

TECHORAMA

MAY 12-13 2015

Automated UI Testing for Mobile Apps

Jonathan Dick
@redth



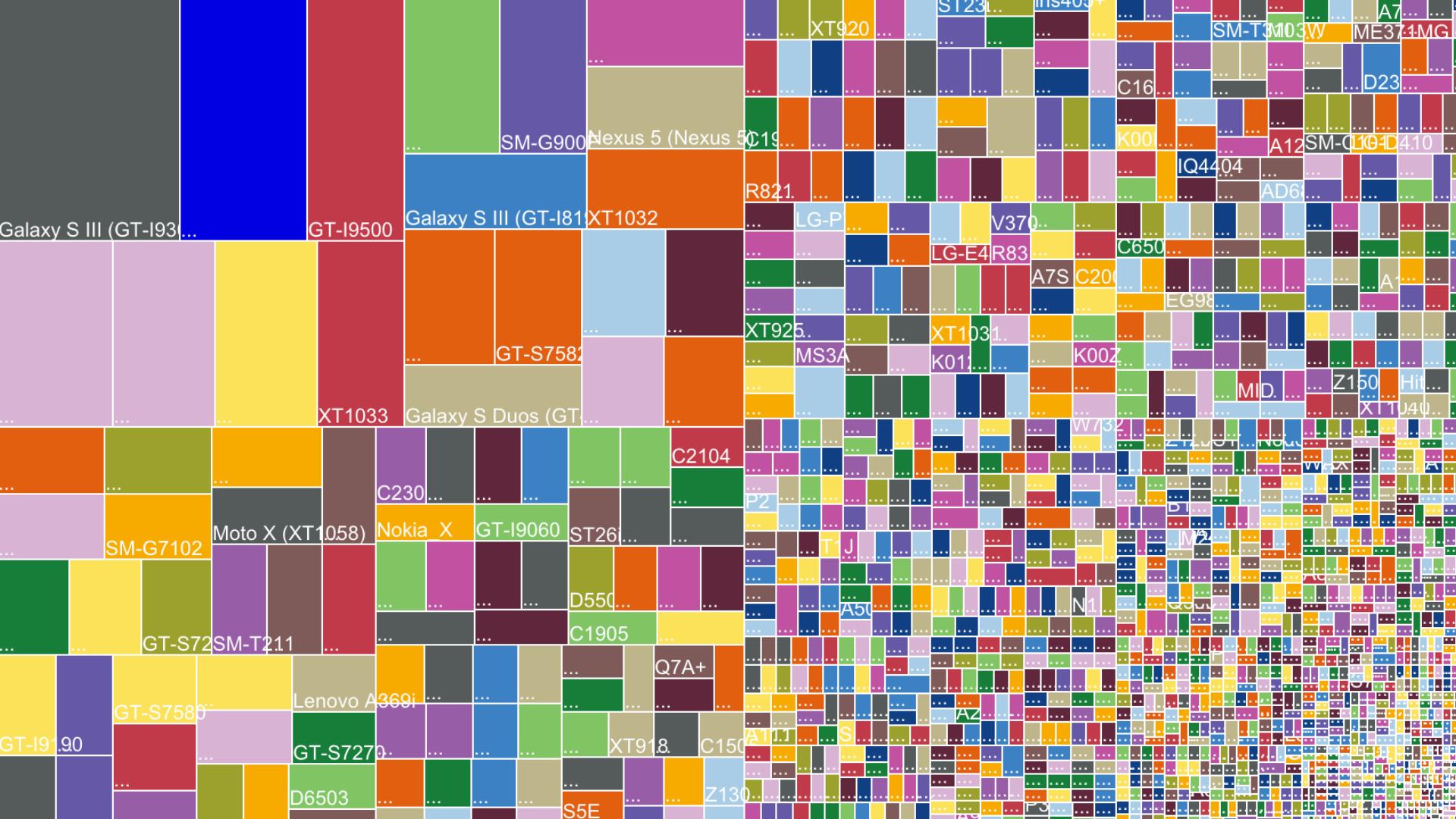
How many devices do you test with?

