

---

June 2022

# Scaling your app's release process

Neil Kimmett

classpass

---

June 2022

# Scaling your app's release process

Neil Kimmnett

classpass

# @neilkimmett

👋 hello

🇬🇧 from Southampton

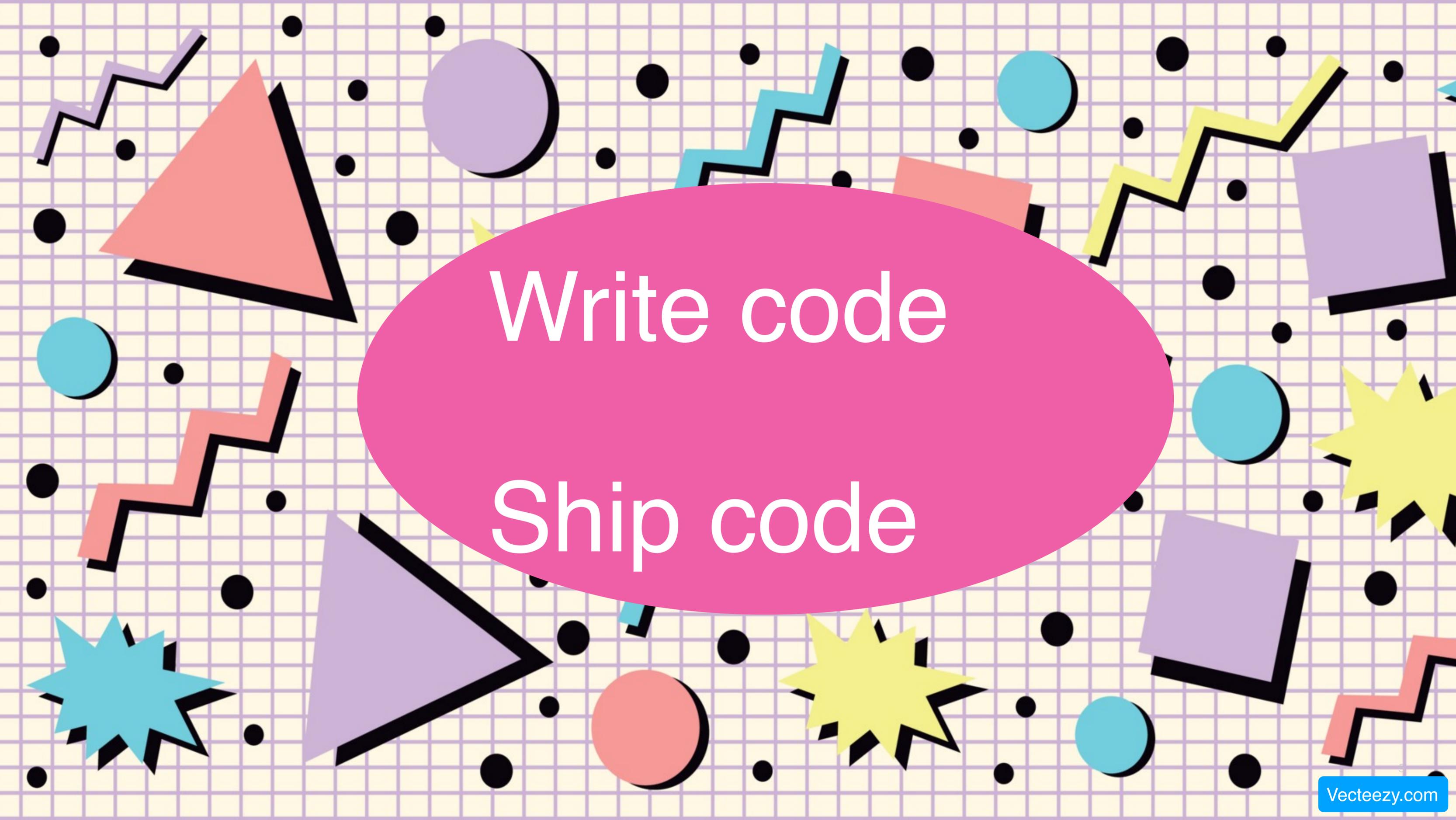
🗽 live in NYC

📱 Director of Eng @ 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");
```



POWER



Microsoft



MICROSOFT **3D**  **MovieMaker**

Turn Your Ideas Into Awesome 3D Movies!

ATTENTION: Use of the software program on the enclosed disks and/or installed on the computer is

**PC WORLD**  
The Computer Superstore



TECHGUYS

RIPSPEED BIKEHUT



# Sound

Speakers  
Ipod's

MP3/MP4 Players  
Sound Cards

## PC WORLD

THE COMPUTER SUPERSTORE

Laptops

The Best Of  
Both Worlds

Internet prices to take home today

: here to help

LOW  
PRICES  
EVERYDAY

ON OVER

5000  
COMPUTER  
PRODUCTS

The Best Of  
Both Worlds

Internet prices to take home today

5000  
COMPUTER  
PRODUCTS

PC  
Bus

