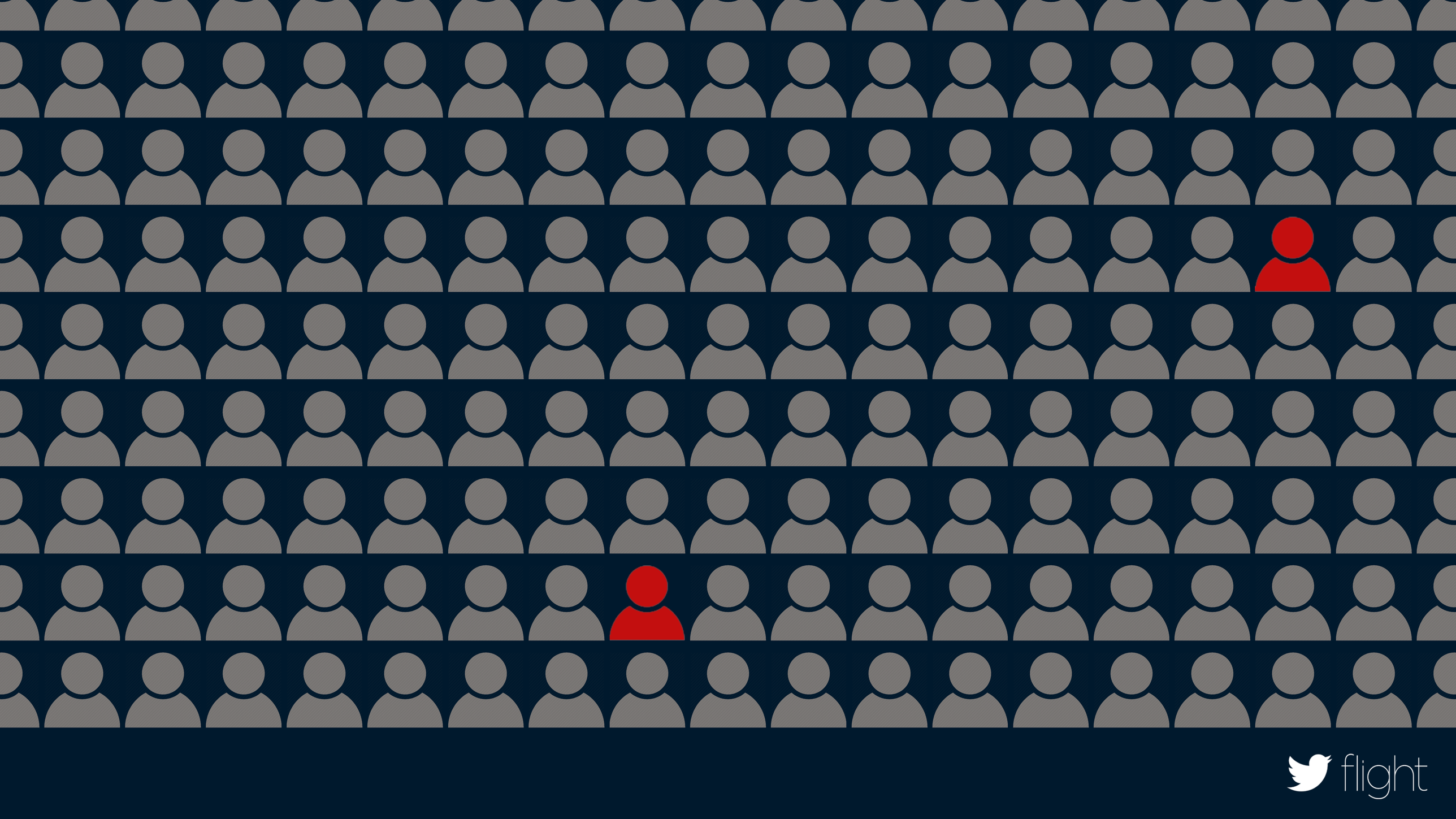
flight
#twitterflight

Building Better Apps with Crashlytics

October 22, 2014

#twitterflight


flight

Stability

Identity

Distribution

Revenue

flight

Identity

Distribution

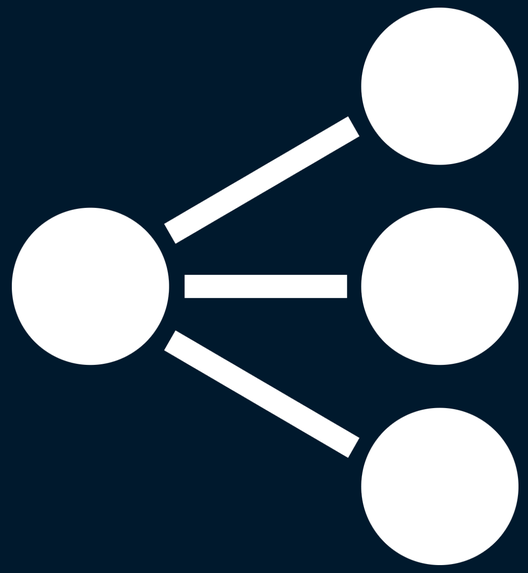
Revenue

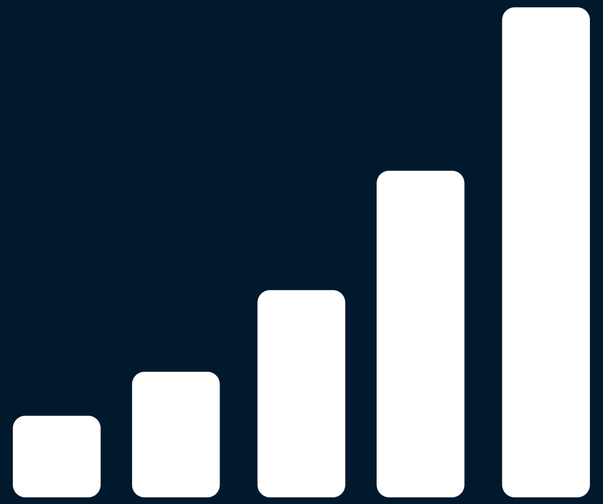
Stability

flight

Stability

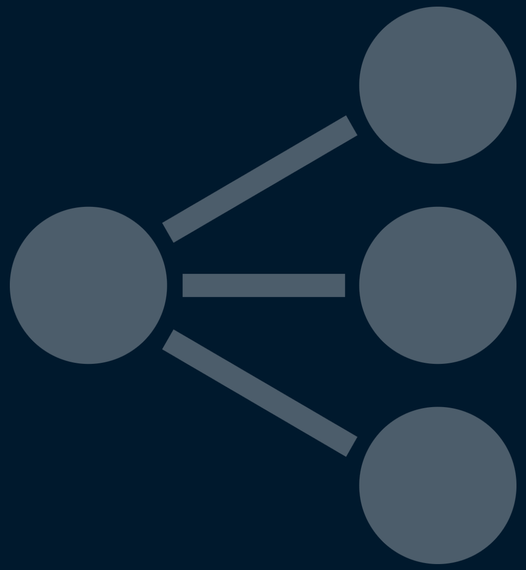
Crashlytics Kit

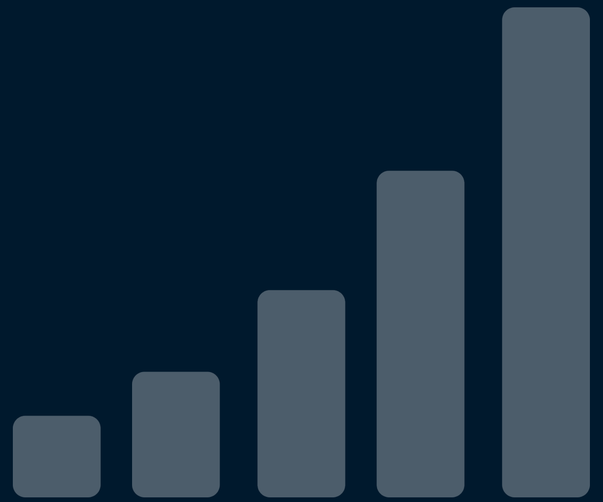




flight

Crashlytics Kit





Matt Simpson June 25, 2014

★☆☆☆☆

L

flight

Easy, powerful, actionable

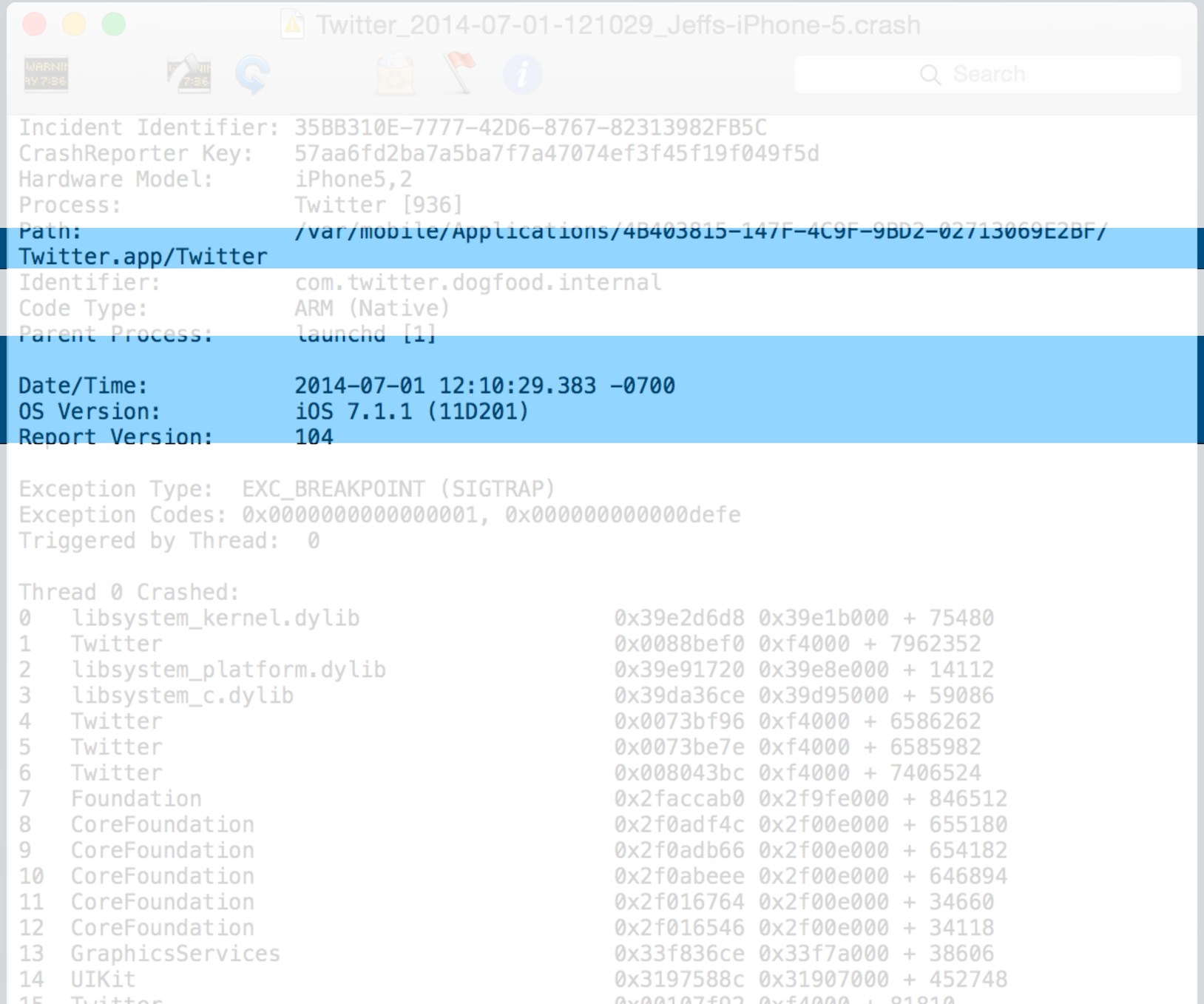
Understand the impact

Find the needle in the haystack

flight

Easy, powerful,
actionable

flight


Twitter_2014-07-01-121029_Jeffs-iPhone-5.crash
Search
Incident Identifier: 35BB310E-7777-42D6-8767-82313982FB5C
CrashReporter Key: 57aa6fd2ba7a5ba7f7a47074ef3f45f19f049f5d
Hardware Model: iPhone5,2
Process: Twitter [936]
Path: /var/mobile/Applications/4B403815-147F-4C9F-9BD2-02713069E2BF/Twitter.app/Twitter
Identifier: com.twitter.dogfood.internal
Code Type: ARM (Native)
Parent Process: launchd [1]
Date/Time: 2014-07-01 12:10:29.383 -0700
OS Version: iOS 7.1.1 (11D201)
Report Version: 104
Exception Type: EXC_BREAKPOINT (SIGTRAP)
Exception Codes: 0x0000000000000001, 0x000000000000defe
Triggered by Thread: 0
Thread 0 Crashed:
0 libsystem_kernel.dylib 0x39e2d6d8 0x39e1b000 + 75480
1 Twitter 0x0088bef0 0xf4000 + 7962352
2 libsystem_platform.dylib 0x39e91720 0x39e8e000 + 14112
3 libsystem_c.dylib 0x39da36ce 0x39d95000 + 59086
4 Twitter 0x0073bf96 0xf4000 + 6586262
5 Twitter 0x0073be7e 0xf4000 + 6585982
6 Twitter 0x008043bc 0xf4000 + 7406524
7 Foundation 0x2faccab0 0x2f9fe000 + 846512
8 CoreFoundation 0x2f0adf4c 0x2f00e000 + 655180
9 CoreFoundation 0x2f0adb66 0x2f00e000 + 654182
10 CoreFoundation 0x2f0abeee 0x2f00e000 + 646894
11 CoreFoundation 0x2f016764 0x2f00e000 + 34660
12 CoreFoundation 0x2f016546 0x2f00e000 + 34118
13 GraphicsServices 0x33f836ce 0x33f7a000 + 38606
14 UIKit 0x3197588c 0x31907000 + 452748

flight

TweetRequest.m line **244**

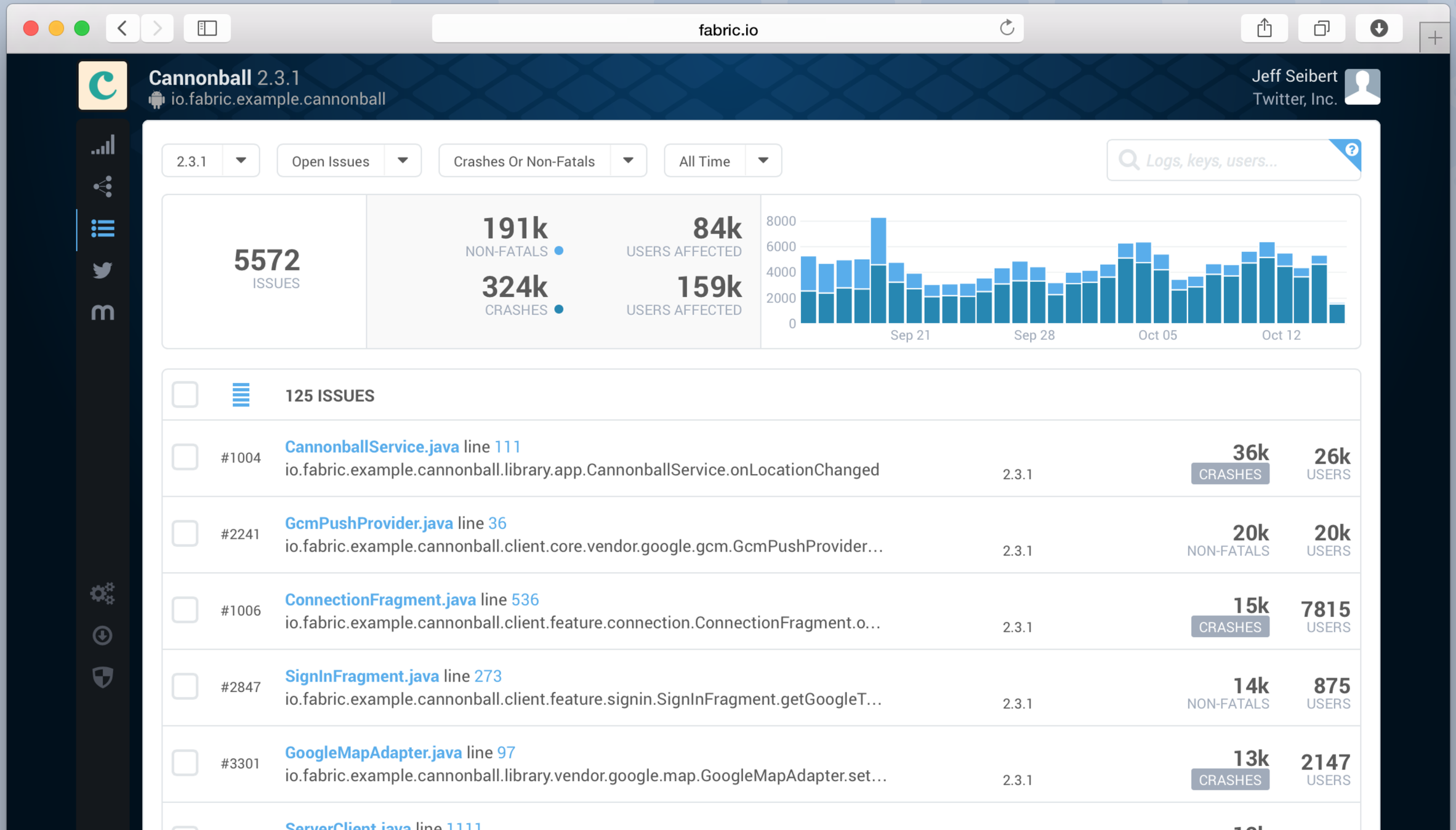
-[TweetRequest requestWithURL:timeout:]

v2.3.1

16k
CRASHES

12k
USERS

flight


fabric.io
Cannonball 2.3.1
io.fabric.example.cannonball
Jeff Seibert
Twitter, Inc.
2.3.1
Open Issues
Crashes Or Non-Fatals
All Time
Logs, keys, users...
5572
ISSUES
191k
NON-FATALS
84k
USERS AFFECTED
324k
CRASHES
159k
USERS AFFECTED
8000
6000
4000
2000
0
Sep 21
Sep 28
Oct 05
Oct 12
125 ISSUES
#1004
CannonballService.java line 111
io.fabric.example.cannonball.library.app.CannonballService.onLocationChanged
2.3.1
36k
CRASHES
26k
USERS
#2241
GcmPushProvider.java line 36
io.fabric.example.cannonball.client.core.vendor.google.gcm.GcmPushProvider…
2.3.1
20k
NON-FATALS
20k
USERS
#1006
ConnectionFragment.java line 536
io.fabric.example.cannonball.client.feature.connection.ConnectionFragment.o…
2.3.1
15k
CRASHES
7815
USERS
#2847
SignInFragment.java line 273
io.fabric.example.cannonball.client.feature.signin.SignInFragment.getGoogleT…
2.3.1
14k
NON-FATALS
875
USERS
#3301
GoogleMapAdapter.java line 97
io.fabric.example.cannonball.library.vendor.google.map.GoogleMapAdapter.set…
2.3.1
13k
CRASHES
2147
USERS

fabric.io

Cannonball 2.3.1
io.fabric.example.cannonball

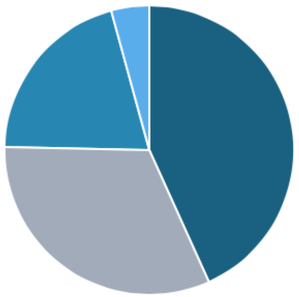
Jeff Seibert
Twitter, Inc.

#3301 **GoogleMapAdapter.java** line 97
io.fabric.example.cannonball.library.vendor.google.map.GoogleMapAdapter.setOnMarkerClickListener

13k CRASHES
2147 USERS
OPEN CLOSED

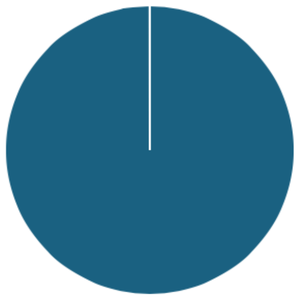
Share http://crashes.to/...

DEVICES



43% SAMSUNG
20% RIM
4% HTC
32% OTHER

OPERATING SYSTEMS



99% ANDROID 4
< 1% OTHER

4% HTC

32% OTHER

31.39% ROOTED	5.02 GB FREE SPACE	496.52 MB FREE RAM	99.22% APP IN FOCUS	98.10% PROXIMITY ON

Viewing latest crash (More details...)

