

THE EMPOWERED TESTER

How To Test & Release 32 Sites Daily and Keep Sane

ABOUT ME

@codebully

nikitahasis.com

about.me/nikita.hasis

WHERE I WORK

Founded 2005.

Launched 2006.

Lots and lots of different sites, platforms, tech stacks, people, locations and methodologies.

INTEGRATION = RISK

ABOUT OUR TEAM

Search UI: 4 devs, 1 product manager, 1 dev manager.

Defect Strike Team: 3 devs.

Listing Experience: 5 devs, 1 product manager, 1 dev manager.

Testers: 2 QBs, offshore team of 4.

Additional support for all end-to-end traveler facing components. Testing as a service!



RYAN LEWISON, 2016.

YES, 32 SITES.

- 4 Templates.
- Feature Models + Gears + A/B Tests.
- Lingua (in house k:v pairing translation service).

THE EARLY DAYS

- 1-2 releases a week.
- Big team 10 devs & 5 testers.
- Lots of time to test & explore.
- Slow Slow Slow.

A/B TESTING ACCELERATES...

- Dev Teams were restructured to accelerate A/B testing.
- 20+ devs, 3 testers.
- Our team couldn't keep up!
- Testing became a bottleneck.

BAD DAYS.

- Infrequent low quality releases.
- Frustration and daily slog.
- Suffering reputation.

REV YOUR ENGINES!

```
b42956c - (HEAD -> master, tag: 2016_04_26, origin/master, origin/HEAD)
```

RELEASE IS FIRST CLASS CITIZEN

- We understood we had to **ship code more often** to keep up.
- Transition to a world of small, frequent releases.
- From manual cross-team process to independence w/ **Quickbuild**.
- Daily deployments to test env for exploration & Se.

NOT OVERNIGHT

- It took time.
- It was painful.
- It is worth it.

WHY SHIP EARLY?

- Reducing the delta reduces the risk.
- Ship early so you can ship again later.
- **TEST & LEARN!**

DAILY RELEASES HAD TO
BECOME CULTURE!

TESTING HAD TO CHANGE

- Development owns acceptance.
- Se checks own regression.
- Unit test coverage (~85%).
- Test Fests!
- Dev & Tester Pairing.
- Offshore Explorer Team.

TEAM RESTRUCTURE

- 2 QBs – Own all testing and releases for repo w/ 20+ devs.
- 3 Explorers – testing in our off hours.
- 2 SETs – working on Se checks.

A DAY IN THE LIFE...

LEAPFROGGING RELEASES

✓ 2016_04_14b (a) ▼

✓ 2016_04_14 (b) ▼

✓ 2016_04_13 (a) ▼

✓ 2016_04_12b (b) ▼

✓ 2016_04_12 (a) ▼

DATA GATHERING & ANALYSIS

- Review Checks (Selenium, Jasmine, JUnit)

✔ AU Tester | ▾

master

#c472eb1b

✔ Tests passed: 141, ignored: 8, muted: 7 | ▾

▼ BR Tester | ▾

master

#c472eb1b

! Tests failed: 4 (4 new), passed: 136, ignored: 8, muted: 5 | ▾

- Review DSR.
- Review commits & kanban board.

CUT THE RELEASE:

- We use an internal git instance to host code.
- Teamcity to run build agents.
- Capistrano (Quickbuild UI) for deployment.
- We maintain release scripts, and “CI” pipeline configs.

NETSCALER

- “Two sides” to every brand.
- Allows quick rollback via varnish.

10AM RELEASE.

- Not a story – a Test. Behind a switch.
- Ship early, so you can ship again later!

PUSH THE BUTTON

Specify Build Options

Instance * a ↕

Cold
Do a cold deploy only if one or more instances are currently down





Se
select to run selenium

Post-Deploy Traffic Strategy * shunt ↕
[default] use pre-deploy varnish state. [dark] set deploy to 0 percent traffic. [shunt] shunt all traffic to deploy