Training Centre

In Car Navigation

Network

Xbox 360  
Pro Package  
£229

Save £60

499

Save 120

The Best Of  
Both Worlds

Great value

£29.99

499

Save £100

0% APR

Beat the  
Credit Crunch

0%  
APR

BUY NOW  
PAY  
12 MONTHS  
LATER  
ALL  
299

109

Logitech  
£19.99

1/3 Price

PHILIPS  
DVD+R  
16X  
50

£54.99

Great Value

PLAY HARD





**(modem dials)**





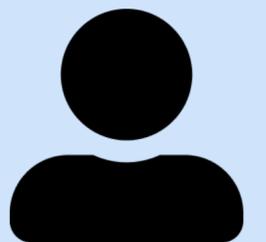
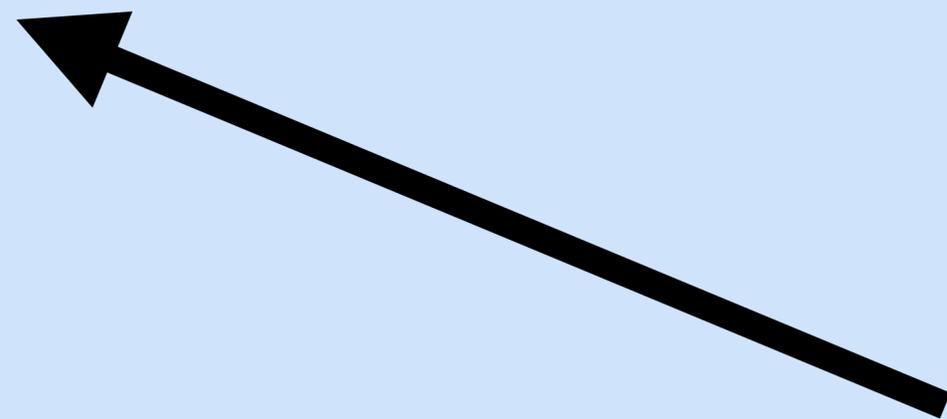
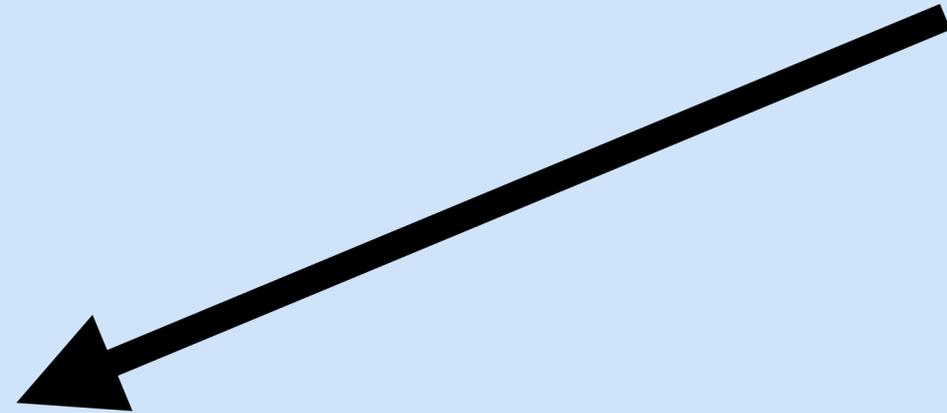
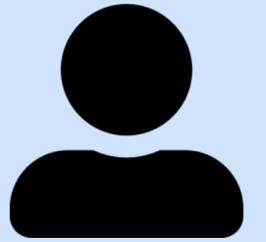
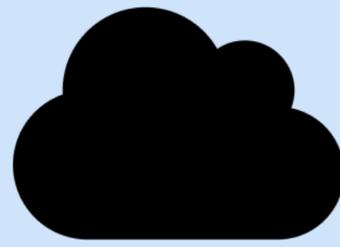
# What it means to ship an app

# How ClassPass has evolved our process

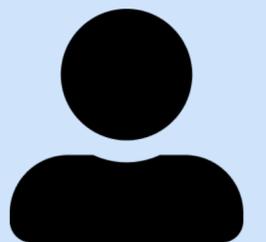
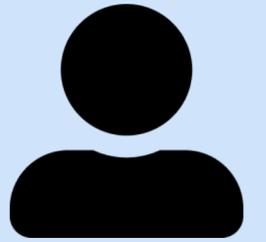
How you can design  
your process

# What it means to ship an app

# Deploying web code



# Deploying app code





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

### *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.

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