Fatal Exception: java.lang.RuntimeException
Unable to start activity ComponentInfo{io.fabric.example.cannonball/io.fabric.example.cannonball.client.feature.connection.ConnectionActivity}: android.view.InflateException: Binary XML file line #8: Error inflating class fragment

</> raw

android.app.ActivityThread.performLaunchActivity **(ActivityThread.java:1970)**

android.app.ActivityThread.handleLaunchActivity **(ActivityThread.java:1995)**

android.app.ActivityThread.access$600 **(ActivityThread.java:127)**

android.app.ActivityThread$H.handleMessage (ActivityThread.java:1161)

android.os.Looper.loop (Looper.java:137)

android.app.ActivityThread.main **(ActivityThread.java:4512)**

java.lang.reflect.Method.invokeNative (Method.java)

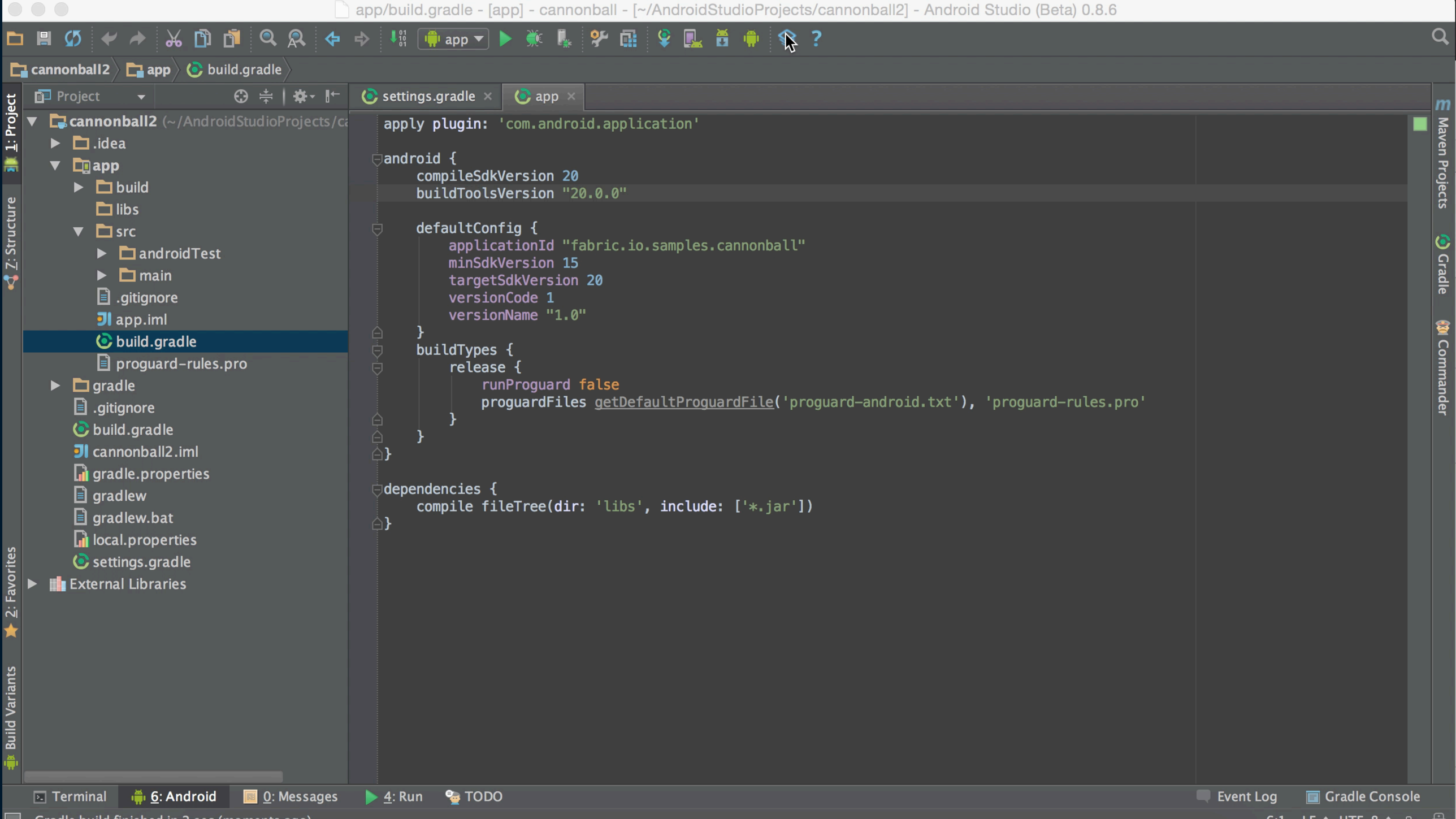
dalvik.system.NativeStart.main (NativeStart.java)

Caused by android.view.InflateException

android.view.LayoutInflater.createViewFromTag **(LayoutInflater.java:697)**

Get up and
running quickly

flight


app/build.gradle - [app] - cannonball - [~/AndroidStudioProjects/cannonball2] - Android Studio (Beta) 0.8.6
app
cannonball2
app
build.gradle
Project
cannonball2 (~/AndroidStudioProjects/ca
.idea
app
build
libs
src
androidTest
main
.gitignore
app.iml
build.gradle
proguard-rules.pro
gradle
.gitignore
build.gradle
cannonball2.iml
gradle.properties
gradlew
gradlew.bat
local.properties
settings.gradle
External Libraries
settings.gradle
app
apply plugin: 'com.android.application'
android {
compileSdkVersion 20
buildToolsVersion "20.0.0"
defaultConfig {
applicationId "fabric.io.samples.cannonball"
minSdkVersion 15
targetSdkVersion 20
versionCode 1
versionName "1.0"
}
buildTypes {
release {
runProguard false
proguardFiles getDefaultProguardFile('proguard-android.txt'), 'proguard-rules.pro'
}
}
}
dependencies {
compile fileTree(dir: 'libs', include: ['*.jar'])
}
1: Project
Z: Structure
2: Favorites
Build Variants
Maven Projects
Gradle
Commander
Terminal
6: Android
0: Messages
4: Run
TODO
Event Log
Gradle Console

IDE + Build tool integration

flight

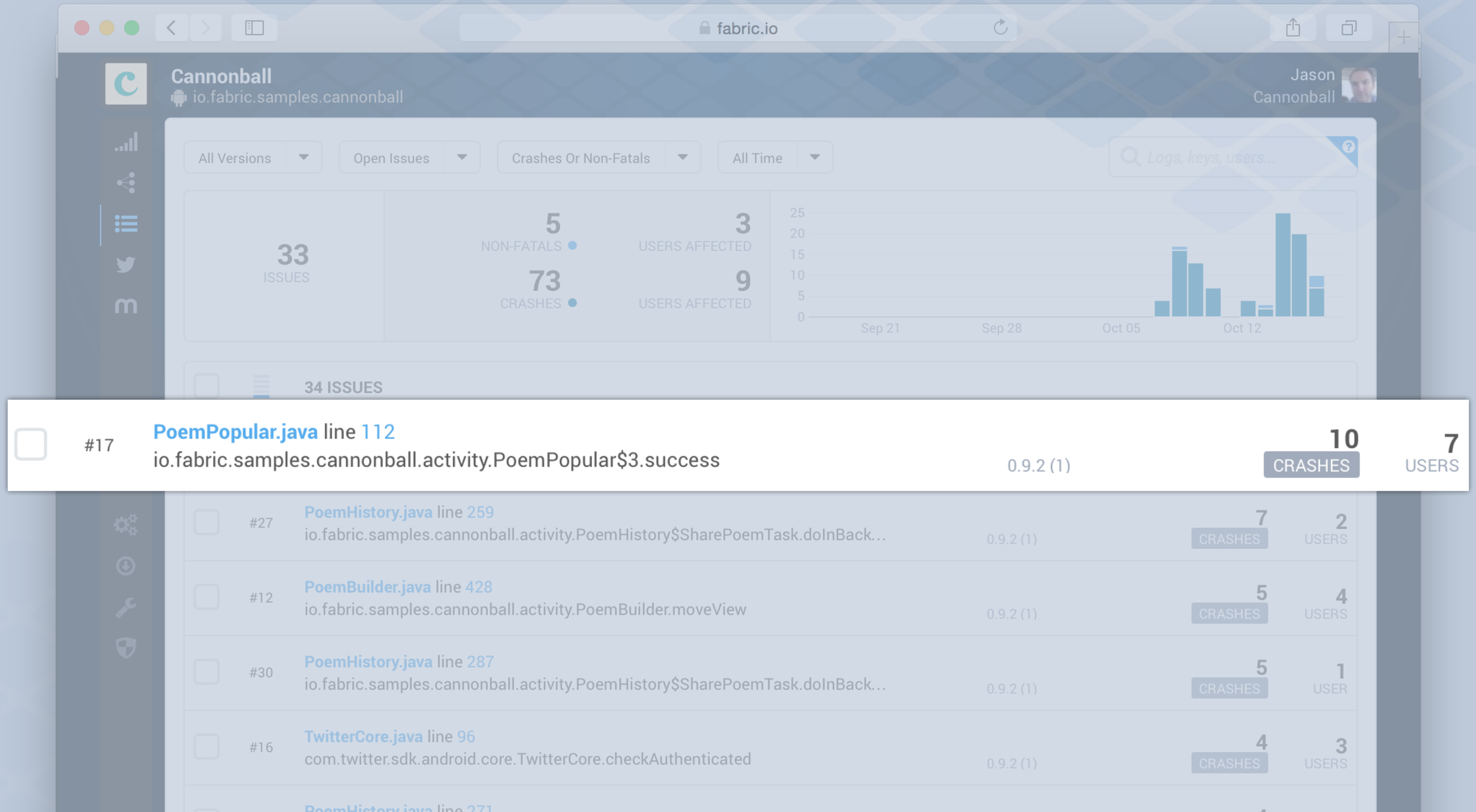
Understand the impact

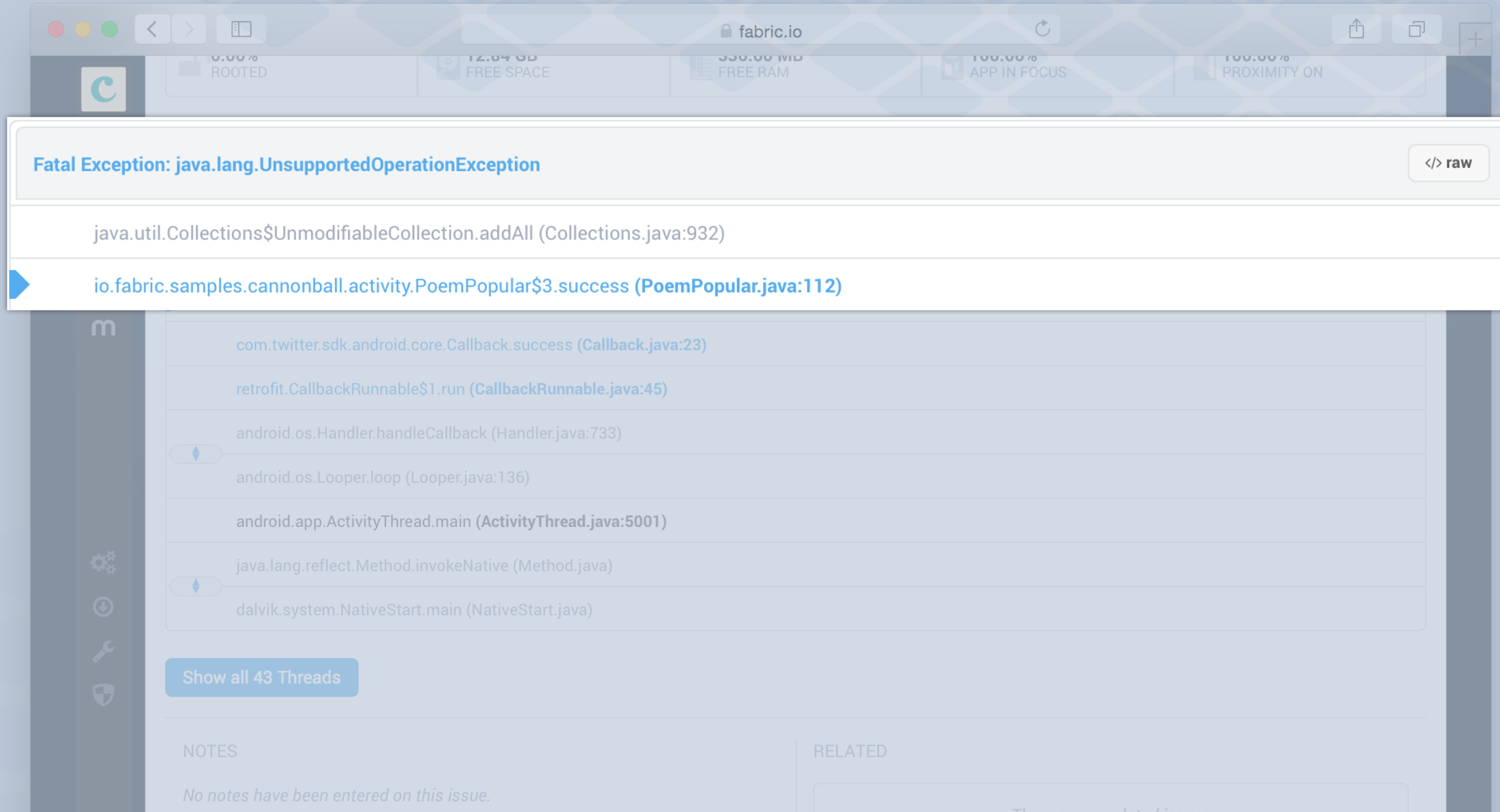
flight

“The most prevalent crash, with **20,000 occurrences** in the first week...
We’d never seen it before.”

- Strava

flight


fabric.io
Cannonball
io.fabric.samples.cannonball
Jason Cannonball
All Versions
Open Issues
Crashes Or Non-Fatals
All Time
Logs, keys, users...
33
ISSUES
5
NON-FATALS
3
USERS AFFECTED
73
CRASHES
9
USERS AFFECTED
25
20
15
10
5
0
Sep 21
Sep 28
Oct 05
Oct 12
34 ISSUES
#17
PoemPopular.java line 112
io.fabric.samples.cannonball.activity.PoemPopular$3.success
0.9.2 (1)
10
CRASHES
7
USERS
#27
PoemHistory.java line 259
io.fabric.samples.cannonball.activity.PoemHistory$SharePoemTask.doInBack...
0.9.2 (1)
7
CRASHES
2
USERS
#12
PoemBuilder.java line 428
io.fabric.samples.cannonball.activity.PoemBuilder.moveView
0.9.2 (1)
5
CRASHES
4
USERS
#30
PoemHistory.java line 287
io.fabric.samples.cannonball.activity.PoemHistory$SharePoemTask.doInBack...
0.9.2 (1)
5
CRASHES
1
USER
#16
TwitterCore.java line 96
com.twitter.sdk.android.core.TwitterCore.checkAuthenticated
0.9.2 (1)
4
CRASHES
3
USERS


fabric.io
ROOTED
FREE SPACE
FREE RAM
APP IN FOCUS
PROXIMITY ON
Fatal Exception: java.lang.UnsupportedOperationException
raw
java.util.Collections$UnmodifiableCollection.addAll (Collections.java:932)
io.fabric.samples.cannonball.activity.PoemPopular$3.success (PoemPopular.java:112)
com.twitter.sdk.android.core.Callback.success (Callback.java:23)
retrofit.CallbackRunnable$1.run (CallbackRunnable.java:45)
android.os.Handler.handleCallback (Handler.java:733)
android.os.Looper.loop (Looper.java:136)
android.app.ActivityThread.main (ActivityThread.java:5001)
java.lang.reflect.Method.invokeNative (Method.java)
dalvik.system.NativeStart.main (NativeStart.java)
Show all 43 Threads
NOTES
No notes have been entered on this issue.
RELATED

“It’s difficult to **overstate** the importance of this **3-4% improvement**.”

- Strava

flight

+

= ?

Understand the impact

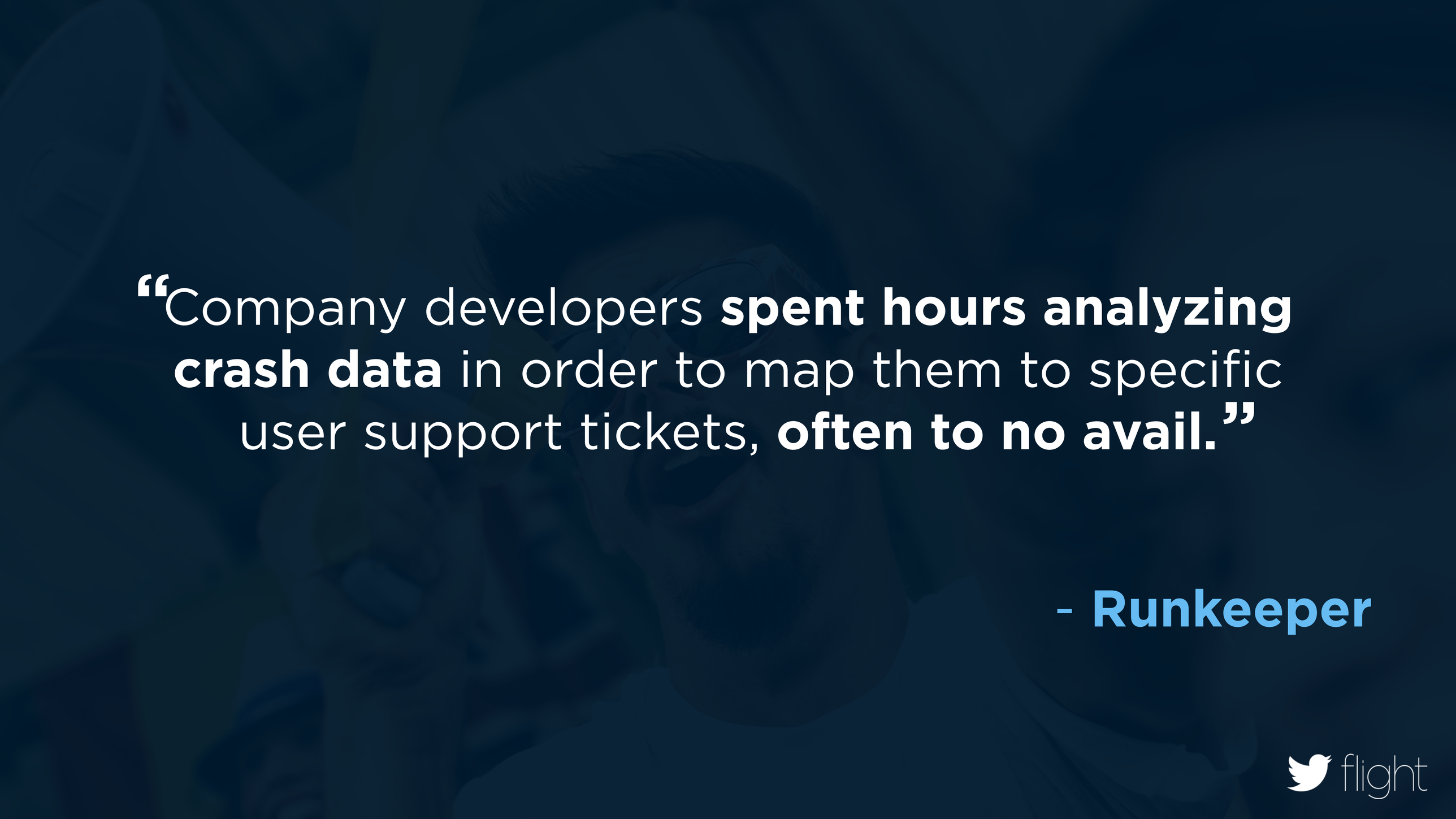
flight

try.crashlytics.com/secret

flight

Find needle in
the haystack

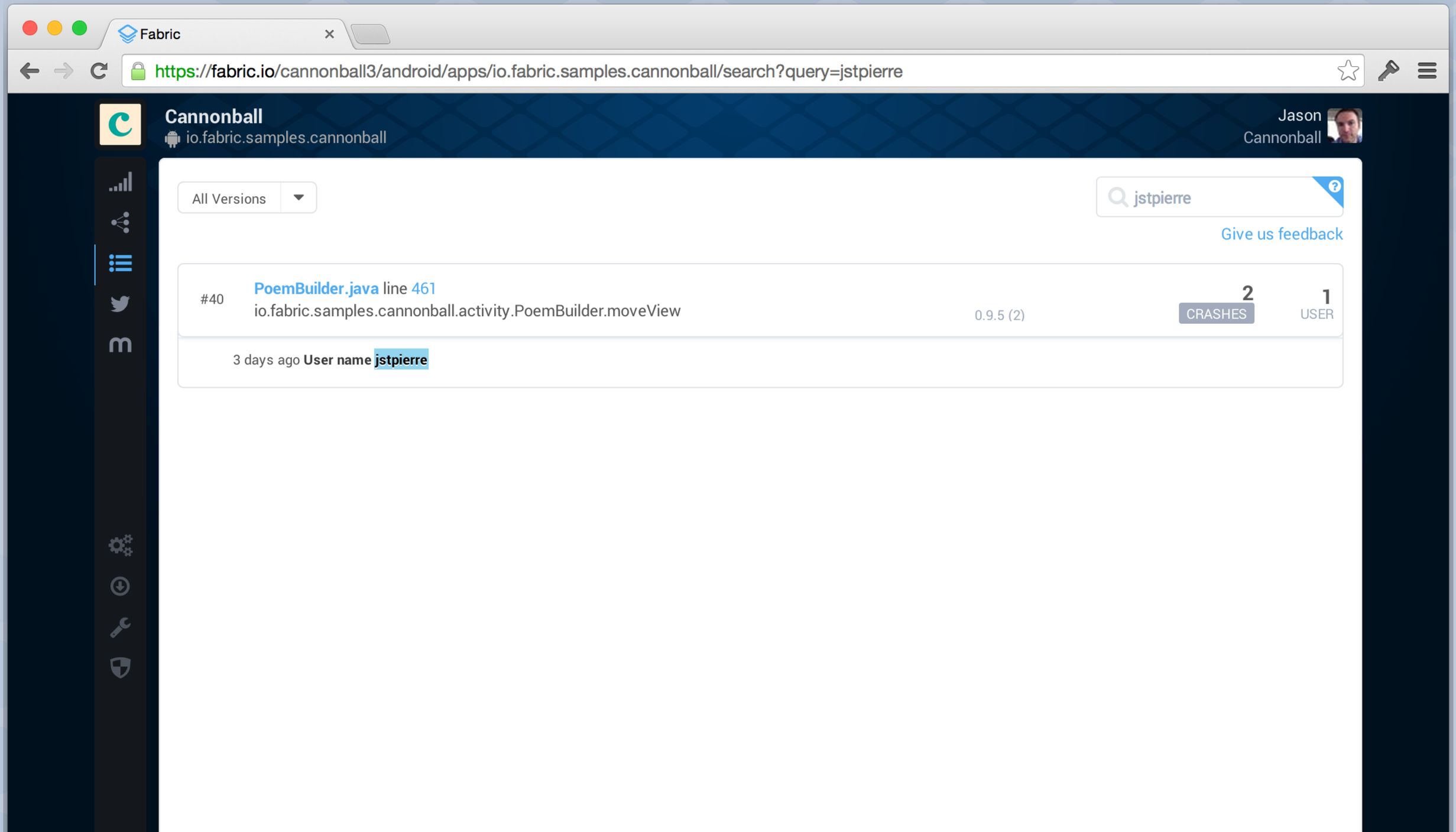
flight

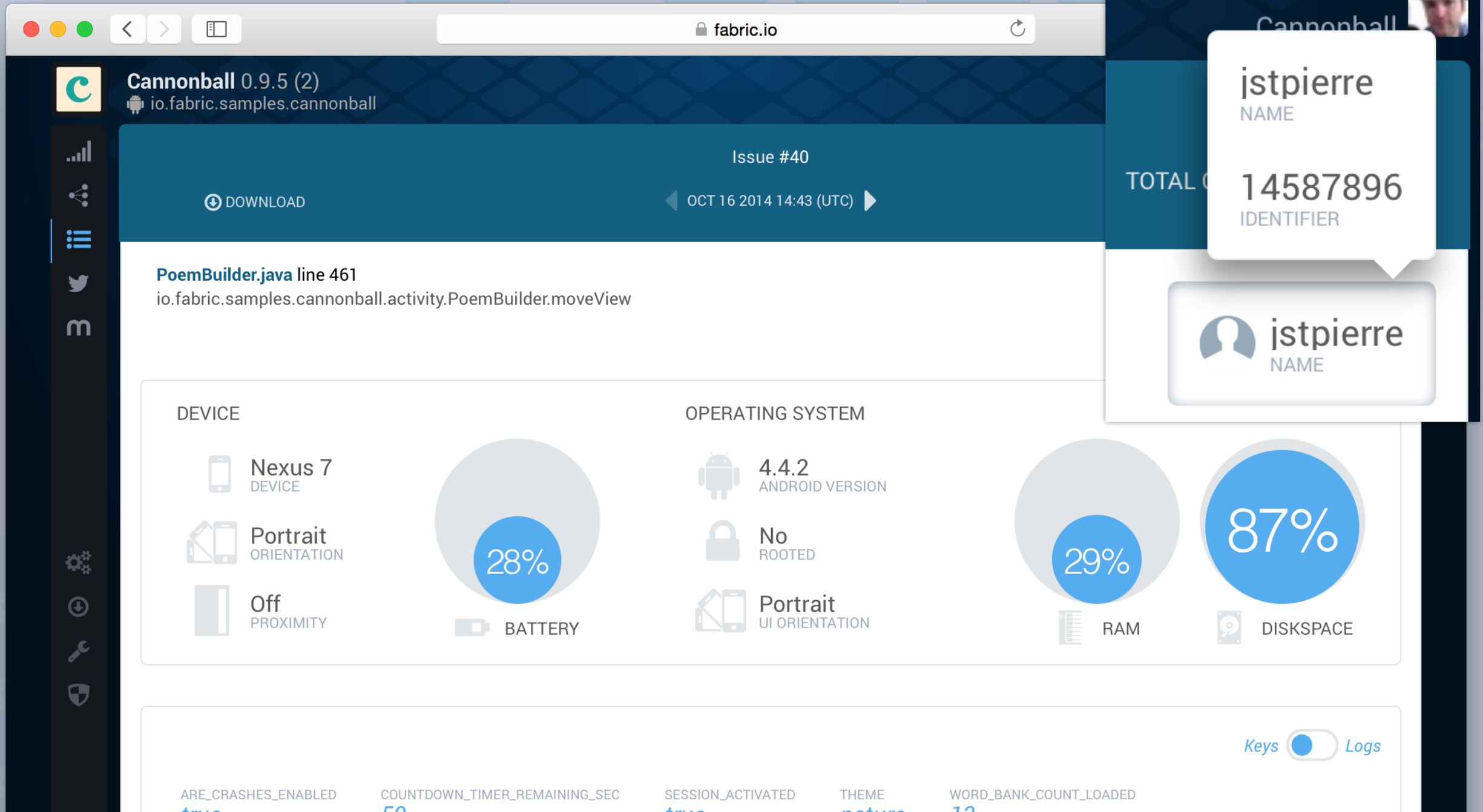


“Company developers **spent hours analyzing crash data** in order to map them to specific user support tickets, **often to no avail.**”

