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AUTOMATED CROSS BROWSER TESTING

WHY DO WE TEST?

Meet requirements

Respond correctly to different inputs

Usability

Performs within accepted time

Achieves desired results from stakeholders



TESTING THE WEB IS HARD

Many browsers

Many devices

Many operating systems

Multiple programming languages

Varying bandwidth



1. TO ENSURE GOOD CODE
QUALITY WE NEED TESTING

2. MANUAL TESTING IS A BAD
CHOICE

But how far should we go?

WE NEED AUTOMATION



**MORE
ACCURATE**



**REGRESSION
TESTING**



**MUCH
FASTER**

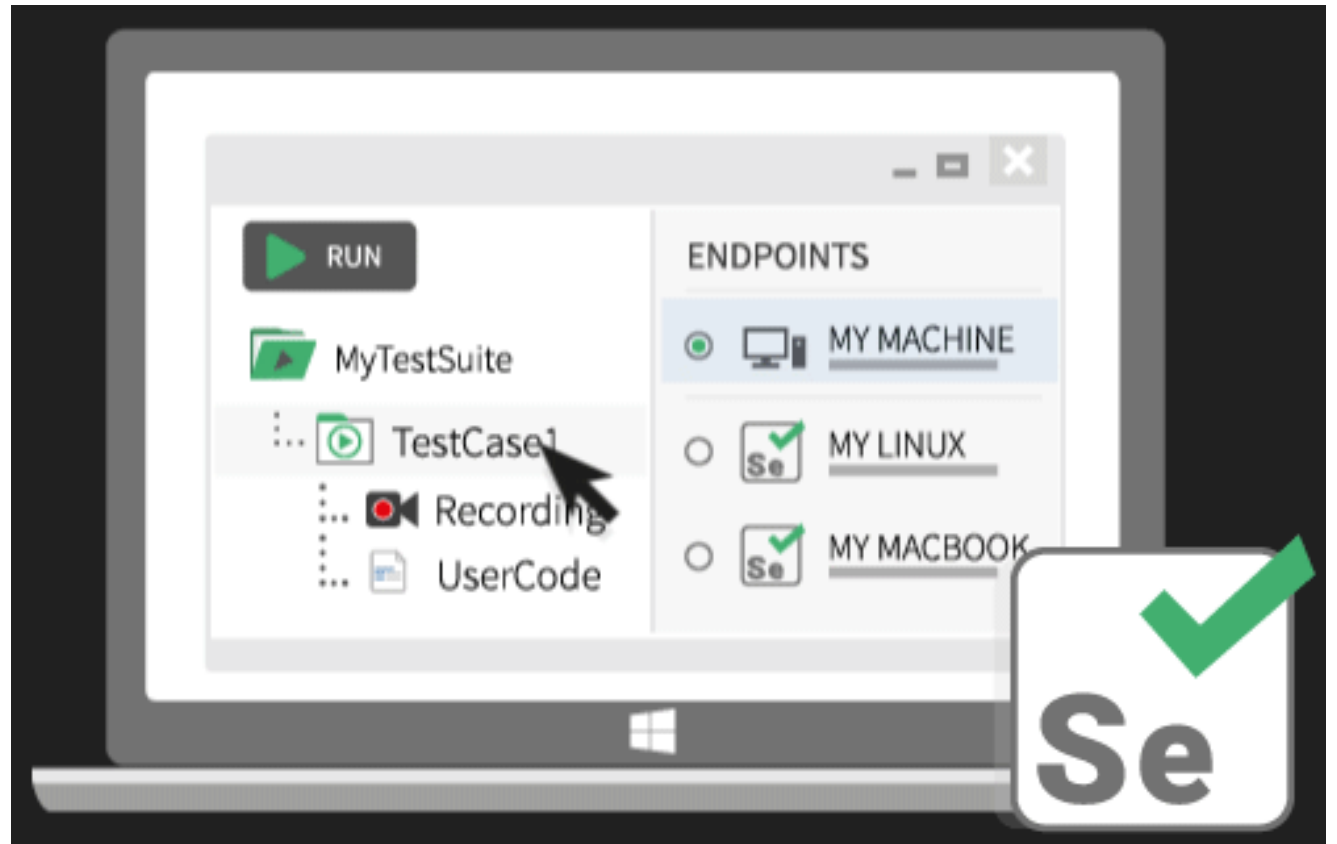


**HIGHER
FREQUENCY**



**BETTER USER
EXPERIENCE**

SELENIUM



Datateknik, civilingenjör 300 hp

Kungliga Tekniska Högskolan [SE]

