
June 2022

Scaling your app's release process

Neil Kimmell

classpass

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@neilkimmett

👋 hello

🇬🇧 from Southampton
🗽 live in NYC

📱 Director of Eng @ ClassPass

classpass



Write code

Ship code



Write code

Ship code

```
    return(rc);

}

if (!LoadString(hinst, IDS_REGKEY, rgchSubKey, sizeof
rgchSubKey) != 0) {
    strcpy(rgchSubKey, "3D Movie Maker");
}

wsprintf(rgchKey, "SOFTWARE\\Microsoft\\Microsoft Kids\\
%s", rgchSubKey);

DeleteRegKeyValue32(HKEY_CURRENT_USER, rgchKey,
"HomeDirectory");

DeleteRegKeyValue32(HKEY_CURRENT_USER, rgchKey,
"SwitchResolution");

DeleteRegKeyValue32(HKEY_CURRENT_USER, rgchKey,
"UserData");

DeleteRegKeyValue32(HKEY_CURRENT_USER, rgchKey,
"GreaterThan8bppMsg");
```















(modem dials)



(modem dials)





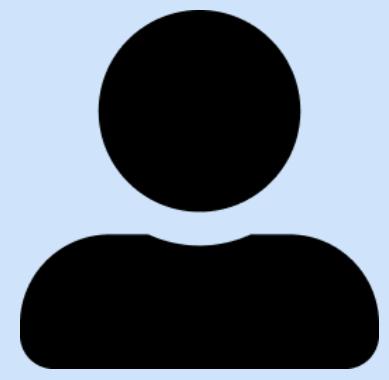
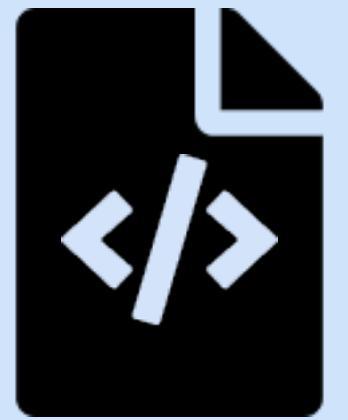
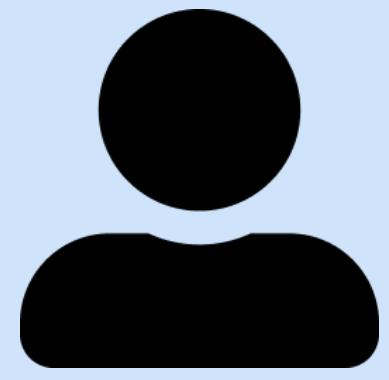
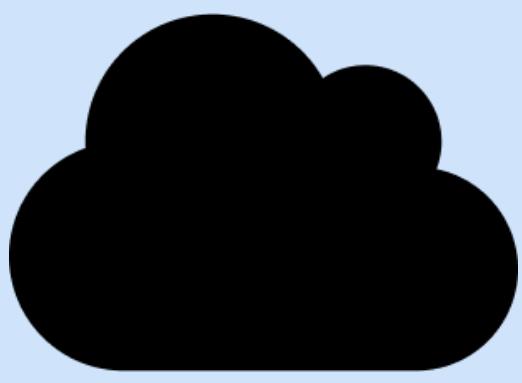
what it means to ship an app

How ClassPass has evolved our process

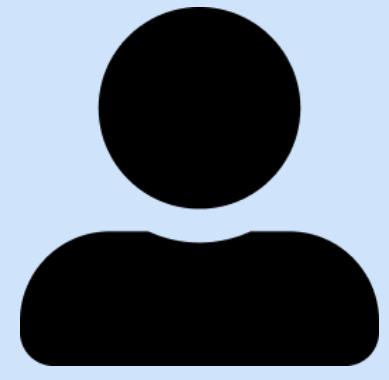
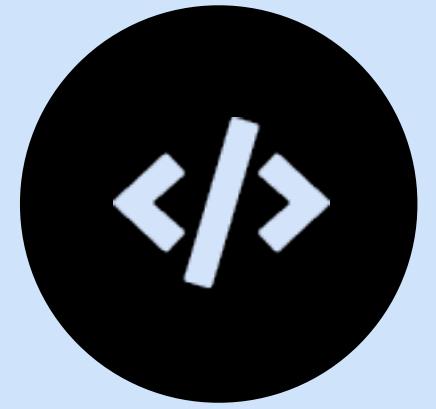
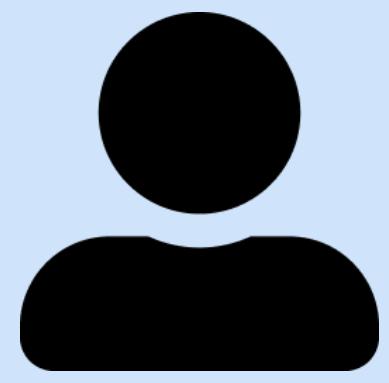
How you can design your process

what it means to ship an app

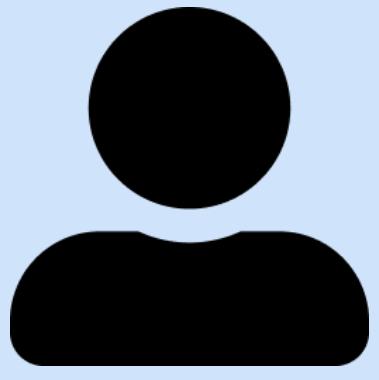
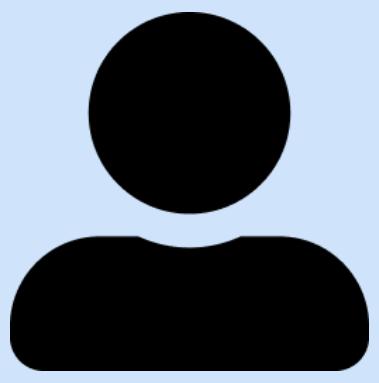
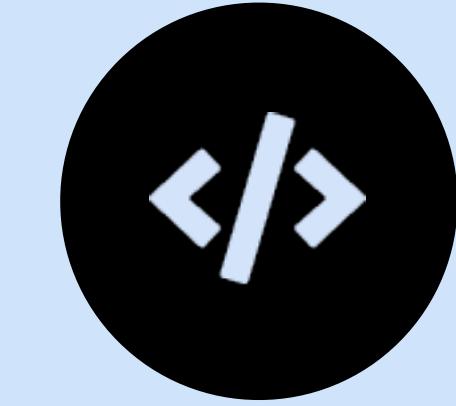
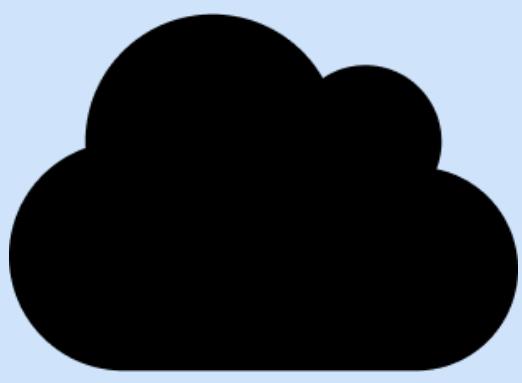
Deploying web code