- Runkeeper

flight


Fabric
https://fabric.io/cannonball3/android/apps/io.fabric.samples.cannonball/search?query=jstpierre
Cannonball
io.fabric.samples.cannonball
Jason
Cannonball
All Versions
jstpierre
Give us feedback
#40
PoemBuilder.java line 461
io.fabric.samples.cannonball.activity.PoemBuilder.moveView
0.9.5 (2)
2
CRASHES
1
USER
3 days ago User name jstpierre


fabric.io
Cannonball 0.9.5 (2)
io.fabric.samples.cannonball
Issue #40
DOWNLOAD
OCT 16 2014 14:43 (UTC)
PoemBuilder.java line 461
io.fabric.samples.cannonball.activity.PoemBuilder.moveView
DEVICE
Nexus 7
DEVICE
Portrait
ORIENTATION
Off
PROXIMITY
28%
BATTERY
OPERATING SYSTEM
4.4.2
ANDROID VERSION
No
ROOTED
Portrait
UI ORIENTATION
29%
RAM
87%
DISKSPACE
Keys
Logs
ARE_CRASHES_ENABLED
COUNTDOWN_TIMER_REMAINING_SEC
SESSION_ACTIVATED
THEME
WORD_BANK_COUNT_LOADED
Jason
TOTAL
jstpierre
NAME
14587896
IDENTIFIER
jstpierre
NAME

Setting user identifier

```
public
    Crashlytics
    Crashlytics.setUserName(result.data.getUserName());
    Crashlytics.setUserIdentifier(String.valueOf(result.data.getUserId()));
    Crashlytics
    startThemeChooser
}
```

fabric.io

Cannonball
io.fabric.samples.cannonball

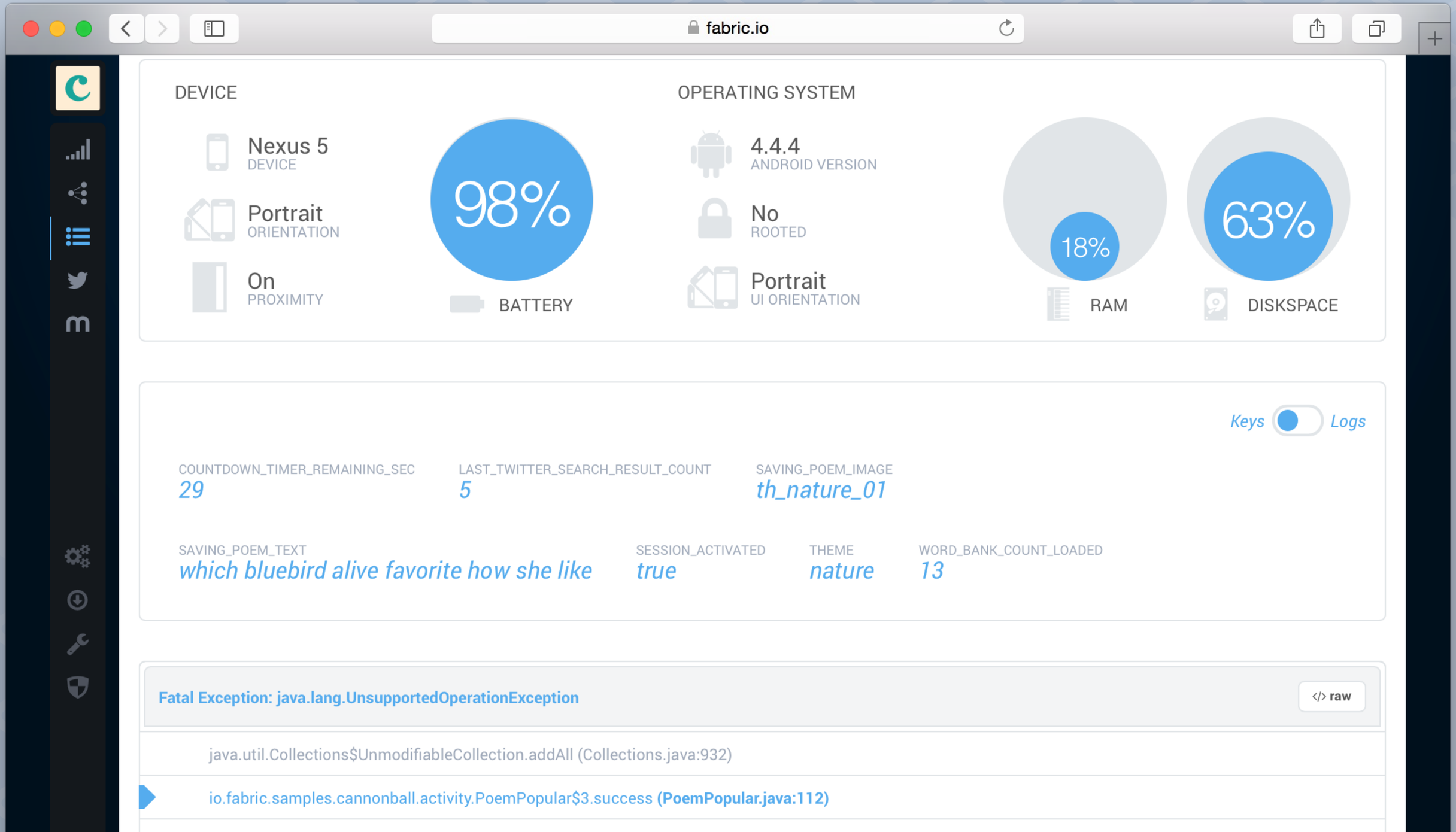
Jason Cannonball

All Versions

nature

Give us feedback

#64	**PoemBuilderActivity.java** line 148 io.fabric.samples.cannonball.activity.PoemBuilderActivity.onBackPressed	0.9.5 (2)	1 CRASH	1 USER
	9 hours ago **Keys, Log** theme **nature**			
#62	**PoemBuilderActivity.java** line 149 io.fabric.samples.cannonball.activity.PoemBuilderActivity.onBackPressed	0.9.5 (2)	1 CRASH	1 USER
	10 hours ago **Keys, Log** oem_image **nature**			
#61	**PoemBuilderActivity.java** line 438 io.fabric.samples.cannonball.activity.PoemBuilderActivity.moveView	0.9.5 (2)	1 CRASH	1 USER
	19 hours ago **Keys, Log** theme **nature**			
#56	**PoemBuilder.java** line 250 io.fabric.samples.cannonball.activity.PoemBuilder$ImageAdapter.getCount	0.9.5 (2)	3 CRASHES	2 USERS
	2 days ago **Keys, Log** theme **nature** 2 days ago **Keys, Log** theme **nature**			


fabric.io
DEVICE
Nexus 5
DEVICE
Portrait
ORIENTATION
On
PROXIMITY
98%
BATTERY
OPERATING SYSTEM
4.4.4
ANDROID VERSION
No
ROOTED
Portrait
UI ORIENTATION
18%
RAM
63%
DISKSPACE
Keys
Logs
COUNTDOWN_TIMER_REMAINING_SEC
29
LAST_TWITTER_SEARCH_RESULT_COUNT
5
SAVING_POEM_IMAGE
th_nature_01
SAVING_POEM_TEXT
which bluebird alive favorite how she like
SESSION_ACTIVATED
true
THEME
nature
WORD_BANK_COUNT_LOADED
13
Fatal Exception: java.lang.UnsupportedOperationException
</> raw
java.util.Collections$UnmodifiableCollection.addAll (Collections.java:932)
io.fabric.samples.cannonball.activity.PoemPopular$3.success (PoemPopular.java:112)

Custom Keys

Keys	Values
COUNTDOWN_TIMER_REMAINING_SEC	29
LAST_TWITTER_SEARCH_RESULTS_COUNT	5
SESSION_ACTIVATED	true
THEME	nature
WORD_BANK_COUNT_LOADED	13

flight

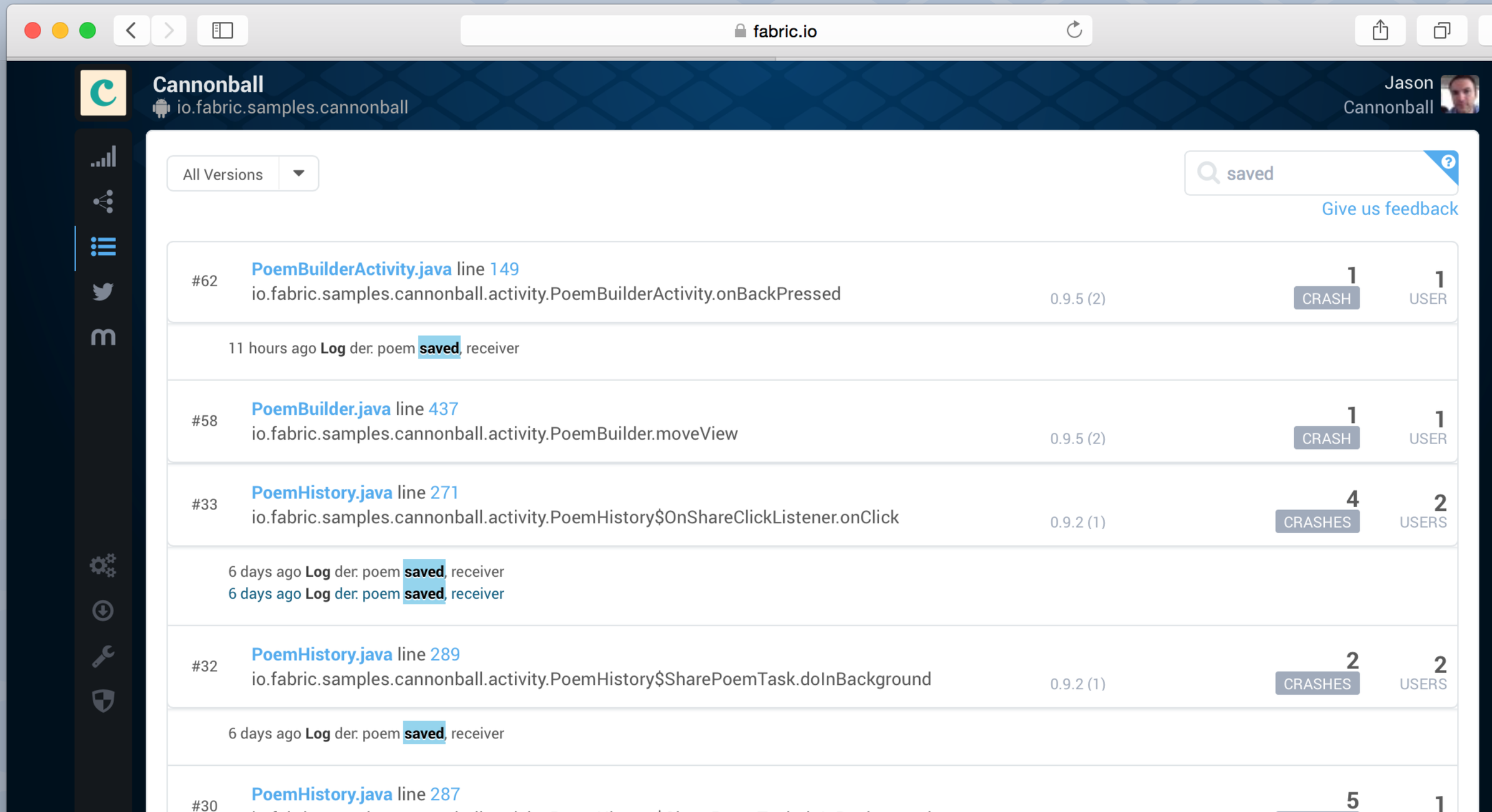
Using custom keys

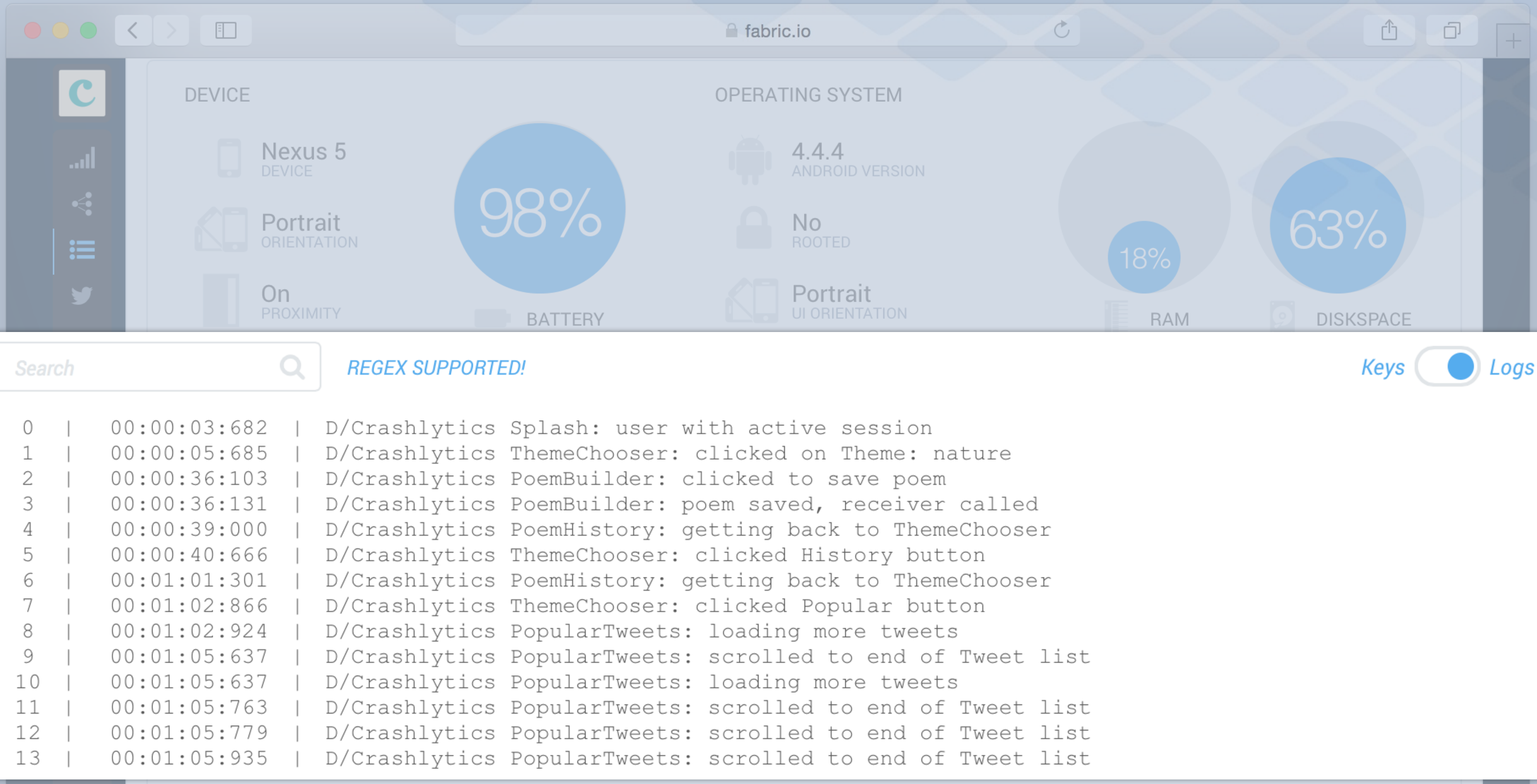
```
public

    Crashlytics.setString(App.CRASHLYTICS_KEY_THEME, themeName);

    intent
    startActivity
}
```

flight


fabric.io
Cannonball
io.fabric.samples.cannonball
Jason
Cannonball
All Versions
saved
Give us feedback
#62
PoemBuilderActivity.java line 149
io.fabric.samples.cannonball.activity.PoemBuilderActivity.onBackPressed
0.9.5 (2)
1
CRASH
1
USER
11 hours ago Log der: poem saved, receiver
#58
PoemBuilder.java line 437
io.fabric.samples.cannonball.activity.PoemBuilder.moveView
0.9.5 (2)
1
CRASH
1
USER
#33
PoemHistory.java line 271
io.fabric.samples.cannonball.activity.PoemHistory$OnShareClickListener.onClick
0.9.2 (1)
4
CRASHES
2
USERS
6 days ago Log der: poem saved, receiver
6 days ago Log der: poem saved, receiver
#32
PoemHistory.java line 289
io.fabric.samples.cannonball.activity.PoemHistory$SharePoemTask.doInBackground
0.9.2 (1)
2
CRASHES
2
USERS
6 days ago Log der: poem saved, receiver
#30
PoemHistory.java line 287
5

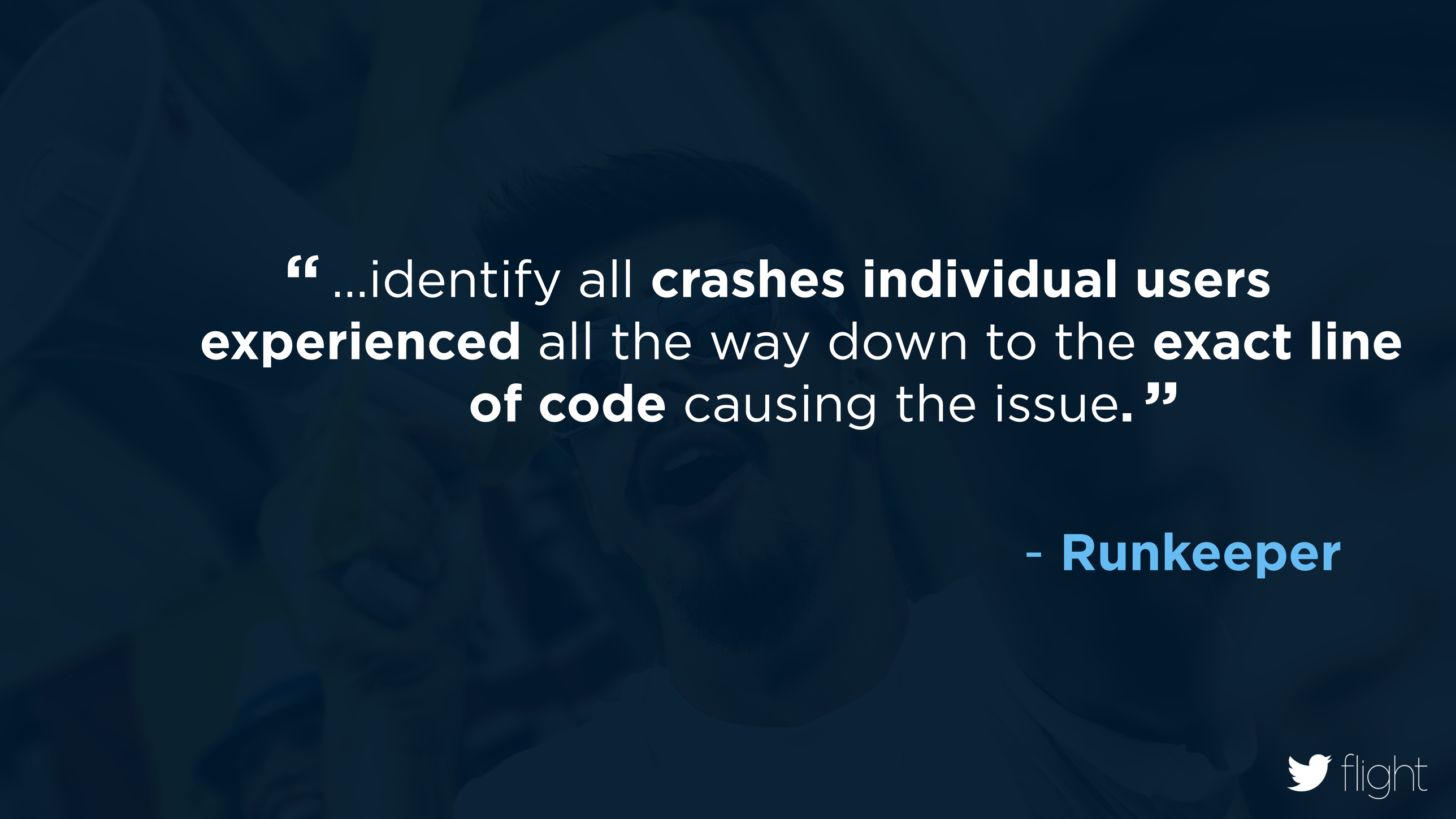

fabric.io
DEVICE
Nexus 5
DEVICE
Portrait
ORIENTATION
On
PROXIMITY
98%
BATTERY
OPERATING SYSTEM
4.4.4
ANDROID VERSION
No
ROOTED
Portrait
UI ORIENTATION
18%
RAM
63%
DISKSPACE
Search
REGEX SUPPORTED!
Keys
Logs
0 | 00:00:03:682 | D/Crashlytics Splash: user with active session
1 | 00:00:05:685 | D/Crashlytics ThemeChooser: clicked on Theme: nature
2 | 00:00:36:103 | D/Crashlytics PoemBuilder: clicked to save poem
3 | 00:00:36:131 | D/Crashlytics PoemBuilder: poem saved, receiver called
4 | 00:00:39:000 | D/Crashlytics PoemHistory: getting back to ThemeChooser
5 | 00:00:40:666 | D/Crashlytics ThemeChooser: clicked History button
6 | 00:01:01:301 | D/Crashlytics PoemHistory: getting back to ThemeChooser
7 | 00:01:02:866 | D/Crashlytics ThemeChooser: clicked Popular button
8 | 00:01:02:924 | D/Crashlytics PopularTweets: loading more tweets
9 | 00:01:05:637 | D/Crashlytics PopularTweets: scrolled to end of Tweet list
10 | 00:01:05:637 | D/Crashlytics PopularTweets: loading more tweets
11 | 00:01:05:763 | D/Crashlytics PopularTweets: scrolled to end of Tweet list
12 | 00:01:05:779 | D/Crashlytics PopularTweets: scrolled to end of Tweet list
13 | 00:01:05:935 | D/Crashlytics PopularTweets: scrolled to end of Tweet list

Using custom logs

```
TextView
skipButton
skipButton
```

```
Crashlytics.log("Login: skipped login");
 startThemeChooser
  overridePendingTransition
```

flight



“ ...identify all **crashes individual users experienced** all the way down to the **exact line of code** causing the issue.”