https://www.kth.se/utbildning/civilingenjor/datateknik

ABP

Se

S

Simon

Schema

Kurser

Program

Grupper

Tjänster

Datateknik

Utbildningen

Kurser

Globala hållbarhetsmål

Projekt

Utlandsstudier

Jobb & karriär

Lärare

Studenter

Kontakt

Fråga oss om studier

KTH i sociala medier

Träffa KTH

Datateknik, civilingenjör 300 hp

Vill du driva samhällsförändring? Leda framtidens digitala utveckling, kanske genom spel, virtuella miljöer eller robotar? Datateknikprogrammet ger dig breda internationella karriärmöjligheter. Efter examen väntar kreativa och varierande arbetsuppgifter inom många branscher som exempelvis design av produkter, digitalisering av tjänster eller utveckling inom datasäkerhet.

Anmälan

Viktiga datum HT

Om utbildningen

Behörighet

Antagningsstatistik

Kontakt

Program öppet för anmälan. Anmälan sker via antagning.se

Anmäl dig här

Topp

Selenium IDE - TestProject1

Project: TestProject1

Tests +

Search tests...

https://www.kth.se

	Command	Target	Value
1	open	/	
2	set window size	1304x712	
3	click	id=search__Field	
4	type	id=search__Field	Datateknik
5	send keys	id=search__Field	\${KEY_ENTER}
6	click	linkText=Civilingenjörsutbildning i datateknik 300 hp	
7	verify text	linkText=Anmäl dig här	Anmäl dig här

Command

Target

Value

Description

Log

Reference

4. type on id=search__Field with value Datateknik OK

5. sendKeys on id=search__Field with value \${KEY_ENTER} OK

6. click on linkText=Civilingenjörsutbildning i datateknik 300 hp OK

7. verifyText on linkText=Anmäl dig här with value Anmäl dig här OK

'Test1' completed successfully

Selenium IDE - TestProject1*

Project: TestProject1*

Executing

Test2

https://www.kth.se

	Command	Target	Value
2	set window size	1304x712	
3	click	id=search__Field	
4	type	id=search__Field	D4tat3knik
5	send keys	id=search__Field	\${KEY_ENTER}
6	click	linkText=Civilingenjörsutbildning i datateknik 300 hp	
7	verify text	linkText=Anmäl dig här här	Anmäl dig här

Command

Target

Value

Description

Runs: 1 Failures: 1

LogReference

4. type on id=search__Field with value D4tat3knik OK

5. sendKeys on id=search__Field with value \${KEY_ENTER} OK

6. Trying to find linkText=Civilingenjörsutbildning i datateknik 300 hp... Failed:
Implicit Wait timed out after 30000ms

'Test2' ended with 1 error(s)

```
Test1.java x
12 public class Test1 {
13     private WebDriver driver;
14     private String baseUrl;
15     private boolean acceptNextAlert = true;
16     private StringBuffer verificationErrors = new StringBuffer();
17
18     @Before
19     public void setUp() throws Exception {
20         driver = new FirefoxDriver();
21         baseUrl = "https://www.katalon.com/";
22         driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
23     }
24
25     @Test
26     public void test1() throws Exception {
27         driver.get("https://www.kth.se/");
28         driver.findElement(By.id("search__Field")).click();
29         driver.findElement(By.id("search__Field")).clear();
30         driver.findElement(By.id("search__Field")).sendKeys("Datateknik");
31         driver.findElement(By.id("search__Field")).sendKeys(Keys.ENTER);
32         driver.findElement(By.linkText("Civilingenjörsutbildning i datateknik 300 hp")).click();
33         try {
34             assertEquals("Anmäl dig här", driver.findElement(By.linkText("Anmäl dig här")).getText());
35         } catch (Error e) {
36             verificationErrors.append(e.toString());
37         }
38     }
}
```

BUT IS IT REALLY AUTOMATED YET?

