expoQA24

MADRID
May 28th,
29th, 30th
2024

expoqa.com

Cows?

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How do we avoid ending up in other pastures?

01

Where do you get that data?

Firebase

Device	Users
(other)	552406
iPhone 11	113100
iPhone 13	85164
iPhone 12	75864

Firebase

Platform	Users
iOS	807855
Android	253849

Firebase

OS with version	Users
iOS 16…….	801467
iOS 15.6.1	88875
Android 12	75057
Android 11	32673
Android 13	117104

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02

How do we use that data?

Find important problems quickly!

Good testing!

Making decisions

Reversible

- Easier to mitigate risk
- Get something out quickly

Not reversible

- Evaluate more carefully
- Assess the risk in more detail

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Where do I test?

- Use the data
- Range of operating systems
- Different screen sizes
- Pick a subset of devices
- Cover highest risk

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Close old bugs!

"User on Android 8 can't do…."

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"App crashing on Huawei"

Problem

Huawei devices experienced the app crashing regularly - logged in 2020

Solution

Firebase - 0 people using our app with that device in 2022

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Eliminate noise

- Focus on what we need to from a quality perspective
- Improves morale in team

03

How are we going to use this to drive improvements?

Build data into your routine

- Know it's reliable
- Be familiar with the tools
- Use it proactively rather than reactively
- Uncover the risks

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Today

15 Sun
16 Mon
17 Tue
18 Wed
19 Thu
20 Fri

Abs

1hr • John Shoe • Main Mushroom • All Levels

08:00

戰繩燃脂訓練 LP Battle Rope Elite - with Chubby Dragon [TEST]

1hr • 2 trainer Mobile • Heather Test Facility • All Levels

08:00

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Today | 12 Thu | 13 Fri | 14 Sat | 15 Sun | 16 Mon | 17 Tue | 18 Wed | 19 Thu | 20 Fri | 21 Sat | 22 Sun | 23 Mon | 24 Tue

Abs
1hr • John Shoe • Main Mushroom • All Levels
08:00

戰繩燃脂訓練 LP Battle Rope Elite - with Chubby Dragon [TEST]
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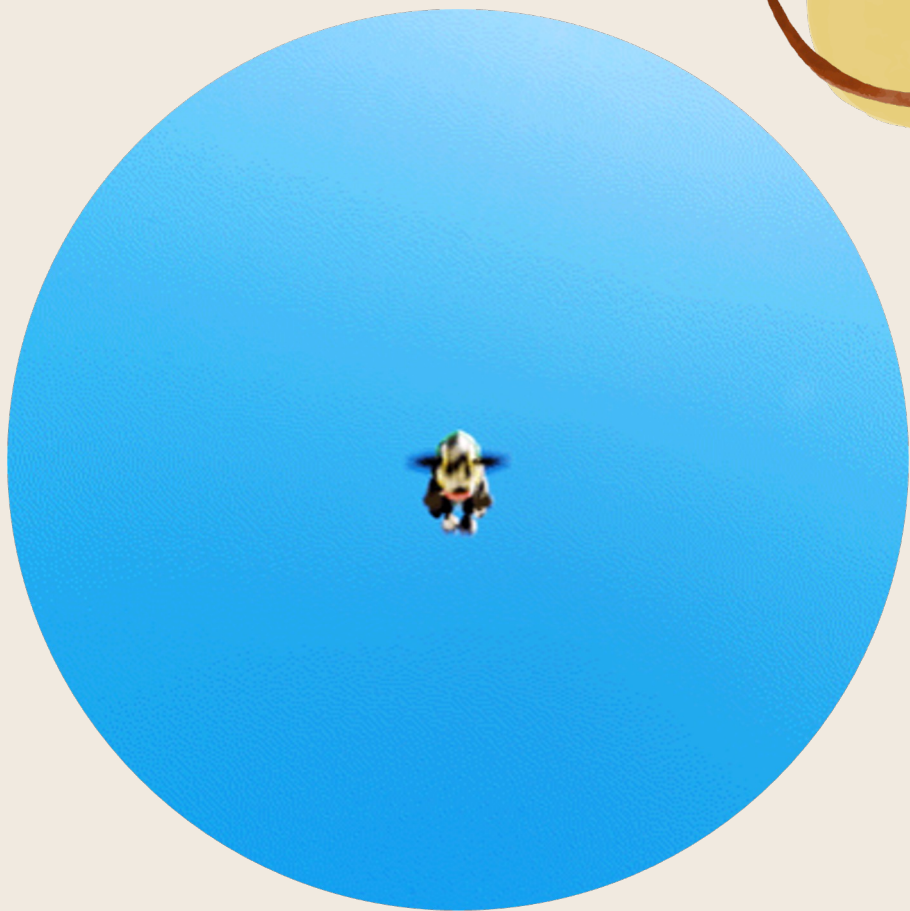Timetable | Bookings | Memberships | Community | Store