- Runkeeper

flight

PRO TIP

Preventing future crashes

```
.listener(new CrashlyticsListener() {
    @Override
    public void crashlyticsDidDetectCrashDuringPreviousExecution() {
        Log.d("CrashlyticsListener",
                "crashlyticsDidDetectCrashDuringPreviousExecution");
    }
})
```

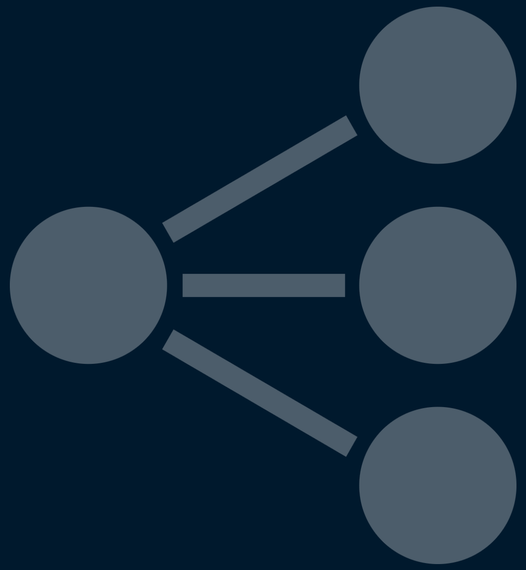
Easy, powerful, actionable

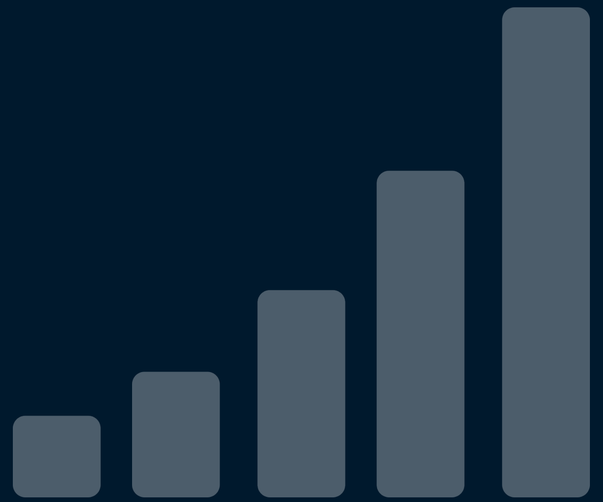
Understand the impact

Find the needle in the haystack

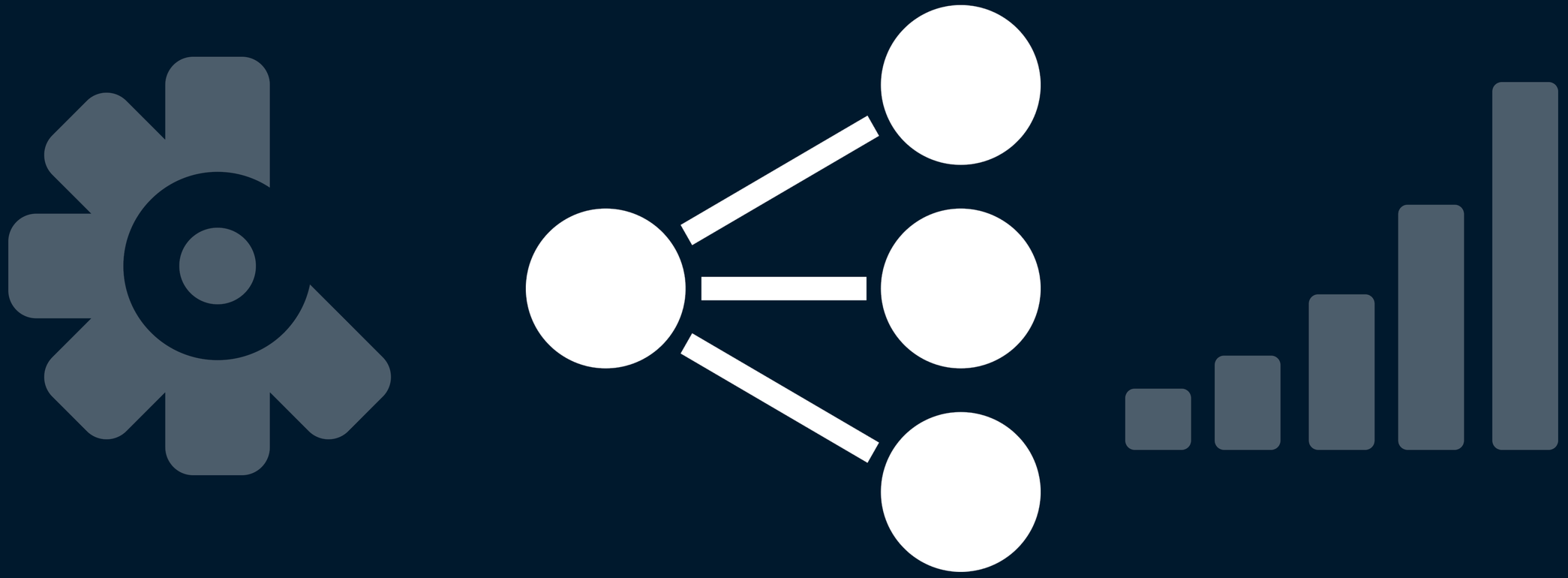
flight

Crashlytics Kit





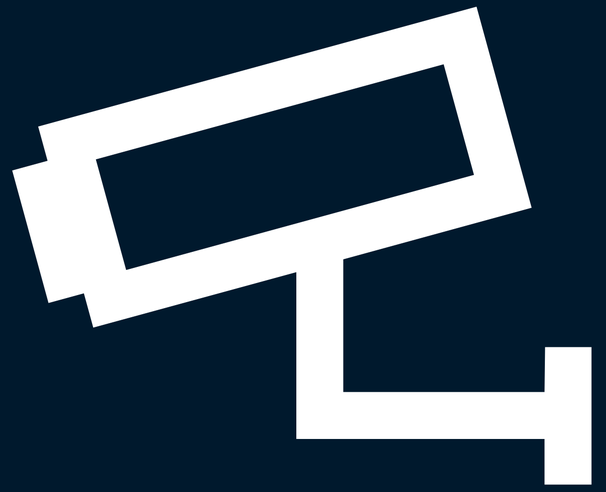
Crashlytics Kit



flight

Happy
testers

Easy, powerful
workflow

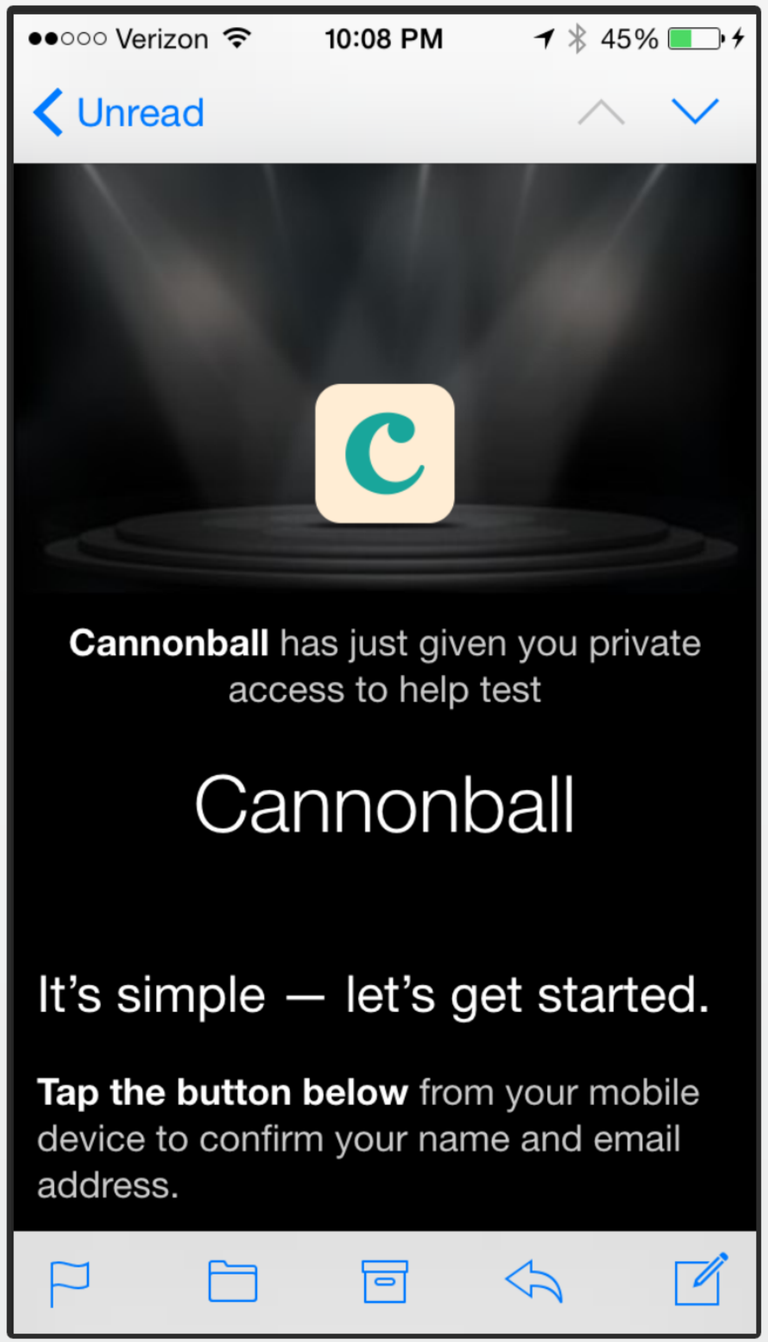


Total
visibility

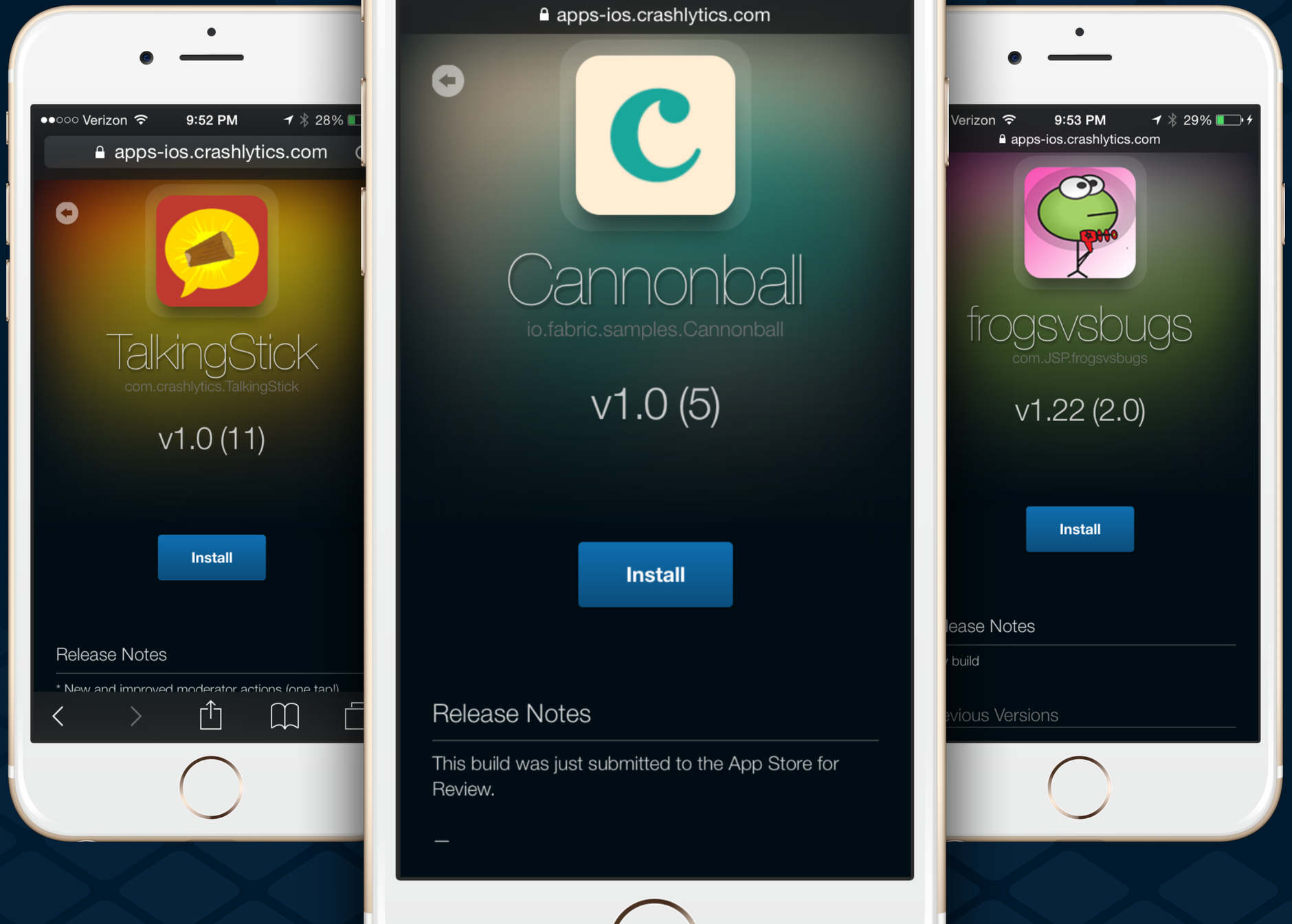
flight

Happy
testers

flight


●●○○○ Verizon
10:08 PM
45%
Unread
Cannonball has just given you private access to help test
Cannonball
It's simple — let's get started.
Tap the button below from your mobile device to confirm your name and email address.

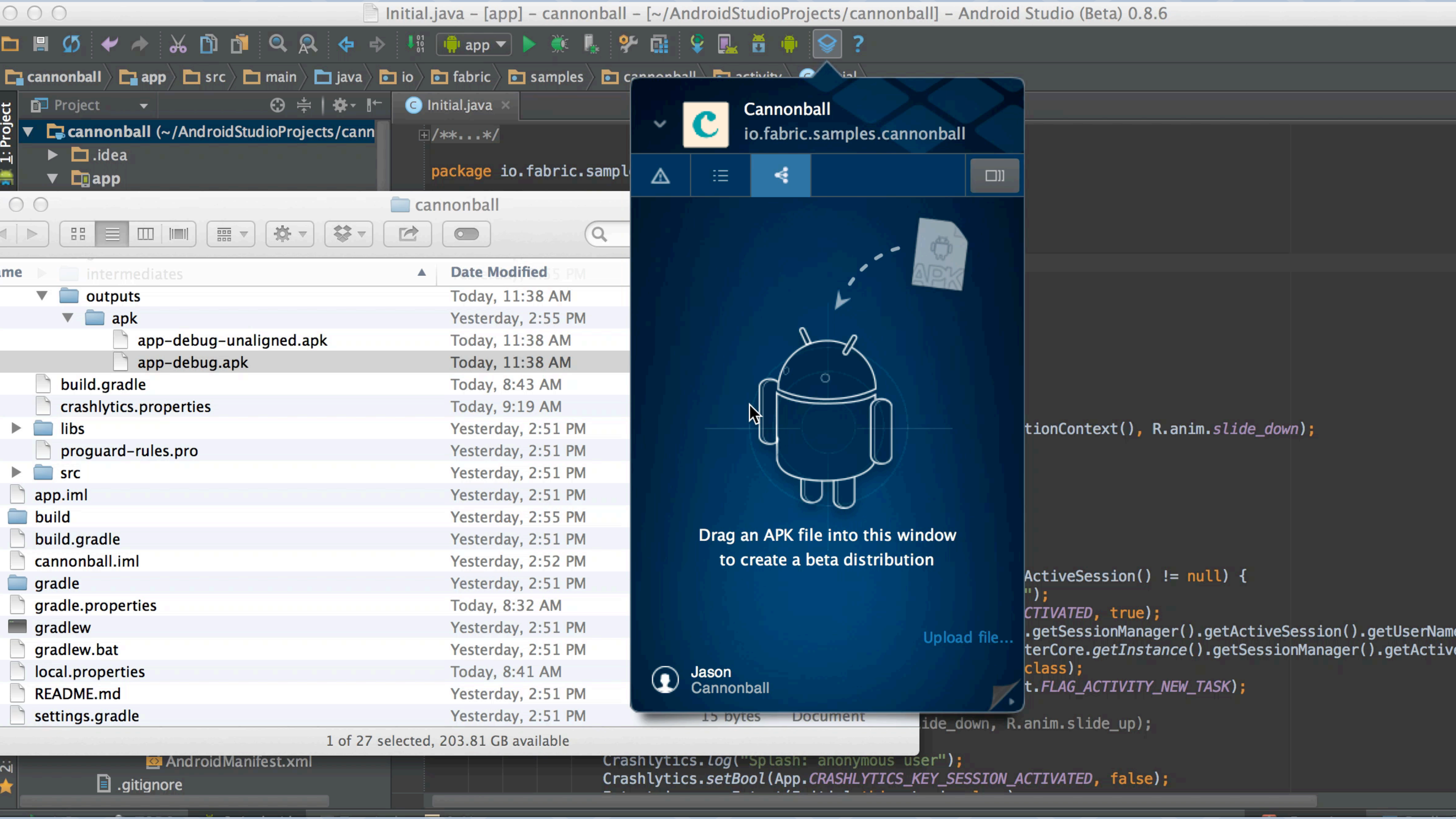
flight

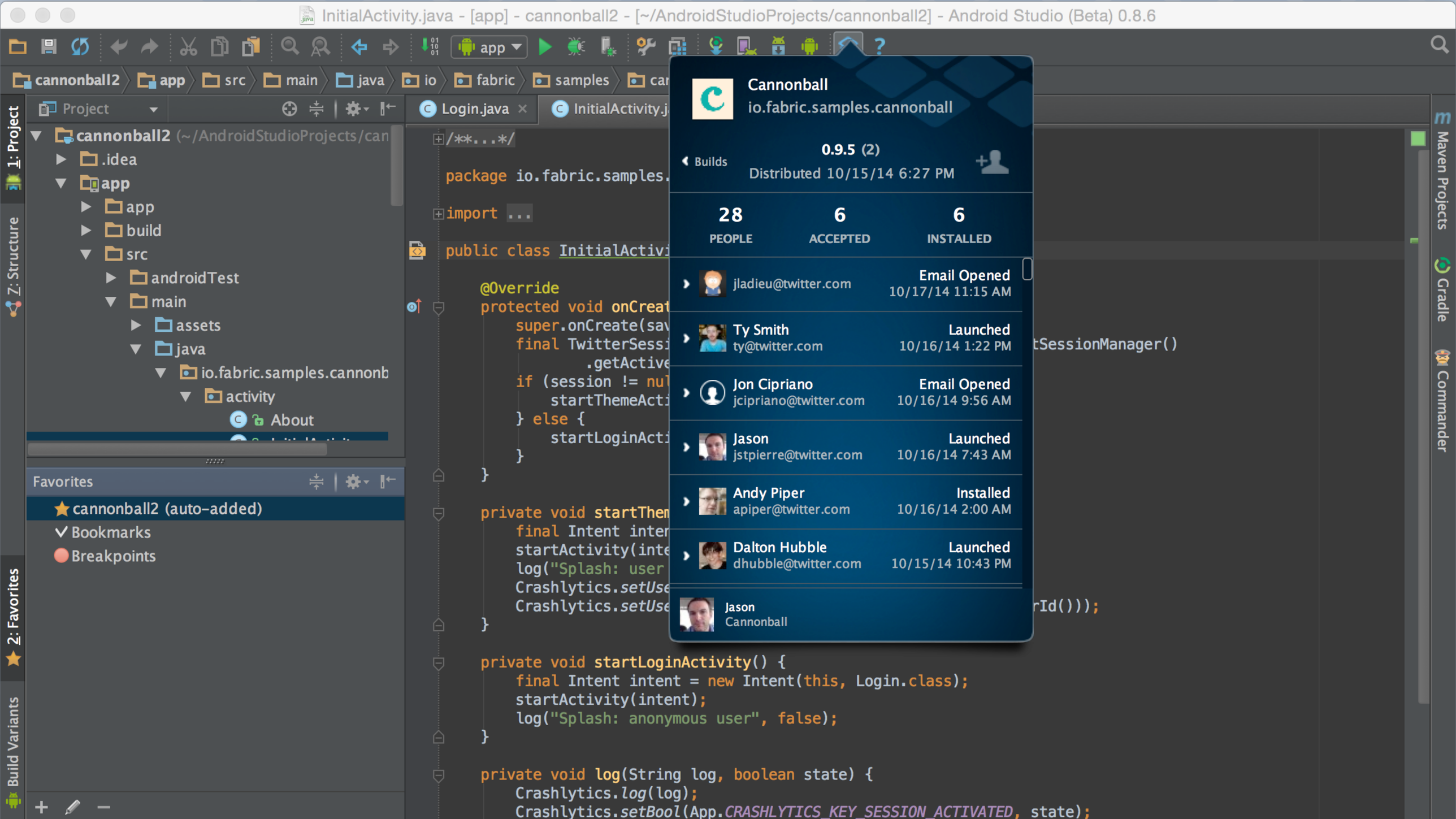

Verizon 9:52 PM 28%
apps-ios.crashlytics.com
TalkingStick
com.crashlytics.TalkingStick
v1.0 (11)
Install
Release Notes
Verizon 9:51 PM 28%
apps-ios.crashlytics.com
Cannonball
io.fabric.samples.Cannonball
v1.0 (5)
Install
Release Notes
This build was just submitted to the App Store for Review.
Verizon 9:53 PM 29%
apps-ios.crashlytics.com
frogsvsbugs
com.JSP.frogsvsbugs
v1.22 (2.0)
Install