**Bloomberg**

### Match Sues Google Over App Store Billing Rules

**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

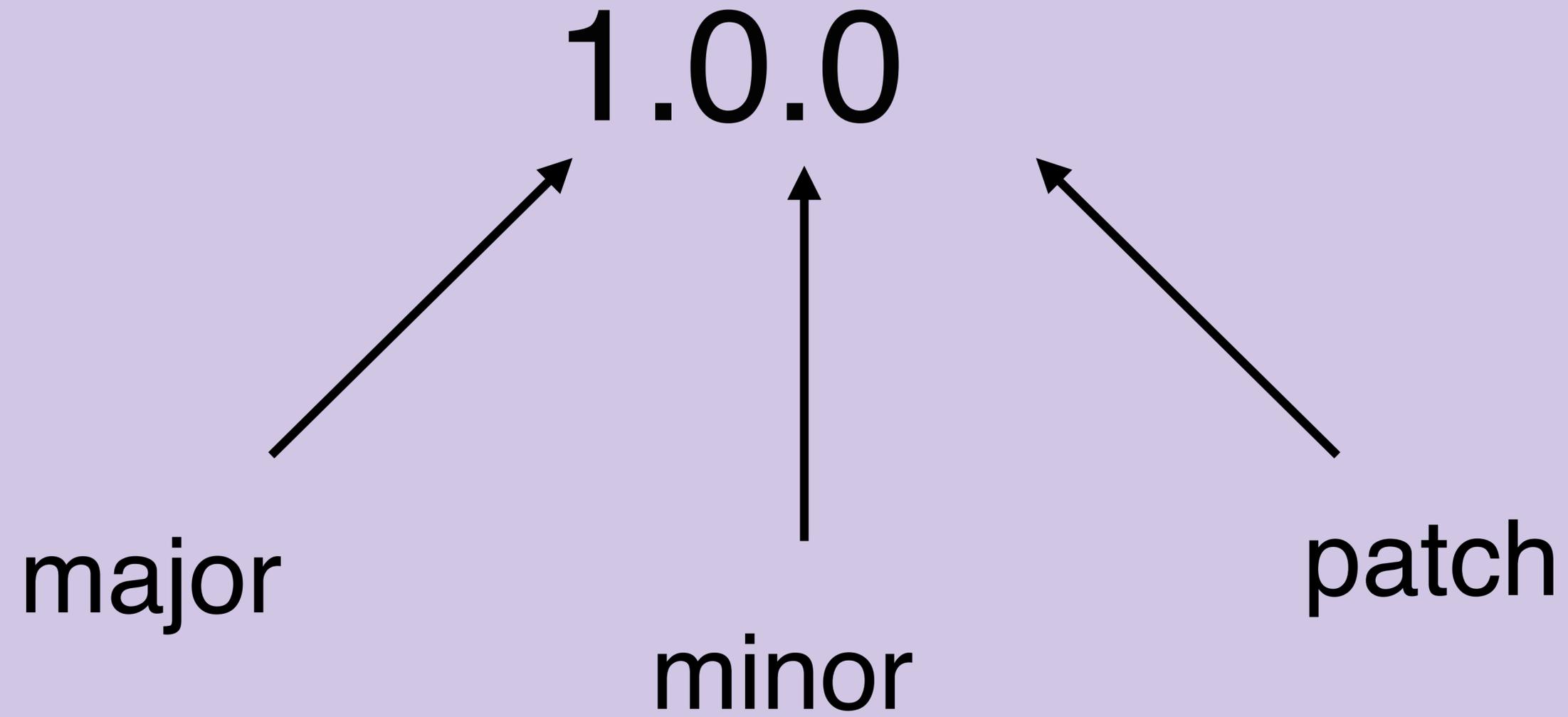
**Would be 5 stars**

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

# What can we do about it?

# Start small

1.0.0





LinkedIn: Network & Job Finder

Version 9.1.269



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



Microsoft Outlook

Version 4.2219.1

This update includes performance improvements and bug fixes to make Outlook better.



Update includes performance improvements and bug fixes to make Outlook better.

Version 3.87.0

\* Improved app performance



New Relic

Version 3.87.0

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



Nike

UPDATE

Account

Done



Postmates - Food Delivery

Version 6.112.10001

for using Postmates! We make ordering easier...

UPDATE

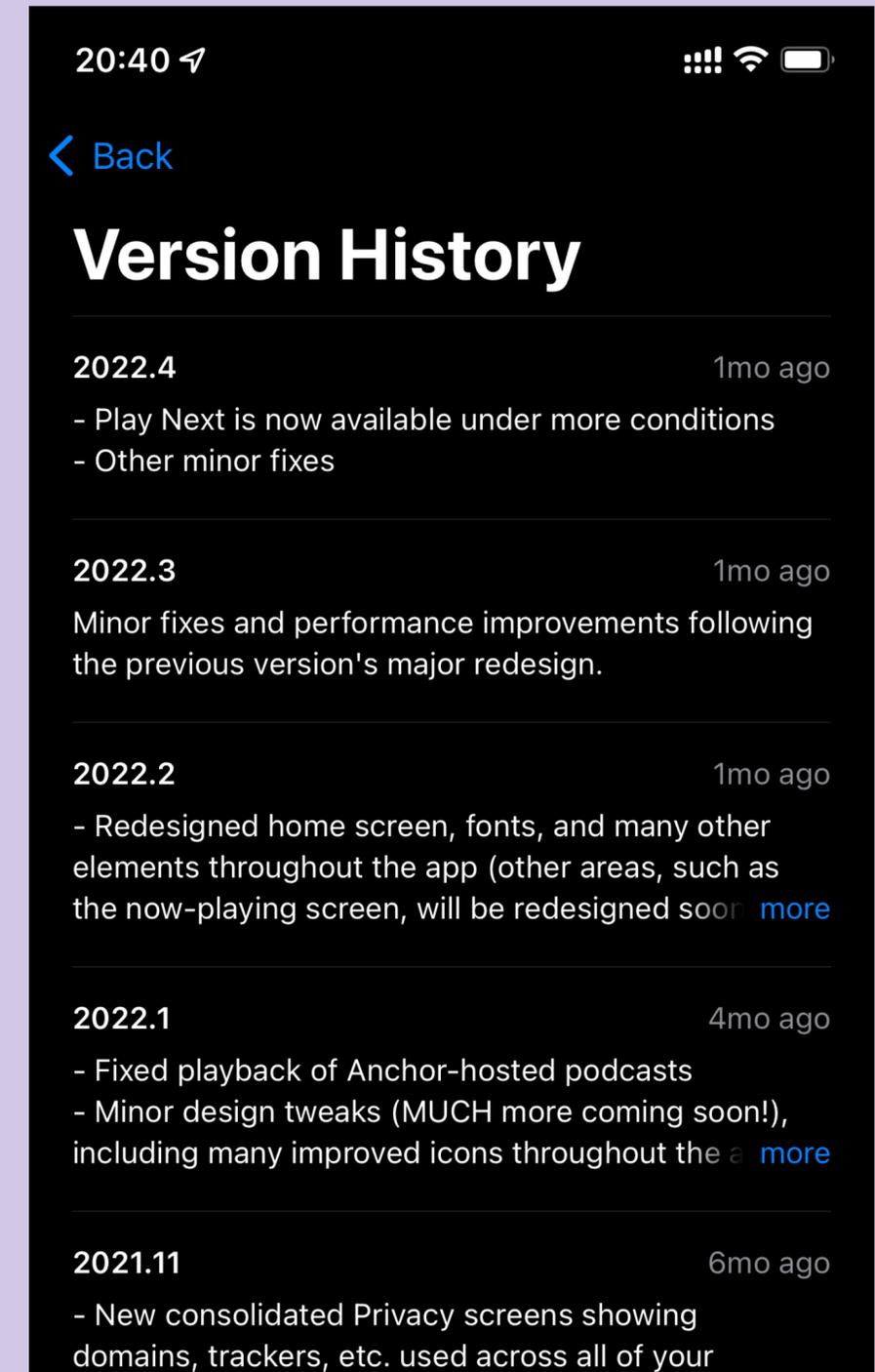