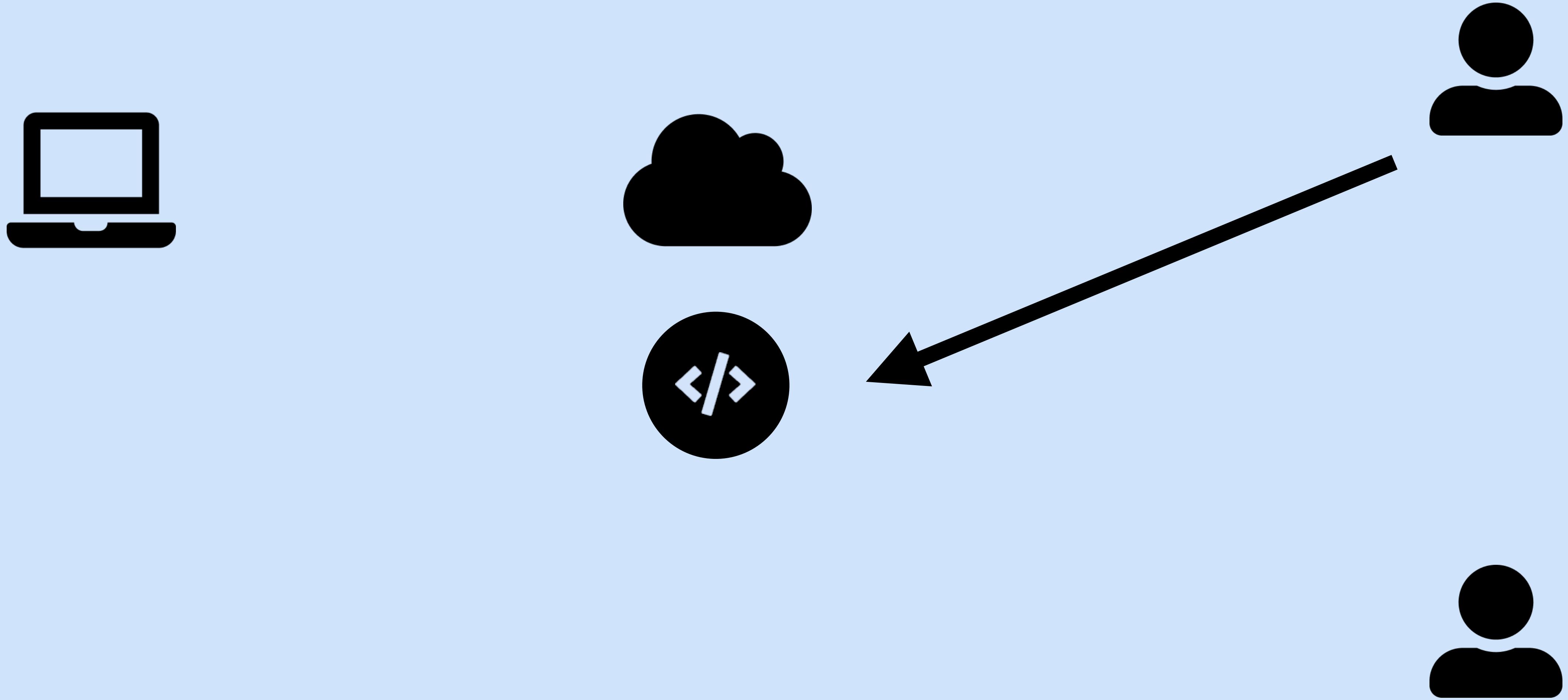
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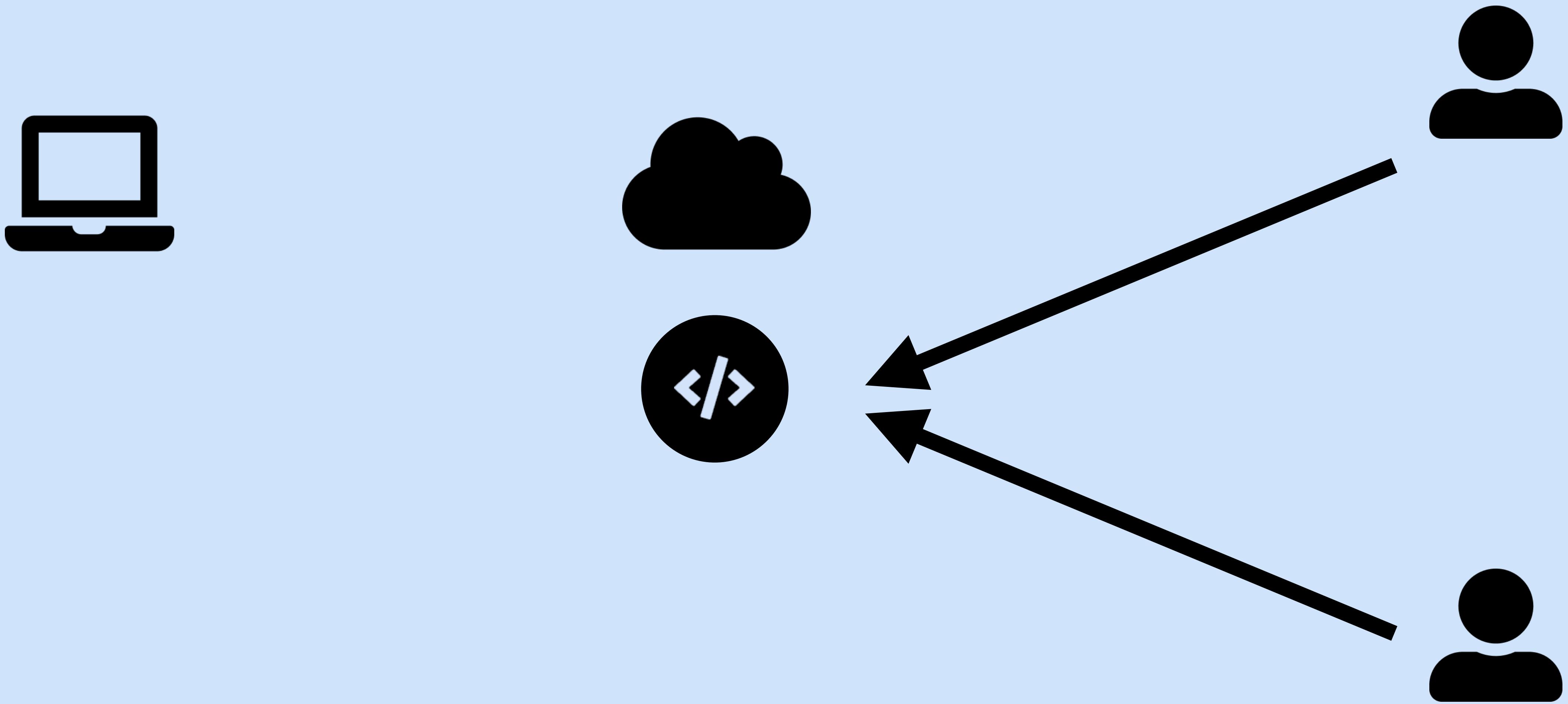
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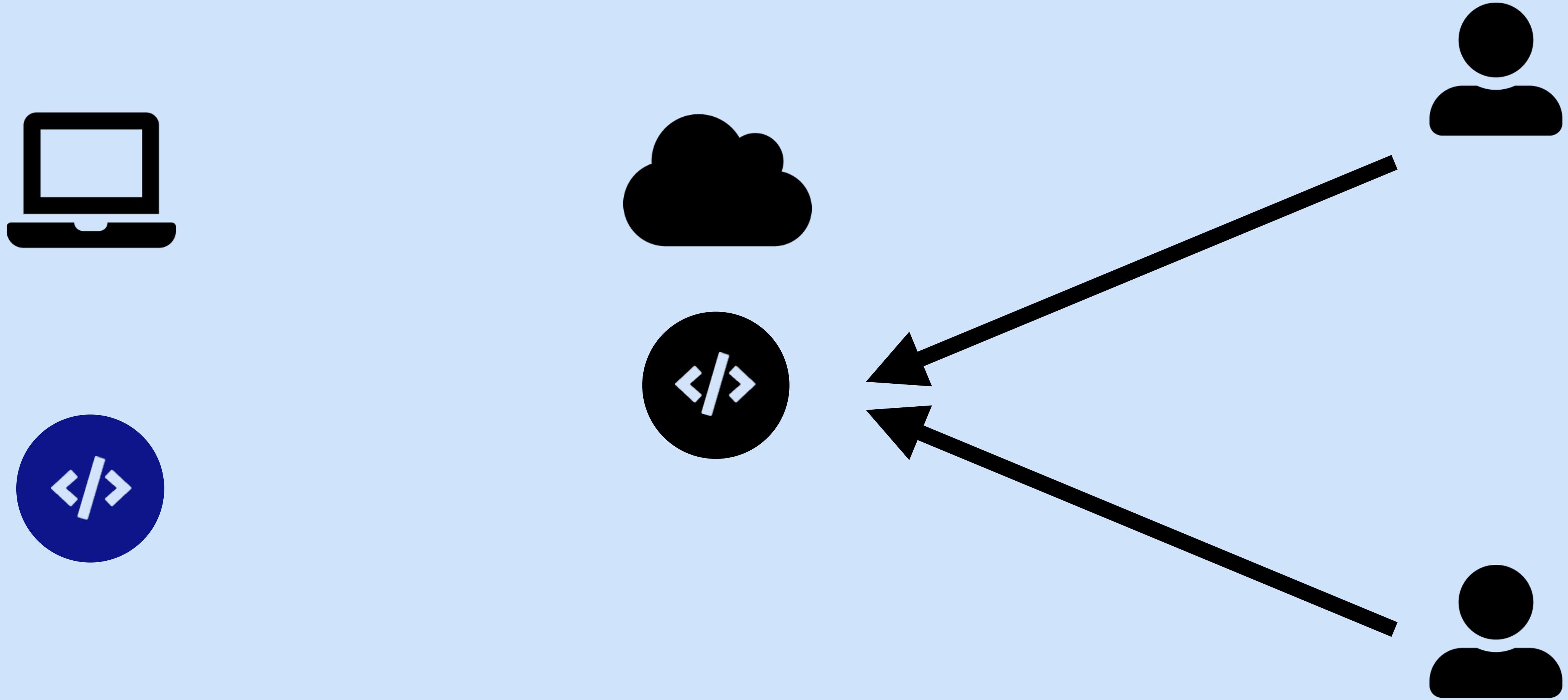
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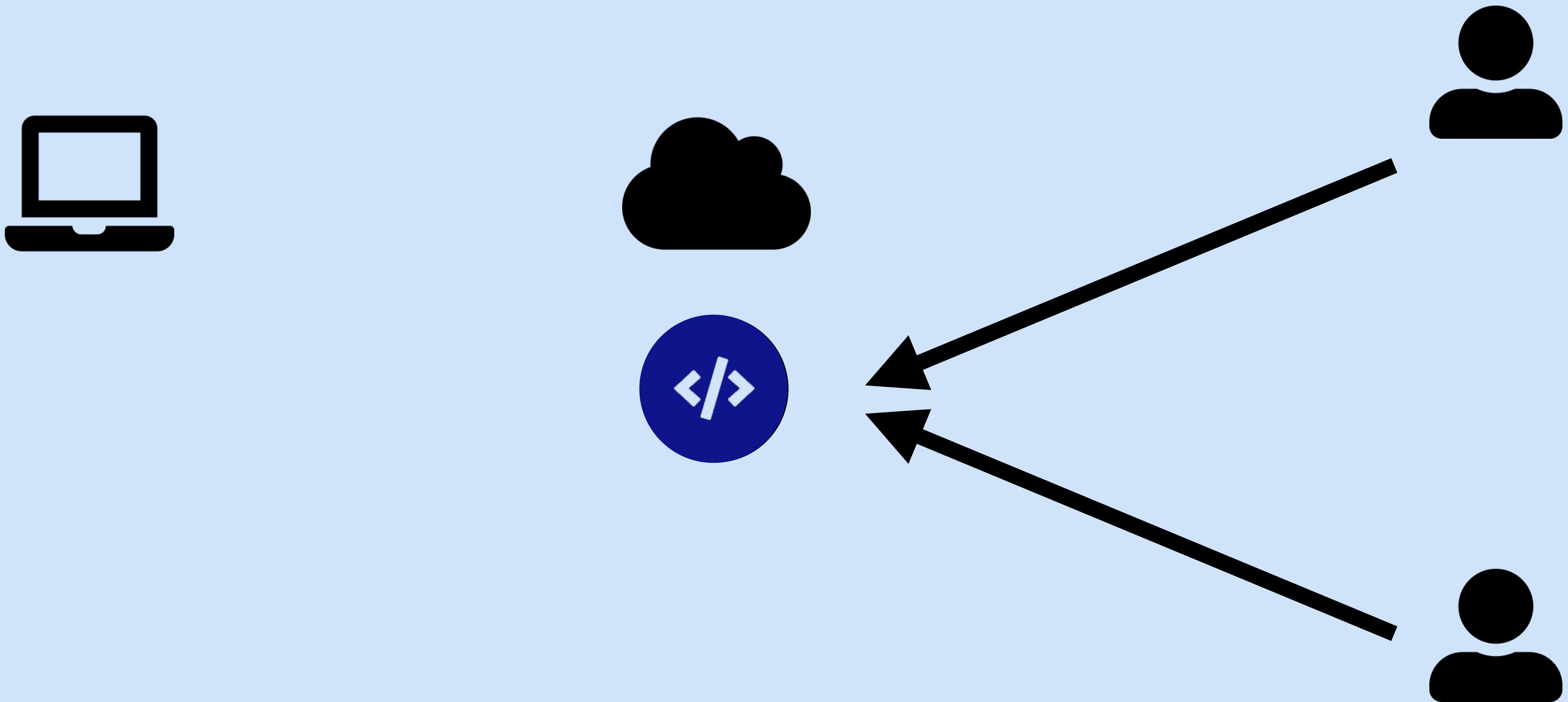
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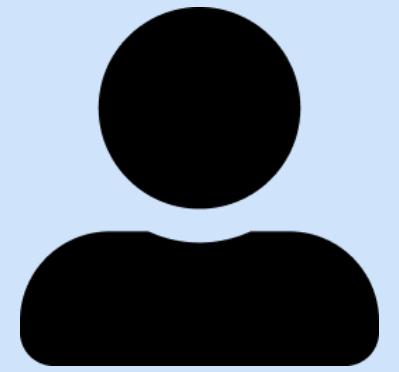
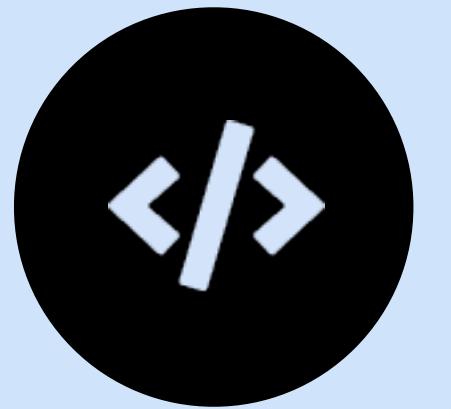
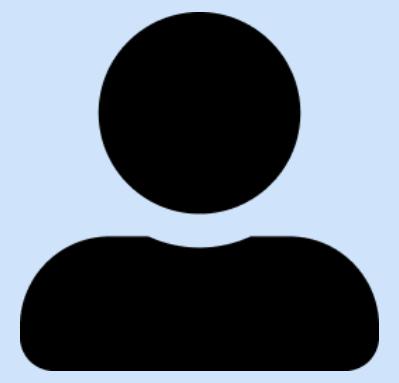
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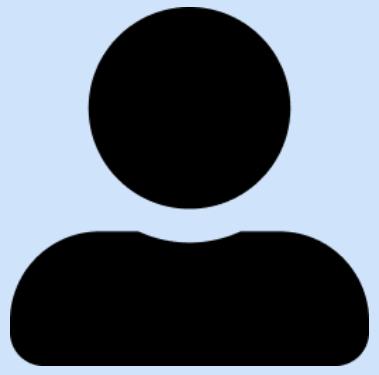
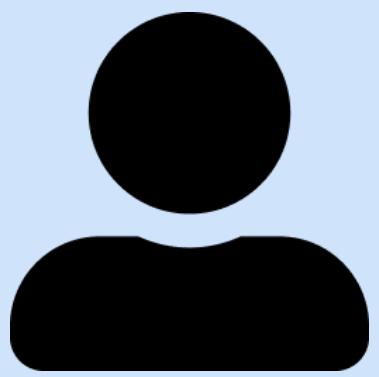
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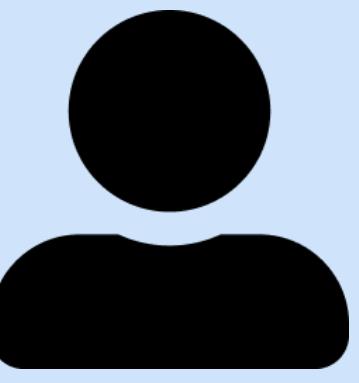
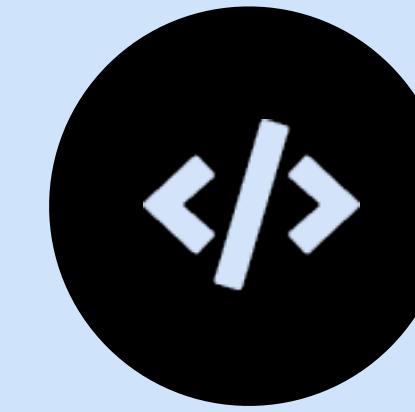
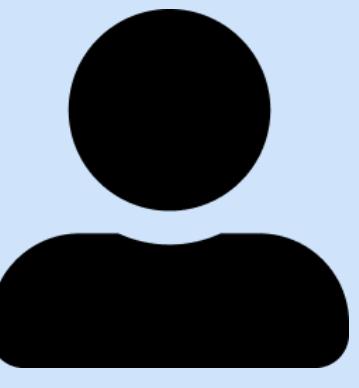
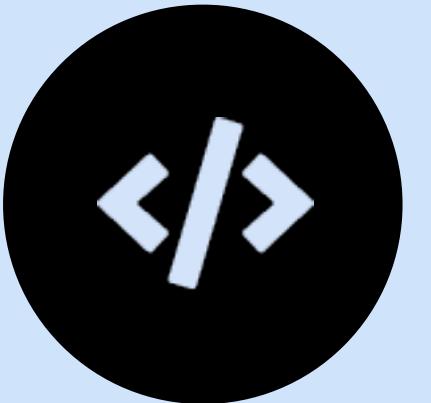
Deploying app code



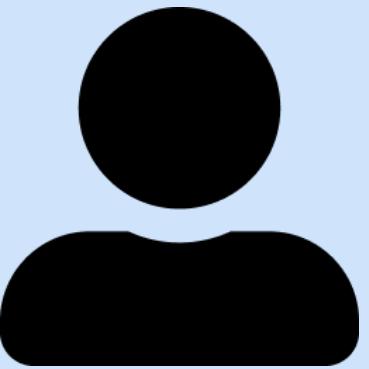
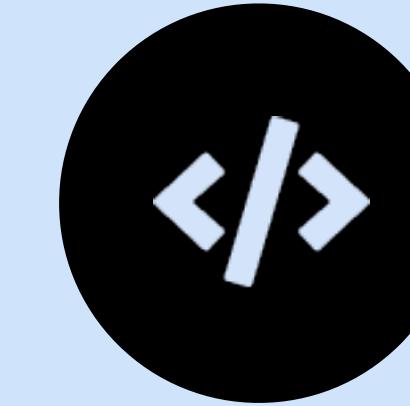
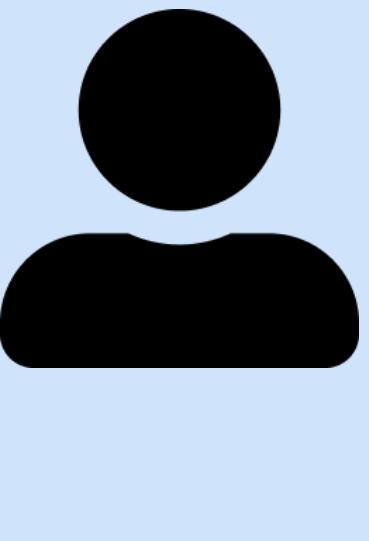
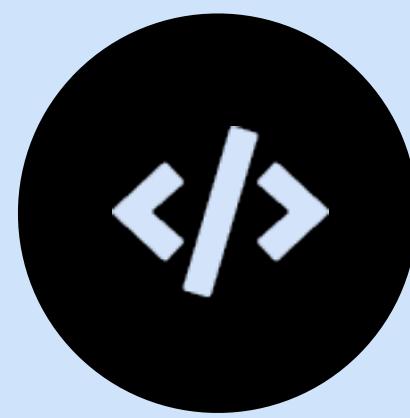
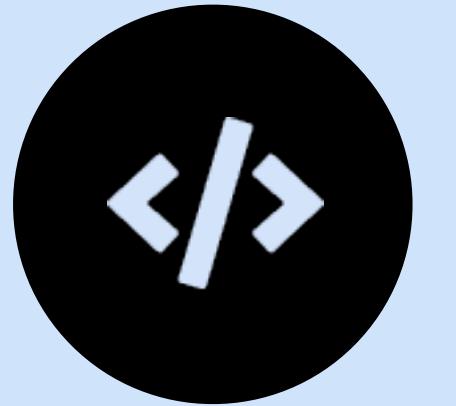
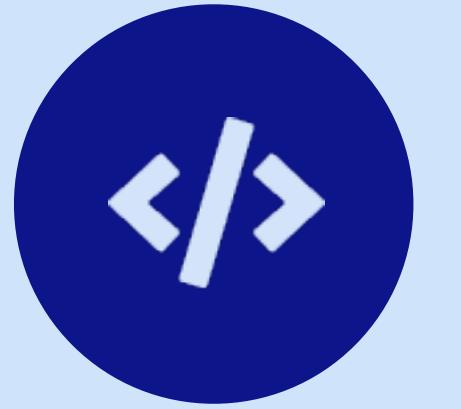
Deploying app code