flight

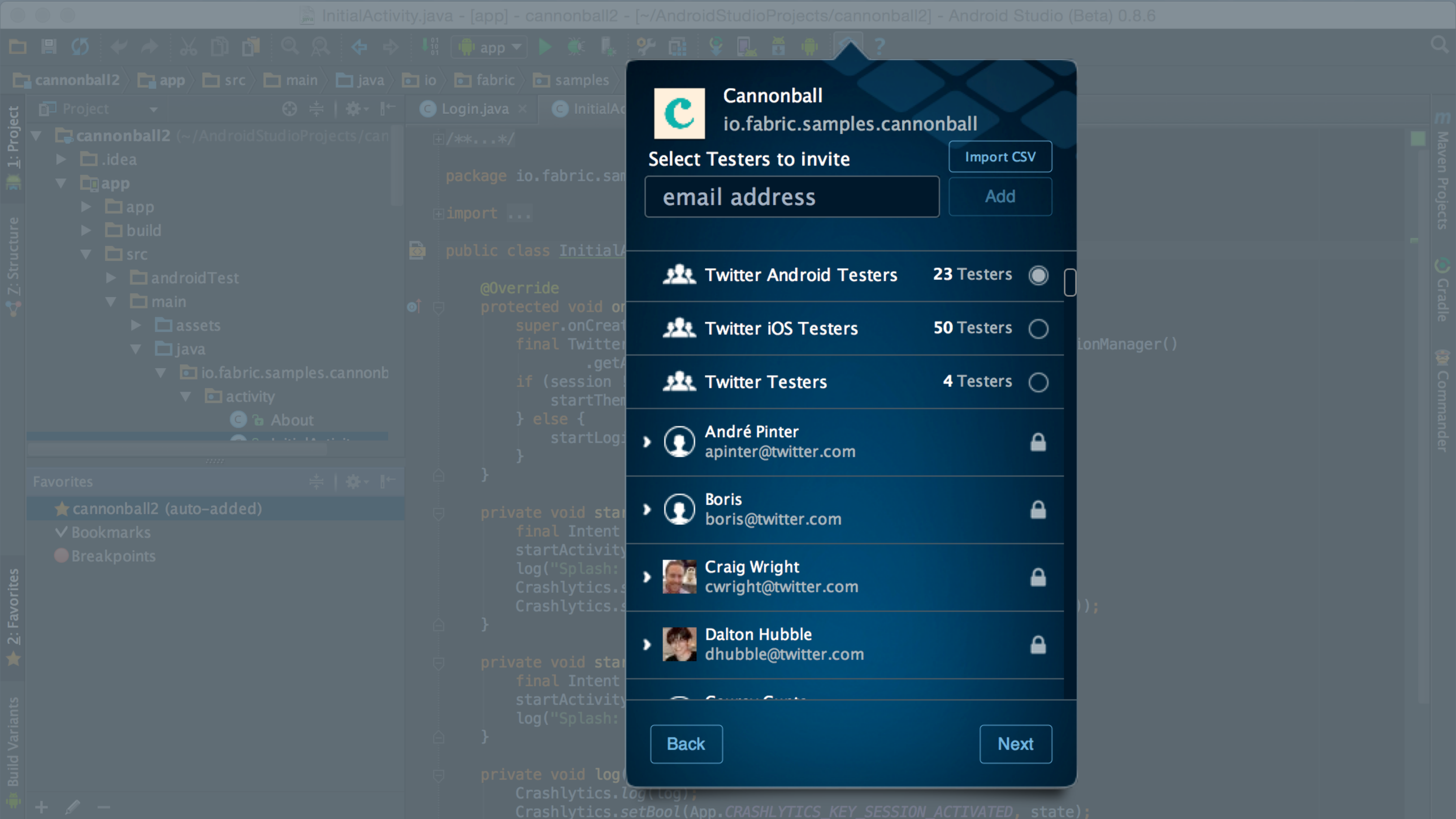
Easy, powerful
workflow

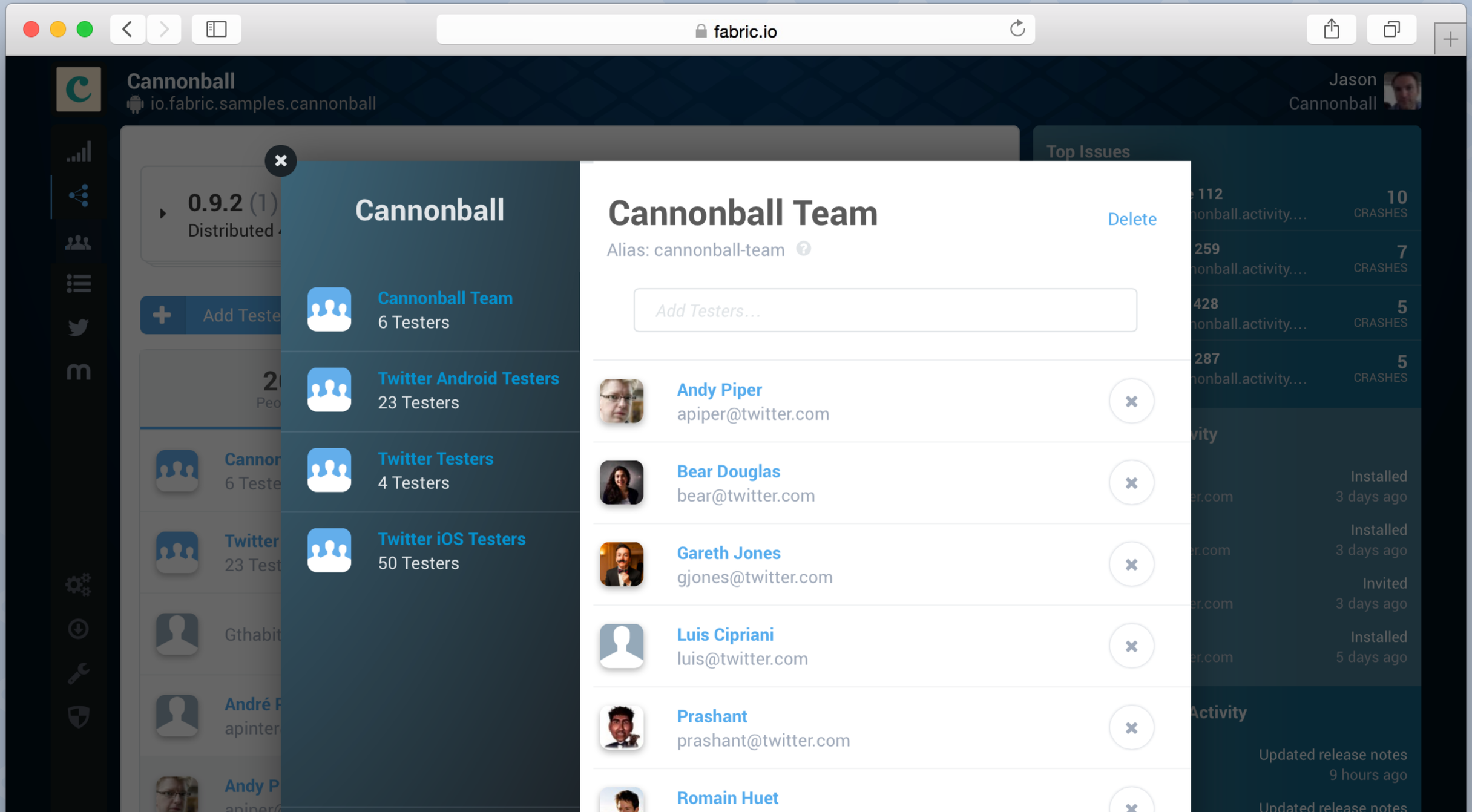
flight

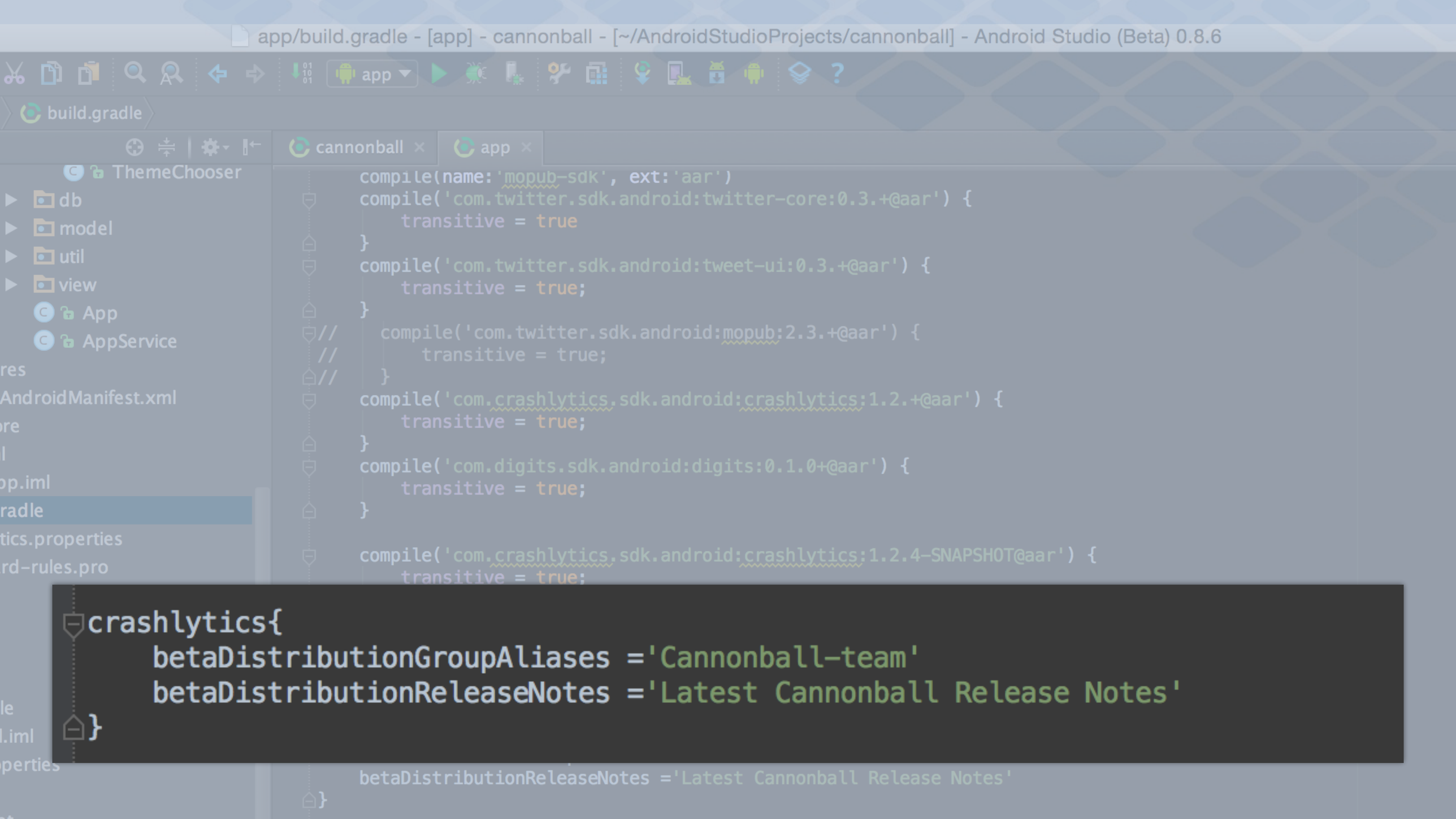

Initial.java – [app] – cannonball – [~/AndroidStudioProjects/cannonball] – Android Studio (Beta) 0.8.6
cannonball
app
src
main
java
io
fabric
samples
Project
cannonball (~/AndroidStudioProjects/cann
.idea
app
Initial.java
/**...*/
package io.fabric.sampl
Cannonball
io.fabric.samples.cannonball
Drag an APK file into this window
to create a beta distribution
Upload file...
Jason
Cannonball
Date Modified
outputs
Today, 11:38 AM
apk
Yesterday, 2:55 PM
app-debug-unaligned.apk
Today, 11:38 AM
app-debug.apk
Today, 11:38 AM
build.gradle
Today, 8:43 AM
crashlytics.properties
Today, 9:19 AM
libs
Yesterday, 2:51 PM
proguard-rules.pro
Yesterday, 2:51 PM
src
Yesterday, 2:51 PM
app.iml
Yesterday, 2:51 PM
build
Yesterday, 2:55 PM
build.gradle
Yesterday, 2:51 PM
cannonball.iml
Yesterday, 2:52 PM
gradle
Yesterday, 2:51 PM
gradle.properties
Today, 8:32 AM
gradlew
Yesterday, 2:51 PM
gradlew.bat
Yesterday, 2:51 PM
local.properties
Today, 8:41 AM
README.md
Yesterday, 2:51 PM
settings.gradle
Yesterday, 2:51 PM
1 of 27 selected, 203.81 GB available
AndroidManifest.xml
.gitignore
tionContext(), R.anim.slide_down);
ActiveSession() != null) {
");
CTIVATED, true);
.getSessionManager().getActiveSession().getUserNam
terCore.getInstance().getSessionManager().getActive
class);
t.FLAG_ACTIVITY_NEW_TASK);
ide_down, R.anim.slide_up);
Crashlytics.log("Splash: anonymous user");
Crashlytics.setBool(App.CRASHLYTICS_KEY_SESSION_ACTIVATED, false);


InitialActivity.java - [app] - cannonball2 - [~/AndroidStudioProjects/cannonball2] - Android Studio (Beta) 0.8.6
app
cannonball2 app src main java io fabric samples
Project
cannonball2 (~/AndroidStudioProjects/can
.idea
app
app
build
src
androidTest
main
assets
java
io.fabric.samples.cannonb
activity
About
Favorites
cannonball2 (auto-added)
Bookmarks
Breakpoints
Login.java
InitialActivity.j
/**...*/
package io.fabric.samples.
import ...
public class InitialActivi
@Override
protected void onCreat
super.onCreate(sav
final TwitterSessi
.getActive
if (session != nul
startThemeActi
} else {
startLoginActi
}
}
private void startThem
final Intent inter
startActivity(inte
log("Splash: user
Crashlytics.setUse
Crashlytics.setUse
}
private void startLoginActivity() {
final Intent intent = new Intent(this, Login.class);
startActivity(intent);
log("Splash: anonymous user", false);
}
private void log(String log, boolean state) {
Crashlytics.log(log);
Crashlytics.setBool(App.CRASHLYTICS_KEY_SESSION_ACTIVATED, state);
tSessionManager()
rId()));
Cannonball
io.fabric.samples.cannonball
Builds
0.9.5 (2)
Distributed 10/15/14 6:27 PM
28
PEOPLE
6
ACCEPTED
6
INSTALLED
jladieu@twitter.com
Email Opened
10/17/14 11:15 AM
Ty Smith
ty@twitter.com
Launched
10/16/14 1:22 PM
Jon Cipriano
jcipriano@twitter.com
Email Opened
10/16/14 9:56 AM
Jason
jstpierre@twitter.com
Launched
10/16/14 7:43 AM
Andy Piper
apiper@twitter.com
Installed
10/16/14 2:00 AM
Dalton Hubble
dhubble@twitter.com
Launched
10/15/14 10:43 PM
Jason
Cannonball
1: Project
Z: Structure
2: Favorites
Build Variants
Maven Projects
Gradle
Commander

InitialActivity.java - [app] - cannonball2 - [~/AndroidStudioProjects/cannonball2] - Android Studio (Beta) 0.8.6
Cannonball
io.fabric.samples.cannonball
Builds
0.9.5 (2)
Distributed 10/15/14 6:27 PM
28
PEOPLE
6
ACCEPTED
6
INSTALLED
jladieu@twitter.com
Email Opened
10/17/14 11:15 AM
Ty Smith
ty@twitter.com
Launched
10/16/14 1:22 PM
Jon Cipriano
jcipriano@twitter.com
Email Opened
10/16/14 9:56 AM
Jason
jstpierre@twitter.com
Launched
10/16/14 7:43 AM
Andy Piper
apiper@twitter.com
Installed
10/16/14 2:00 AM
Dalton Hubble
dhubble@twitter.com
Launched
10/15/14 10:43 PM
Jason
Cannonball

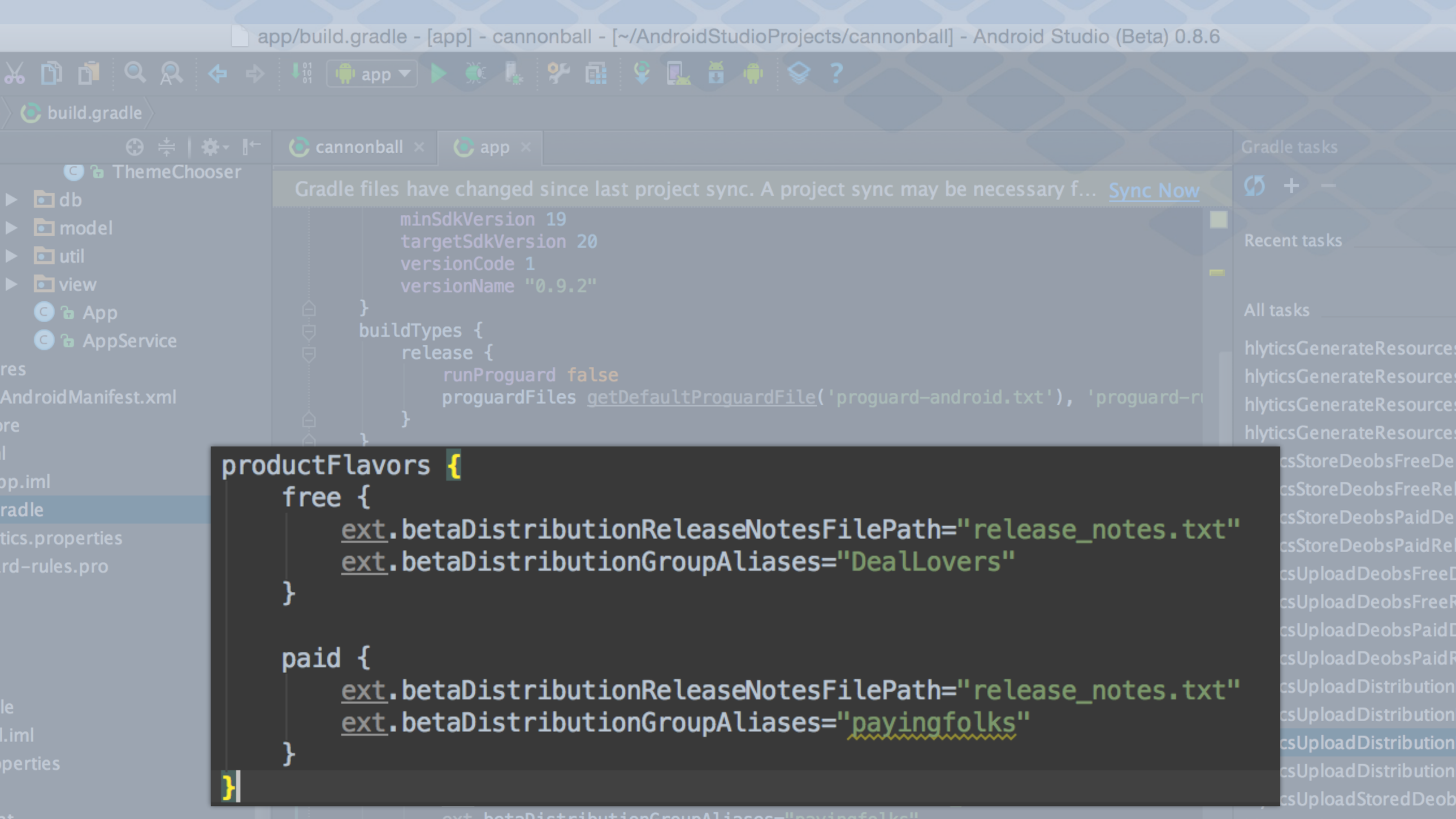

Cannonball
io.fabric.samples.cannonball
Select Testers to invite
Import CSV
email address
Add
Twitter Android Testers
23 Testers
Twitter iOS Testers
50 Testers
Twitter Testers
4 Testers
André Pinter
apinter@twitter.com
Boris
boris@twitter.com
Craig Wright
cwright@twitter.com
Dalton Hubble
dhubble@twitter.com
Back
Next