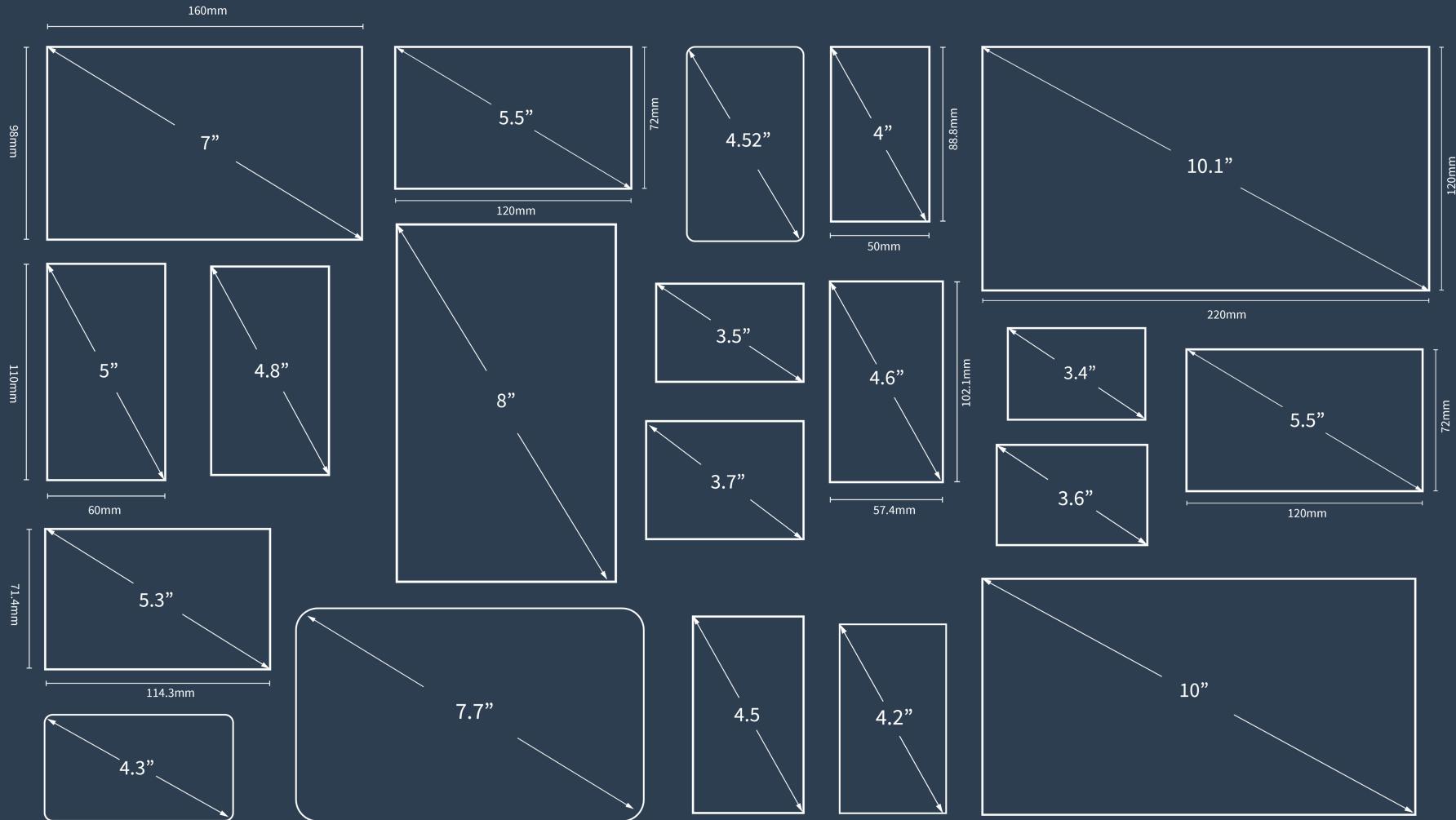
1 ? 2 ? 5 ? 10 ? **20 ??!?!1**

My desk



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On