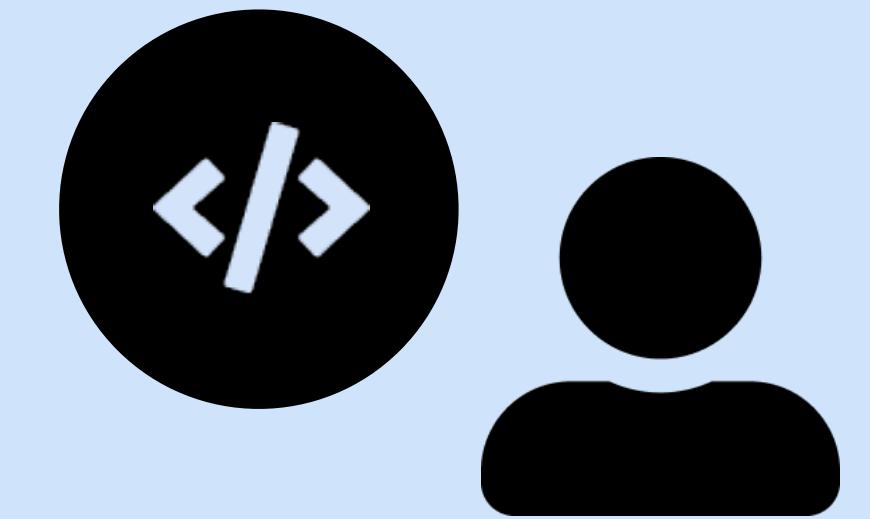
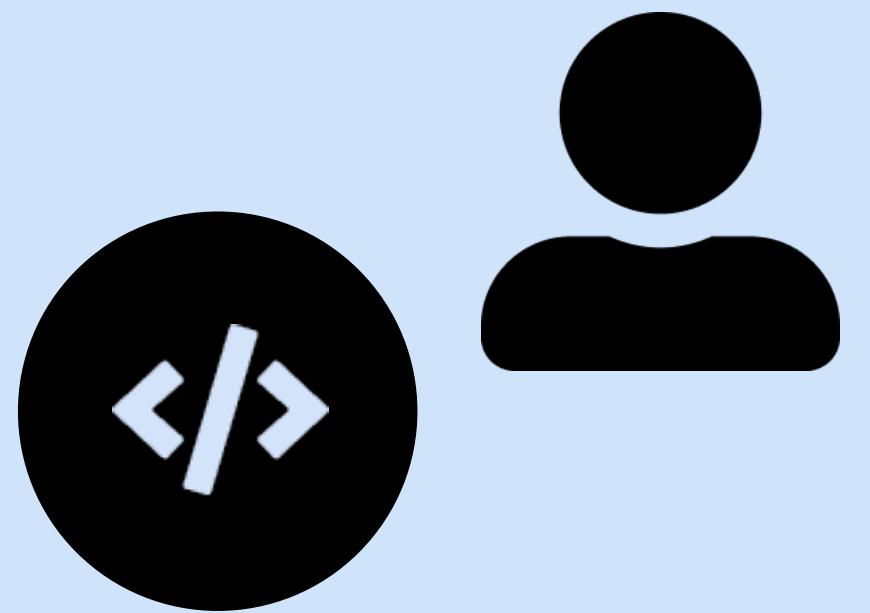
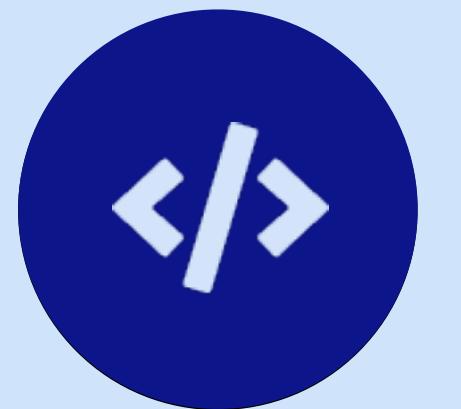
Deploying app code



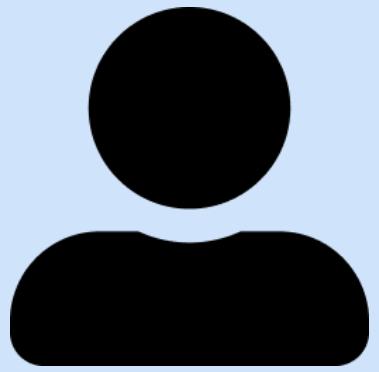
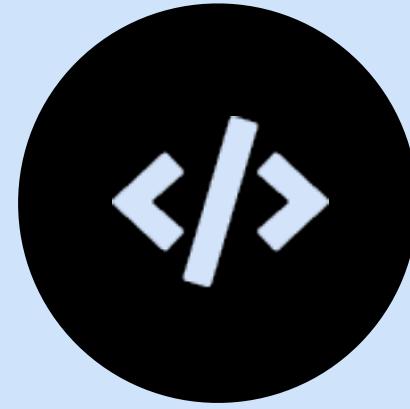
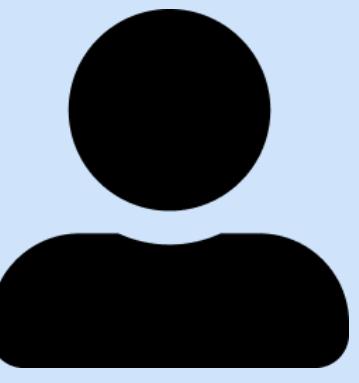
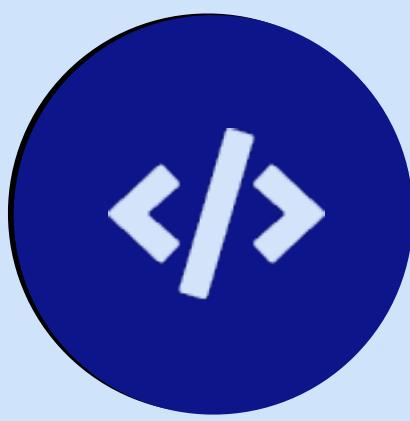
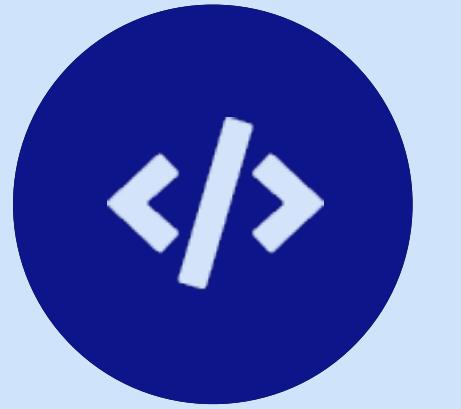
Deploying app code



Deploying app code



Deploying app code



Their Businesses Went Virtual. Then Apple Wanted a Cut.

After Airbnb and ClassPass began selling virtual classes because of the pandemic, Apple tried to collect its commission on the sales.

Bloomberg

Match Sues Google Over App Store Billing Rules



Apple removes police-tracking app used in Hong Kong protests from its app store

Apple's 'unwritten rules' spark discontent for some app developers

ars TECHNICA

Apple won't let Facebook tell users about 30-percent Apple tax on events

Facebook says "small businesses will keep 100% of the revenue" on Android.



userwithhighexpectations, 08/01/2019

Would be 5 stars

...if it weren't for that one pesky bug that only affects me!

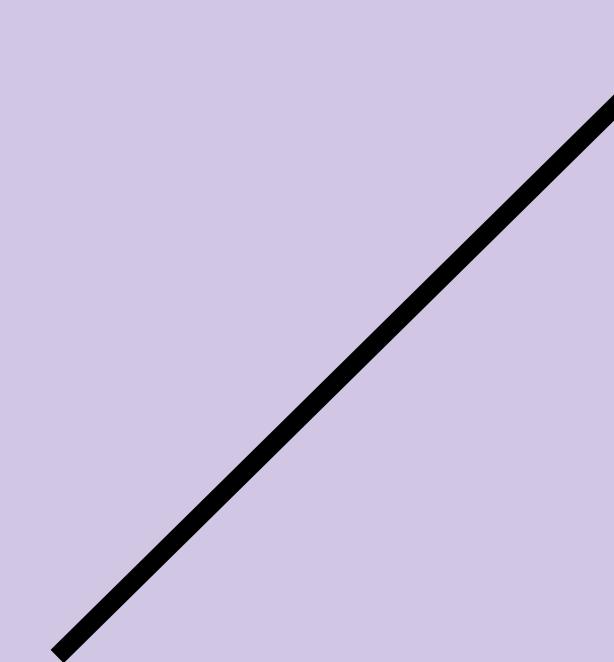
What can we do about it?

Start small

1.0.0

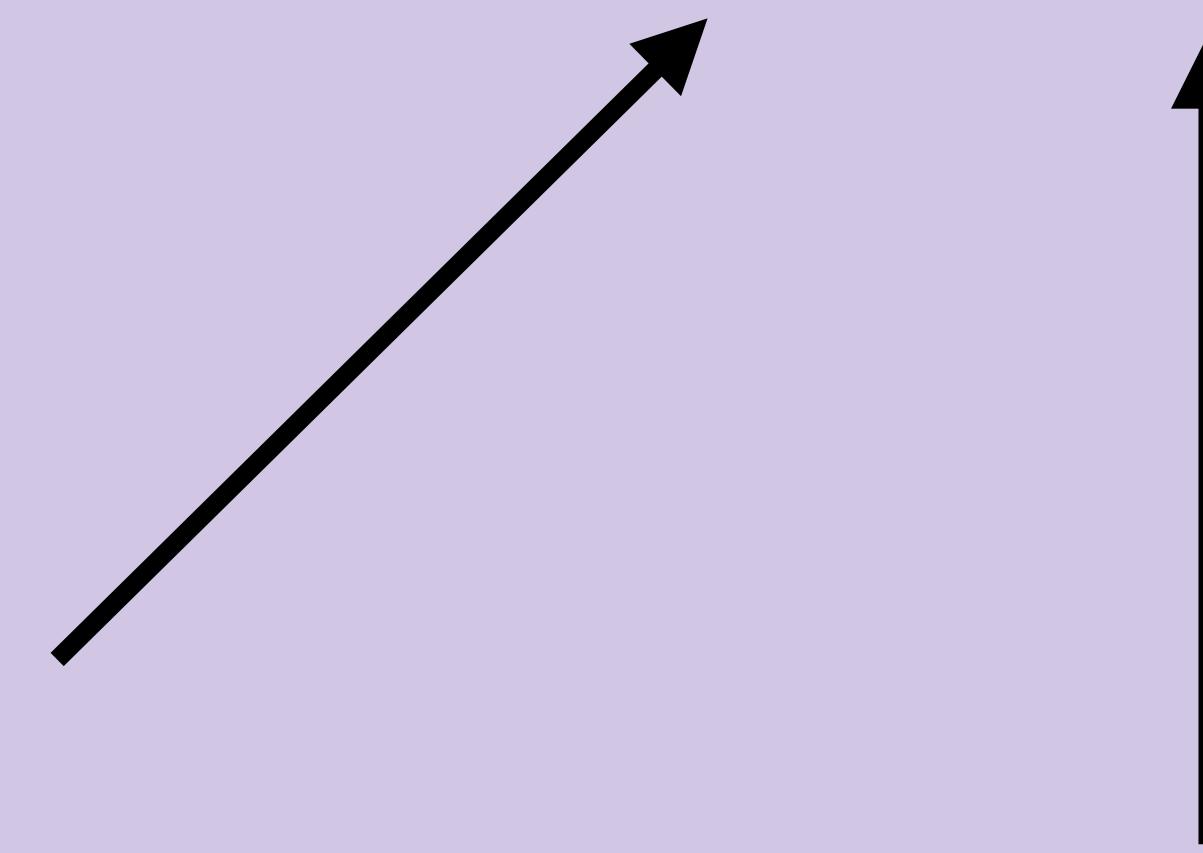
1.0.0

1.0.0



major

1.0.0



major

minor

1.0.0

major

minor

patch

20:39 ↗



Account

Done



Kahoot! Play &
Create Quizzes
Version 5.3.0

UPDATE

Now it's easier than ever to join kahoots from the app! Simply join by PIN or QR code and start [more](#)



LinkedIn: Network &
Job Finder
Version 9.1.269

UPDATE

When you're in a conversation, speed and stability matter. The LinkedIn app is now more reliable [more](#)



Microsoft Outlook
Version 4.2219.1

UPDATE

This update includes performance improvements and bug fixes to make Outlook better for you [more](#)



NYC 311
Version 4.51

UPDATE

* Improved app performance [more](#)



New Relic
Version 3.87.0

UPDATE

New sections in the Explorer tab, favorite, last viewed and all entities! [more](#)



Nike

UPDATE

20:39 ↗



Account

Done

that includes the occasional update to keep [more](#)



Norwegian
Travel Assistant
Version 6.0.4

UPDATE

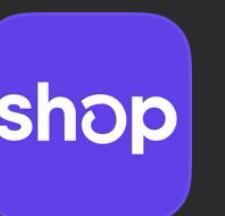
We are working hard on restoring Wallet support and we are committed to delivering that soon [more](#)



Postmates -
Food Delivery
Version 6.112.10001

UPDATE

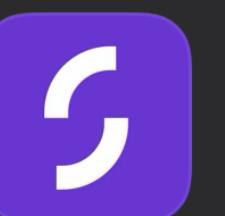
Thanks for using Postmates! We update our app regularly to make ordering even faster and e [more](#)



Shop: package &
order tracker
Version 2.56.0

UPDATE

Have a better experience every time you Shop. Turn on automatic updates to get every upgr [more](#)



Starling Bank -
Mobile Banking
Version 2.48.0

UPDATE

Is somebody spending on your behalf at the moment? Whether a carer, childminder, or ju [more](#)



Strava: Run,
Ride, Swim
Version 255.0.0

UPDATE

Hi there! This week we're introducing mentions in the activity description, so you can tag your [more](#)

class

20:39 ↗



Join LinkedIn faster than ever to
simply join by PIN or QR code

Done



LinkedIn: Network & Job Finder

Version 9.1.269



you're in a conversation, spe
The LinkedIn app is now

When you're in a
matter. The LinkedIn app

Microsoft Outlook



UPDATE

This update includes performance improvements
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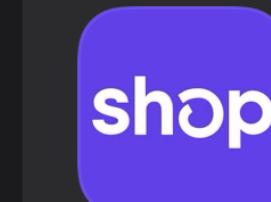


Postmates -
Food Delivery
Version 6.112.10001

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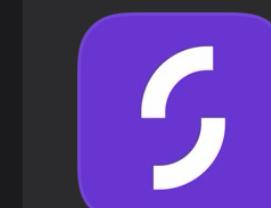


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LinkedIn: Network & Job Finder

Version 9.1.269



you're in a conversation, simply
join it in the LinkedIn app now

When you're in a conversation, the LinkedIn app is now



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This update includes performance
fixes to make Outlook better



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New Relic

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20:39 ↗



Account

Done

that includes the occasional update to keep things



Norwegian Travel Assistant
Version 6.0.4

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more

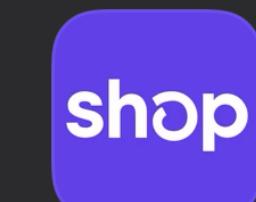


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Shop: package &
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Have a better experience every time you Shop.
Turn on automatic updates to get every upgrade

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Starling Bank -
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Is somebody spending on your behalf at the
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Strava: Run,
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more

class

20:39 ↗



Join LinkedIn faster than ever! Simply join by PIN or QR code.