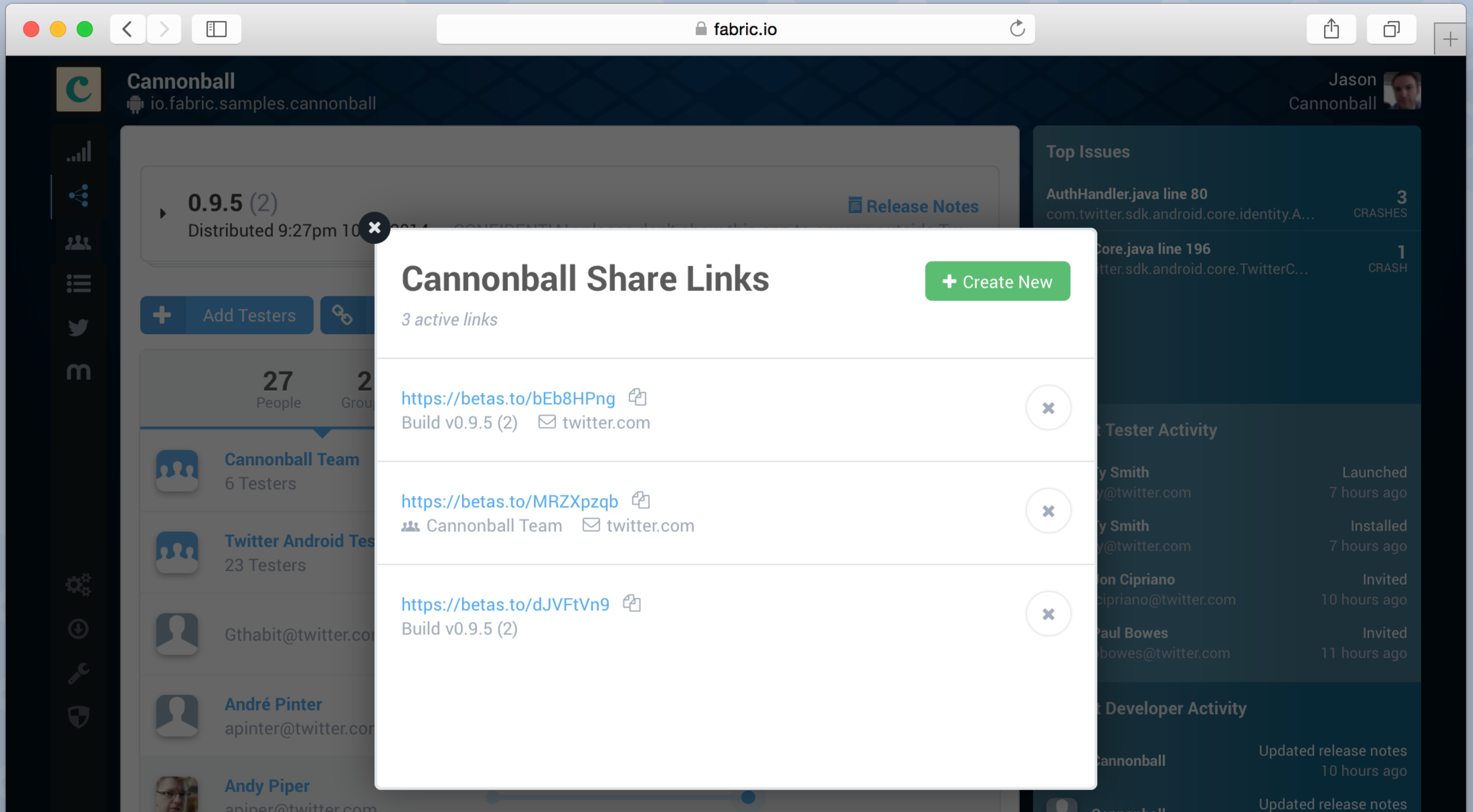

fabric.io
Cannonball
io.fabric.samples.cannonball
Jason
Cannonball
Top Issues
0.9.2 (1)
Distributed
Add Teste
Cannonball
Cannonball Team
6 Testers
Twitter Android Testers
23 Testers
Twitter Testers
4 Testers
Twitter iOS Testers
50 Testers
Cannonball Team
Delete
Alias: cannonball-team
Add Testers...
Andy Piper
apiper@twitter.com
Bear Douglas
bear@twitter.com
Gareth Jones
gjones@twitter.com
Luis Cipriani
luis@twitter.com
Prashant
prashant@twitter.com
Romain Huet
10
CRASHES
7
CRASHES
5
CRASHES
5
CRASHES
Installed
3 days ago
Installed
3 days ago
Invited
3 days ago
Installed
5 days ago
Activity
Updated release notes
9 hours ago

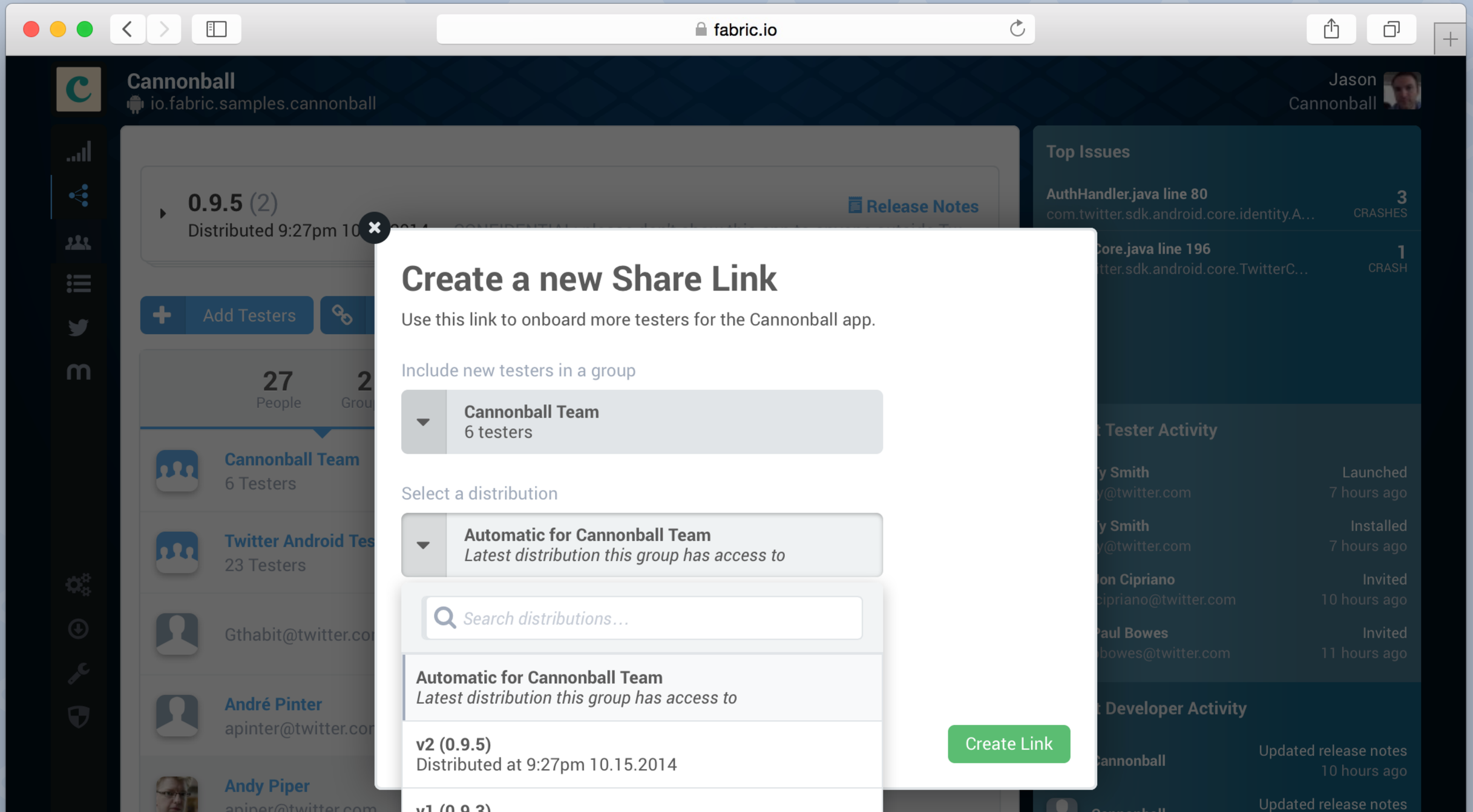

app/build.gradle - [app] - cannonball - [~/AndroidStudioProjects/cannonball] - Android Studio (Beta) 0.8.6
app
build.gradle
cannonball
app
ThemeChooser
db
model
util
view
App
AppService
res
AndroidManifest.xml
pp.iml
radle
tics.properties
rd-rules.pro
compile(name:'mopub-sdk', ext:'aar')
compile('com.twitter.sdk.android:twitter-core:0.3.+@aar') {
transitive = true
}
compile('com.twitter.sdk.android:tweet-ui:0.3.+@aar') {
transitive = true;
}
// compile('com.twitter.sdk.android:mopub:2.3.+@aar') {
// transitive = true;
// }
compile('com.crashlytics.sdk.android:crashlytics:1.2.+@aar') {
transitive = true;
}
compile('com.digits.sdk.android:digits:0.1.0+@aar') {
transitive = true;
}
compile('com.crashlytics.sdk.android:crashlytics:1.2.4-SNAPSHOT@aar') {
transitive = true;
crashlytics{
betaDistributionGroupAliases ='Cannonball-team'
betaDistributionReleaseNotes ='Latest Cannonball Release Notes'
}
betaDistributionReleaseNotes ='Latest Cannonball Release Notes'
}

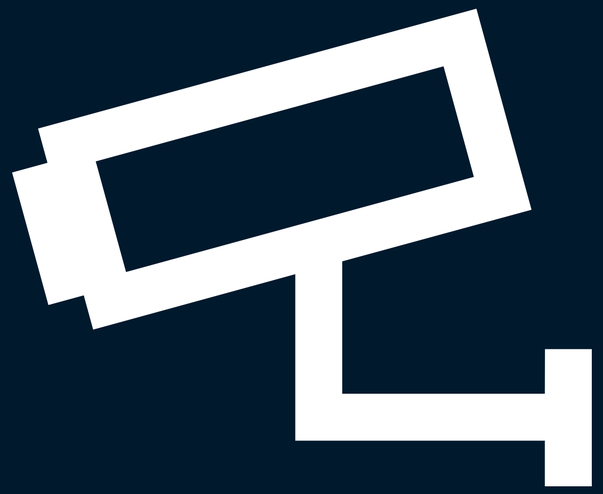
One line upload

```
$/.gradlew assembleDebug CrashlyticsUploadDistributionDebug
```


app/build.gradle - [app] - cannonball - [~/AndroidStudioProjects/cannonball] - Android Studio (Beta) 0.8.6
app
build.gradle
cannonball
app
Gradle files have changed since last project sync. A project sync may be necessary f...
Sync Now
ThemeChooser
db
model
util
view
App
AppService
res
AndroidManifest.xml
minSdkVersion 19
targetSdkVersion 20
versionCode 1
versionName "0.9.2"
buildTypes {
release {
runProguard false
proguardFiles getDefaultProguardFile('proguard-android.txt'), 'proguard-r
productFlavors {
free {
ext.betaDistributionReleaseNotesFilePath="release_notes.txt"
ext.betaDistributionGroupAliases="DealLovers"
}
paid {
ext.betaDistributionReleaseNotesFilePath="release_notes.txt"
ext.betaDistributionGroupAliases="payingfolks"
}
}
Gradle tasks
Recent tasks
All tasks

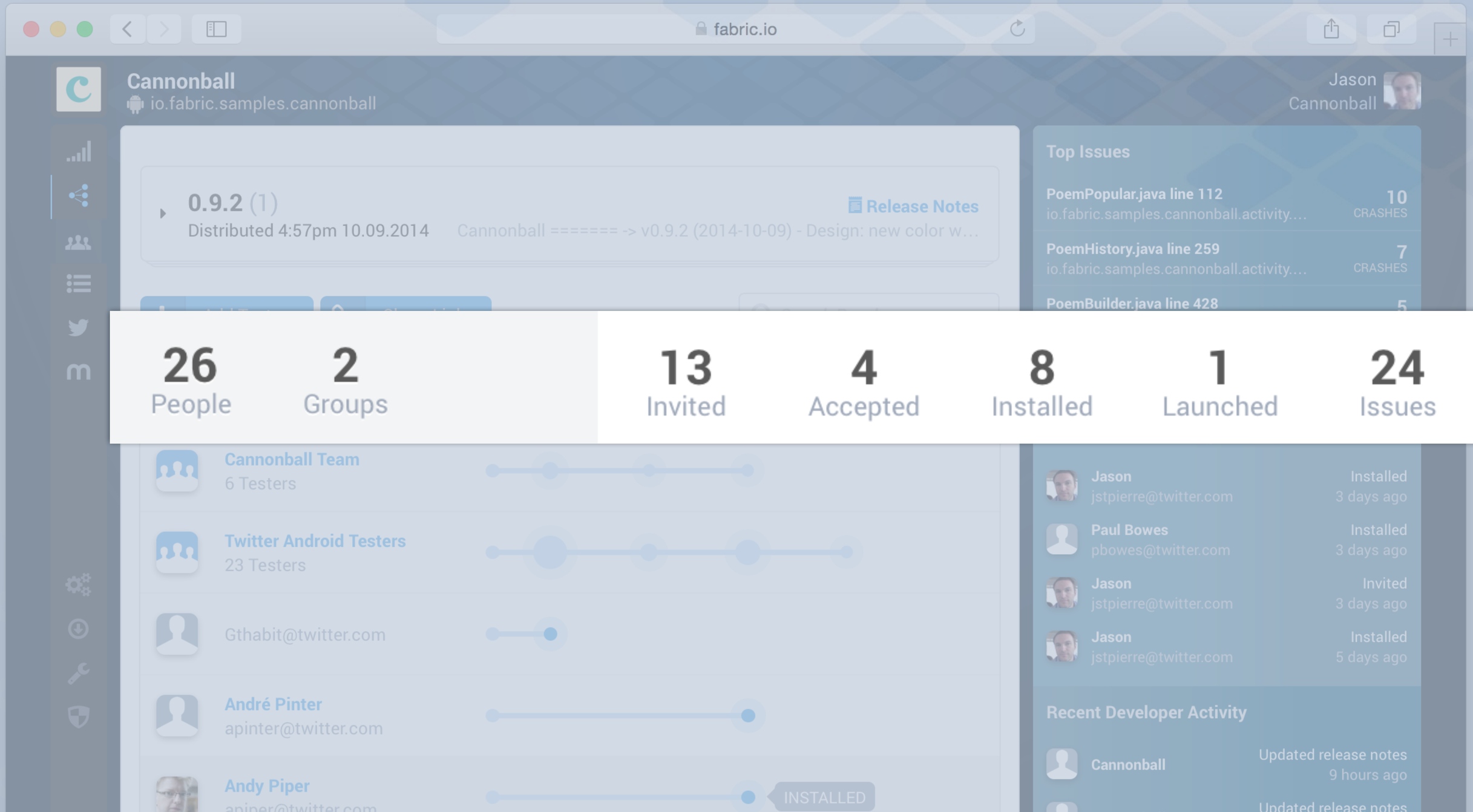

fabric.io
Cannonball
io.fabric.samples.cannonball
Jason
Cannonball
0.9.5 (2)
Distributed 9:27pm 10
Release Notes
Add Testers
27
People
Cannonball Team
6 Testers
Twitter Android Tes
23 Testers
Gthabit@twitter.co
André Pinter
apinter@twitter.co
Andy Piper
Top Issues
AuthHandler.java line 80
com.twitter.sdk.android.core.identity.A...
3
CRASHES
Core.java line 196
tter.sdk.android.core.TwitterC...
1
CRASH
Tester Activity
y Smith
@twitter.com
Launched
7 hours ago
y Smith
@twitter.com
Installed
7 hours ago
on Cipriano
cipriano@twitter.com
Invited
10 hours ago
Paul Bowes
bowes@twitter.com
Invited
11 hours ago
Developer Activity
Cannonball
Updated release notes
10 hours ago
Updated release notes
Cannonball Share Links
+ Create New
3 active links
https://betas.to/bEb8HPng
Build v0.9.5 (2)
twitter.com
https://betas.to/MRZXpzqb
Cannonball Team
twitter.com
https://betas.to/dJVFtVn9
Build v0.9.5 (2)

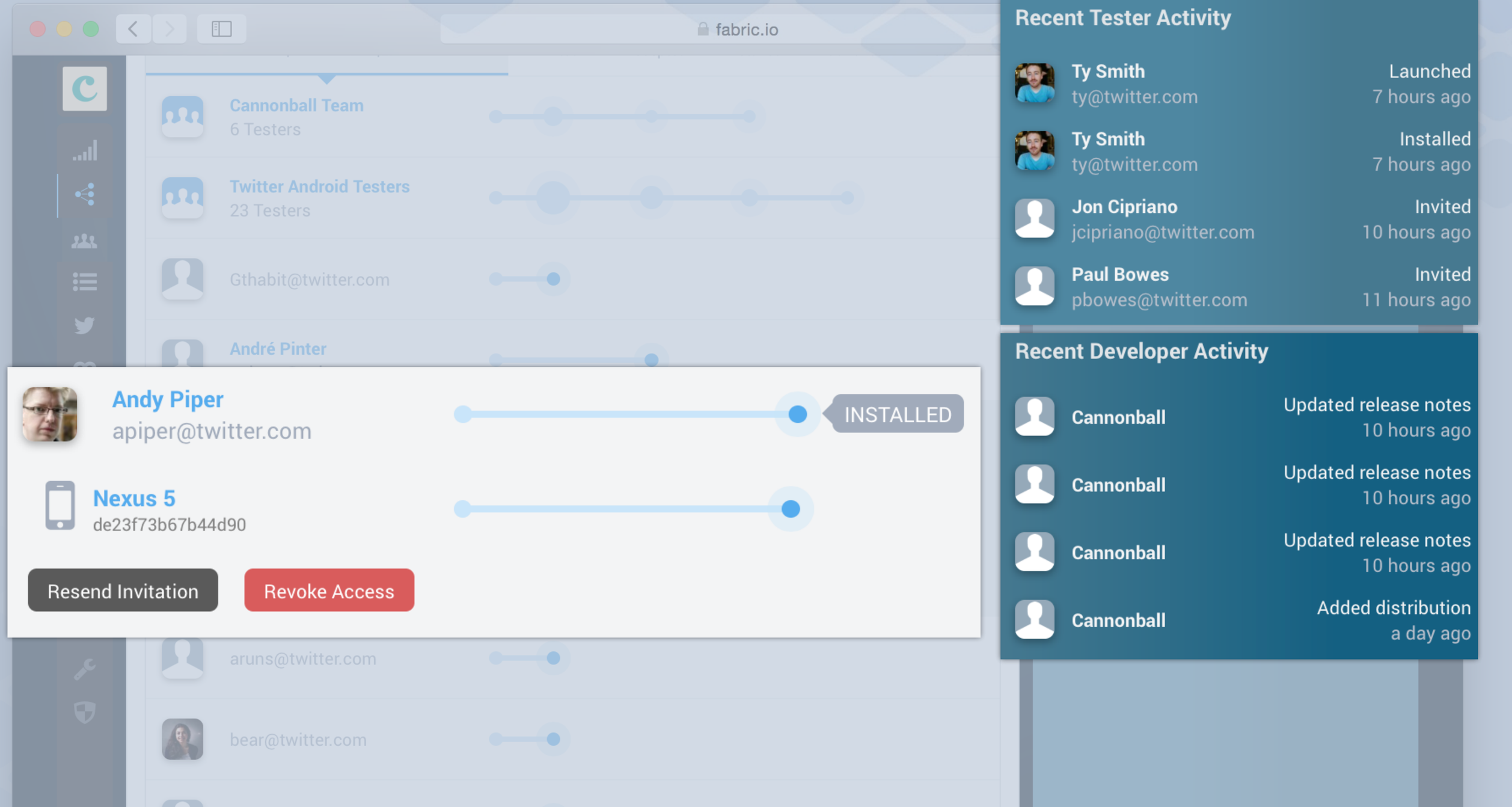

fabric.io
Cannonball
io.fabric.samples.cannonball
Jason Cannonball
0.9.5 (2)
Distributed 9:27pm 10
Release Notes
Add Testers
27
People
Cannonball Team
6 Testers
Twitter Android Tes
23 Testers
Gthabit@twitter.co
André Pinter
apinter@twitter.co
Andy Piper
Top Issues
AuthHandler.java line 80
com.twitter.sdk.android.core.identity.A…
3
CRASHES
Core.java line 196
tter.sdk.android.core.TwitterC…
1
CRASH
Tester Activity
y Smith
@twitter.com
Launched
7 hours ago
y Smith
@twitter.com
Installed
7 hours ago
on Cipriano
cipriano@twitter.com
Invited
10 hours ago
Paul Bowes
bowes@twitter.com
Invited
11 hours ago
Developer Activity
Cannonball
Updated release notes
10 hours ago
Updated release notes
Create a new Share Link
Use this link to onboard more testers for the Cannonball app.
Include new testers in a group
Cannonball Team
6 testers
Select a distribution
Automatic for Cannonball Team
Latest distribution this group has access to
Search distributions…
Automatic for Cannonball Team
Latest distribution this group has access to
v2 (0.9.5)
Distributed at 9:27pm 10.15.2014
Create Link



Total
visibility

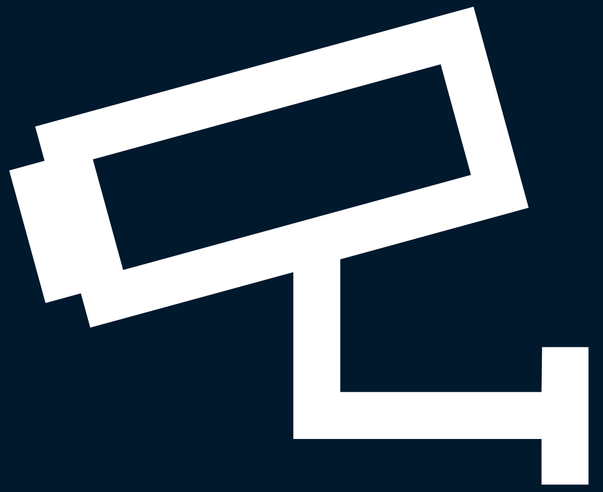
flight


fabric.io
Cannonball
io.fabric.samples.cannonball
Jason
Cannonball
0.9.2 (1)
Distributed 4:57pm 10.09.2014
Release Notes
Cannonball ======= -> v0.9.2 (2014-10-09) - Design: new color w…
Top Issues
PoemPopular.java line 112
io.fabric.samples.cannonball.activity.…
10
CRASHES
PoemHistory.java line 259
io.fabric.samples.cannonball.activity.…
7
CRASHES
PoemBuilder.java line 428
5
26
People
2
Groups
13
Invited
4
Accepted
8
Installed
1
Launched
24
Issues
Cannonball Team
6 Testers
Twitter Android Testers
23 Testers
Gthabit@twitter.com
André Pinter
apinter@twitter.com
Andy Piper
INSTALLED
Jason
jstpierre@twitter.com
Installed
3 days ago
Paul Bowes
pbowes@twitter.com
Installed
3 days ago
Jason
jstpierre@twitter.com
Invited
3 days ago
Jason
jstpierre@twitter.com
Installed
5 days ago
Recent Developer Activity
Cannonball
Updated release notes
9 hours ago


fabric.io
Cannonball Team
6 Testers
Twitter Android Testers
23 Testers
Gthabit@twitter.com
André Pinter
Andy Piper
apiper@twitter.com
INSTALLED
Nexus 5
de23f73b67b44d90
Resend Invitation
Revoke Access
aruns@twitter.com
bear@twitter.com
Recent Tester Activity
Ty Smith
ty@twitter.com
Launched
7 hours ago
Ty Smith
ty@twitter.com
Installed
7 hours ago
Jon Cipriano
jcipriano@twitter.com
Invited
10 hours ago
Paul Bowes
pbowes@twitter.com
Invited
11 hours ago
Recent Developer Activity
Cannonball
Updated release notes
10 hours ago
Cannonball
Updated release notes
10 hours ago
Cannonball
Updated release notes
10 hours ago
Cannonball
Added distribution
a day ago