Mobile, Quality is Hard



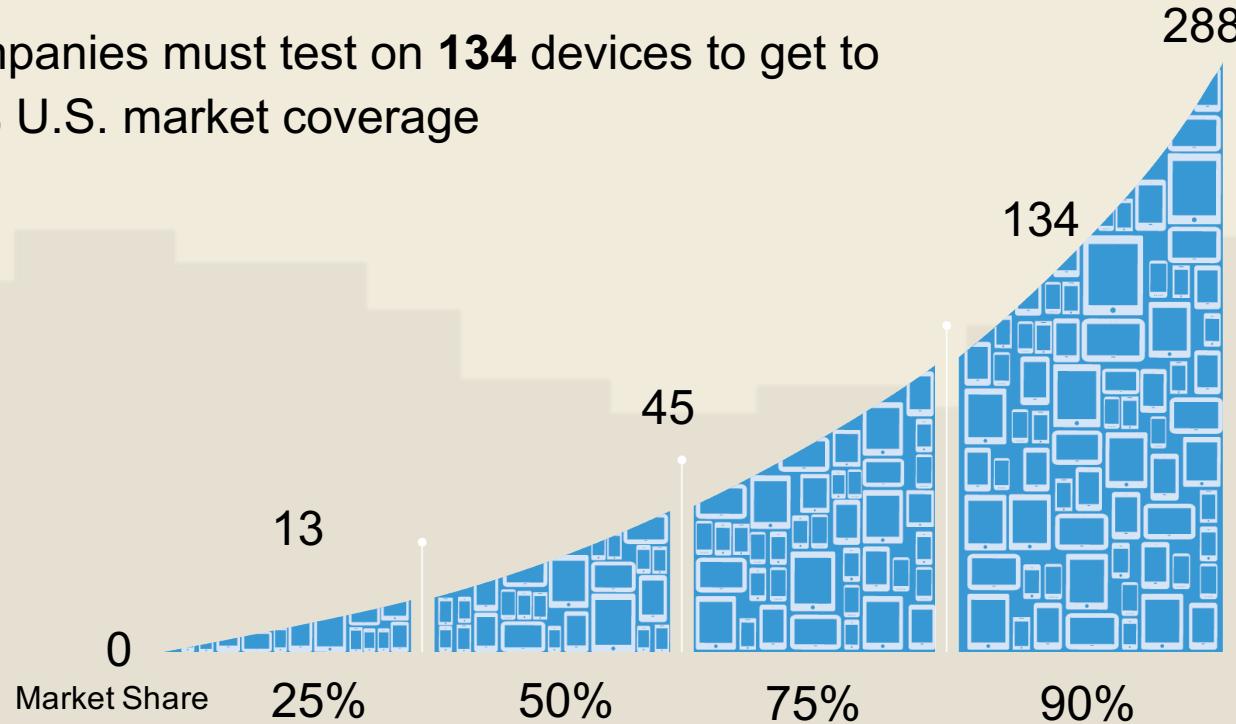
5 OS versions
20 devices
20 languages
35 locales
6 screen sizes



