username and access key here: https://app.saucelabs.com/user-settings  
#  
sauce_username = "yourusername"  
sauce_access_key = "00000000-0000-0000-0000-000000000000"  
  
sauce_url = "https:// + sauce_username + ":" + sauce_access_key + "@ondemand.saucelabs.com:443/wd/hub"
```

```
#  
# 1. Find username and access key here: https://app.saucelabs.com/user-settings  
#  
sauce_username = "titus-demo"  
sauce_access_key = "2c58f558-e32f-4e7d-b8d0-5d3a9dfc3884"  
  
sauce_url = "https:// + sauce_username + ":" + sauce_access_key + "@ondemand.saucelabs.com:443/wd/hub"
```

Use Platform Configurator

<https://wiki.saucelabs.com/display/DOCS/Platform+Configurator>

API



DEVICE



OPERATING SYSTEM



BROWSER



[Hide Advanced Configuration](#)

Record Video Capture Screenshot



[LEARN MORE ABOUT TEST CONFIGURATIONS](#)

COPY CODE



```
capabilities = {
  browser_name: 'chrome',
  browser_version: '78.0',
  platform_name: 'Windows 10',
  "saucelabs:options" => {
    screen_resolution: '1024x768',
  }
}
```

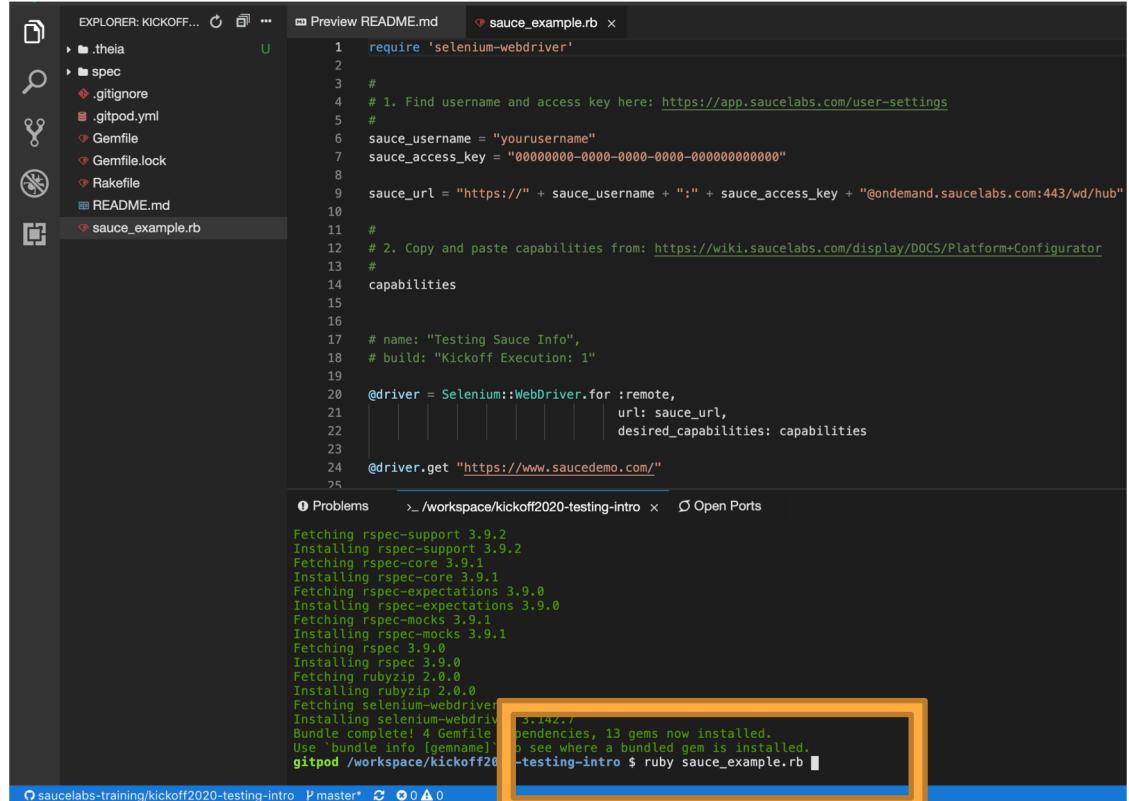
Add Credentials & Capabilities