SAUCE LABS

Platforms List | Sauce Labs

https://saucelabs.com/platforms

SOLUTIONS ▾PLATFORMSPRICINGRESOURCES ▾SUPPORT & SERVICES ▾COMPANY ▾

FREE TRIAL

DESKTOP ▲

EMULATORS AND SIMULATORS ▾

REAL DEVICES ↗

Windows 8-10351▲

Windows 7117

MacOS171

Linux200

Windows 10

Firefox dev

Firefox 64

Firefox 61

Firefox 58

Firefox 55

Firefox 52

Firefox 49

Firefox 46

Firefox beta

Firefox 63

Firefox 60

Firefox 57

Firefox 54

Firefox 51

Firefox 48

Firefox 45

Firefox 65

Firefox 62

Firefox 59

Firefox 56

Firefox 53

Firefox 50

Firefox 47

Firefox 44

Contact us!

Real Devices | Sauce Labs

https://saucelabs.com/devices

SOLUTIONS

PLATFORMS

PRICING

RESOURCES

SUPPORT & SERVICES


COMPANY

FREE TRIAL

Showing ALL 204 devices


Type to start searching

HTC One (M8)




Android 6.0 (ARM)
Screen: 1080 x 1920 | 5"

LG G4




Android 6.0 (ARM)
Screen: 1440 x 2560 | 5.5"

Samsung Galaxy A7 2018



Android 8.0.0 (ARM)
Screen: 1080 x 2220 | 6"

Lenovo Tab 4 10 Plus



Android 7.1.1 (ARM)
Screen: 1200 x 1920 | 10.1"