Done



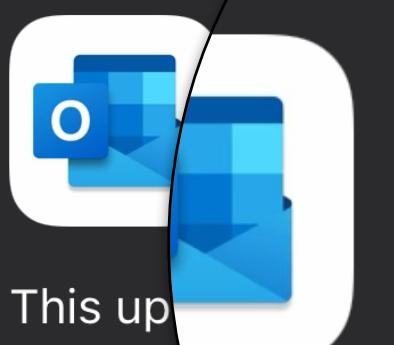
LinkedIn: Network & Job Finder

Version 9.1.269



you're in a conversation, switch to the LinkedIn app. The LinkedIn app is now

When you're in a conversation, the LinkedIn app is now available. The LinkedIn app is now



Microsoft Outlook

Version 4.2219.1

This update includes performance



update includes performance fixes to make Outlook better.

* Improved app performance

more



New Relic

Version 3.87.0

UPDATE

New sections in the Explorer tab, favorite, last viewed and all entities!

more



Nike

UPDATE

20:39 ↗



Account

Done

that include the occasional update to keep more

king hard on resources.

are committed to delivering

UPDATE

Postmates - Food Delivery

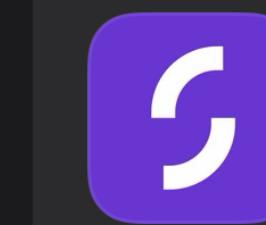
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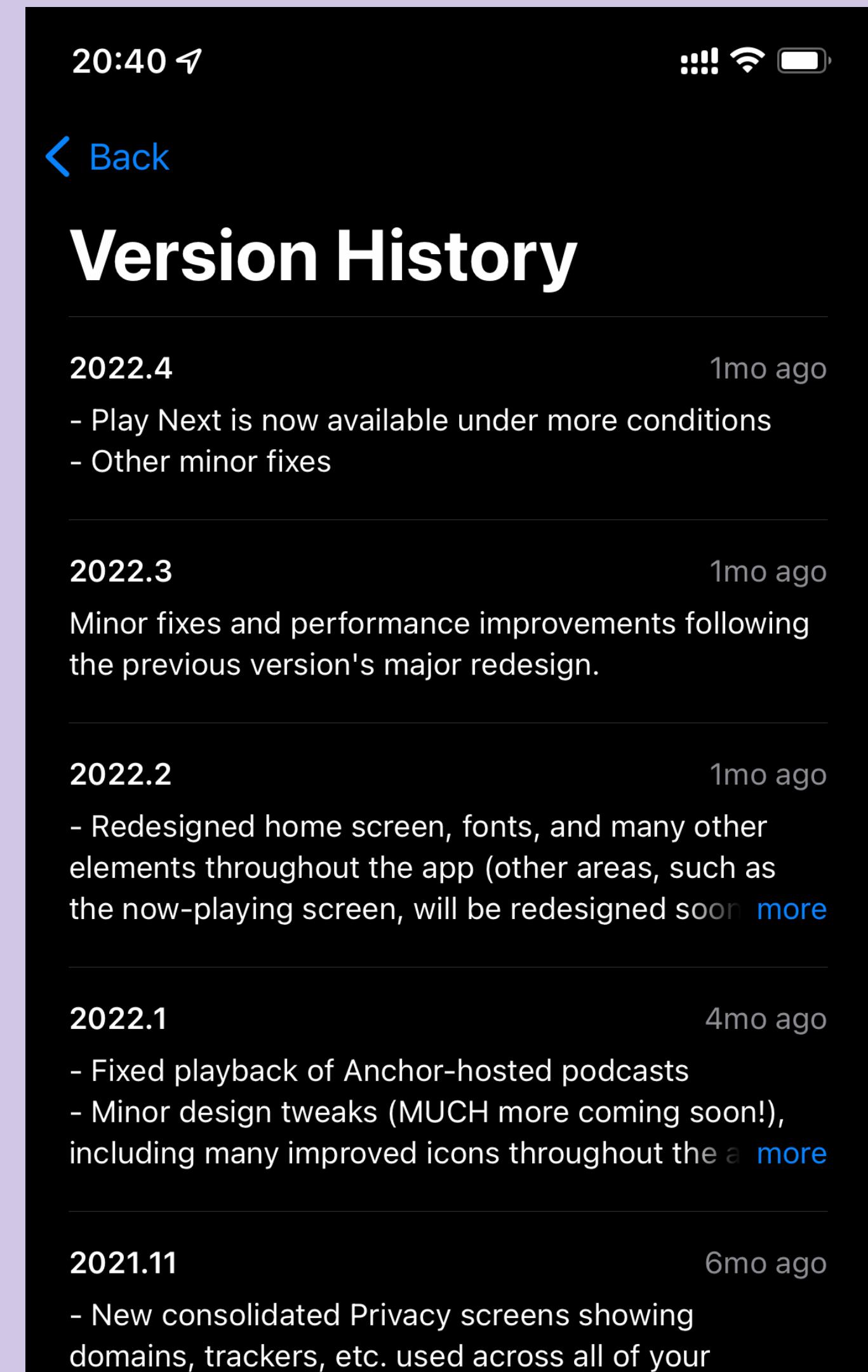
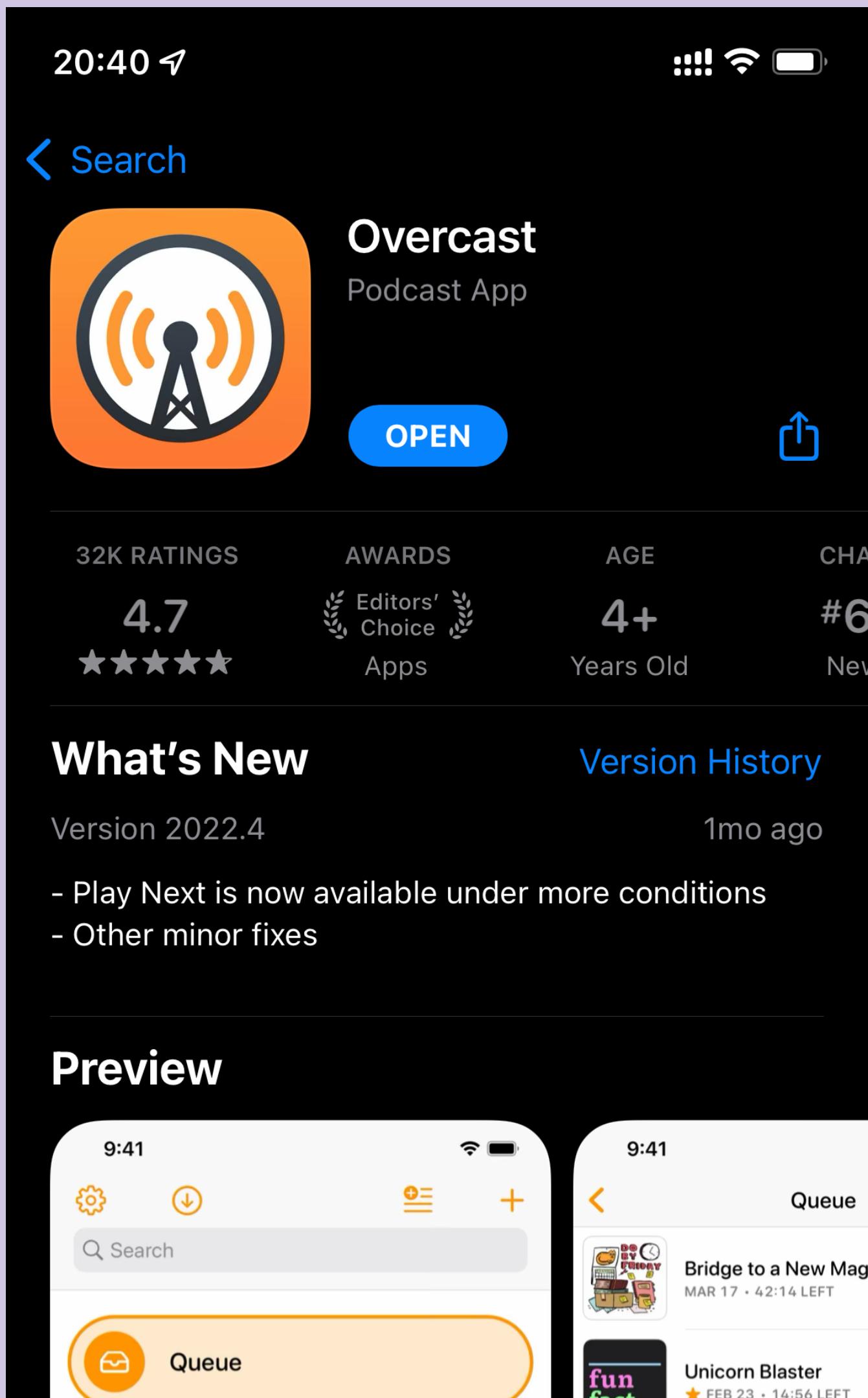
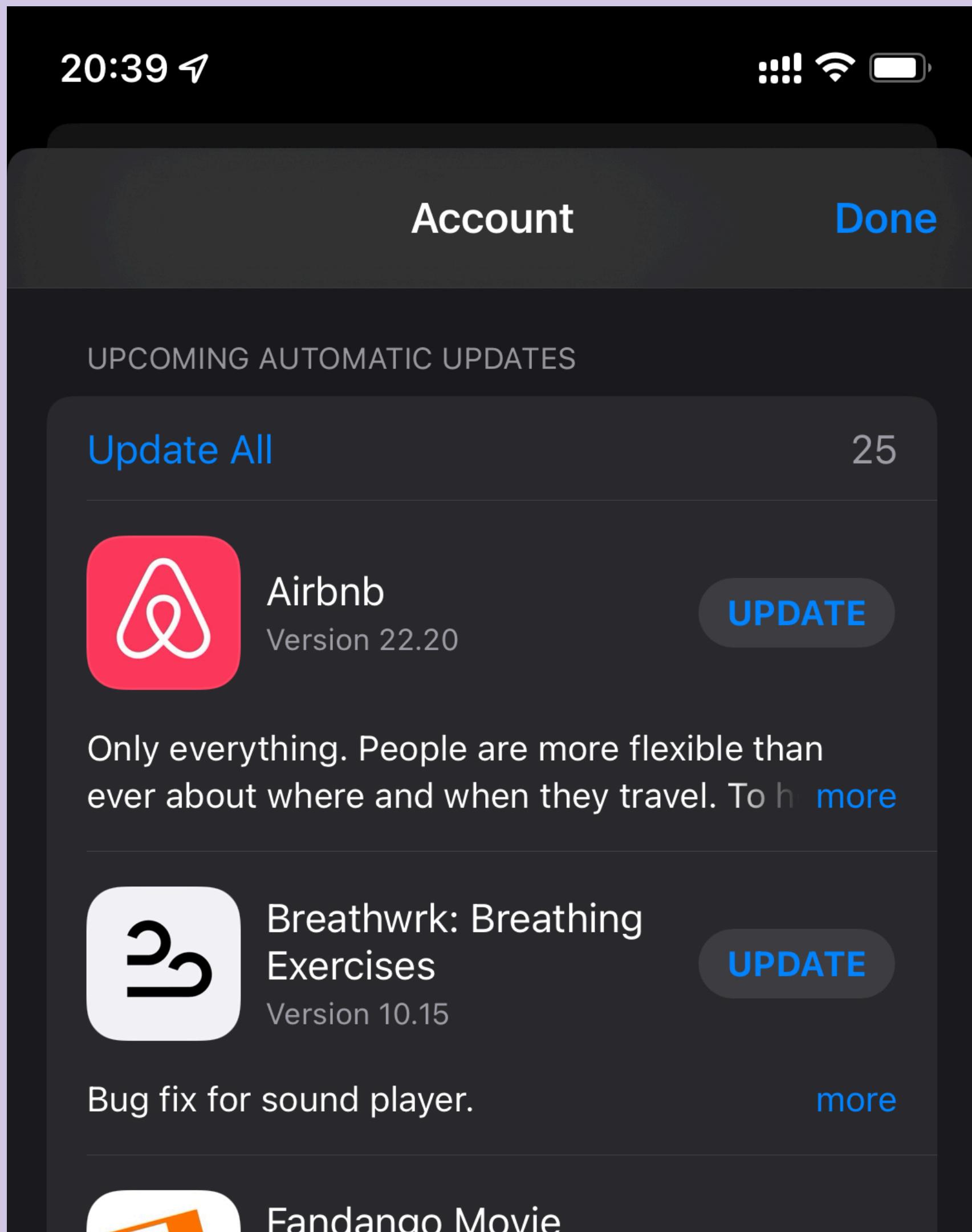
UPDATE

Hi there! This week we're introducing mentions in the activity description, so you can tag your friends and family in your posts.