Happy
testers

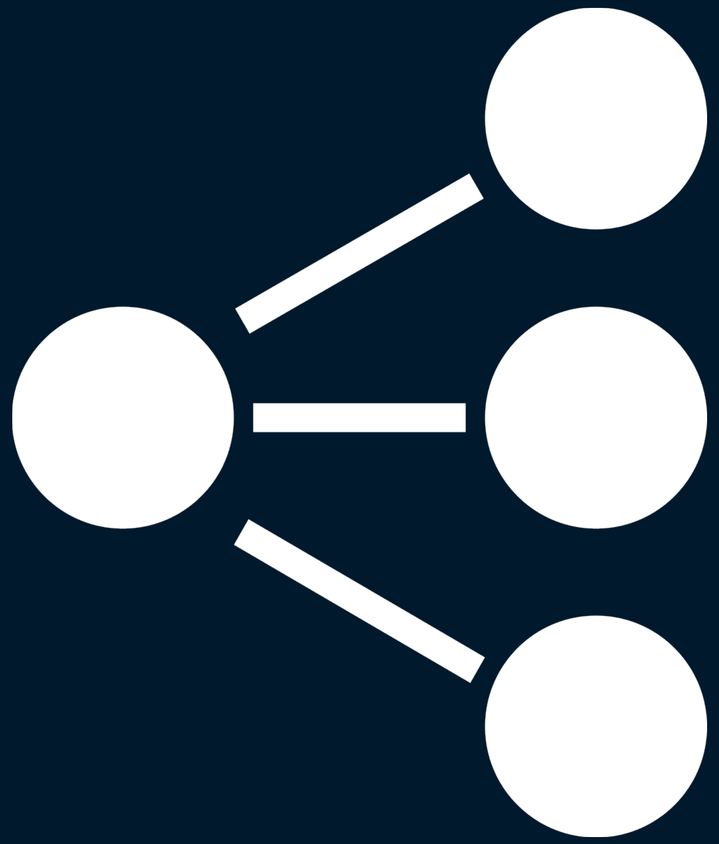
Easy, powerful
workflow



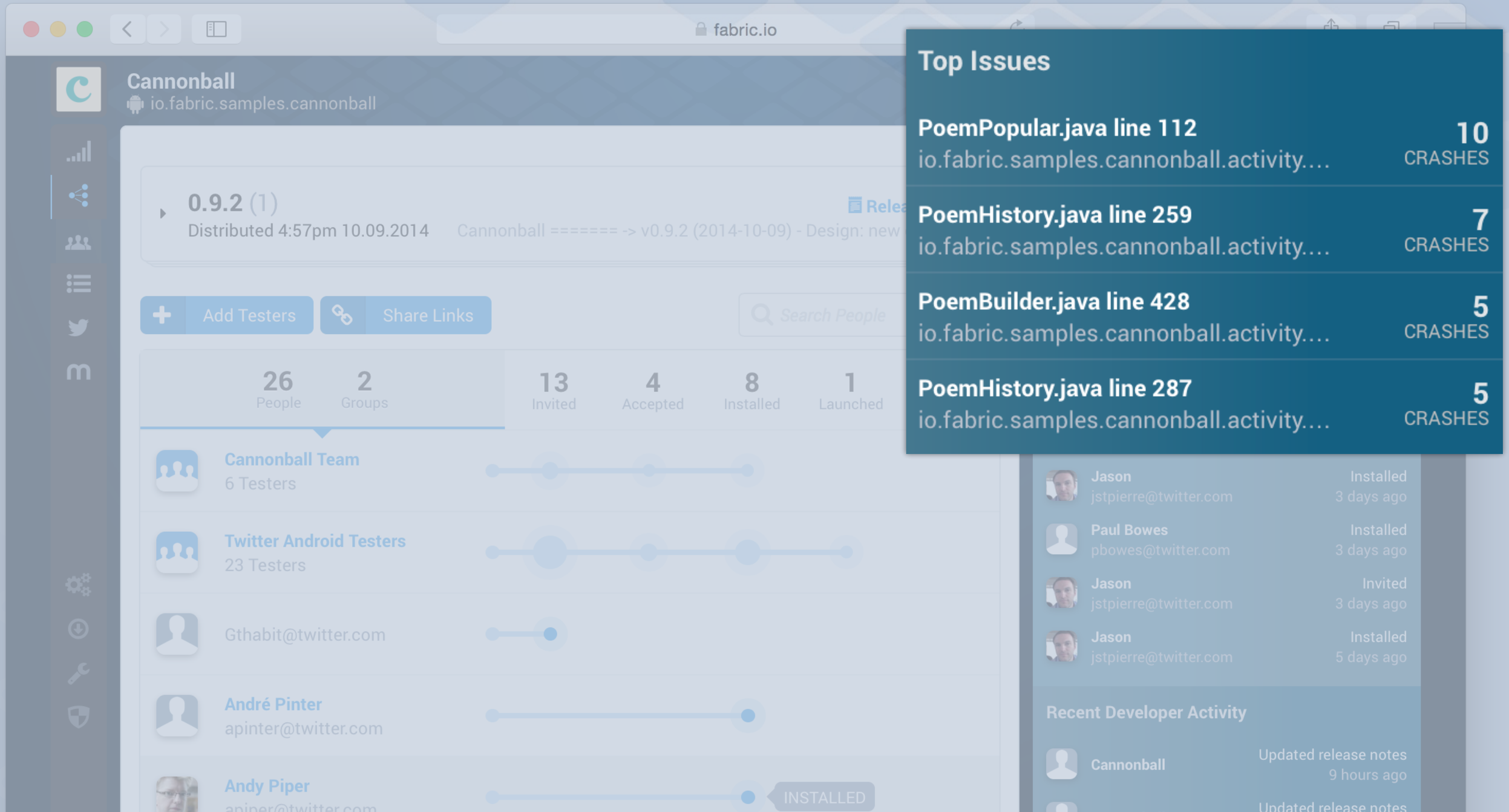
Total
visibility

flight

+



flight


fabric.io
Cannonball
io.fabric.samples.cannonball
0.9.2 (1)
Distributed 4:57pm 10.09.2014
Add Testers
Share Links
Search People
26 People
2 Groups
13 Invited
4 Accepted
8 Installed
1 Launched
Cannonball Team
6 Testers
Twitter Android Testers
23 Testers
Gthabit@twitter.com
André Pinter
apinter@twitter.com
Andy Piper
INSTALLED
Top Issues
PoemPopular.java line 112
io.fabric.samples.cannonball.activity....
10 CRASHES
PoemHistory.java line 259
io.fabric.samples.cannonball.activity....
7 CRASHES
PoemBuilder.java line 428
io.fabric.samples.cannonball.activity....
5 CRASHES
PoemHistory.java line 287
io.fabric.samples.cannonball.activity....
5 CRASHES
Jason
jstpierre@twitter.com
Installed 3 days ago
Paul Bowes
pbowes@twitter.com
Installed 3 days ago
Jason
jstpierre@twitter.com
Invited 3 days ago
Jason
jstpierre@twitter.com
Installed 5 days ago
Recent Developer Activity
Cannonball
Updated release notes 9 hours ago

fabric.io

Cannonball 0.9.5 (2)
io.fabric.samples.cannonball

Jason Cannonball

Issue #40

DOWNLOAD

OCT 16 2014 14:43 (UTC)

TOTAL CRASHES: 2

PoemBuilder.java line 461
io.fabric.samples.cannonball.activity.PoemBuilder.moveView

jstpierre@twitter.com
BETA TESTER

DEVICE

Nexus 7
DEVICE

Portrait
ORIENTATION

Off
PROXIMITY

28%
BATTERY

OPERATING SYSTEM

4.4.2
ANDROID VERSION

No
ROOTED

Portrait
UI ORIENTATION

29%
RAM

87%
DISKSPACE

Keys *Logs*

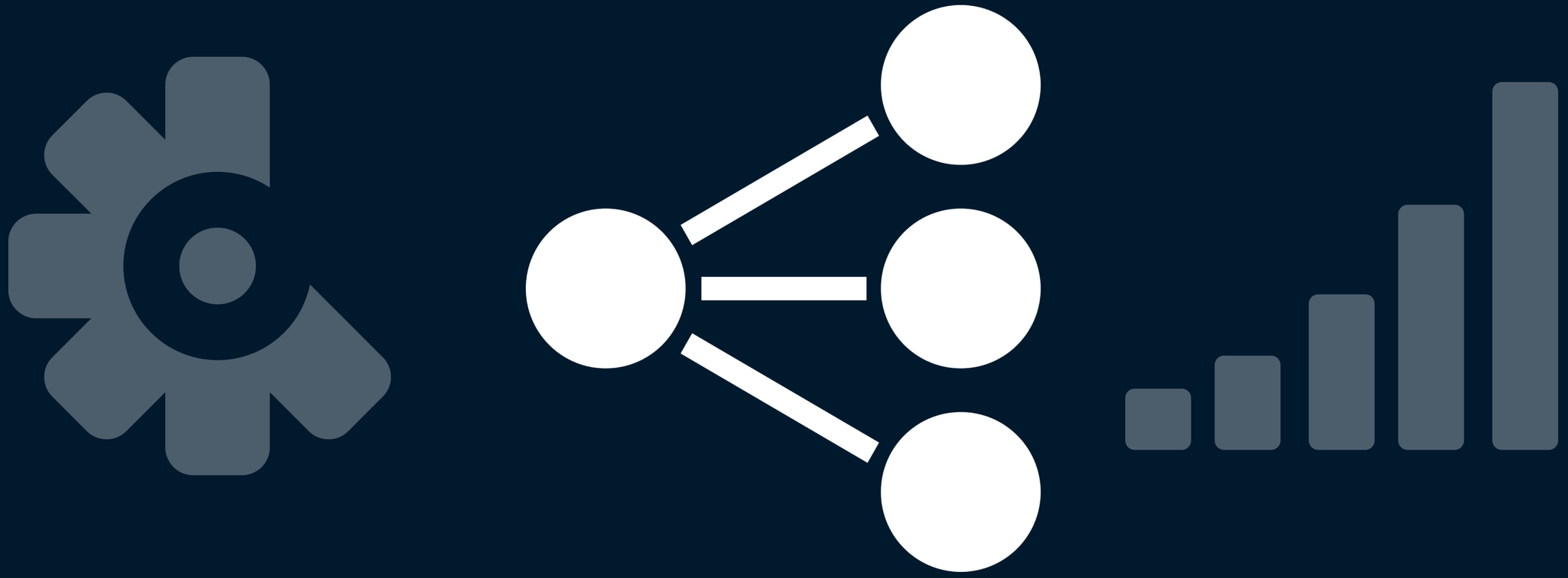
ARE_CRASHES_ENABLED
true

COUNTDOWN_TIMER_REMAINING_SEC
50

THEME
nature

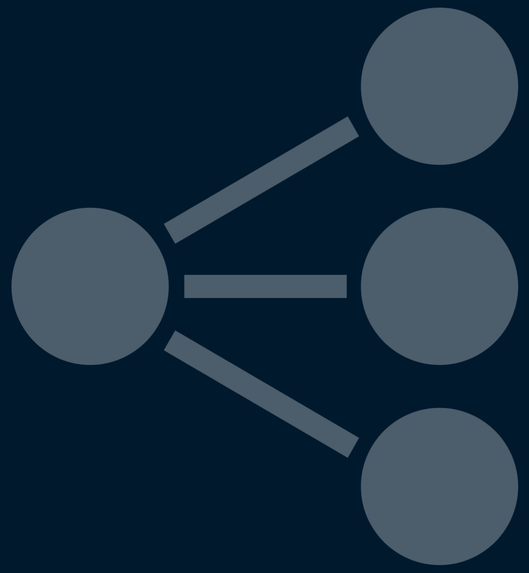
WORD_BANK_COUNT_LOADED
12

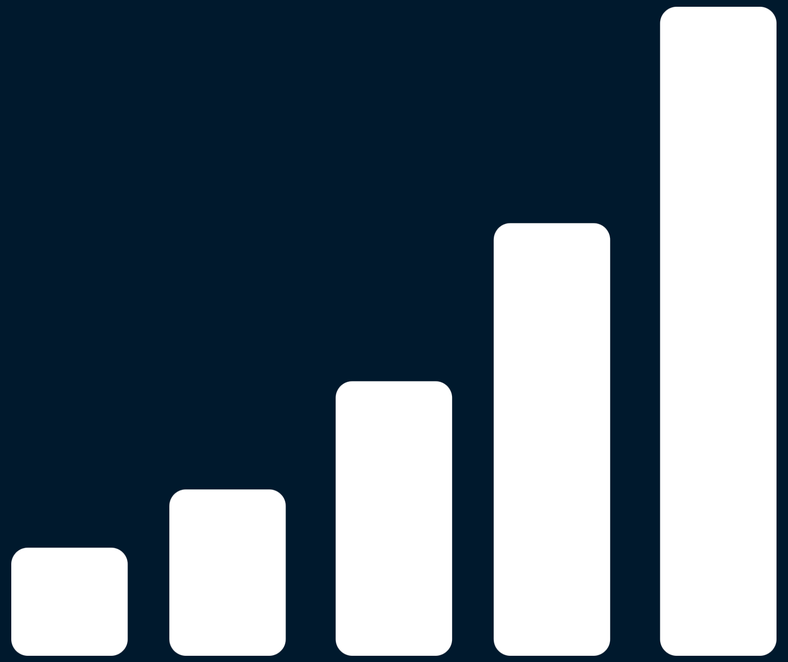
Crashlytics Kit



flight

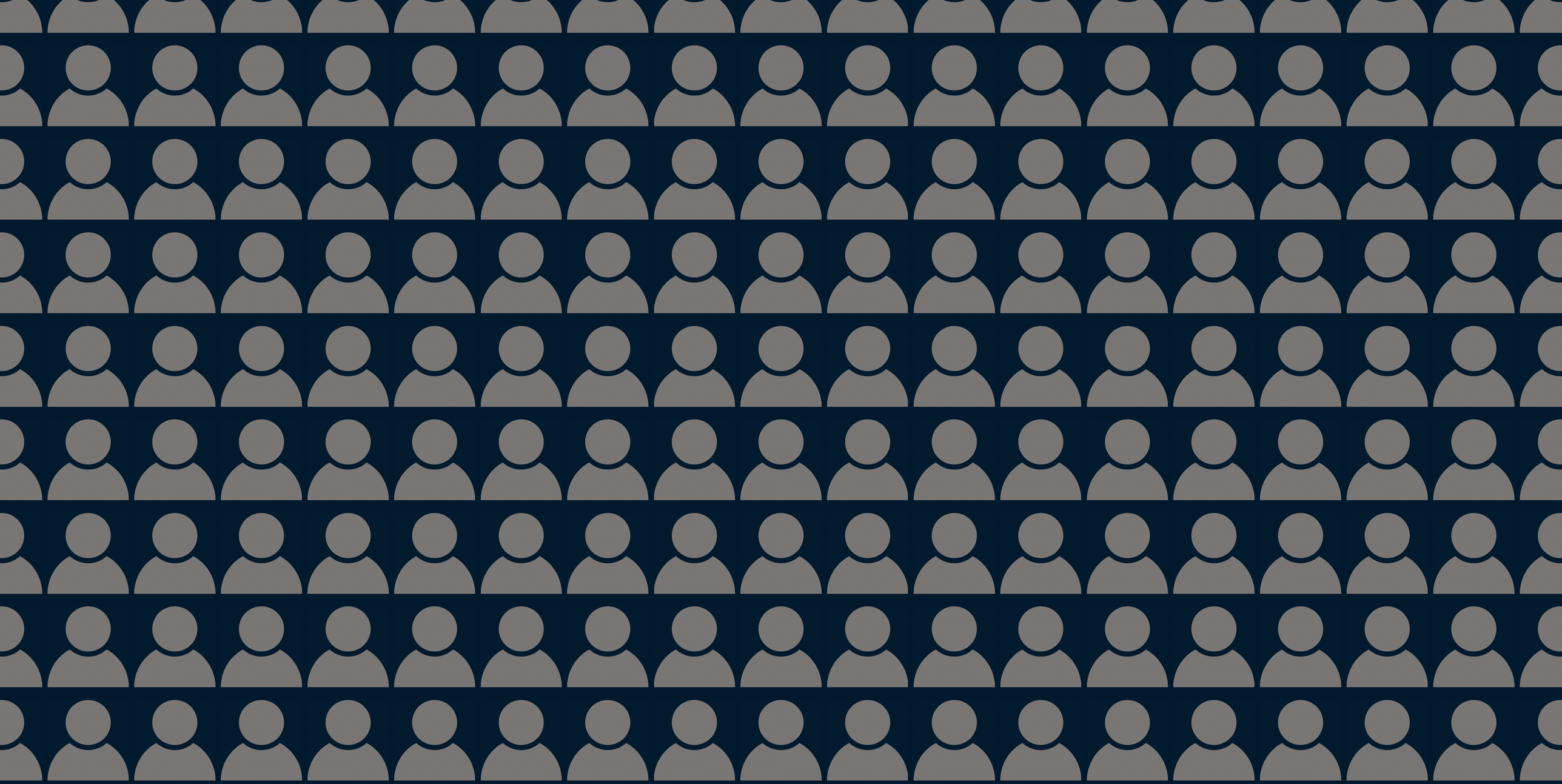
Crashlytics Kit



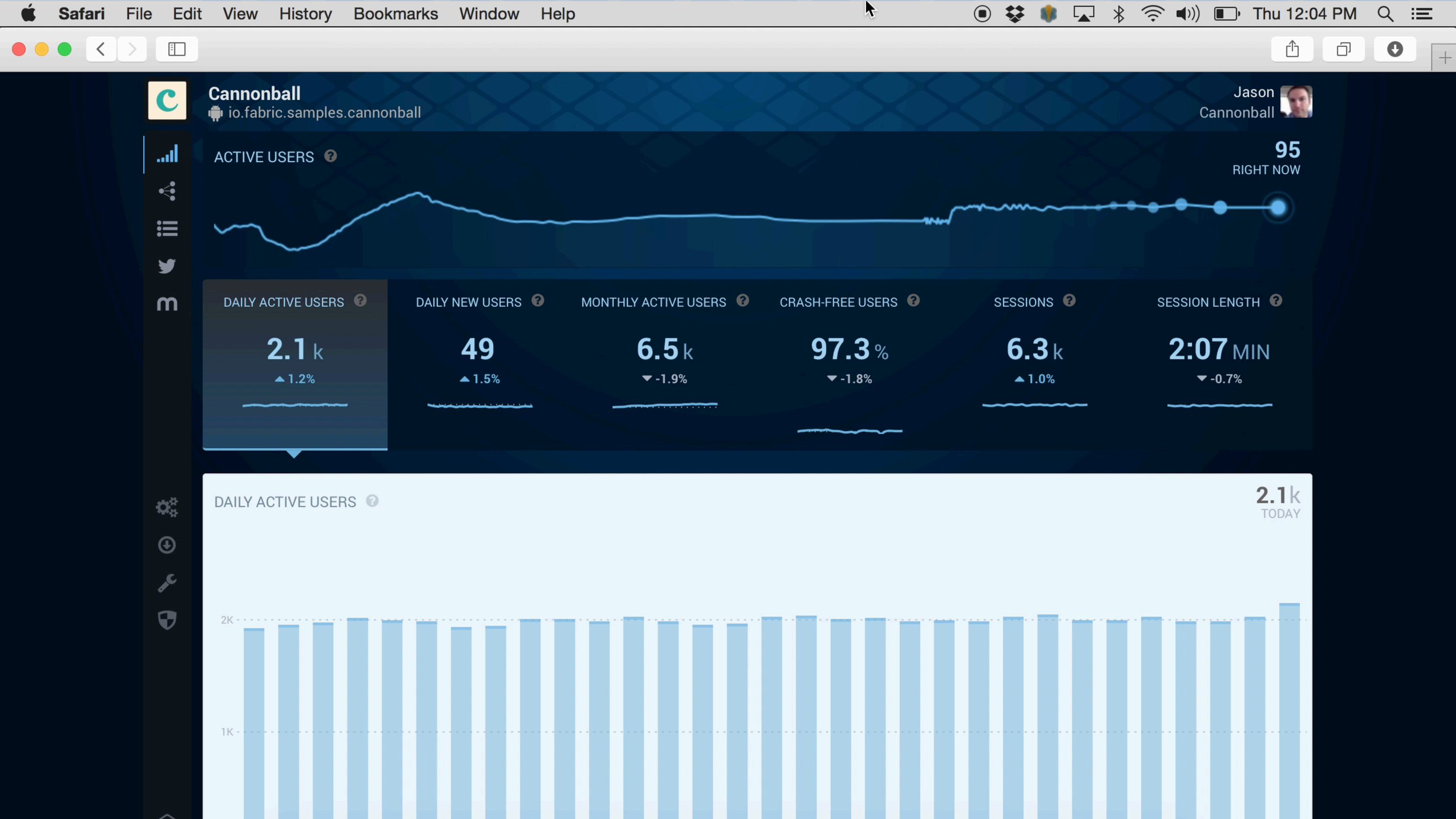


flight

flight



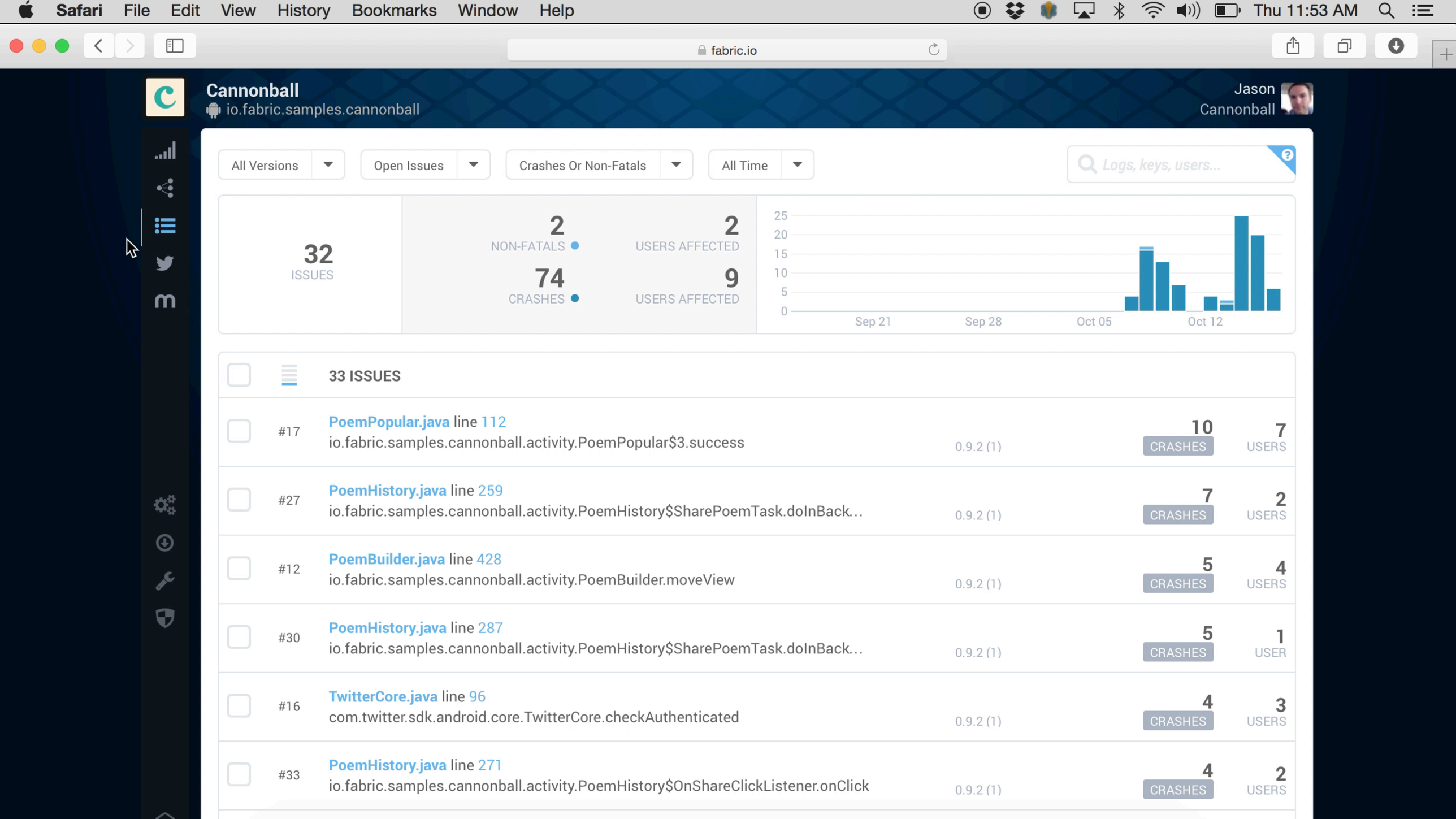
flight


Safari File Edit View History Bookmarks Window Help
Thu 12:04 PM
Cannonball
io.fabric.samples.cannonball
Jason Cannonball
ACTIVE USERS
95
RIGHT NOW
DAILY ACTIVE USERS
2.1 k
▲1.2%
DAILY NEW USERS
49
▲1.5%
MONTHLY ACTIVE USERS
6.5 k
▼-1.9%
CRASH-FREE USERS
97.3 %
▼-1.8%
SESSIONS
6.3 k
▲1.0%
SESSION LENGTH
2:07 MIN
▼-0.7%
DAILY ACTIVE USERS
2.1k
TODAY
2K
1K