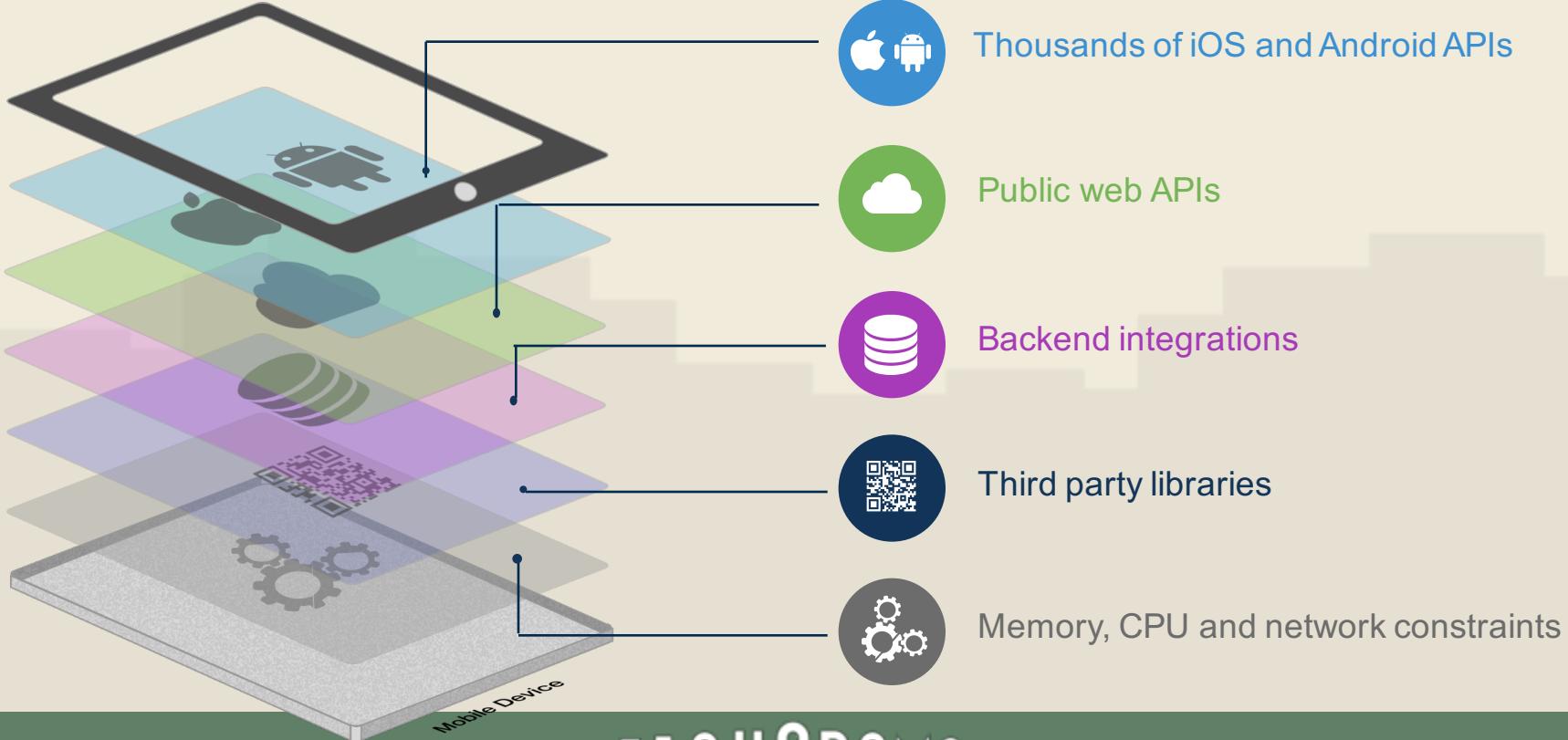
9 OS versions
6 Screen configurations
27 screen sizes
39 languages
57 locales
15 Manufacturers
Over **19,000** distinct devices