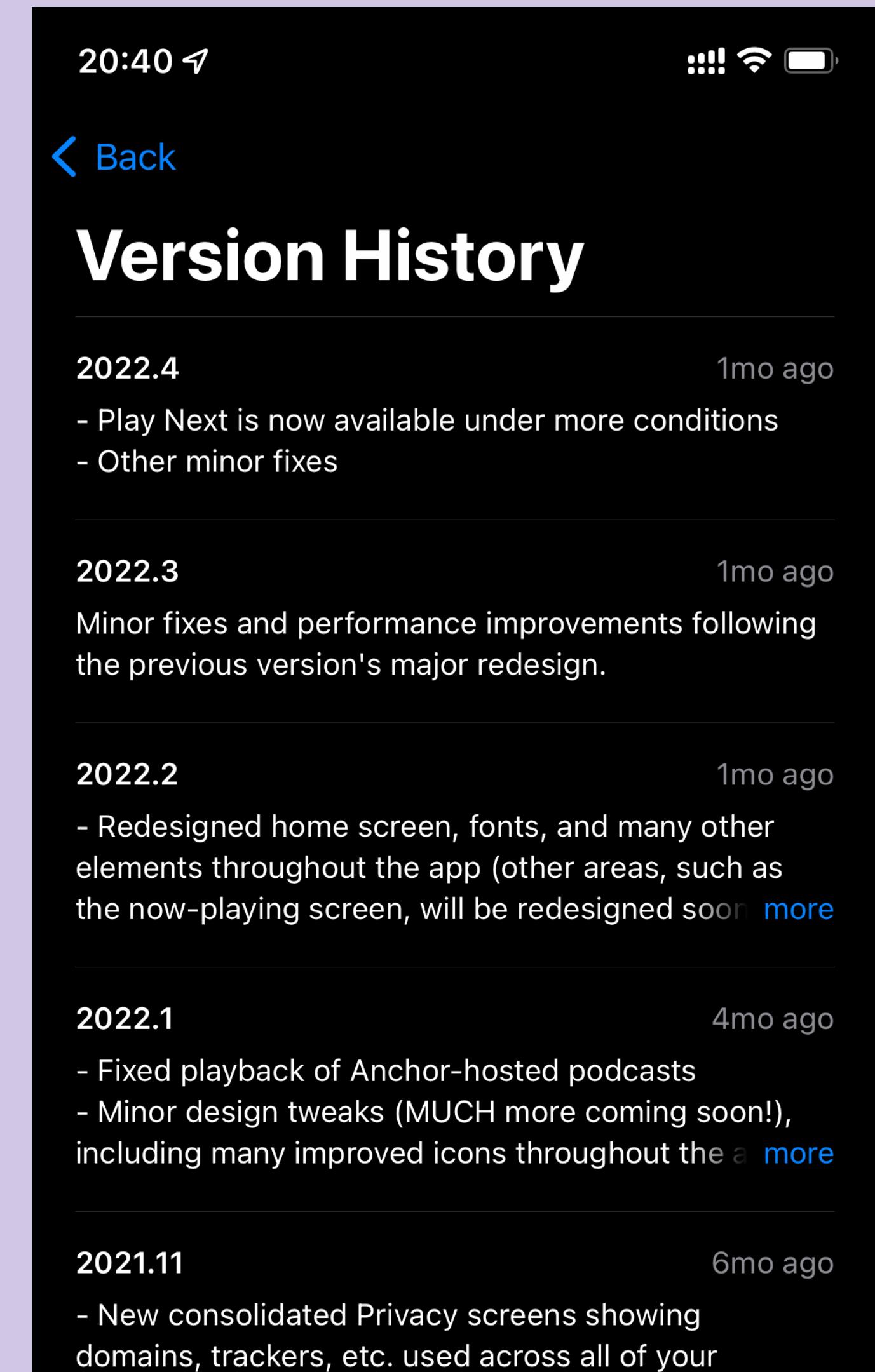
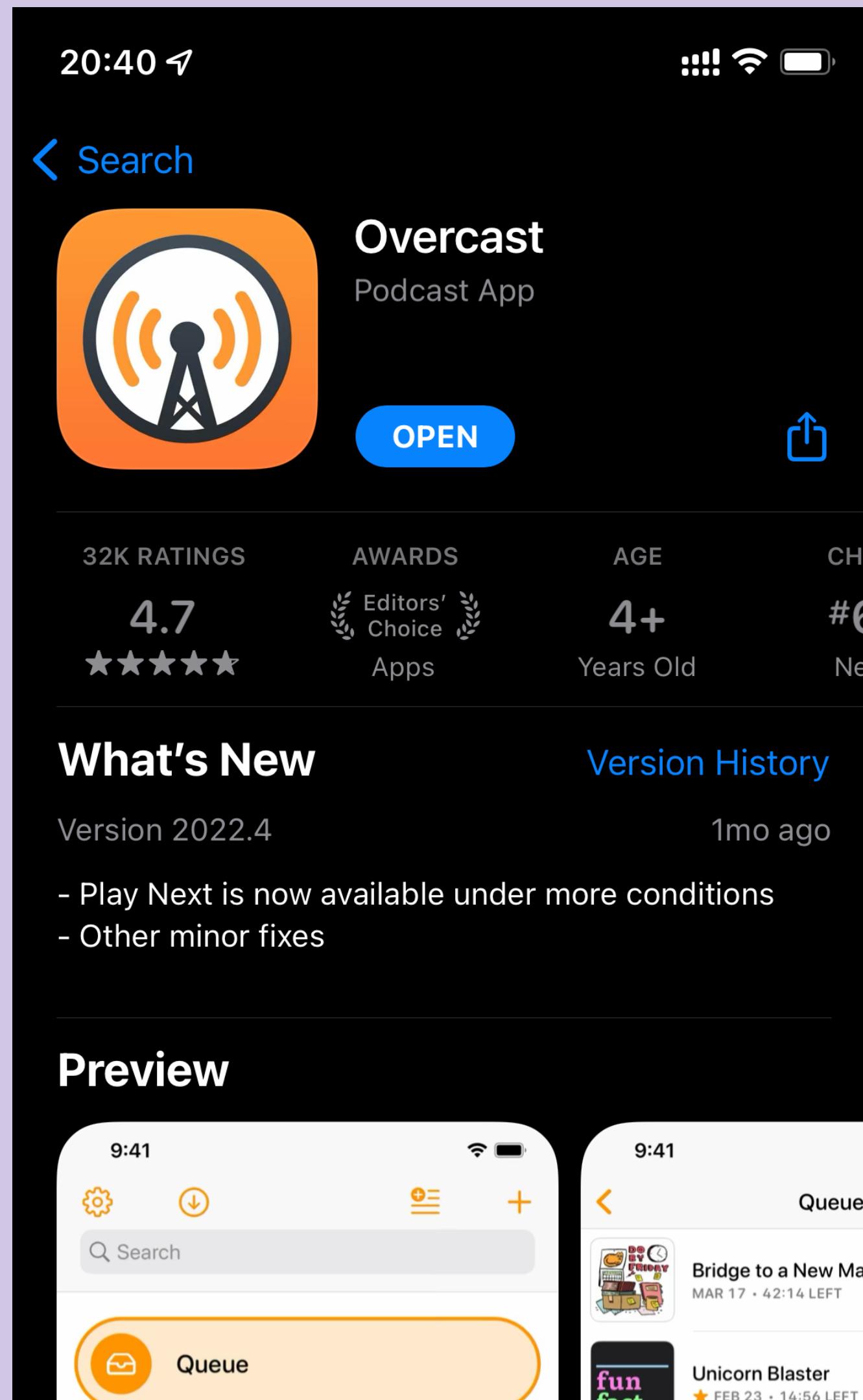
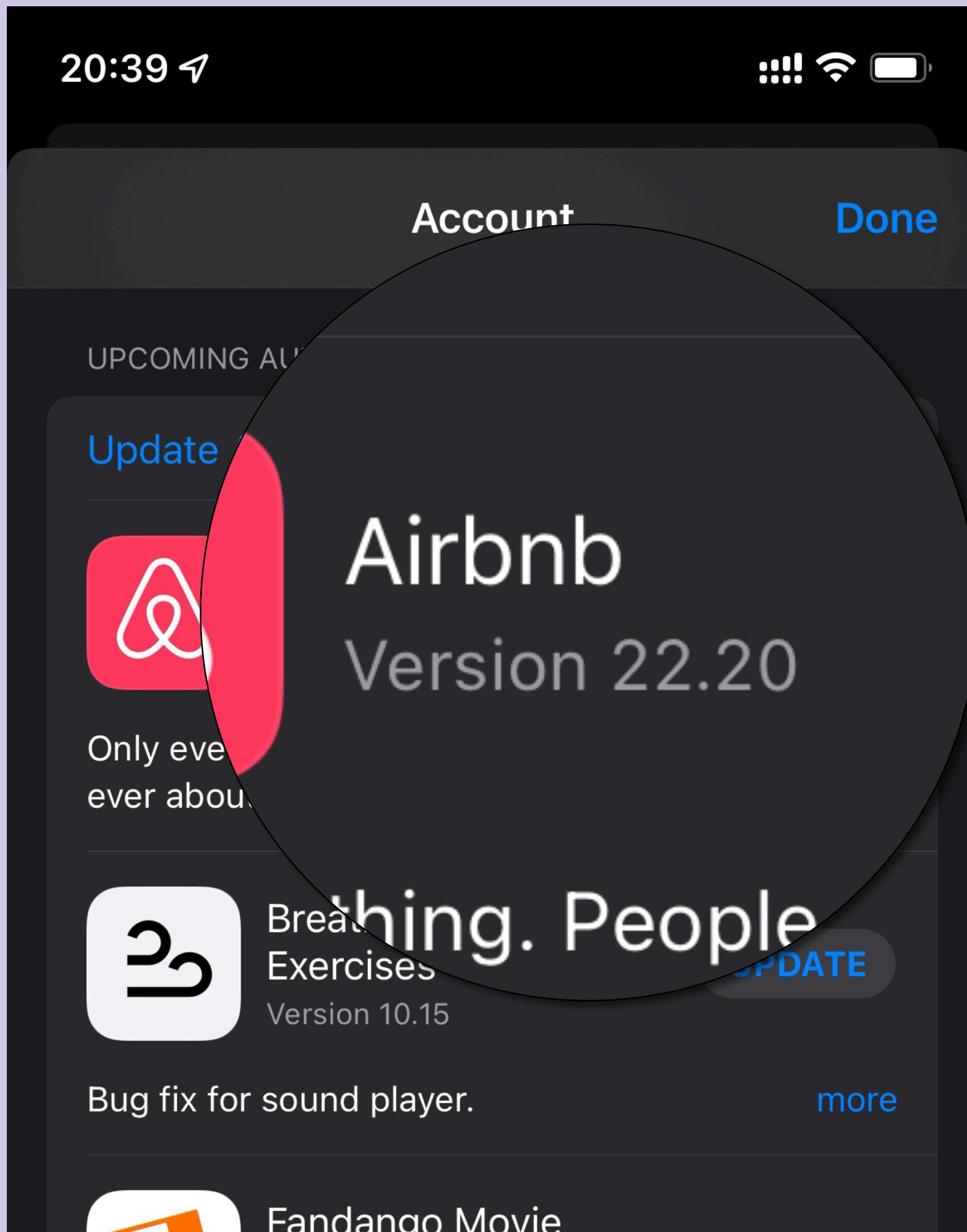
more