```
#  
# 2. Copy and paste capabilities from: https://wiki.saucelabs.com/display/DOCS/Platform+Configurator  
#  
capabilities
```

```
#  
# 2. Copy and paste capabilities from: https://wiki.saucelabs.com/display/DOCS/Platform+Configurator  
#  
capabilities = {  
  browser_name: 'chrome',  
  browser_version: '78.0',  
  platform_name: 'Windows 10',  
  "sauce:options" => {  
    screen_resolution: '1024x768',  
  }  
}
```

Execute Code

“ruby sauce_example.rb”



The screenshot shows a code editor interface with the following details:

- File Explorer:** Shows files like .theia, spec, .gitignore, Gemfile, Gemfile.lock, Rakefile, README.md, and sauce_example.rb.
- Code Editor:** Displays the contents of sauce_example.rb:

```
1 require 'selenium-webdriver'
2
3 # 1. Find username and access key here: https://app.saucelabs.com/user-settings
4 #
5 # sauce_username = "yourusername"
6 # sauce_access_key = "00000000-0000-0000-0000-000000000000"
7 #
8 sauce_url = "https://" + sauce_username + ":" + sauce_access_key + "@ondemand.saucelabs.com:443/wd/hub"
9
10 #
11 # 2. Copy and paste capabilities from: https://wiki.saucelabs.com/display/DOCS/Platform+Configurator
12 #
13 #
14 capabilities
15
16
17 # name: "Testing Sauce Info",
18 # build: "Kickoff Execution: 1"
19
20 @driver = Selenium::WebDriver.for :remote,
21 | |
22 | | url: sauce_url,
23 | | desired_capabilities: capabilities
24
25 @driver.get "https://www.saucedemo.com/"
```
- Terminal:** Shows the command being run and its output:

