Tool Strategies For Mobile And Desktop Browsers: Featuring Robot Framework

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Presented by Joshua Gorospe

Introduction

- I have been a tester for roughly 12 years.
    - I have worked in agency and product companies.
- I originally came from a background of working with very formal and traditional test teams.
    - Formal specifications were given then etc.
- During the last 3 years I became an omega tester (not by choice, just happened). I started studying and teaching myself Rapid Software Testing.
    - When it was available I would read through pieces of this every day. James Bach took it down after his recent website redesign...
        - http://www.satisfice.com/rst.pdf
    - I would often read through these too...
        - https://www.satisfice.com/download/a-context-driven-approach-to-automation-in-testing
        - https://www.satisfice.com/download/session-based-test-management
    - I just started reading "Lessons Learned in Software Testing: A Context-Driven Approach". It has become my favorite book for self-study.
- I enjoy experimenting with test tools.
- I like considering myself as simply a tester, I am proud of it.
- I personally believe that automation is only a part of a tester's toolbox, it's not everything.
- Testing, designing test strategies, and finding bugs makes me feel like a detective scientist.
    - Funny fact: I Googled "detective scientist" and found this...
    https://www.nasa.gov/audience/forstudents/nasaandyou/home/detective_en-index.html

Before we dive into it. This interactive presentation is…

- **<u>NOT</u>** an exhaustive list of all possible test strategies that can be applied to any project or product.
- **<u>NOT</u>** trying to give you silver bullets.
  - Your project, product, or situation may be unique
  - Your tester journey, experience, or career path may be completely different
  - "Only you know the context of your own work." (Lessons Learned in Software Testing: A Context-Driven Approach)

- An evolving and ongoing experiment of mine. I enjoy learning new things.
- Going to attempt to try to give you some new idea(s) in 30 minutes (maybe less?).
- One of the main topics of this session is Robot Framework, but will also frequently mention some other tools that the presenter is familiar with, and enjoys experimenting on.

Story Time...

Real World Scenario: "There's an update to this Javascript framework we've been using... let's apply this to our system. It shouldn't break anything."

- Maybe these famous last words, situation, scenario, or this problem sounds familiar to some of you.

- The suspect... Next.js version 8.

- The innocent looking blog post that inspired the team leaders to do it...

Next.js 8

Monday, February 11th 2019 (6 months ago)

Tim Neutkens
@timneutkens

Connor Davis
@connordav_is

Shu Ding
@quietshu

We are proud today to introduce the production-ready Next.js 8, featuring:

- Serverless Next.js
- Massive build-time memory usage reduction
- Build-time environment configuration
- Prefetch performance improvements
- Smaller initial HTML size
- Improved on-demand entries
- Faster port listening in development
- Faster Static Export
- Head element deduplication
- New crossOrigin config option
- Removed inline Javascript
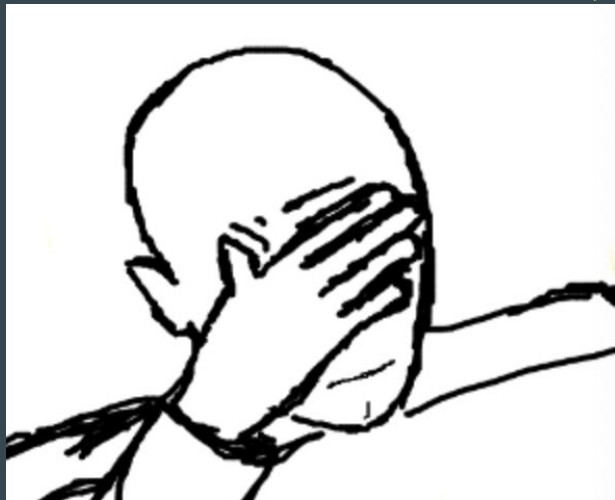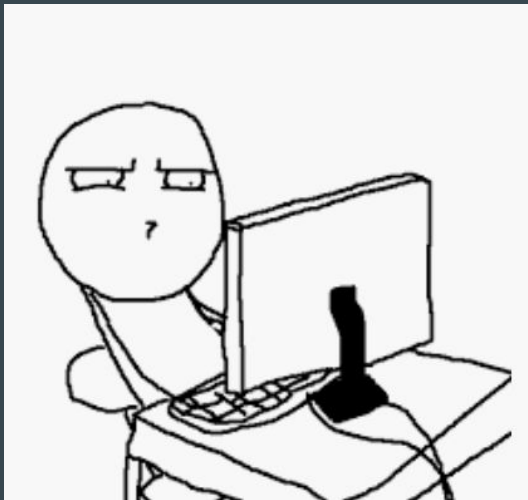- Example of API Authentication

As always, we have strived to ensure all these benefits are **completely backwards compatible**. For most Next.js applications, all you need to do is run:

```
$ npm i next@latest react@latest react-dom@latest
```

The aftermath of the decision...

As testing progressed through the environments
- The <u>entire team was loaded with up to 40+ Jira tasks</u> per team member
  - Total of 5 engineers (including the presenter, was on 3 projects at that time)
- <u>Other problems from other clients came up, and gained a higher priority</u>
- Since someone whose opinion matters the most claimed "It shouldn't break anything"
  - <u>Browser compatibility testing was deprioritized</u> by the team leaders
  - Chrome was considered "good enough"
- Everything seemed good-to-go and the release went to production
- One week later..."Hey! We just got a tip from our third party vendor, their traffic is down!"
- **<u>The cause... Next.js 8 broke the application for ONLY Safari users</u>**

Session Outline

Here is a high-level outline of the examples that will be covered.
- Focus is on Robot Framework, Safari (mobile + desktop) browser automated checks, and other browsers too.
- Examples will demonstrate PaBot (https://github.com/mkorpela/pabot) enabling the automation to run in parallel.
- Discuss using existing automated checks and turn them into a monitoring + alerting process that sends notifications in Slack.
  - Possible scheduler option for Mac/iOS testers...
    - https://alvinalexander.com/mac-os-x/launchd-examples-launchd-plist-file-examples-mac#a-first-mac-launchd-launchctl-example-a-launchd-plist-file
  - Possible scheduler for everyone else...
    - https://jenkins.io/doc/book/pipeline/syntax/#triggers
- Take existing automated checks and turn them into an on-demand test-process-as-a-service triggered by webhooks

All of the examples in this session have been added here.
- https://github.com/jg8481/Tool-Strategies-Lone-Testers-Test-Leadership-Congress-2019

All of the examples will be covered in more depth in an upcoming book.
- https://leanpub.com/toolstrategiesforlonetesters

Questions?
Answers (maybe).