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THIS IS FINE

Devs 🧡 testing

Devs offer to pick up testing.
I investigate how urgent this is to fix.

Get me the data

Device model	Users
SM-N975F	6 (0.0003%)

"Reproduced the issue on a Samsung Galaxy Z Fold - Android 11 App Version 8.2.9 v176."
—**Customer Support**

When risk does not pay off?

It can feel like you are caught in the middle of a stampede.

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Notifications everywhere

Customer Support

The app is essentially down

Sales & Marketing

Basically the app is down

Account Executives

Everyone is getting kicked out of the app

Notifications everywhere

DMs
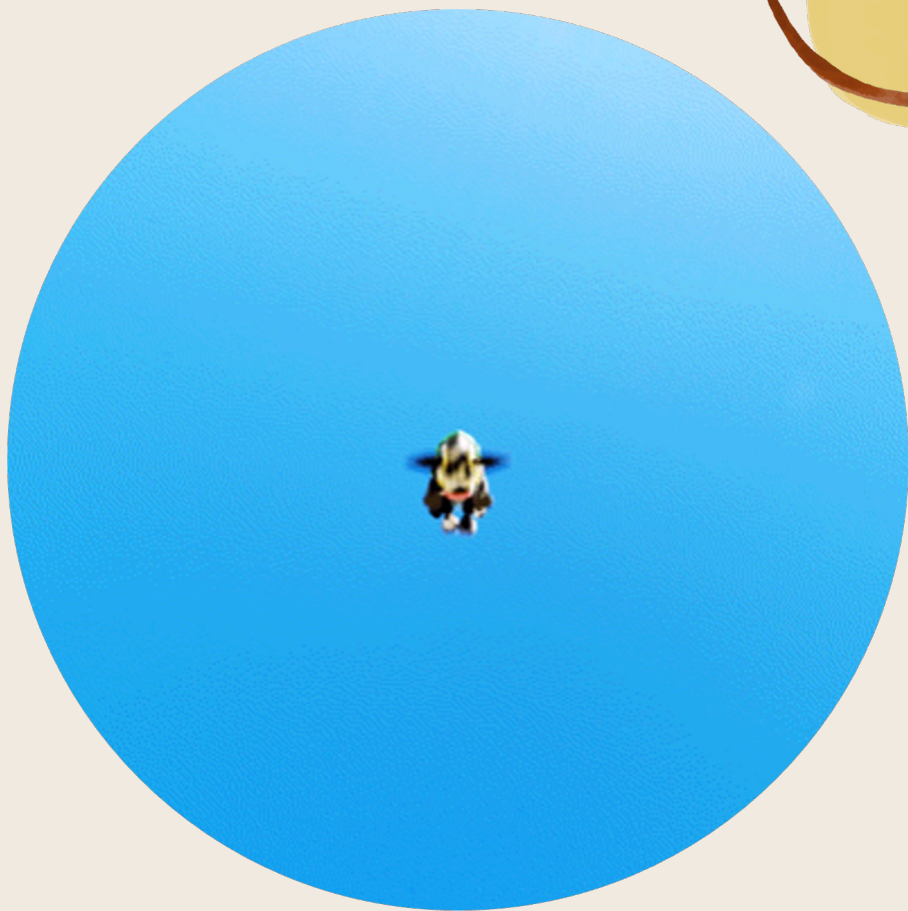
What's happening
in the apps?