Branch * 2016_04_28

Additional Args

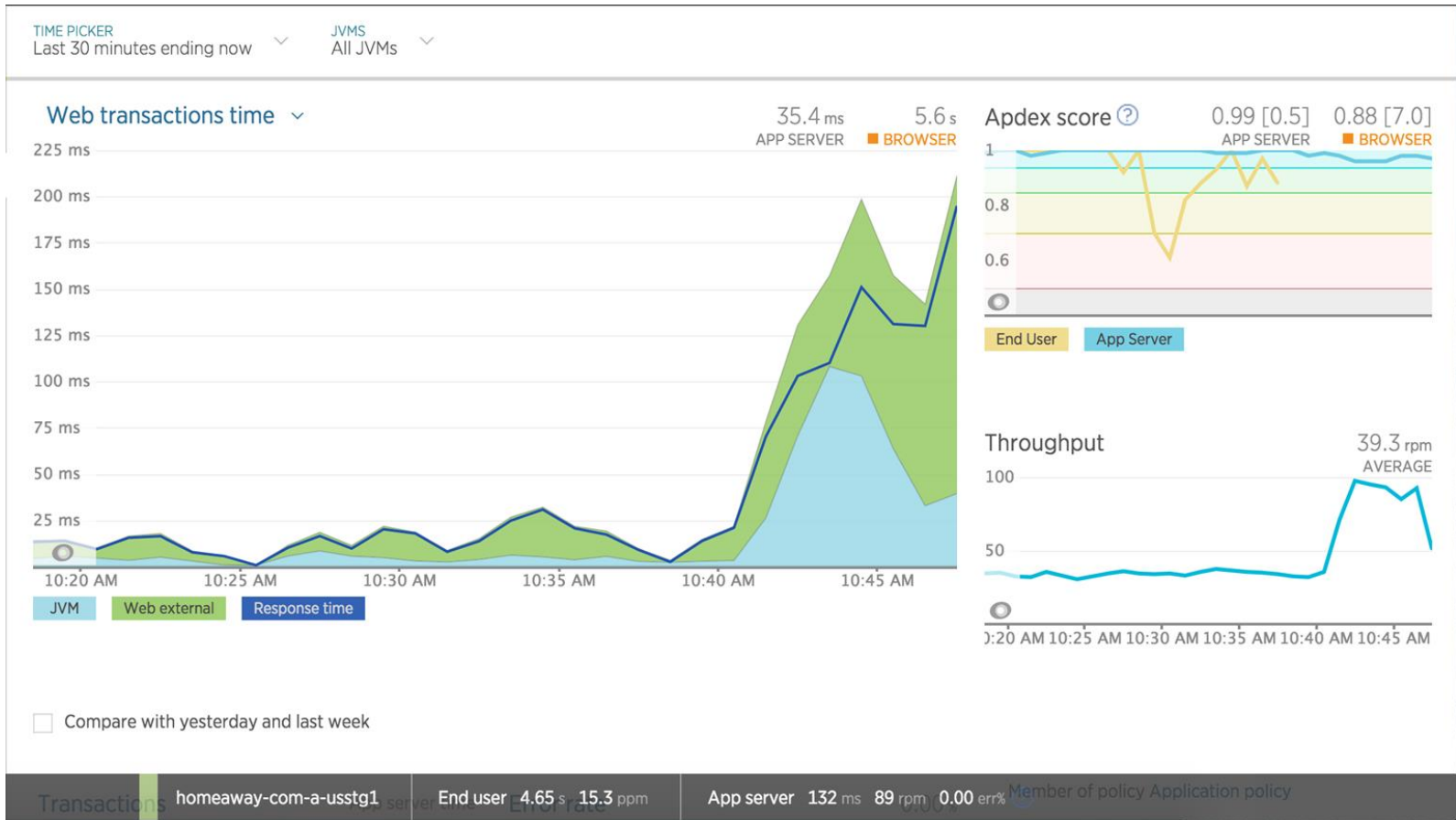
Product

Available		Selected
homeaway-com-br	   	homeaway-com
homeaway-dk		
homeaway-fi		
homeaway-it		
homeaway-nl		
homeaway-no		
homeaway-pt		
homeaway-se		
fr-homeaway-ca		
homeaway-ca		

Docker Image * /traveler/listing-site-deployinator:master

Ok [Cancel](#)

EYES ON THE PRIZE!



FINISH LINE!

- In case of problems we can turn off A/B tests or shunt traffic completely.
- Otherwise, we push traffic to 100% and start working on the next one!

LET'S PAIR!

- Pairing with devs to help write clean, testable code!
- Pairing with other testers to write... clean testable code!
- Pairing with anyone to test or play with a feature.
- Pair for... Anything!

LET'S RETROSPECT!

- Running retrospectives.
- Good? Bad? Cheerful.

LET'S TEST FEST!

- Test fests are bigger group testing events centered around big changes.
- Test + Dev + Product + Designers + anyone interested.
- Fun! Beers, treats, awards!
- Beware bad preparation!
- Beware bad followup!