U.S. Device Market Coverage Data

Companies must test on **134** devices to get to
75% U.S. market coverage



App Complexity



State of Testing

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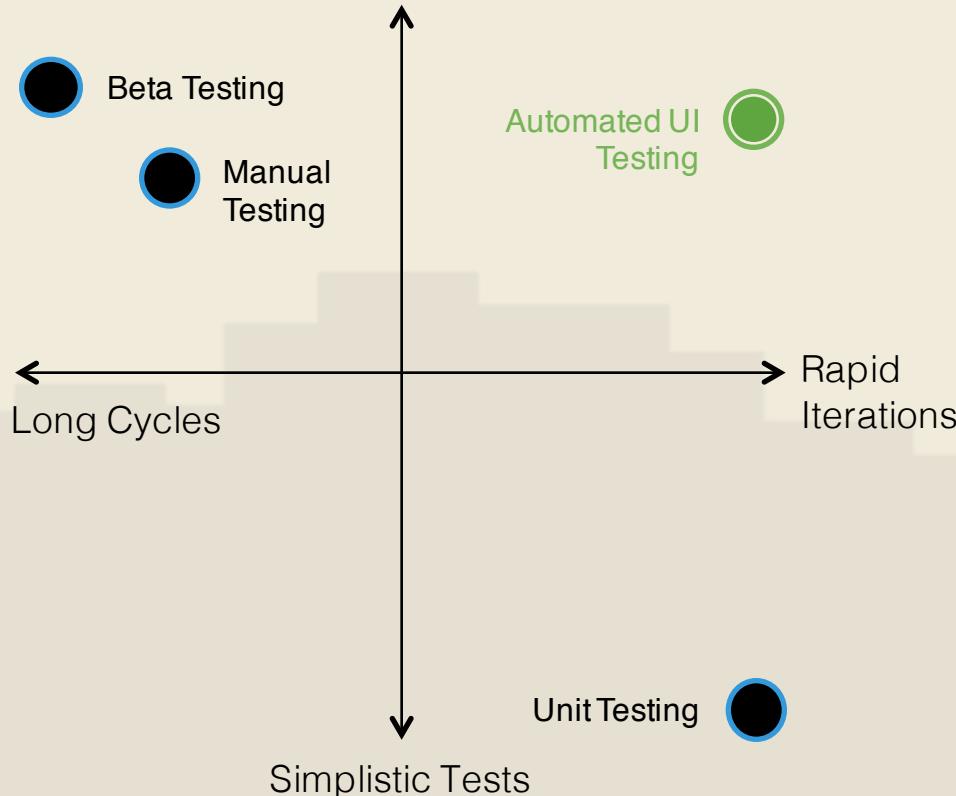
Average Test Suite Today

10
devices

<20%
code
coverage

<25%
continuous
integration

How we are testing



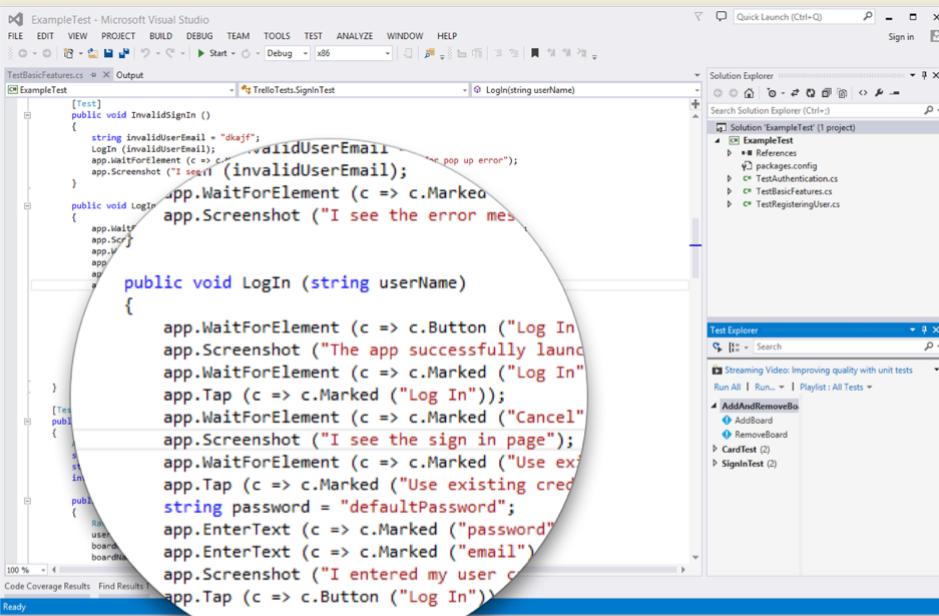
Automated UI testing is the only way to ensure your app