```
Fetching rspec-support 3.9.2
Installing rspec-support 3.9.2
Fetching rspec-core 3.9.1
Installing rspec-core 3.9.1
Fetching rspec-expectations 3.9.0
Installing rspec-expectations 3.9.0
Fetching rspec-mocks 3.9.1
Installing rspec-mocks 3.9.1
Fetching rspec 3.9.0
Installing rspec 3.9.0
Fetching rubyzip 2.0.0
Installing rubyzip 2.0.0
Fetching selenium-webdriver
Installing selenium-webdriver 3.142.7
Bundle complete! 4 Gemfile dependencies, 13 gems now installed.
Use `bundle info [gemname]` to see where a bundled gem is installed.
gitpod /workspace/kickoff2020-testing-intro$ ruby sauce_example.rb
```

Watch Test Run

<https://app.saucelabs.com/dashboard/tests>

The screenshot shows the Sauce Labs dashboard interface. On the left is a sidebar with icons for Dashboard, Live Testing, Tunnels, Analytics, and Archives. A progress bar at the bottom of the sidebar indicates "1 / 2 concurrent sessions". The main area has a header with "SAUCELABS" logo, navigation links for "Access Real Device...", "Help", "Titus Fortner", and "US West 1". Below the header are tabs for "AUTOMATED BUILD", "AUTOMATED TESTS" (which is selected), "LIVE TESTS", and "GETTING STARTED". A date "Friday, Jan 17th" is displayed. A test run card for "Unnamed job 6c2c96711ada45a5baf3c167..." is shown, stating it started less than a minute ago by "@titus_demo". It includes icons for a refresh symbol, Windows 10, and Chrome 78, with a status of "In Progress" and "ran for 0s". A button "See all in Archives" is visible.

Sauce UI: Test Page

Things to Notice

- “Unnamed job”
- No Build Name
- “?” Instead of Result
- Empty Network Tab
- Empty Performance Tab

The screenshot shows the Sauce UI Test Page with the NETWORK tab selected. At the top, there are two tabs: NETWORK and PERFORMANCE. Below the tabs is a large red robot icon with a lightning bolt on its chest. To the right of the icon, there is a message: "Please enable Extended Debugging. This will allow us to start capturing the network and JS console logs for your test page." Below this message is a "Copy & paste the following into your desired capabilities on our supported platforms." section. A dashed box highlights the code: `"extendedDebugging: true"`. At the bottom right, there is a link: "Learn more about Extended Debugging →".

The screenshot shows the Sauce UI Test Page with the PERFORMANCE tab selected. At the top, there are two tabs: NETWORK and PERFORMANCE. Below the tabs is a message: "Interested in seeing how to test and improve your application performance?". Below this message is a note: "To get started, include the following in your desired capabilities: `"extendedDebugging: true"` and `"capturePerformance: true"`". Below this note is a button: "Learn More About Sauce Performance →". To the right of the text is a circular icon containing a red robot doctor character holding a clipboard.



Adding Sauce Labs Options

Set Sauce Labs Configurations

<https://docs.saucelabs.com/reference/test-configuration>

Option	Description	Key	Value	Example
	the performance of your jobs.			
Enable Extended Debugging	Extended debugging records HAR files for some browsers, as well as console.json logs. These are extremely valuable for debugging flaky tests. Default value is false. See Debugging Tests with JavaScript Console Logs and HAR Files (Extended Debugging) for more information.	extendedDebugging	boolean	<code>"extendedDebugging": true</code>
Enable Performance Capture	Sauce Performance Testing can be enabled by setting both extendedDebugging and capturePerformance to true. Default value is false. See Getting Started with Sauce Performance for more information.	capturePerformance	boolean	<code>"capturePerformance": true</code>

Set Sauce Labs Configurations

Uncomment / Copy / Paste Name & Build