class

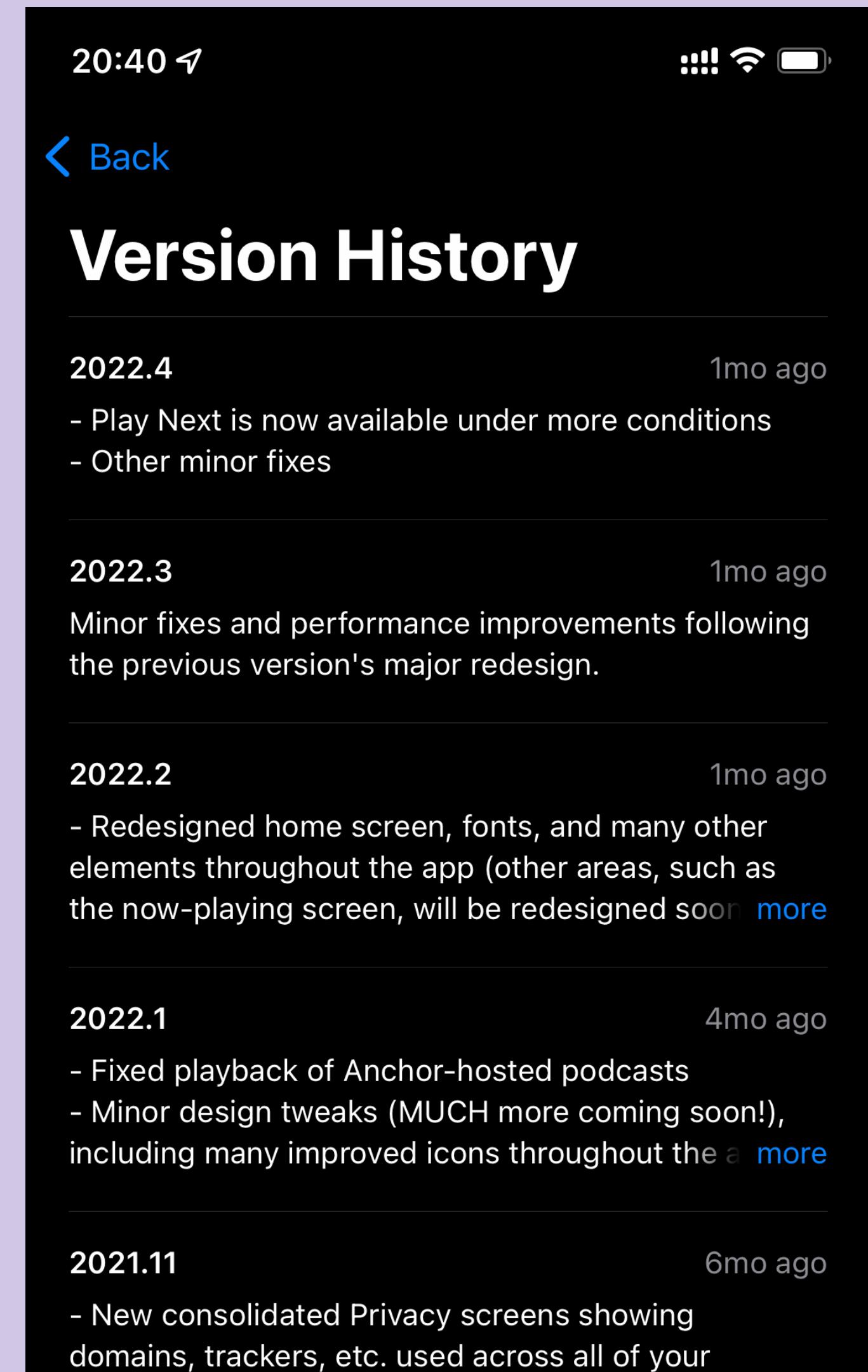
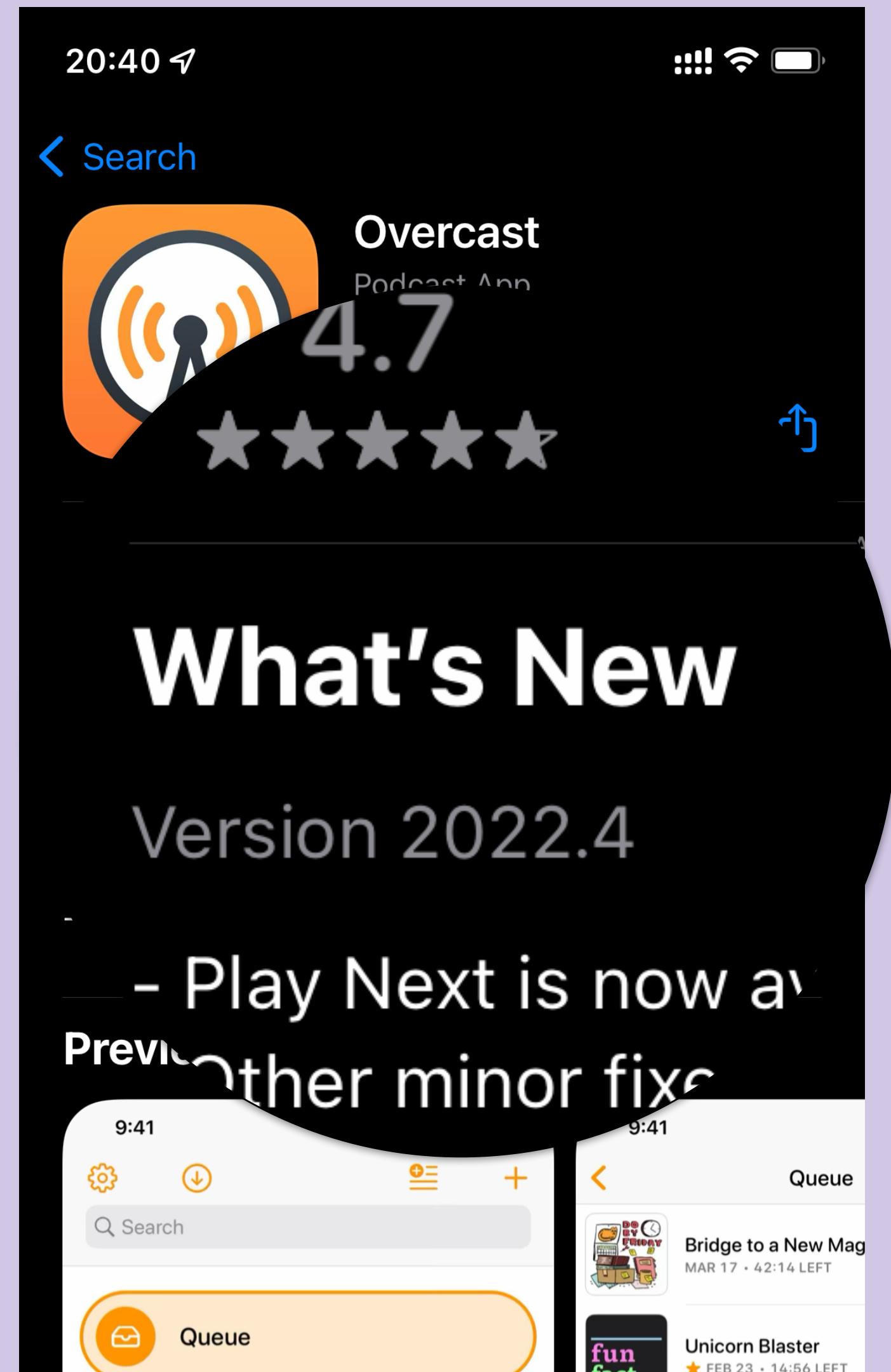
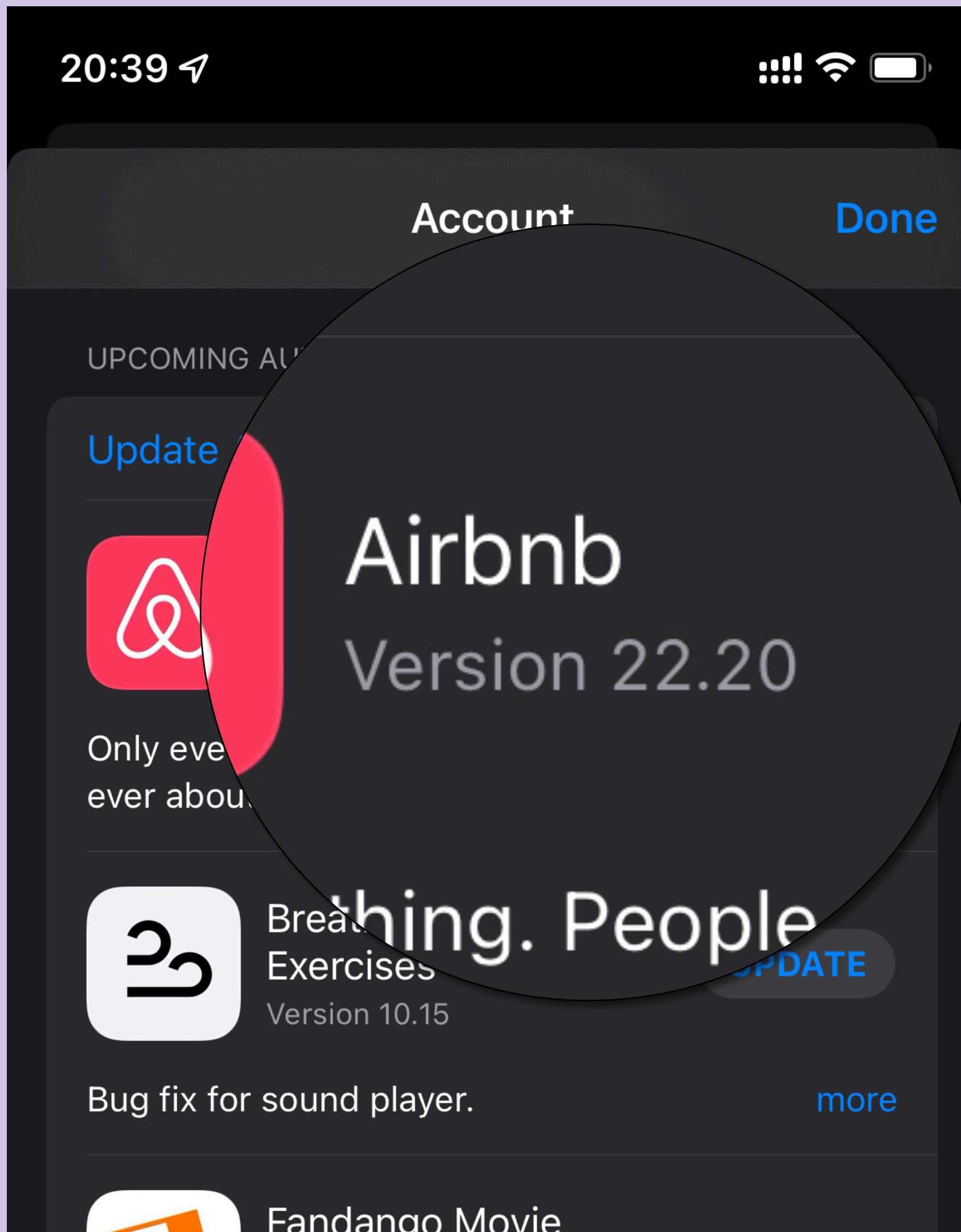
Versioning strategy



Versioning strategy



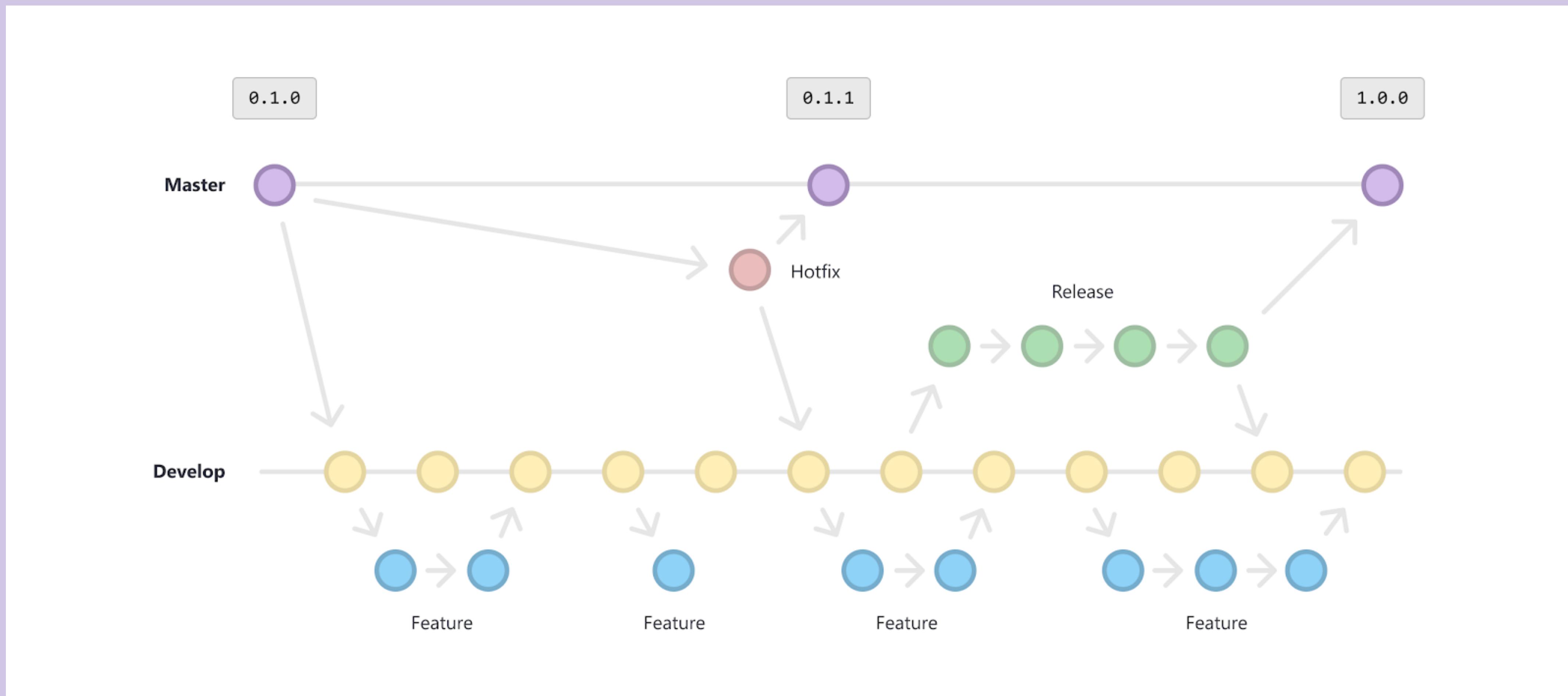
Versioning strategy



Branching strategy

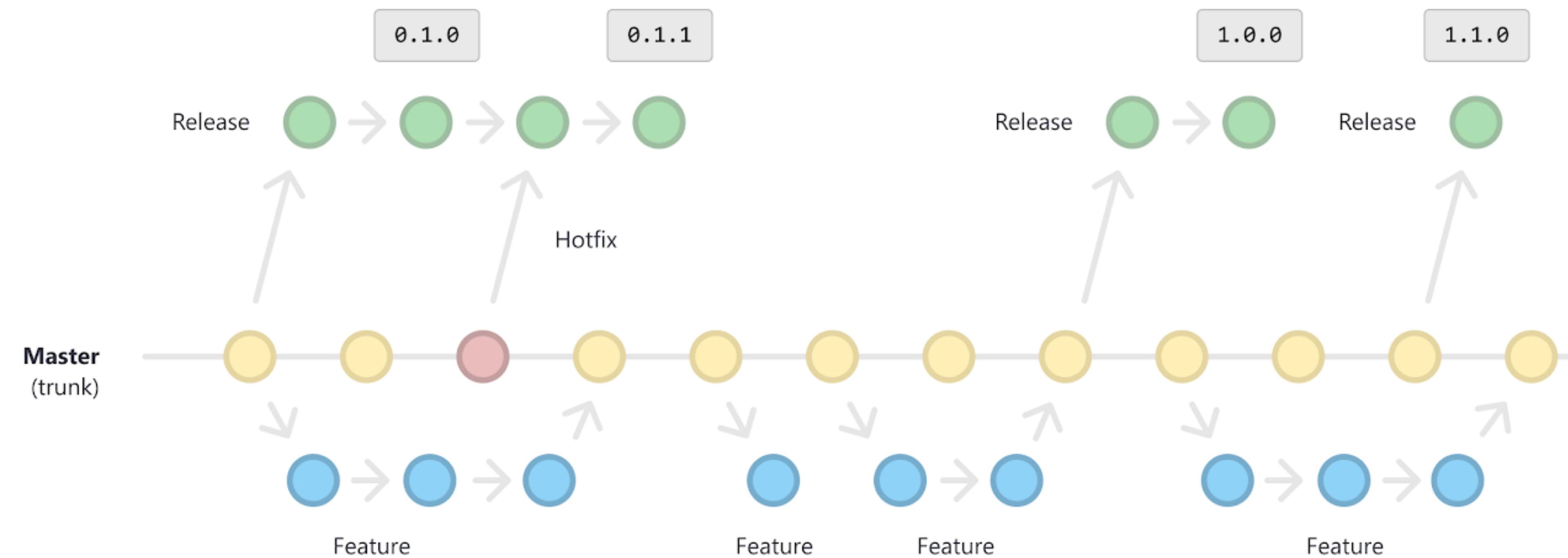
Branching strategy

GitFlow

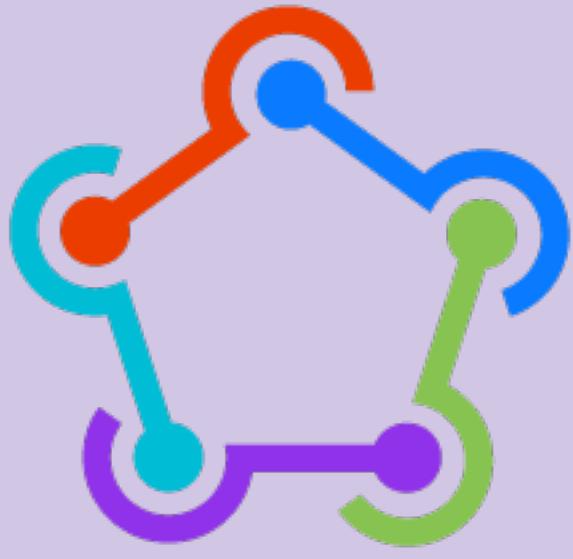


Branching strategy

Trunk



Automate some stuff



fastlane

fastlane.tools

classpass

The screenshot shows the homepage of fastlane.tools. At the top, there's a navigation bar with links for 'USE FASTLANE', 'INTEGRATIONS', 'HOW IT WORKS', 'CONTRIBUTE', and 'DOCS'. The main heading 'App automation done right' is displayed prominently. Below it, a sub-copy reads 'The easiest way to build and release mobile apps. fastlane handles tedious tasks so you don't have to.' A large number '32,317,677' is shown under the heading 'DEVELOPER HOURS SAVED'. At the bottom, a call-to-action button says 'Display a menu'.

fastlane is an open source platform aimed at simplifying Android and iOS deployment.
fastlane lets you automate every aspect of your development and release workflow.