Slack

@mobile-eng
@heather

I've told everyone to uninstall and reinstall the app but it is not working!

Bad Advice

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Bugsnag

What is happening?

Perception

All 2.3 million users were logged out of the app and could not log back in.

Reality

~ 6000 people logged out.

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What is happening?

Expectation

User is logged out. User logs back in. All returns to normal.

Reality

1402 users receive generic error about an invalid reset token.

How do users behave?

Expectation

User requests password reset, clicks link in email, resets password.

Reality

One user hit the reset password API 190 times in 1 hour!

Where is the gold?

In Bugsnag

We could see

How expired each authorisation token was.

We learned

There was an underlying issue in our system.

AUTH_ERROR ████████████████████

Token expired at "Wed, 12 Oct 2022 14:24:39 +0000"

2 hours ago · Nov 8th, 07:17:46 CET

AUTH_ERROR ████████████████████

Token expired at "Mon, 18 Jan 2021 19:56:57 +0000"

2 hours ago · Nov 8th, 07:17:30 CET

AUTH_ERROR ████████████████████

Token expired at "Sun, 25 Sep 2022 20:01:29 +0000"

2 hours ago · Nov 8th, 07:17:12 CET

#AgileTDOpenAir

@heather_reiduff

Considerations

Time

How long did a user have between request and expiry?

Patience

What happened if the user requested a password reset several times?
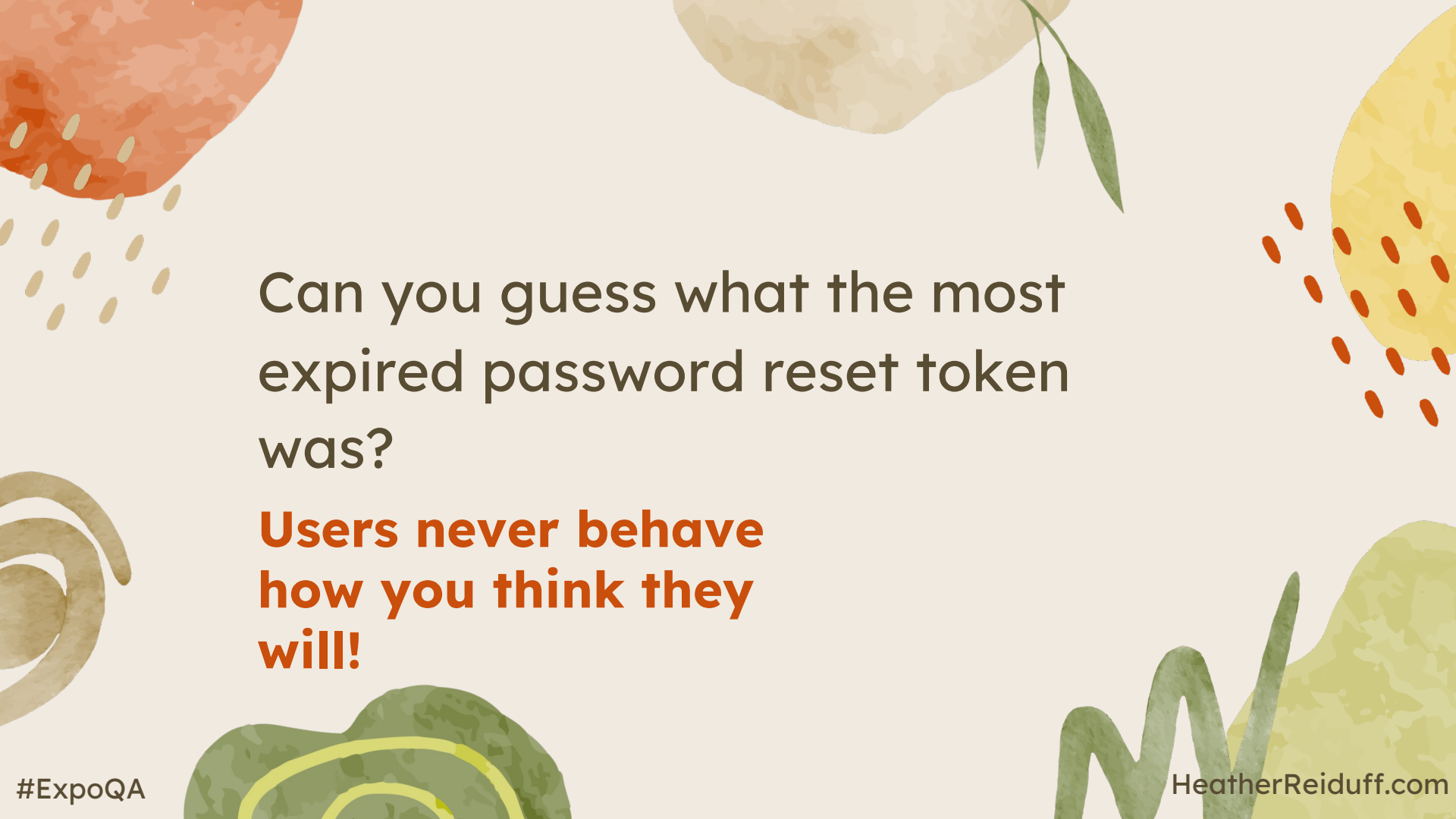
More Questions