```
# 2. Copy and paste capabilities from: https://wiki.saucelabs.com/display/DOCS/Platform+Configurator
capabilities = {
    browser_name: 'chrome',
    browser_version: '77.0',
    platform_name: 'Windows 10',
    "saucelabs" => {
        screen_resolution: '1024x768',
        "extendedDebugging": true,
        "capturePerformance": true,
        name: "Testing Sauce Info",
        build: "Kickoff Execution: 1"
    }
}
```

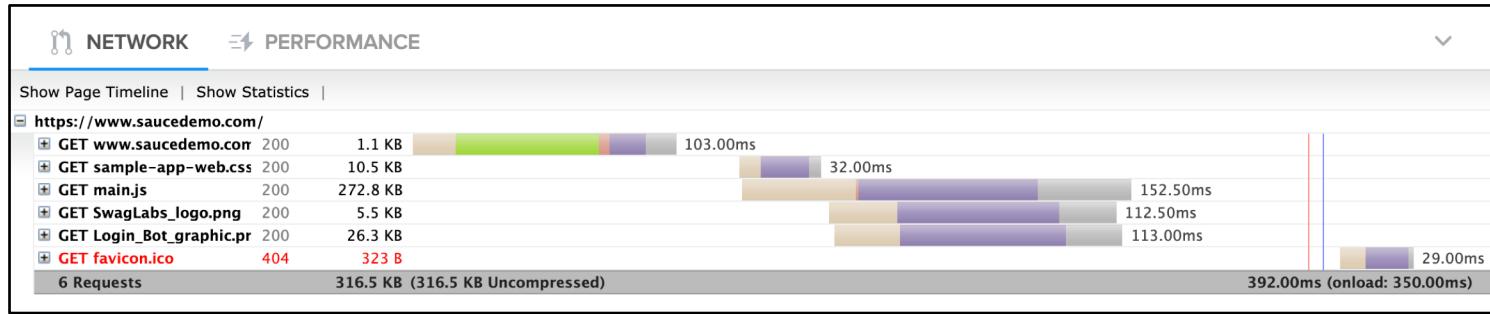
Look at Test View

The screenshot shows a test summary card within a larger dashboard. At the top left is a back arrow and the text "Dashboard / Testing Sauce Info". To the right are tabs for "PERFORMANCE" (which is selected, indicated by a blue background), "Selenium", and "Team". On the far right are three small icons: a grid, a magnifying glass, and a three-dot menu.

The main content area has a question mark icon and the title "Testing Sauce Info". Below the title are four pieces of information: a calendar icon with the date "01/29/20 at 12:27PM", a stopwatch icon with the duration "26s", a Windows icon with the operating system "Windows 10", and a Google Chrome icon with the browser "Google Chrome 77". To the right of these details are the "Owner" (titus-de...) and "Build" (Kickoff Exe...).

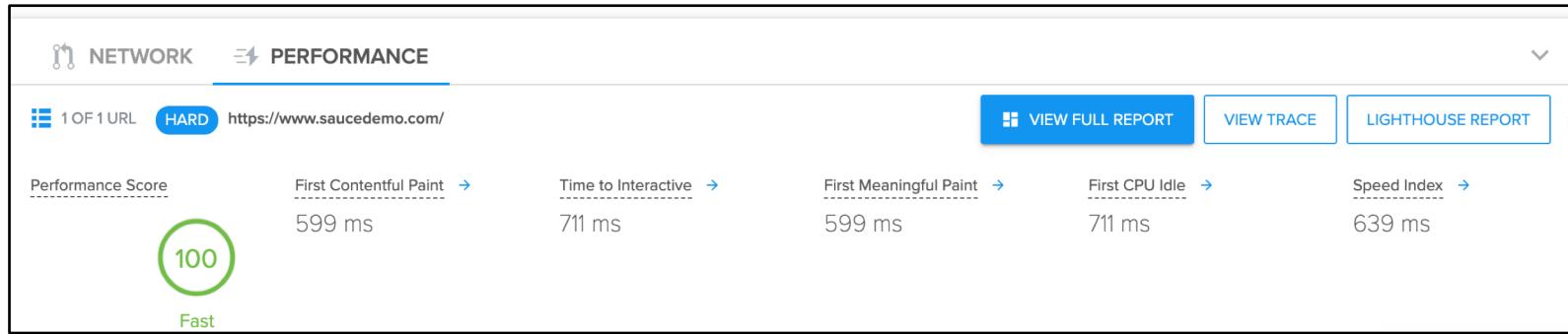
Look at Network View

(click on Network Tab at Bottom)



Look at Performance View

(click on Performance Tab at Bottom)

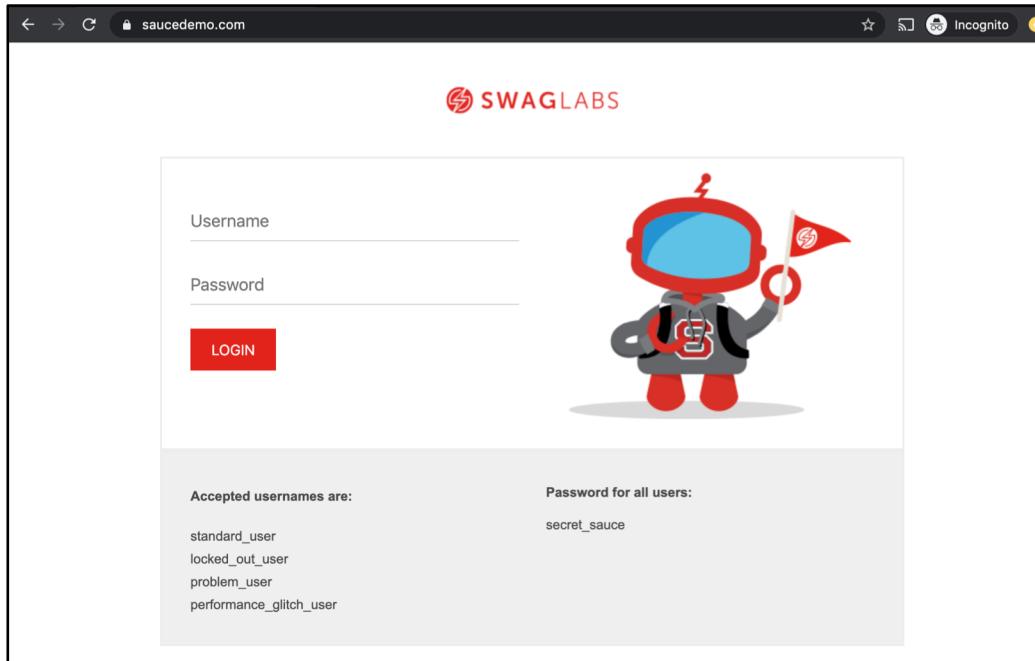




Running a “Real” Test

Go to Sauce Demo

<http://saucedemo.com>



Uncomment Remaining Code

Uncomment Remaining Code