Display a menu

Introduce process as you go

Create a release checklist

Create a release checklist

Release Checklist

Blue text indicates an iOS specific task.

Green text indicates an Android specific task.

{platform} - {version} - {engineer name}

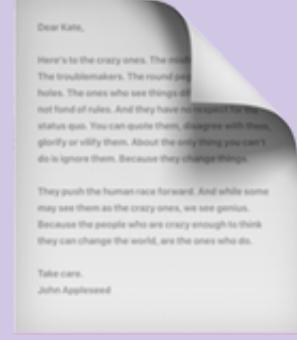
Pre-Release Checklist

- Ensure you have a task in your sprint with 5 story points.
- Pin this into **#topic-release-[ios|android]** and remove old release pins.
- Ensure you communicate in **#guild-mobile** the Release Branch creation date a couple days before you create the Release Branch. A release is great news and the entire team loves to hear about it.
- Sync with your PM if we need to update the app Description. If needed, your PM will own the English copy and translations.
- Ensure [Pull Requests](#) for your version are merged into **develop**.
- [Ensure no JIRA tickets with this fix version are in Needs QA or Dev Complete](#)
- [Create the release branch using the release script.](#)
 - Ensure version bump PR has been merged into **develop**
- Slack folks who contributed [features](#) to this release to test their feature on the RC
- [Release TestFlight build for QA through AppStore Connect](#), this is required to test ApplePay at the moment.
 - For questions related to "Does your app use encryption?" select 'Yes'.
 - For questions related to "Does your app qualify..." select 'Yes'.
 - For questions related to "Have you added or..." select 'No'.

Post-Release Checklist

- Update [Mobile Release Planning doc](#) with release date
- Send email to engineering@classpass.com and mnakano@classpass.com once we've rolled out to 100% with the release notes, see [this template](#).
- [Check metrics in Firebase Crashlytics for performance and adoption](#)
- [Check metrics in Firebase Crashlytics for performance and adoption](#)
- Create tickets for crashes that have been introduced in this version and update the release channel to indicate crash free users from Firebase for the next 3 days. For example: **5.5.0 - Rolled out to 10% (98.1% crash free users)**-
Owner: Neil
 - Day 1 after release
 - Day 2 after release
 - Day 3 after release
- Ensure user no-crash rate is higher than 99%
 - If user no-crash rate is lower than 99% create hotfix
 - Create JIRA tickets in the appropriate boards for any new crashes
- Inform **#guild-mobile** of the good news/bad news
- If this release is time sensitive, you can release fully after at LEAST 1 day of no crashes. If not time sensitive, coordinate with Product to determine how much longer to wait until full release.
- Updated Checklist document (this document) with possible improvements

Create a planning sheet



Create a planning sheet



Platform	Version	Release Manager	Code Complete	Branch Cut	Regression Testing	Target Submit	Target Release	ACTUAL Submit	ACTUAL Release	Type/Time Sensitive?	Description
iOS	7.8.0	Bassel / Jess	Fri 4/15/22	Wed 4/20/22	Wed 4/20/22	Mon 4/25/22	Tue 4/26/22	Wed 4/27/22	Mon 5/2/22		- Home SwiftUI Polish [Activation] - Native Immediate Trial Upgrade Add Credits Tab [Growth]
iOS	7.8.1	Zach						Wed 5/11/22	Thu 5/12/22		- MiniCardViewModel Crash Hotfix
Android	5.32.0	Clayton lead / Lillian Stephen supporting	Fri 4/22/22	Tue 4/26/22	Wed 4/27/22	Fri 4/29/22	Mon 5/2/22		Fri 5/6/22	Rollout paused	- Some Home Analytics [Activation]
Android	5.32.1	Stephen									- Home List Fragment Crash - App Freezes on Keyword Search when it enters an error state
iOS	7.9.0	Jorge / Lillian	Fri 5/6/22	Tue 5/10/22	Wed 5/11/22	Fri 5/13/22	Mon 5/16/22	Mon 5/16/22	Fri 5/20/22		- New Profile Screen [Activation] - Accessibility [N+1]
Android	5.33.0	Richard / Dan	Fri 5/13/22	Tue 5/17/22	Wed 5/18/22	Fri 5/20/22	Mon 5/23/22				- Some Home Analytics [Activation] - Search spot filter [N+1] - Native Immediate Trial Upgrade Add Credits Tab [Growth]
iOS	7.10.0	Luis / Lillian	Fri 5/27/22	Tue 5/31/22	Wed 6/1/22	Fri 6/3/22	Mon 6/6/22				- Post-attendance [Activation][TBD] - Cancellation flow improvements [Growth][TBD] - Search spot filter [N+1][TBD]
Android	5.34.0	Rich / Madhu lead Lillian supporting	Fri 6/3/22	Tue 6/7/22	Wed 6/8/22	Fri 6/10/22	Mon 6/13/22				- Subset of post-attendance scope [Activation] - Quickbook modal [N+1][TBD] - New Profile Screen [Activation][TBD] - Cancellation flow improvements [Growth][TBD] - Spot filter modal [N+1]
Android	5.34.1	Richard									- Android 12 [TBD]
iOS	7.11.0	Irvin / Dan	Fri 6/17/22	Tue 6/21/22	Wed 6/22/22	Fri 6/24/22	Mon 6/27/22				- New sign up flow [Growth][TBD] - Availability in Search [N+1][TBD] - Quickbook modal [N+1][TBD] - Phase 1

Run regular retrospectives



Run regular retrospectives



- Talk about your **feelings**
- Discuss **what's working** and **what isn't**
- Continuously **improve** your process
- Check out [retrospectivewiki.org](#) for format ideas

Release strategies



Release strategies



Release strategies



- Feature based releases ✨
 - Keep developing features, release when ready

Release strategies

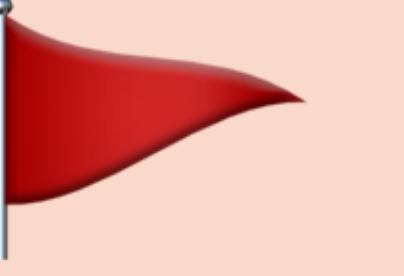


- Feature based releases 
- Keep developing features, release when ready
- Release train 
- Regular release cadence
- If feature isn't ready in time, it misses the train and catches the next one

Tools to join the big leagues

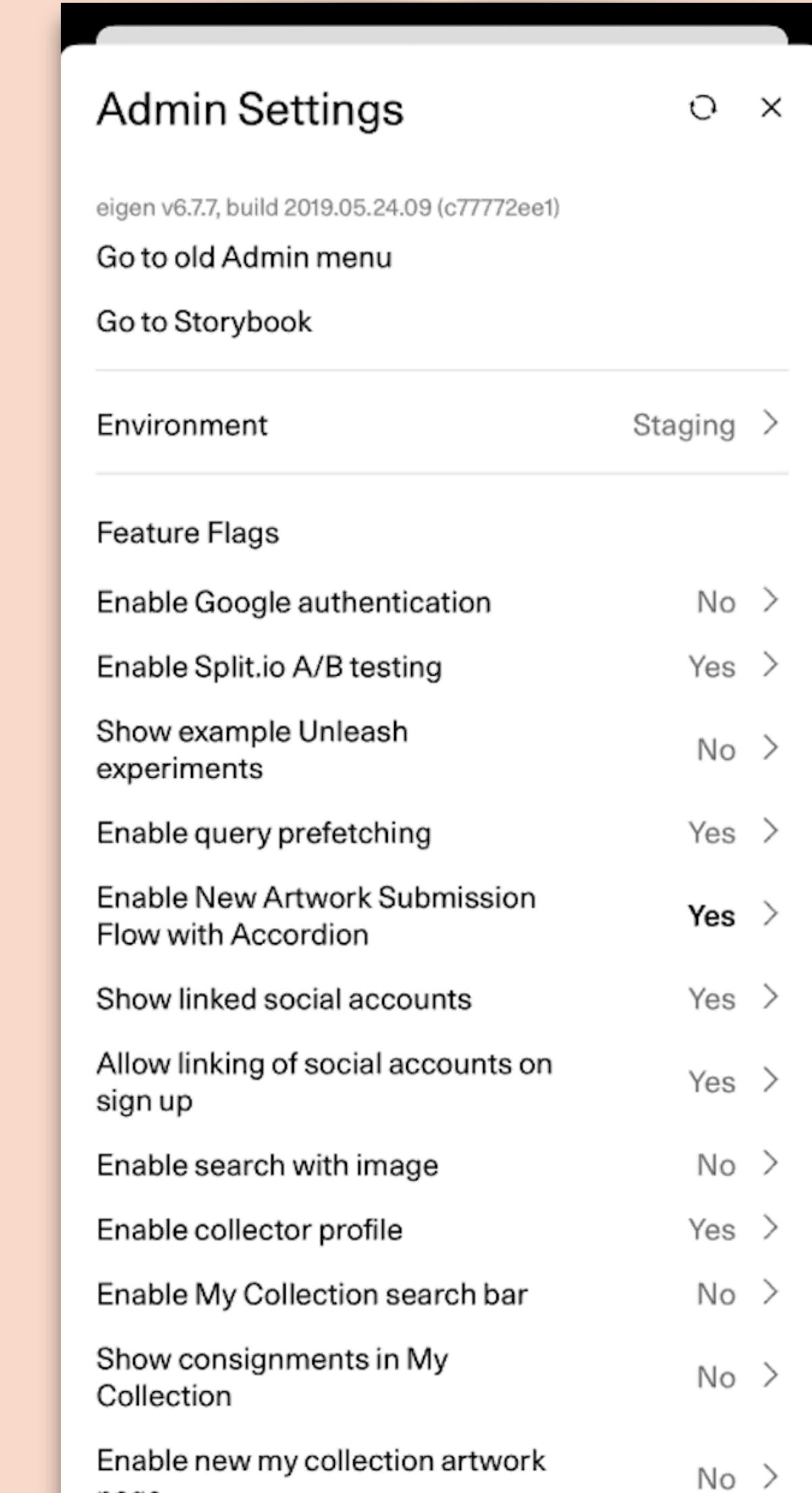
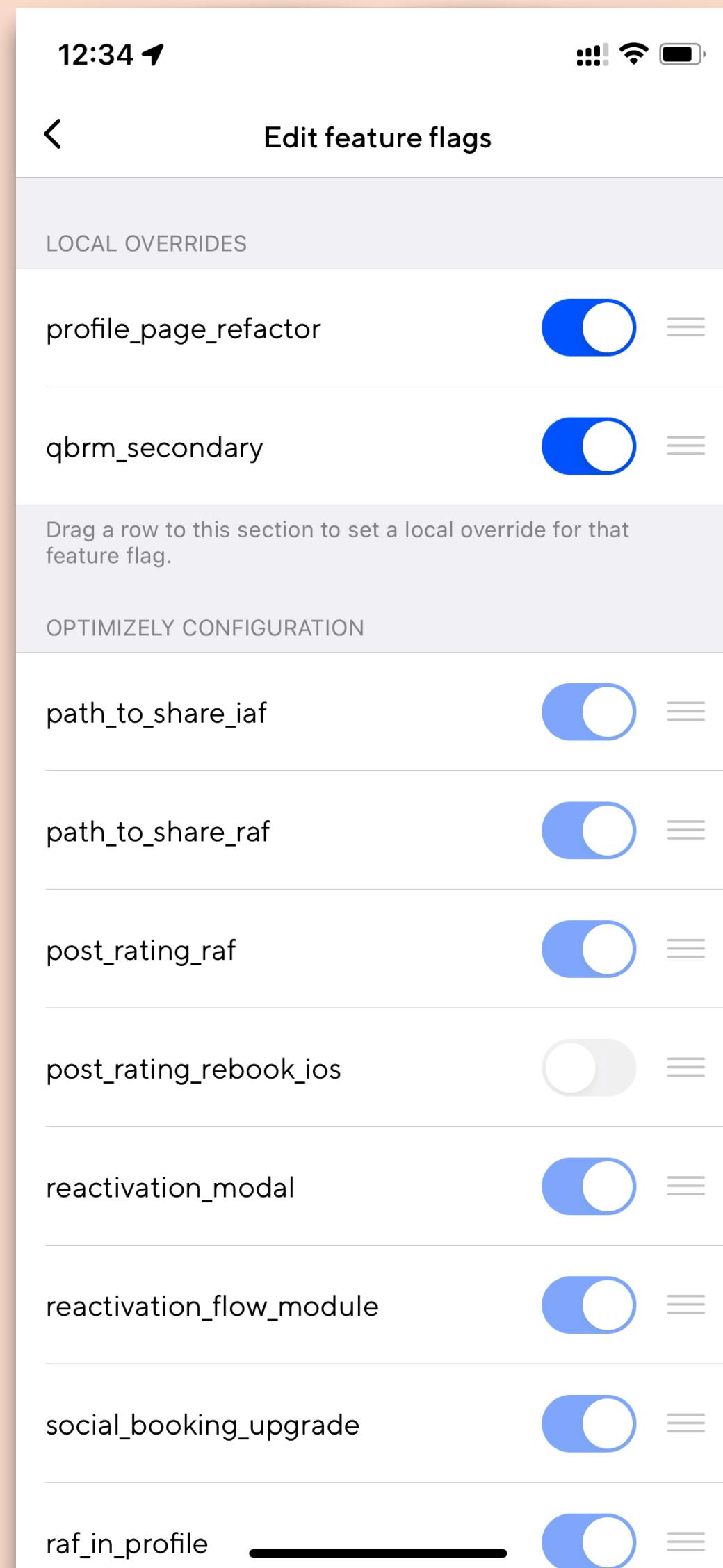