- looks
- behaves and
- performs

well on a broad set of devices—
with every release

Introducing Xamarin.UITest

- Create Automated UI tests in C#
- Upload to the Test Cloud or run against a Device or Simulator
- Run directly from Visual Studio or Xamarin Studio
- Exposed via a NuGet Package
- FREE to use a Simulator*
- Works on ANY app: Native, Hybrid, or Xamarin





Tap



Scroll



Swipe



Pinch



Multi finger



Text Entry



Rotation



GPS



Language



Currency



Network Condition
(coming soon)

Demo

Go Further

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Xamarin Test Cloud

Xamarin test cloud | Tesco Groceries | Jun 25, 2014 6:27:02 AM | New Test Run | John |

Overview

Search

Searching for Items in the store

(17)

Given I take the test

When I tap the search bar

Then I see the search field

And I see a clear button

When I search for sugar

Then I see some suggested searches

When I select a suggestion

Then I see some products

When I select one of the items

Then I am prompted to login

And I login from a search

Then I successfully add the item

When I navigate to search from favourites

And I search for milk

Then I can see search results for milk

And I add milk to my basket

When I navigate to search from Shop

And I search for rice

Then I can see search results for rice

And I add rice to my basket

When I navigate to search from MyOrders

And I search for meat

Then I can see search results for meat

And I add meat to my basket

Shopping at Tesco

17

Samsung Galaxy Scentura
Android 4.0.4

Motorola Moto G