BEST BUG AWARD



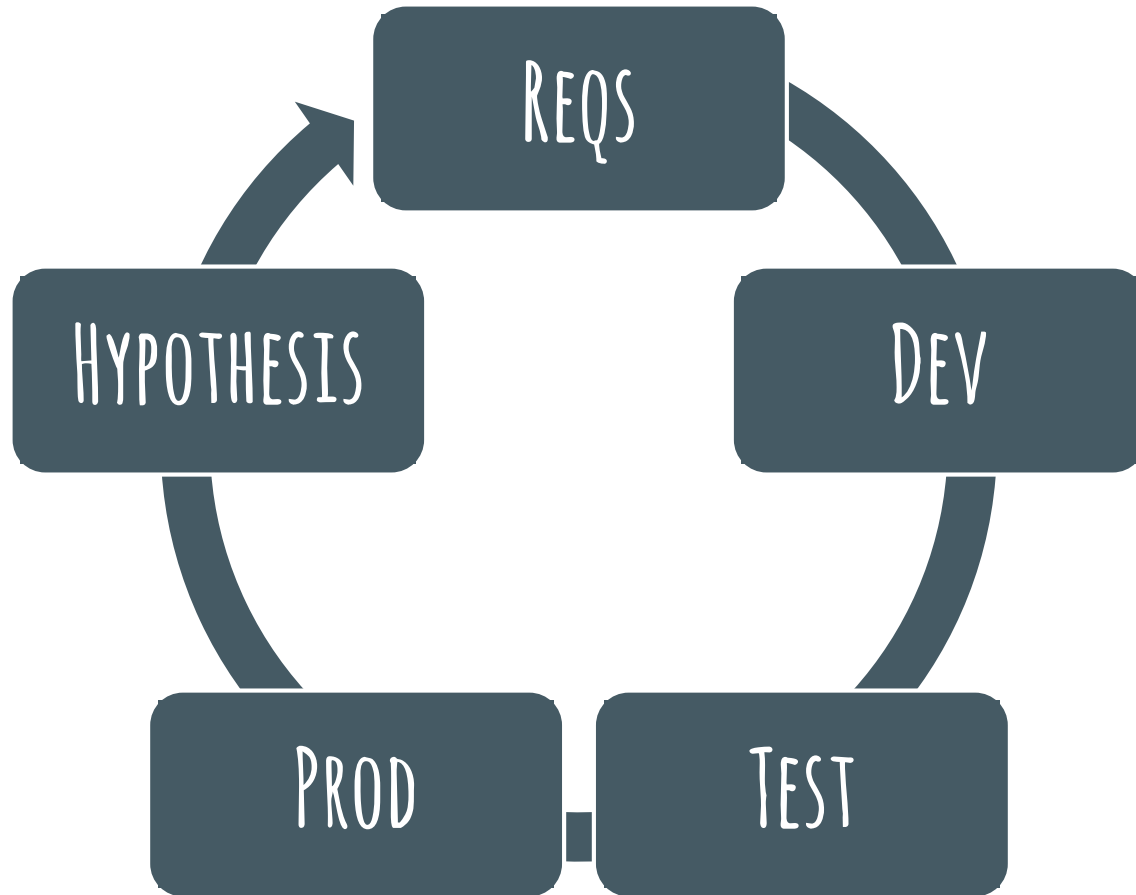
IT'S NOT PERFECT.

- “CI” pipeline is manual-automation -- still requires intervention.
- High pressure!
- Is this a true *tester* role?
- Flaky checks & tech debt
- Supporting many teams

NOW, EXPEDIA.

- Rapid acceleration of A/B testing.
- Increased scientific approach.
- Hypothesis is everything.

NEW RESPONSIBILITY



THE FUTURE!

- Increase in Alerting!
- First To Know, Quick To Fix.
- Analytics Driven Testing using EDAP.
(Event-driven Data Abstraction Platform)
- Increased Resiliency.

SHARED LANGUAGE

- Both product and tests to be written in JS.
- Bridging the gap between the prod code and the test.
- Blurs but does not eliminate the lines between dev & test.
- We're all engineers, each with a focus.

SO, WHAT SKILLS ARE NEEDED?

- Rapid Data Processing & Analysis.
- Strong & Rapid Decision Making.
- Including Strong & Rapid “I made a mistake.”
- Ownership & Leadership.
- Product knowledge.
- Communications.
- Team Management.

MOST IMPORTANT...

Filter.

Adaptability.

Helps to be a little crazy to begin with. :)

QUESTION TIME!

Thank you!

nikita

@codebully

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HOW MUCH CODING?

- Depends.
- “Enough to help your team achieve its goals.”