Feature flags



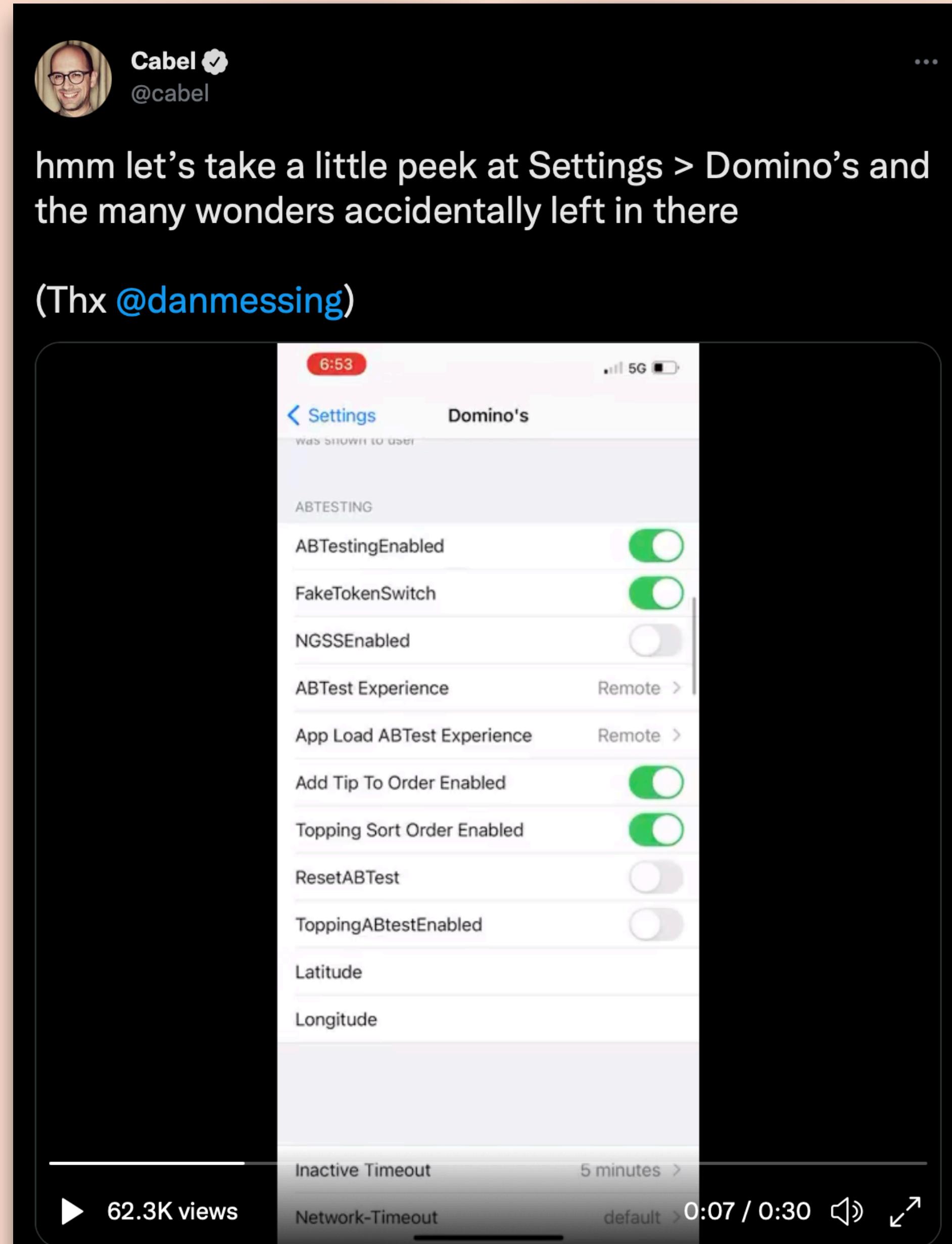
Feature flags

classpass



Feature flags

classpass



Server driven UI



Server driven UI

The screenshot shows a blog post from the Airbnb Tech Blog. At the top left is the Airbnb logo. To its right, the text "Published in The Airbnb Tech Blog" is displayed. Below this, there is a circular profile picture of a man, identified as Ryan Brooks. Next to the profile picture, his name "Ryan Brooks" is written, followed by the date "Jun 29, 2021" and "11 min read". To the right of the date, there is a "Listen" button with a play icon. Further to the right are icons for sharing on Twitter, Facebook, LinkedIn, and a link, followed by a bookmark icon with a plus sign and three dots for more options. The main title of the article, "A Deep Dive into Airbnb's Server-Driven UI System", is centered below the author information. A descriptive subtitle follows: "How Airbnb ships features faster across web, iOS, and Android using a server-driven UI system named Ghost Platform 😬." At the bottom left, the "classpass" logo is visible. On the bottom right, the number "48" is present.

Published in The Airbnb Tech Blog

Ryan Brooks

Jun 29, 2021 · 11 min read · [Listen](#)

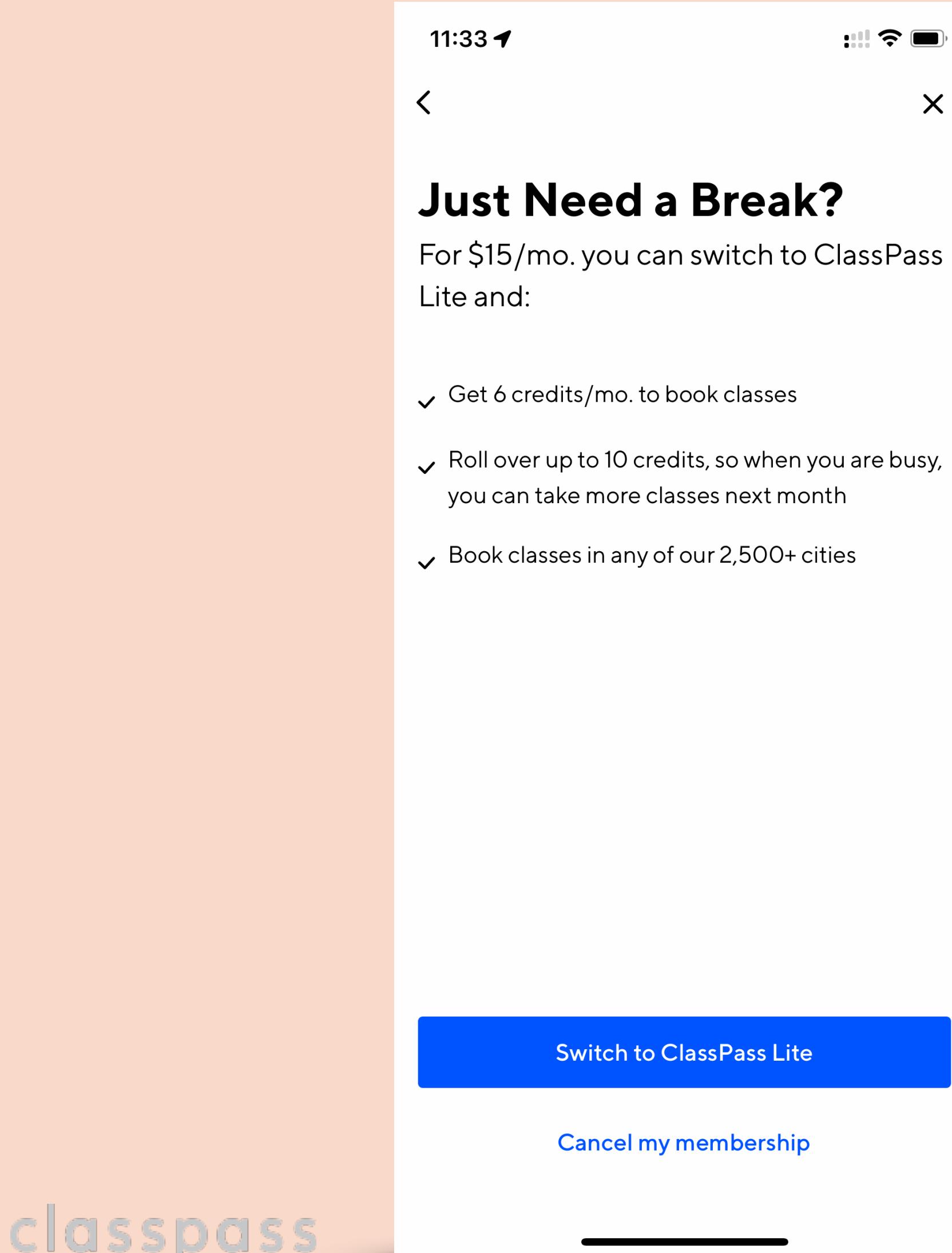
A Deep Dive into Airbnb's Server-Driven UI System

How Airbnb ships features faster across web, iOS, and Android using a server-driven UI system named Ghost Platform 😬.

By [Ryan Brooks](#)

48

ClassPass cancel flow



```
{  
  "subheader" : "For $15/mo. you can switch to ClassPass Lite and:",  
  "ctas" : [  
    {  
      "message" : "Switch to ClassPass Lite",  
      "type" : "button",  
      "step_id" : "confirm-lite-plan",  
      "spacing" : "spacing-large"  
    },  
    {  
      "message" : "Cancel my membership",  
      "type" : "link",  
      "step_id" : "view-membership-benefits",  
      "spacing" : "spacing-regular"  
    }  
,  
  "items" : [  
    {  
      "message" : "Get 6 credits/mo. to book classes",  
      "spacing" : "spacing-regular",  
      "type" : "checkmark"  
    },  
    {  
      "message" : "Roll over up to 10 credits, so when you are busy, you can take more classes next month",  
      "spacing" : "spacing-regular",  
      "type" : "checkmark"  
    },  
    {  
      "message" : "Book classes in any of our 2,500+ cities",  
      "spacing" : "spacing-regular",  
      "type" : "checkmark"  
    }  
,  
  "header" : "Just Need a Break?",  
  "step_id" : "offer-lite-plan"  
}
```

Build an internal tool



Build an internal tool

Ship Sasha Friedenberg ▾

[Etsy](#) [Buy on Etsy](#)

	TESTING	RELEASED
iOS	4.65.0 Branch: Today Release: in 7 days	4.64.0 Branch: Apr 18 Released: 7 days ago
Android	4.65.0 Branch: Today Release: in 7 days	4.64.0 Branch: Apr 18 Released: 7 days ago

Build an internal tool

Driver



Hannah Mittelstaedt

Driver for Android BOE 4.65.0

[Become Driver](#)

[Edit Release](#)



Captain APP 17:05 ☆

Ahoy! You've been assigned driver for Android SOE 2.62.0. [You need to confirm you're available or find a replacement](#)

[Android SOE 2.62.0](#)

branch date

May 23, 2017, at 5pm ET

release date

May 30, 2017



Buy a tool



Buy a tool

runway.team

The screenshot shows the homepage of the runway.team website. At the top, there's a navigation bar with links for RUNWAY, PRODUCT, CUSTOMERS, and BLOG. To the right of these are buttons for LOG IN, GET STARTED (in a white box), and REQUEST A DEMO (in a blue box). Below the navigation, the main headline reads "Air traffic control for your mobile releases". A subtext below it says "Runway puts your releases on autopilot and keeps the whole team in sync throughout." To the right of the text is a graphic of a smartphone screen displaying a Gantt chart or timeline with various colored dots (blue, green, orange, purple) and horizontal bars. Below the phone graphic is a blue button labeled "REQUEST A DEMO". Further down the page, there's a section titled "TRUSTED BY THE BEST MOBILE TEAMS" featuring logos for Capsule, Gusto, Kickstarter, Classpass, Route, Wealthsimple, Brex, and Faire.

RUNWAY

PRODUCT CUSTOMERS BLOG

LOG IN

GET STARTED

REQUEST A DEMO

Air traffic control for your mobile releases

Runway puts your releases on autopilot and keeps the whole team in sync throughout.

REQUEST A DEMO

Explore a live demo →

TRUSTED BY THE BEST MOBILE TEAMS

CAPSULE

gusto

KICKSTARTER

classpass

ROUTE

Wealthsimple

Brex

FAIRE

classpass

Buy a tool

runway.team

ClassPass iOS

UPCOMING

- 7.11.0

NEXT RELEASE

- 7.10.0

COMPLETED

- 7.9.0 (MAY 20)
- 7.8.1 (MAY 12)
- 7.8.0 (MAY 2)
- 7.7.0 (APR 6)
- 7.6.0 (MAR 16)
- 7.5.0 (FEB 24)
- 7.4.1 (FEB 10)
- 7.4.0 (FEB 1)
- 7.3.0 (JAN 18)

Target kickoff
No target kickoff date set

Target submit
No target submit date set

View in App Store >

Release snapshot >

Released Friday, May 20th

RELEASE TOTAL DURATION 9 days

WAITING FOR REVIEW 21 hours

87% to feature complete

2 days ago - Release kicked off

23 days ago - Matching feature affiliation found

Release pilot
zachary.frew@classpass.com

Phased release

100% OF USERS

DAY 7 100%

DAY 6 50%

DAY 5 20%

DAY 4 10%

DAY 3 5%

DAY 2 2%

DAY 1 1%

Ratings Most recent reviews

★ · Hot mess of an app

classpass

Buy a tool

runway.team

The screenshot shows the runway.team application interface for managing software releases. On the left, there's a vertical sidebar with icons for Cloud, Apple, and Android, and a large plus sign. The word "RUNWAY" is written vertically next to the sidebar. At the bottom of the sidebar, there are icons for User, INVITE, and Cloud.

The main area displays a release for "ClassPass" on "ios 7.10.0". The "Release overview" section shows a timeline with several steps: "Kickoff" (2 items, 50% complete), "Feature readiness" (2 items, 50% complete), "Release candidate" (5 items, 100% complete), "Regression testing" (1 item, 100% complete), "Beta testing" (1 item, 100% complete), "Screenshots" (1 item, 100% complete), "Metadata" (2 items, 100% complete), "Approvals" (1 item, 100% complete), "App submission" (1 item, 100% complete), "App Store review" (1 item, 100% complete), and "Release" (1 item, 100% complete).

The "KICKOFF" tab is selected, showing a checklist with 2 items still pending. The checklist items are:

- Sync with your PM if we need to update the app Description. If needed, your PM will own the English copy and translations. owned by Release pilot
- Ensure you have a task in your sprint with 5 story points. Completed - 05/31, 1:45 PM L
- Update channel status for #topic-release-ios or #topic-release-android. Info Completed - 05/31, 1:45 PM L
- Ensure you communicate in #guild-mobile the Release Branch creation date a couple days before you create the Release Branch. A release is great news and the entire team loves to hear about it. owned by Release pilot

A yellow banner at the top of the checklist area indicates "2 checklist items still need to be completed for this step."

classpass

Start small

**Introduce
process
as you go**

**Add tooling
where
needed**