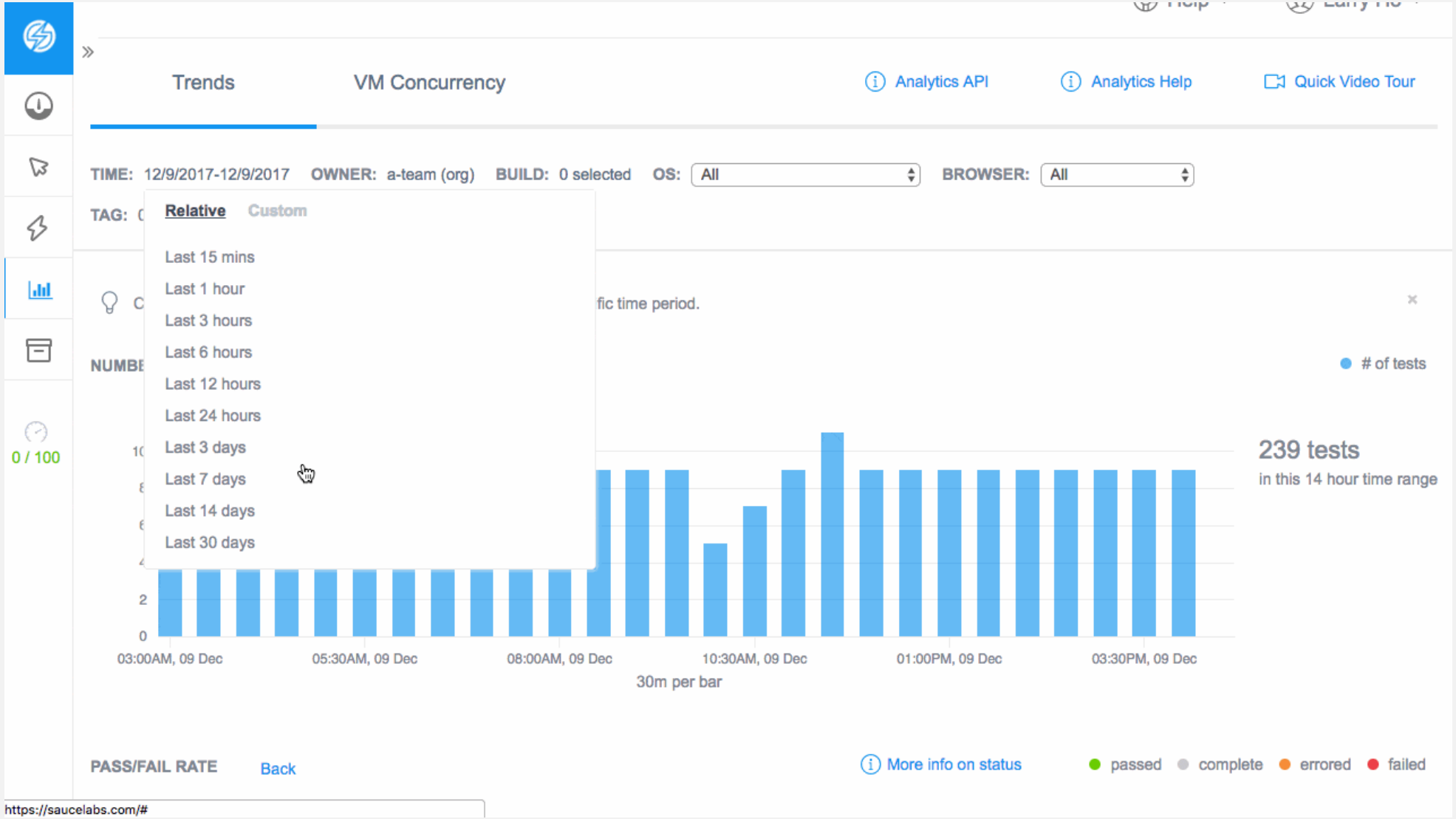
Samsung Galaxy Tab A 9.7

Samsung Galaxy S10+

Samsung Galaxy Tab A 10.5

Samsung Galaxy A7

```
SauceLabsTest.java x
15
16 @Test
17 public void shouldOpenSafari() throws MalformedURLException {
18
19     /**
20      * In this section, we will configure our SauceLabs credentials in order to run our tests on sauc
21      */
22     String sauceUserName = "simonjaeger";
23     String sauceAccessKey = "46f7bf5c-a31b-4134-97b0-902635fea";
24
25     /**
26      * In this section, we will configure our test to run a specific
27      * browser/os combination in Sauce Labs
28      */
29
30     DesiredCapabilities capabilities = new DesiredCapabilities();
31
32     capabilities.setCapability("username", sauceUserName);
33     capabilities.setCapability("accessKey", sauceAccessKey);
34
35     capabilities.setCapability("browserName", "Safari");
36     capabilities.setCapability("platform", "macOS 10.13");
37     capabilities.setCapability("version", "11.1");
38
39     capabilities.setCapability("build", "TestApp1");
40     capabilities.setCapability("name", "Test1");
41
42     driver = new RemoteWebDriver(new URL("http://ondemand.saucelabs.com:80/wd/hub"), capabilities);
43
44     driver.navigate().to("https://www.kth.se/");
45
46     WebDriverWait wait = new WebDriverWait(driver, 5);
```



Cross Browser Testing | Sauce Labs

+

← → ↻

https://saucelabs.com/products/web-testing/cross-browser-testing

☆

ABP

Windows

Se

S

⋮

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Q

FREE TRIAL



COMPREHENSIVE CI SERVER SUPPORT FOR AGILE TEAMS


Setup, manage and view test results all from within your continuous integration server - for Jenkins, MSFT VSTS and Bamboo as well as support for Travis CI, Circle CI and Team City.

LEARN MORE >

COLLABORATION MADE EASY

Simplify team collaboration with our one button click to create JIRA tickets and share test results, videos, commands, logs and metadata. Easily share test results via both HipChat and Slack.

LEARN MORE >



YOU THOUGHT AUTOMATING
CROSS BROWSER TESTING WAS
HARD?

WITH PROPER TOOLS IT'S NOT!

Thank you!