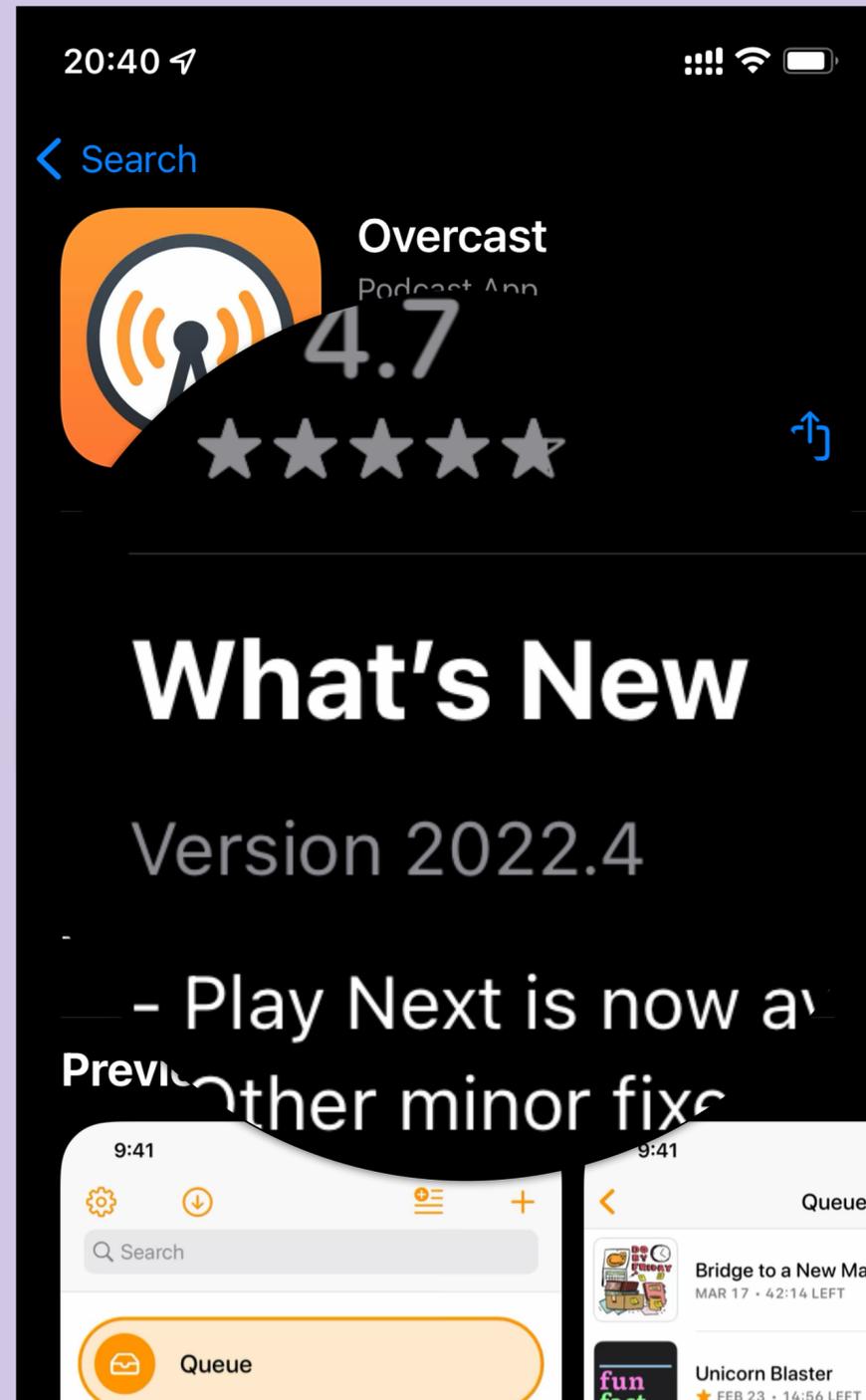
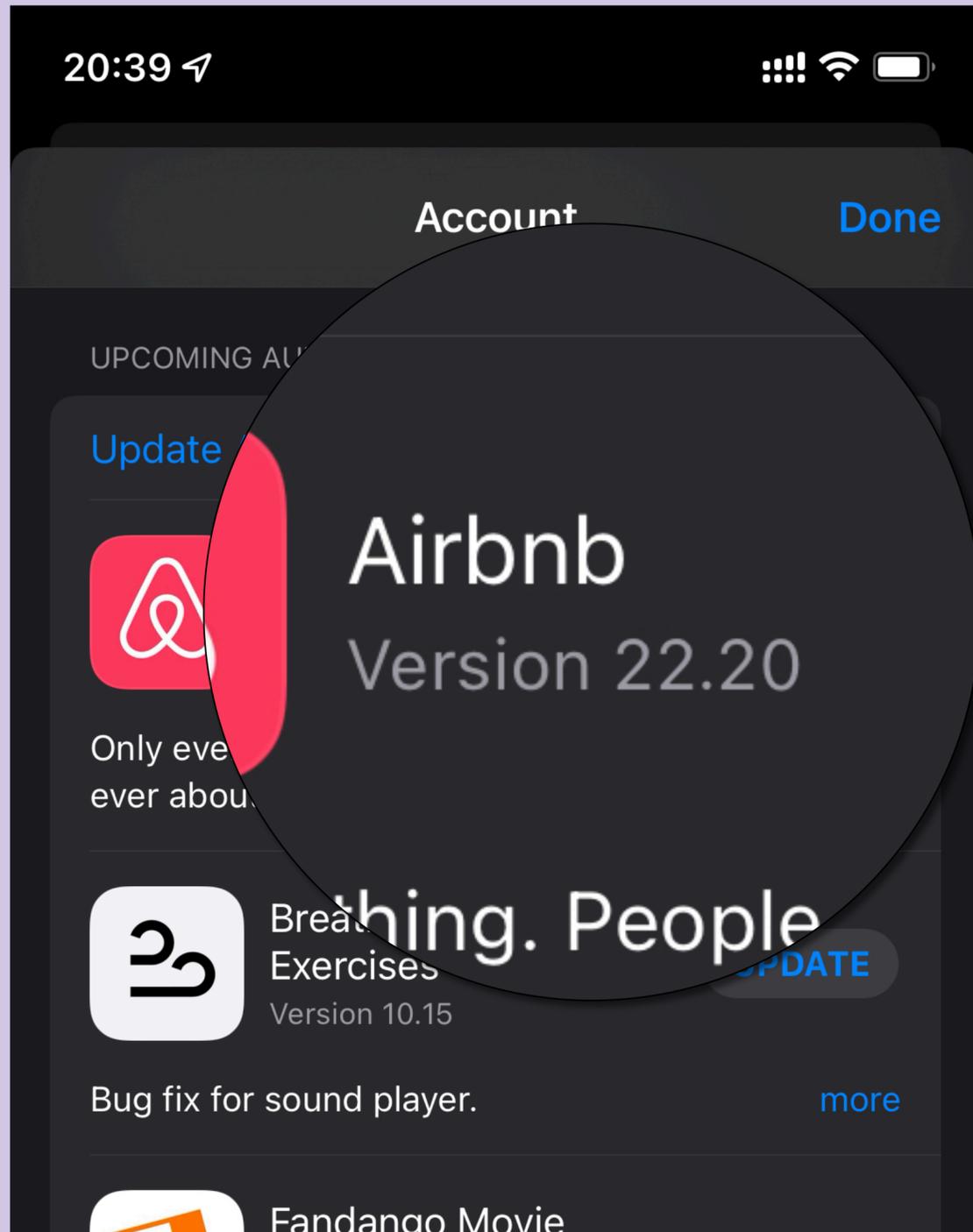
UPDATE

UPDATE

UPDATE

UPDATE

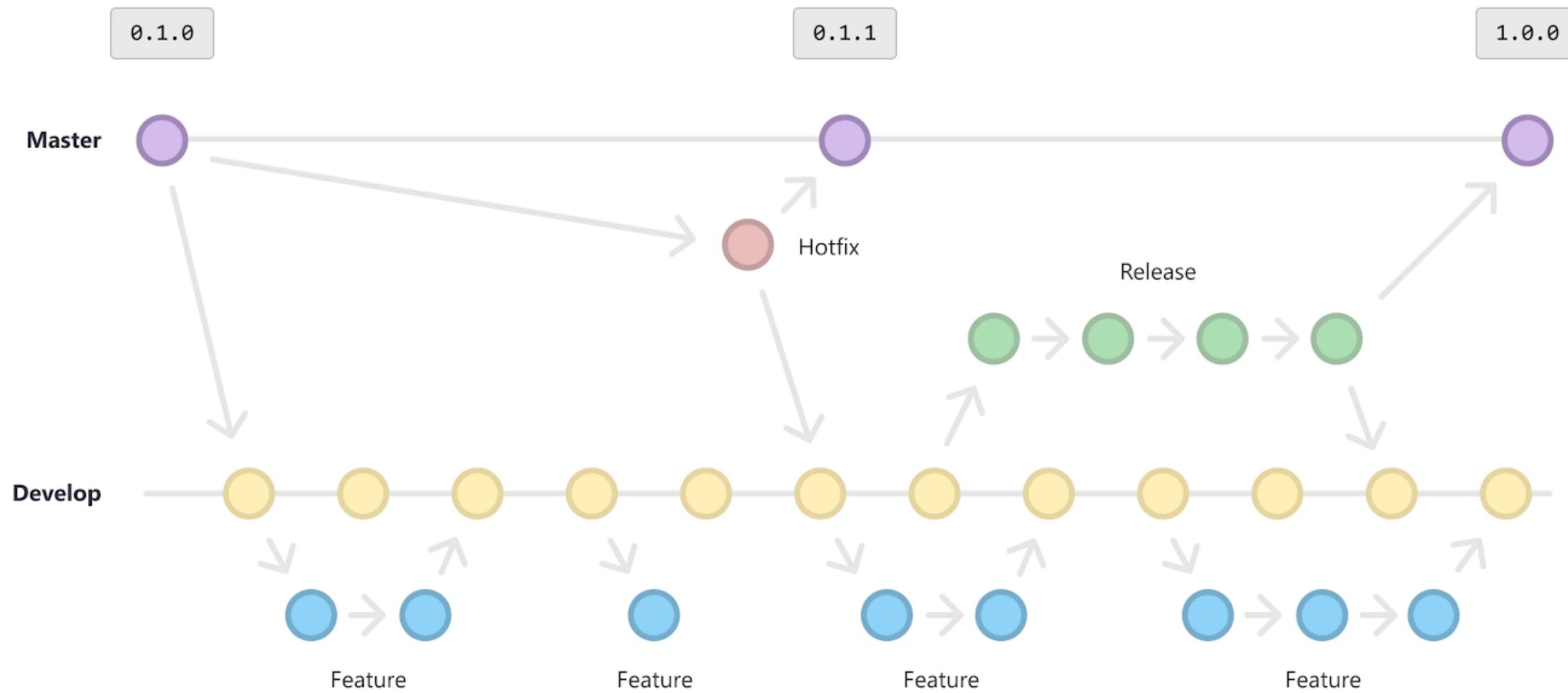
# Versioning strategy



# Branching strategy

# Branching strategy

## GitFlow

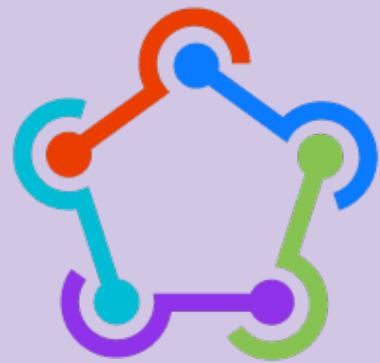


# Branching strategy

Trunk



# Automate some stuff



fastlane

**fastlane.tools**

fastlane

USE FASTLANE INTEGRATIONS HOW IT WORKS CONTRIBUTE DOCS

# App automation done right

The easiest way to build and release mobile apps.  
*fastlane* handles tedious tasks so you don't have to.

DEVELOPER HOURS SAVED

# 32,317,677

Automate your development and release process

*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](mailto:engineering@classpass.com) and [mnakano@classpass.com](mailto: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 s
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](https://retrospectivewiki.org) for format ideas