Reset password link

What happened if you requested a password reset several times?

Security vs Usability

Could we increment the expiry time if another request was processed before the link expired?

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We need data!

Can you guess what the most expired password reset token was?

Users never behave how you think they will!

AVG(auth.pwd_token_expired_seconds) ▾

1,579,515.59736

18.3 days

From the
Honeycomb
instrumentation

650

Individuals had problem resetting password

Breakdown of errors

Expired

Reset token

Used

Already to reset the password.

Old

Email link.

Where was the risk?

- Relied too much on the data

- Assumed user behaviours

- Assumed we had better

  instrumentation!

- Wanting to avoid huge support

  queues over Christmas

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04

What if I could do it all again?

New release plan

- Release on Monday!
- Don't wait until password reset flow is fixed - it was already a known bug!
- Ask SRE to add instrumentation for errors

05

How you can use data to make decisions

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Don't worry about perfection

We're just looking for better decisions

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Ask your team

- How do we make decisions?
- How could we improve how we make decisions?
- How can we introduce a more data informed approach to decision making?

Get familiar with the data

What is good?

Use your tester mindset
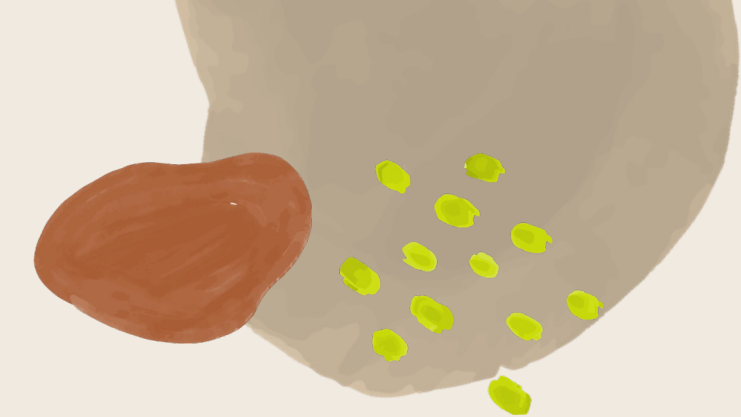
What is bad?

Ask questions

Facilitate conversations

- Talk people through the data

- Explain the decision making process

Bringing real data to support your opinions unlocks a super power.

Learn!

Thank You

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