```
@driver.find_element(id: 'user-name').send_keys('standard_user')
@driver.find_element(id: 'password').send_keys('secret_sauce')
@driver.find_element(css: "[type='submit']").click

actual_result = @driver.current_url == "https://www.saucedemo.com/inventory.html" ? "passed" : "failed"
@driver.execute_script("sauce:job-result=#{actual_result}")
@driver.quit
```

Look at Build List

<https://app.saucelabs.com/dashboard/builds>

«

AUTOMATED BUILDSS AUTOMATED TESTS LIVE TESTS GETTING STARTED

FILTER Owner: My Tests Status: All
(Titus_demo)

Friday, Jan 17th

 Break On Through: 1
started 2 minutes ago by @titus_demo

Passed
1 test ran in 9s

Look at Build View

(click on build from Build List)

«  Build success

Break On Through: 1

0 QUEUED	0 RUNNING	0 COMPLETED	Owner titus_demo
0 ERRORED	0 FAILED	1 PASSED	Started 01/17/20 at 08:05PM

Ended 01/17/20 at 08:05PM
Duration 9s

Friday, Jan 17th

Testing Sauce Info    9s

Watch Test Run

<https://app.saucelabs.com/dashboard/tests>

The screenshot shows the Sauce Labs dashboard with the 'AUTOMATED TESTS' tab selected. The date is Friday, Jan 17th. Two test runs are listed:

- Testing Sauce Info**: Started less than a minute ago by @titus_demo. Status: Queued (ran for 0s). Includes a link to see all in Archives.
- Unnamed job 6c2c96711ada45a5baf3c167e8a3...**: Started 16 minutes ago by @titus_demo. Status: Complete (ran for 9s).

A sidebar on the left shows navigation links: Dashboard, Live Testing, Tunnels, Analytics, Archives, and a concurrent sessions counter (1 / 2).



Try making changes

Look at Build List

«

AUTOMATED BUILDSS AUTOMATED TESTS LIVE TESTS GETTING STARTED

FILTER: Owner: [Titus-Demo](#) Status: [All](#)

Wednesday, Jan 29th

- Kickoff Execution: 3
started 5 minutes ago by @titus-demo

1 Failed
1 test ran in 53s

Look at Build View

(click on build from Build List)

«  Build failed

Kickoff Execution: 3

0 QUEUED	0 RUNNING	0 COMPLETED
0 ERRORED	1 FAILED	0 PASSED

Owner [titus-demo](#)
Started 01/29/20 at 12:37PM
Ended 01/29/20 at 12:37PM
Duration 53s

Performance: Highest Score

Wednesday, Jan 29th

! Testing Sauce Info
53s



THANK YOU