# Release strategies 🚢

# Release strategies

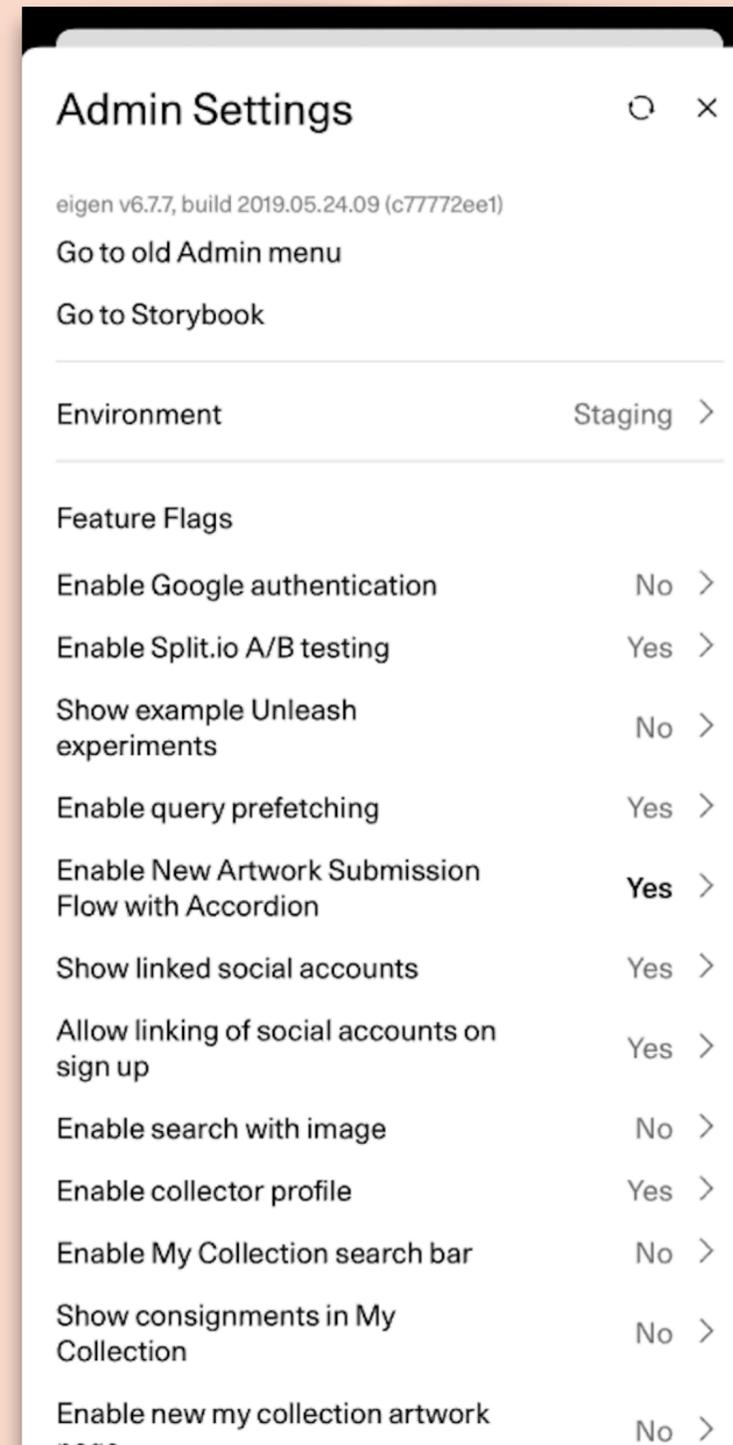
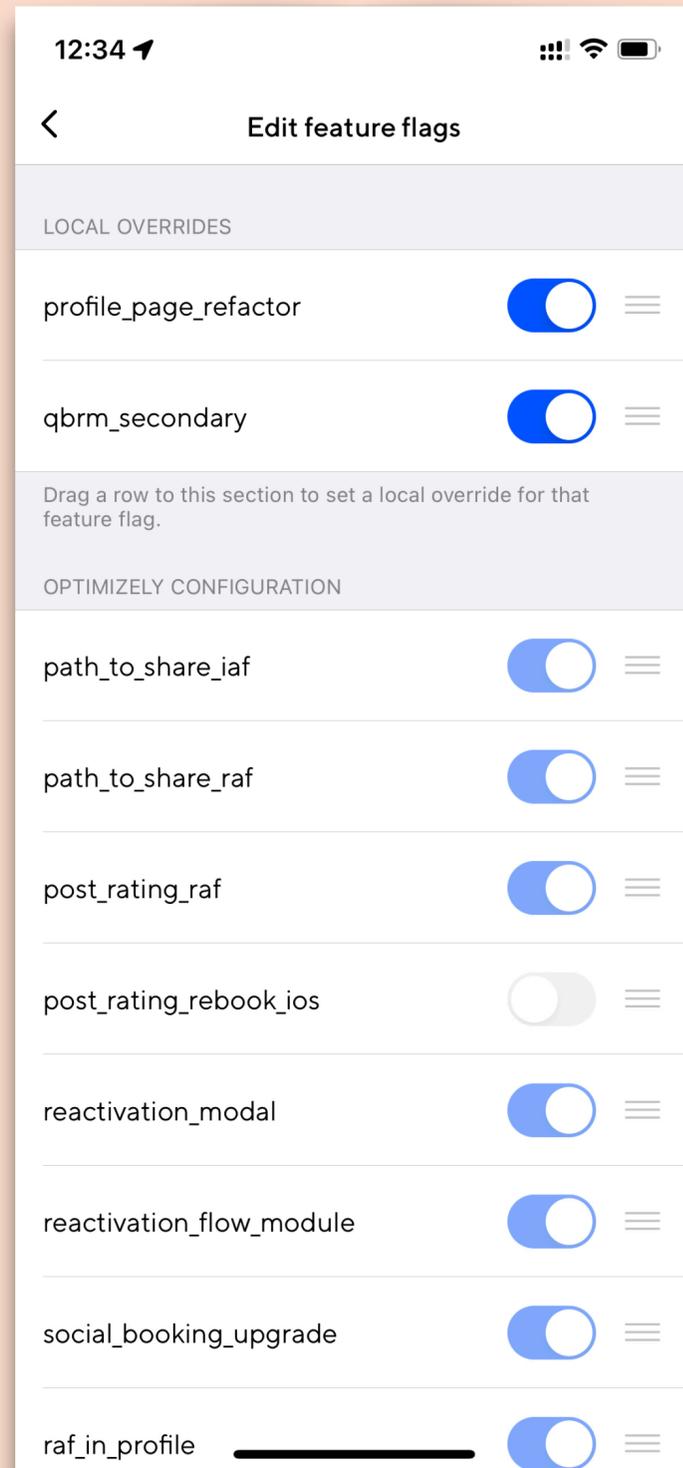
- **Feature** based releases 
  - Keep developing features, release when **ready**
- **Release train** 
  - **Regular** release cadence
  - If feature isn't ready in time, it misses the train and catches the next one

# Tools to join the big leagues



# Feature flags

# Feature flags



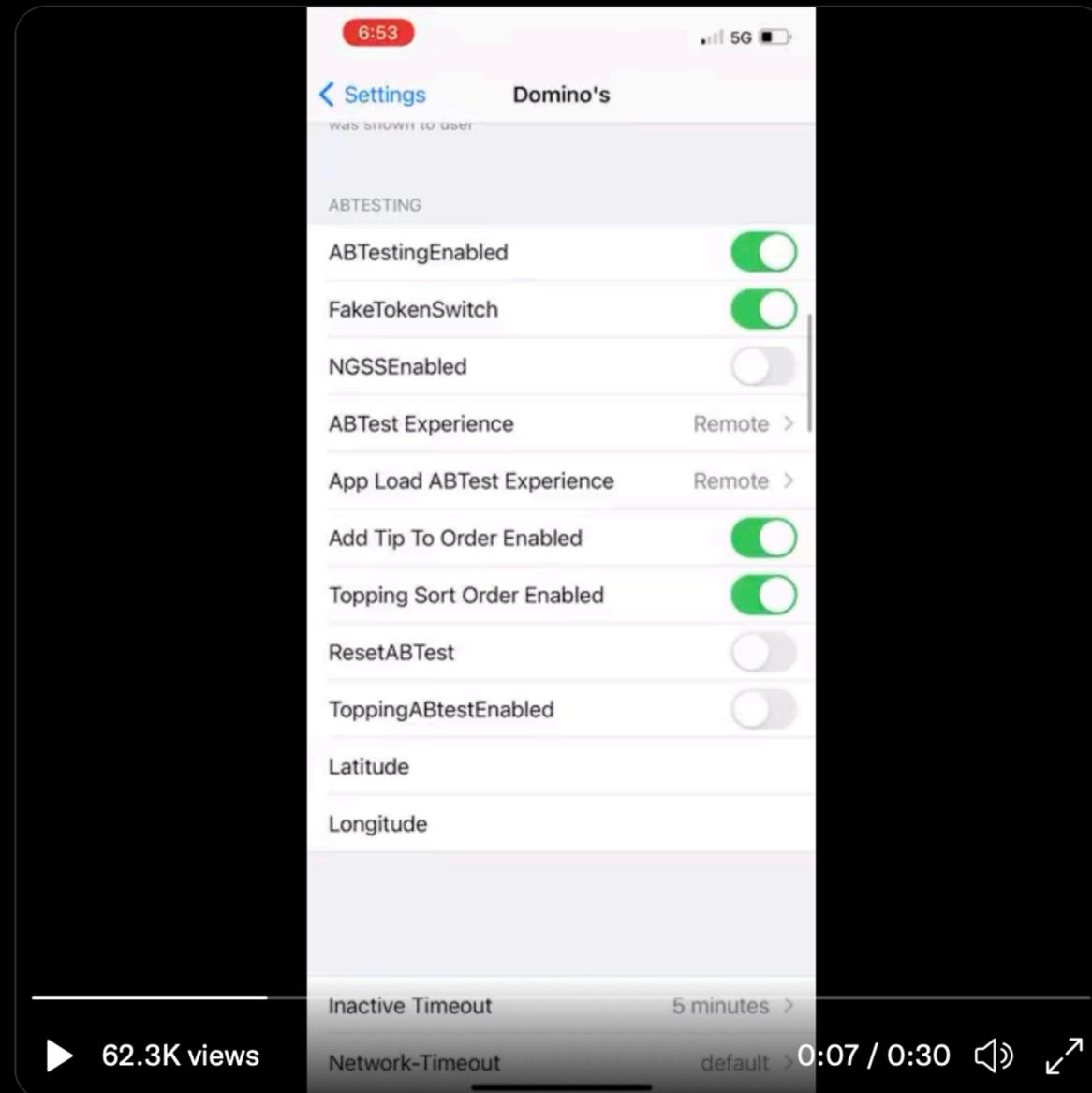
# Feature flags



Cabel   
@cabel

hmm let's take a little peek at Settings > Domino's and the many wonders accidentally left in there

(Thx [@danmessing](#))



# Server driven UI ☁️

# Server driven UI



Published in The Airbnb Tech Blog



Ryan Brooks

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

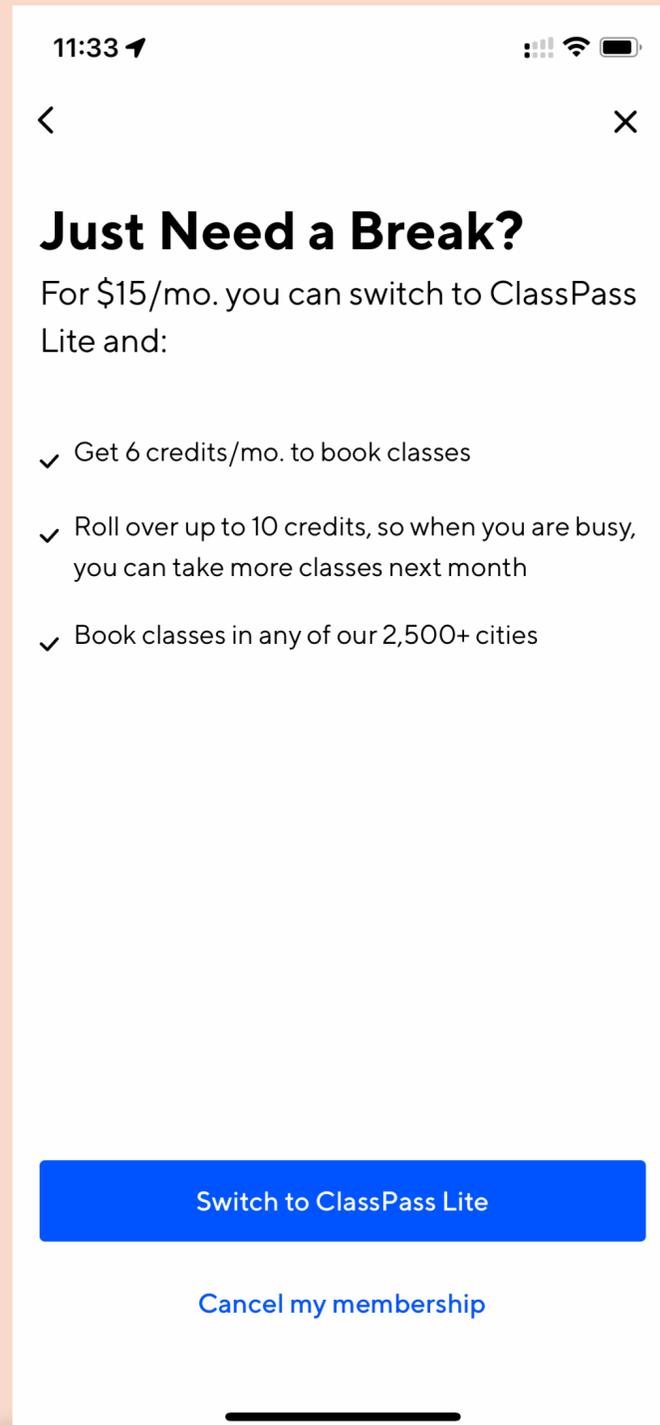


## A Deep Dive into Airbnb's Server-Driven UI System

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

By [Ryan Brooks](#)

# 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 ▾
 Buy on Etsy				