Android 4.3

Sony Xperia J
Android 4.3.2

HTC Desire
Android 4.3.2

Motorola ATRIX HD
Android 4.1.2

Samsung Galaxy S Duos
Android 4.0.4

Sony Ericsson Xperia Arc
Android 2.3.6

Samsung Galaxy Note II L
Android 4.2.2

HTC Sensation
Android 4.0.3

Samsung Galaxy Ace 2
Android 2.3.6

HTC Incredible S
Android 4.3.3

Samsung Galaxy Mini 2
Android 3.0.2

Nokia N8 mini
Android 4.0.2

Sony Ericsson Xperia S
Android 4.0.4

Sony Xperia go
Android 4.0.4

Sony Ericsson Xperia V
Android 4.1.2

Sony Ericsson Xperia ZR
Android 4.1.2

Motorola Moto R
Android 4.2.2

Samsung Galaxy Note II L
Android 4.2.2

ASUS PadFone S
Android 4.2.2

Google Nexus 7
Android 4.0

Google Nexus 7
Android 4.0.3

HTC Desire C
Android 4.0.3

HTC Desire HD
Android 4.0.3

HTC Desire X
Android 4.0.3

HTC One Incredible Z
Android 4.0.4

HTC One
Android 4.0.4

HTC One S
Android 4.0.4

HTC One X
Android 4.0.4

HTC One X+
Android 4.0.4

HTC Sensation XL
Android 4.0.4

LG Nexus 4
Android 4.0.4

LG Nexus 4
Android 4.0.4

LG Nexus 5
Android 4.0.4

LG Optimus G
Android 4.1.2

LG Optimus G3
Android 4.3.2

LG Optimus L9 P760
Android 4.0.4

LG Optimus L9 P768
Android 4.0.4

Motorola DROID Razr M
Android 4.1.2

Motorola RAZR HD
Android 4.1.2

Motorola RAZR II
Android 4.1.2

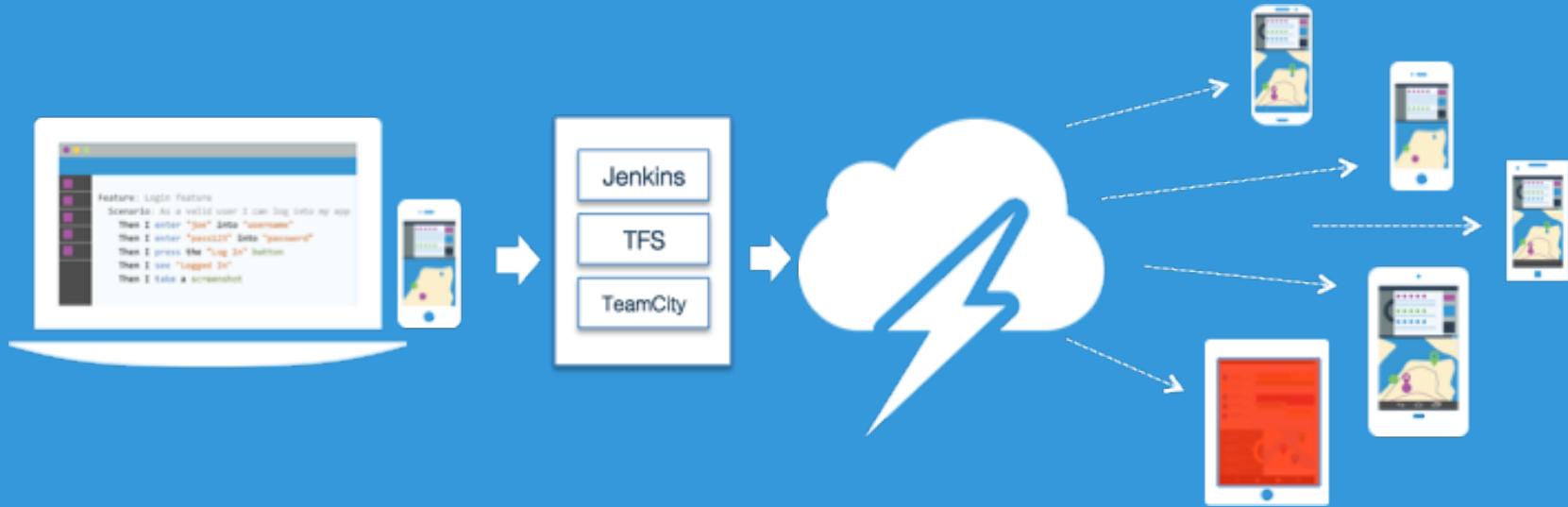
Samsung Galaxy Ace Plus
Android 4.1.2

Samsung Galaxy Beam
Android 4.1.2

Samsung Galaxy Core
Android 4.1.2

Samsung Galaxy Express
Android 4.1.2

Samsung Galaxy Mega 6.3
Android 4.2.2



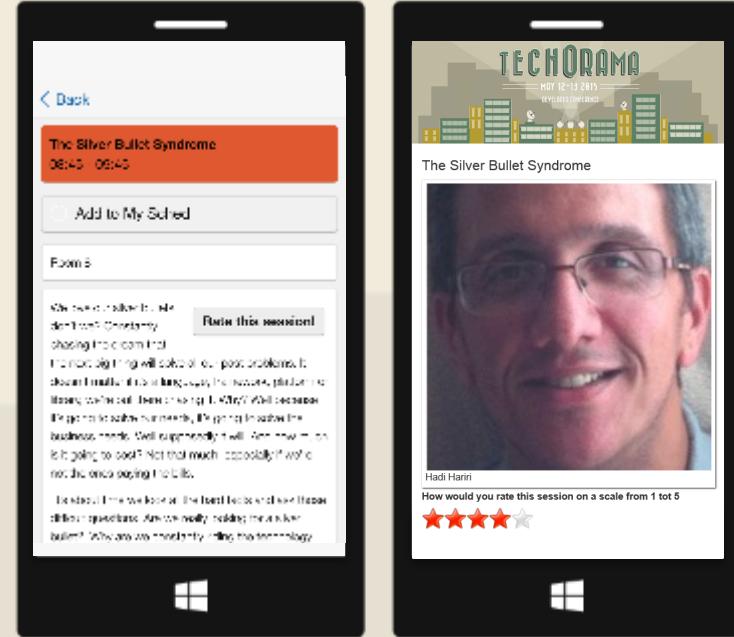
Demo

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