iOS	TESTING 4.65.0 Branch: Today Release: in 7 days		RELEASED 4.64.0 Branch: Apr 18 Released: 7 days ago	
Android	TESTING 4.65.0 Branch: Today Release: in 7 days		RELEASED 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](#)

<b>Android SOE 2.62.0</b>	
<b>branch date</b>	<b>release date</b>
May 23, 2017, at 5pm ET	May 30, 2017



Buy a tool 

Buy a tool

runway.team

The screenshot shows the Runway website homepage. At the top left is the 'RUNWAY' logo. To its right are navigation links for 'PRODUCT', 'CUSTOMERS', and 'BLOG'. Further right are 'LOG IN', 'GET STARTED', and 'REQUEST A DEMO' buttons. The main heading reads 'Air traffic control for your mobile releases'. Below this is a sub-headline: 'Runway puts your releases on autopilot and keeps the whole team in sync throughout.' A 'REQUEST A DEMO' button is positioned below the sub-headline. To the right is a large image of a laptop displaying a dashboard with a sidebar of mobile OS icons (iOS, Android, etc.) and a central area with colored dots and lines representing release status. Below the laptop image is a link that says 'Explore a live demo ->'. At the bottom, a section titled 'TRUSTED BY THE BEST MOBILE TEAMS' features logos for Capsule, Gusto, Kickstarter, Classpass, Route, Wealthsimple, Brex, and Faïre.

**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 FAÏRE

classpass

# Buy a tool runway.team

The screenshot shows the Runway dashboard for the ClassPass iOS app. The left sidebar contains navigation icons for Runway, Apple, Android, a plus sign, and an invite icon. The main content area is divided into three sections: 7.10.0 (Next Release), 7.9.0 (Live), and 7.3.0 (Completed).

### ClassPass iOS

Prepare new ▾

**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)

#### 7.10.0 NEXT RELEASE

87% to feature complete

- 2 days ago - Release kicked off
- 23 days ago - Matching feature affiliation found

Release pilot: zachary.frew@classpass.com

No target kickoff date set

No target submit date set

#### 7.9.0 LIVE

Apple #4 → Build #4

View in App Store

Release snapshot →

Released Friday, May 20th

RELEASE TOTAL DURATION: 9 days

WAITING FOR REVIEW: 21 hours

Phased release: 100% OF USERS

Day	Progress	Percentage
DAY 7	100%	100%
DAY 6	50%	50%
DAY 5	20%	20%
DAY 4	10%	10%
DAY 3	5%	5%
DAY 2	2%	2%
DAY 1	1%	1%

Ratings: 4.0

Most recent reviews: ★ - Hot mess of an app

# Buy a tool

runway.team

ClassPass  
iOS 7.10.0

Release overview

2 Kickoff

2 Feature readiness

5 Release candidate

Regression testing

Beta testing

1 Screenshots

2 Metadata

Approvals

App submission

App Store review

Release

Schedule

2 checklist items still need to be completed for this step.

KICKOFF Summary Automation Checklist / 2 of 4

50% complete (2 / 4) + Add Edit

- 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

Start small

Introduce  
process  
as you go

Add tooling  
where  
needed