Setup process

```
// It just works :)
```

flight


Safari File Edit View History Bookmarks Window Help
Thu 11:53 AM
fabric.io
Cannonball
io.fabric.samples.cannonball
Jason Cannonball
All Versions
Open Issues
Crashes Or Non-Fatals
All Time
Logs, keys, users...
32 ISSUES
2 NON-FATALS
2 USERS AFFECTED
74 CRASHES
9 USERS AFFECTED
25
20
15
10
5
0
Sep 21
Sep 28
Oct 05
Oct 12
33 ISSUES
#17 PoemPopular.java line 112
io.fabric.samples.cannonball.activity.PoemPopular$3.success
0.9.2 (1)
10 CRASHES
7 USERS
#27 PoemHistory.java line 259
io.fabric.samples.cannonball.activity.PoemHistory$SharePoemTask.doInBack...
0.9.2 (1)
7 CRASHES
2 USERS
#12 PoemBuilder.java line 428
io.fabric.samples.cannonball.activity.PoemBuilder.moveView
0.9.2 (1)
5 CRASHES
4 USERS
#30 PoemHistory.java line 287
io.fabric.samples.cannonball.activity.PoemHistory$SharePoemTask.doInBack...
0.9.2 (1)
5 CRASHES
1 USER
#16 TwitterCore.java line 96
com.twitter.sdk.android.core.TwitterCore.checkAuthenticated
0.9.2 (1)
4 CRASHES
3 USERS
#33 PoemHistory.java line 271
io.fabric.samples.cannonball.activity.PoemHistory$OnShareClickListener.onClick
0.9.2 (1)
4 CRASHES
2 USERS

T.P.S REPORT

COVER SHEET

Prepared By: _____ Date: _____

System: _____ Program Language: _____ Platform: _____ OS: _____

Unit Code: _____ Customer: _____

Unit Code Tested: _____

Due Date: _____ Approved By: _____

Test Date: _____ Tested By: _____

Total Run Time: _____ Total Error Count: _____

Error Reference: _____

Errors Logged: _____ Log Location: _____

Passed: _____ Moved to Production: _____

Comments: _____

_____

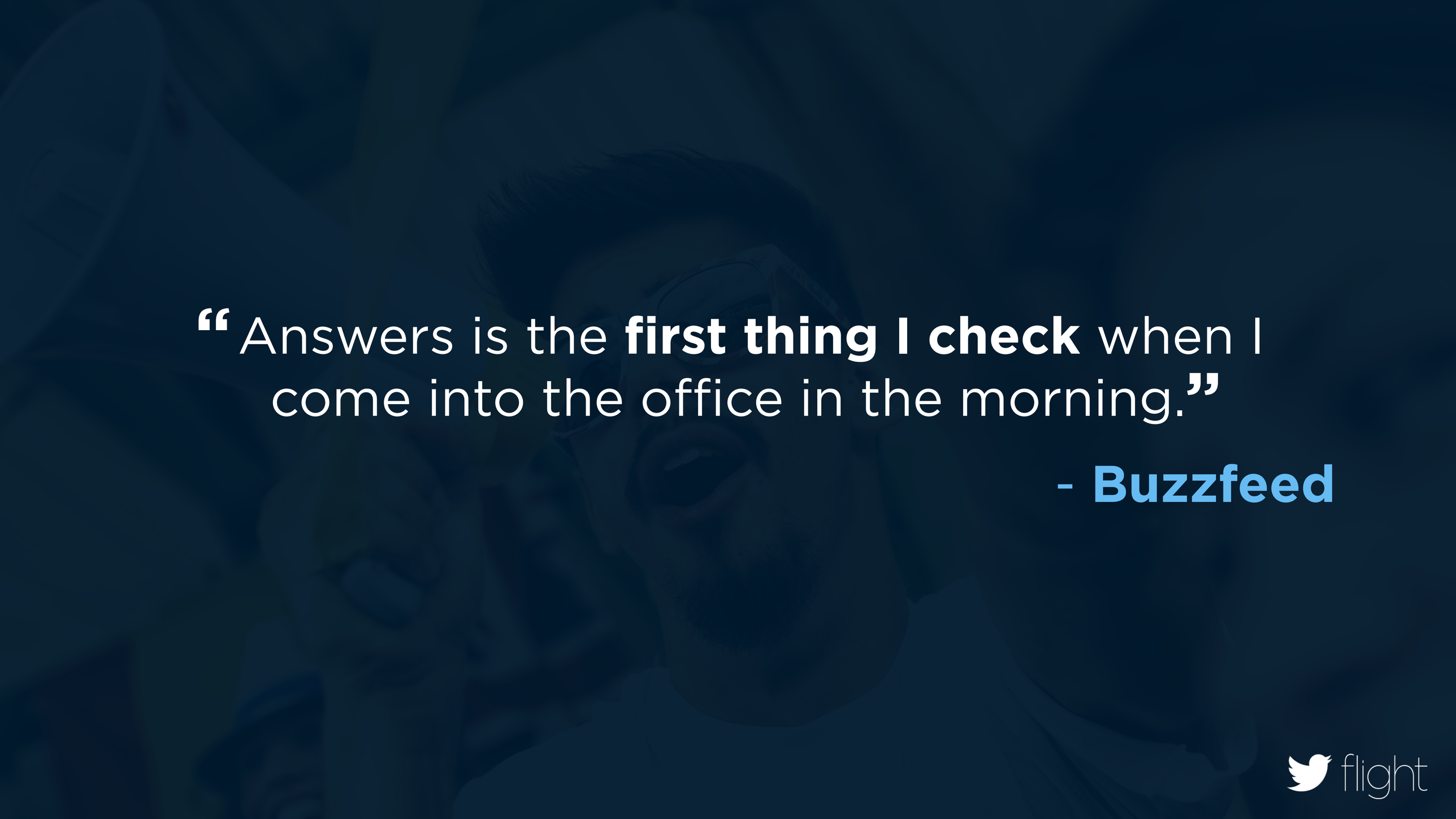
_____

_____

flight

fabric.io
Cannonball
io.fabric.samples.cannonball
Jason
Cannonball
ACTIVE USERS
83
RIGHT NOW
DAILY ACTIVE USERS
2.1 k
0.3%
DAILY NEW USERS
50
-1.4%
MONTHLY ACTIVE USERS
6.7 k
-0.4%
CRASH-FREE USERS
97.2 %
-0.8%
SESSIONS
6.4 k
-1.5%
SESSION LENGTH
2:06 MIN
0.4%
DAILY ACTIVE USERS
2.1k
TODAY
2K
1K

fabric.io
Cannonball
io.fabric.samples.cannonball
Jason
Cannonball
ACTIVE USERS
83
RIGHT NOW
DAILY ACTIVE USERS
2.1 k
0.3%
DAILY NEW USERS
50
-1.4%
MONTHLY ACTIVE USERS
6.7 k
-0.4%
CRASH-FREE USERS
97.2 %
-0.8%
SESSIONS
6.4 k
-1.5%
SESSION LENGTH
2:06 MIN
0.4%
2K
1K

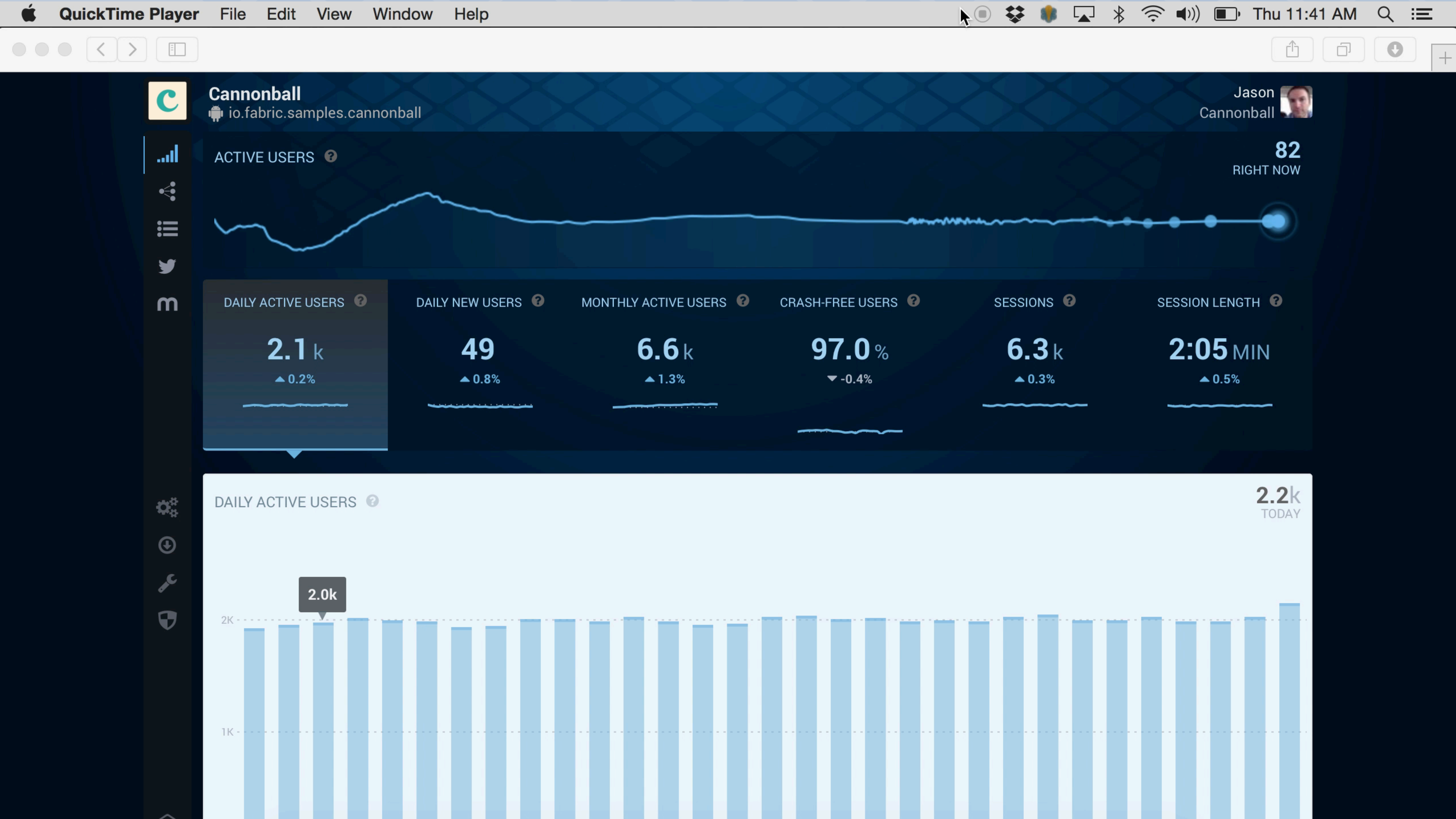


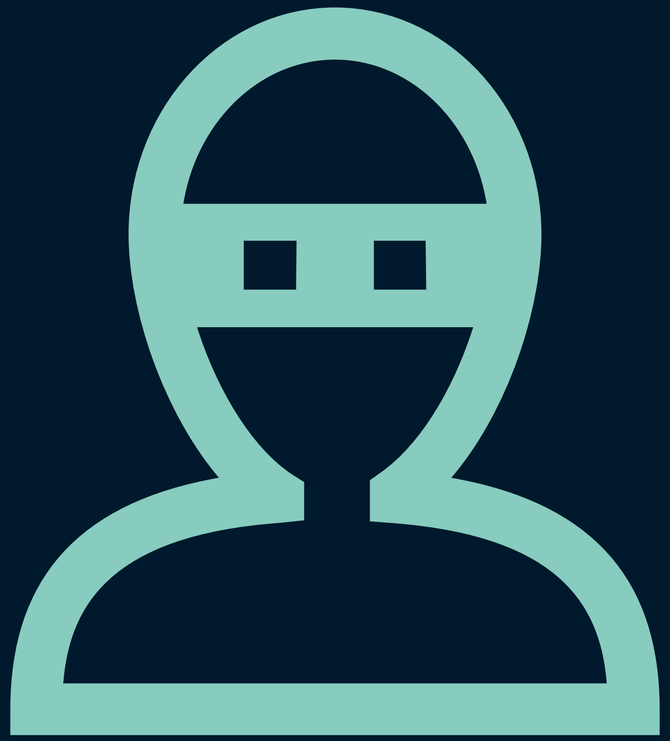
“Answers is the **first thing I check** when I come into the office in the morning.”

- Buzzfeed

flight

Tell me more...


QuickTime Player File Edit View Window Help
Thu 11:41 AM
Cannonball
io.fabric.samples.cannonball
Jason Cannonball
ACTIVE USERS
82
RIGHT NOW
DAILY ACTIVE USERS
2.1 k
▲ 0.2%
DAILY NEW USERS
49
▲ 0.8%
MONTHLY ACTIVE USERS
6.6 k
▲ 1.3%
CRASH-FREE USERS
97.0 %
▼ -0.4%
SESSIONS
6.3 k
▲ 0.3%
SESSION LENGTH
2:05 MIN
▲ 0.5%
DAILY ACTIVE USERS
2.2k
TODAY
2.0k
2K
1K



flight

Cannonball Daily Summary for October 21st — Inbox

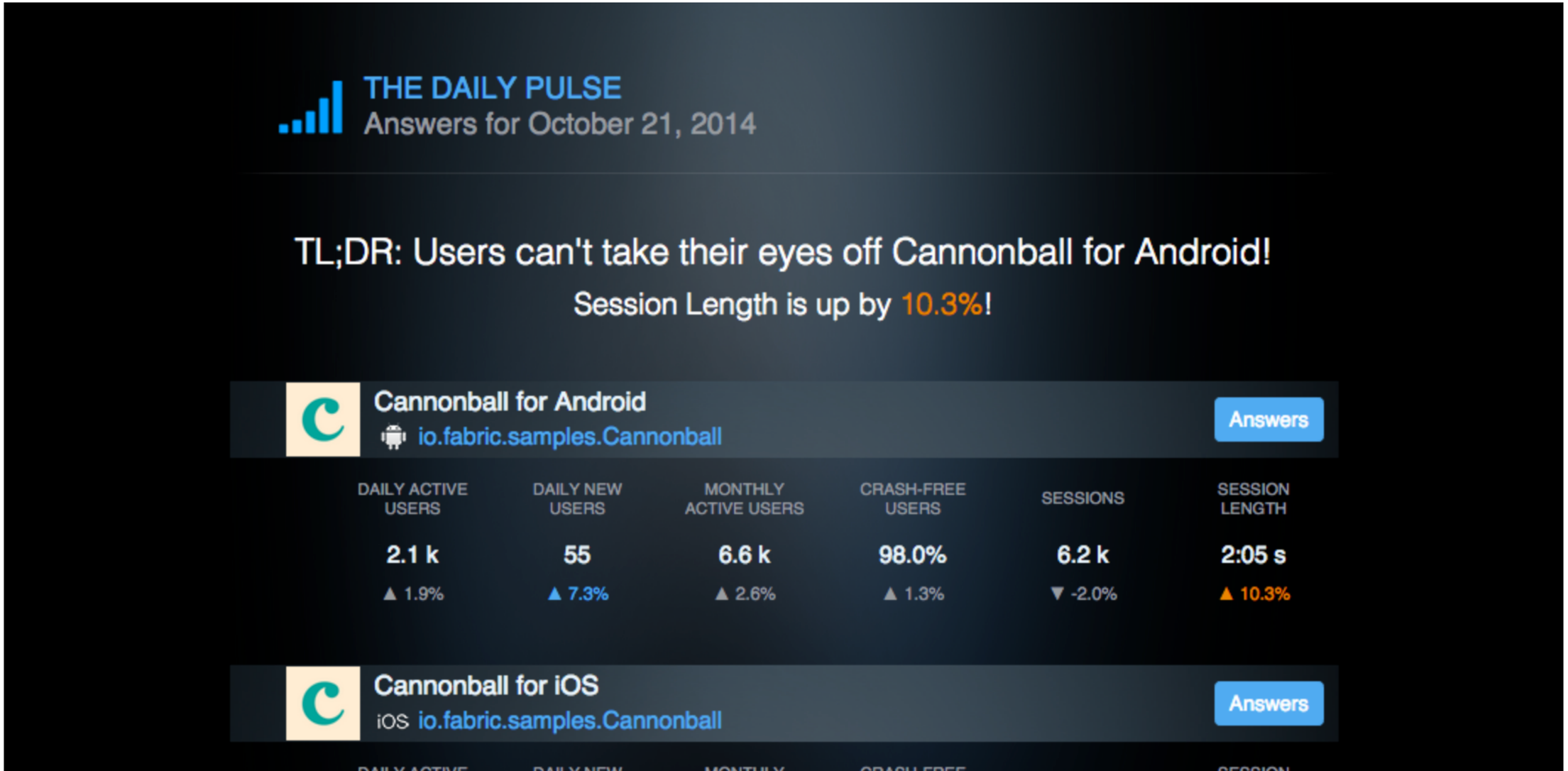
Answers by Crashlytics

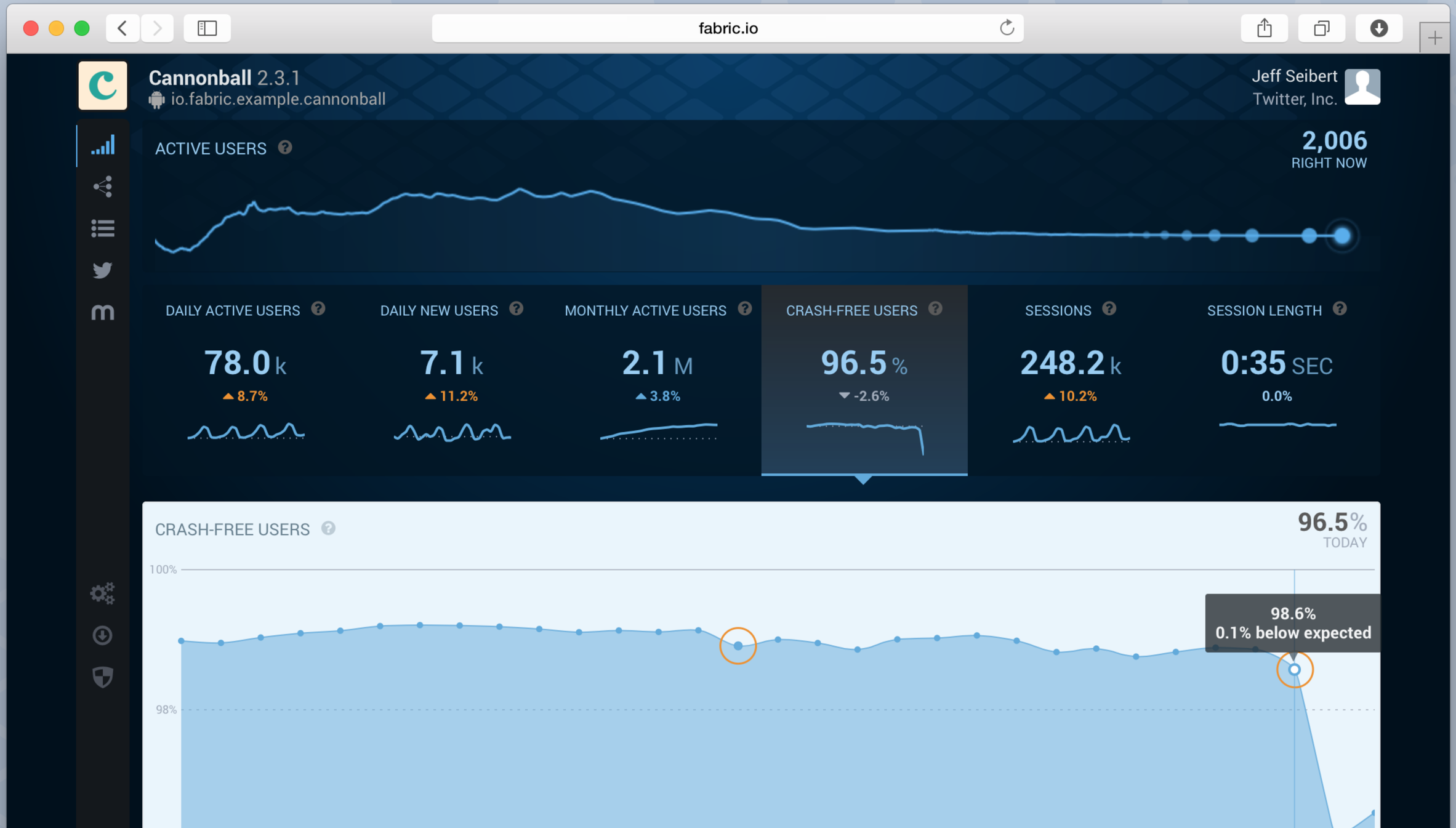
October 16, 2014 at 12:14 PM

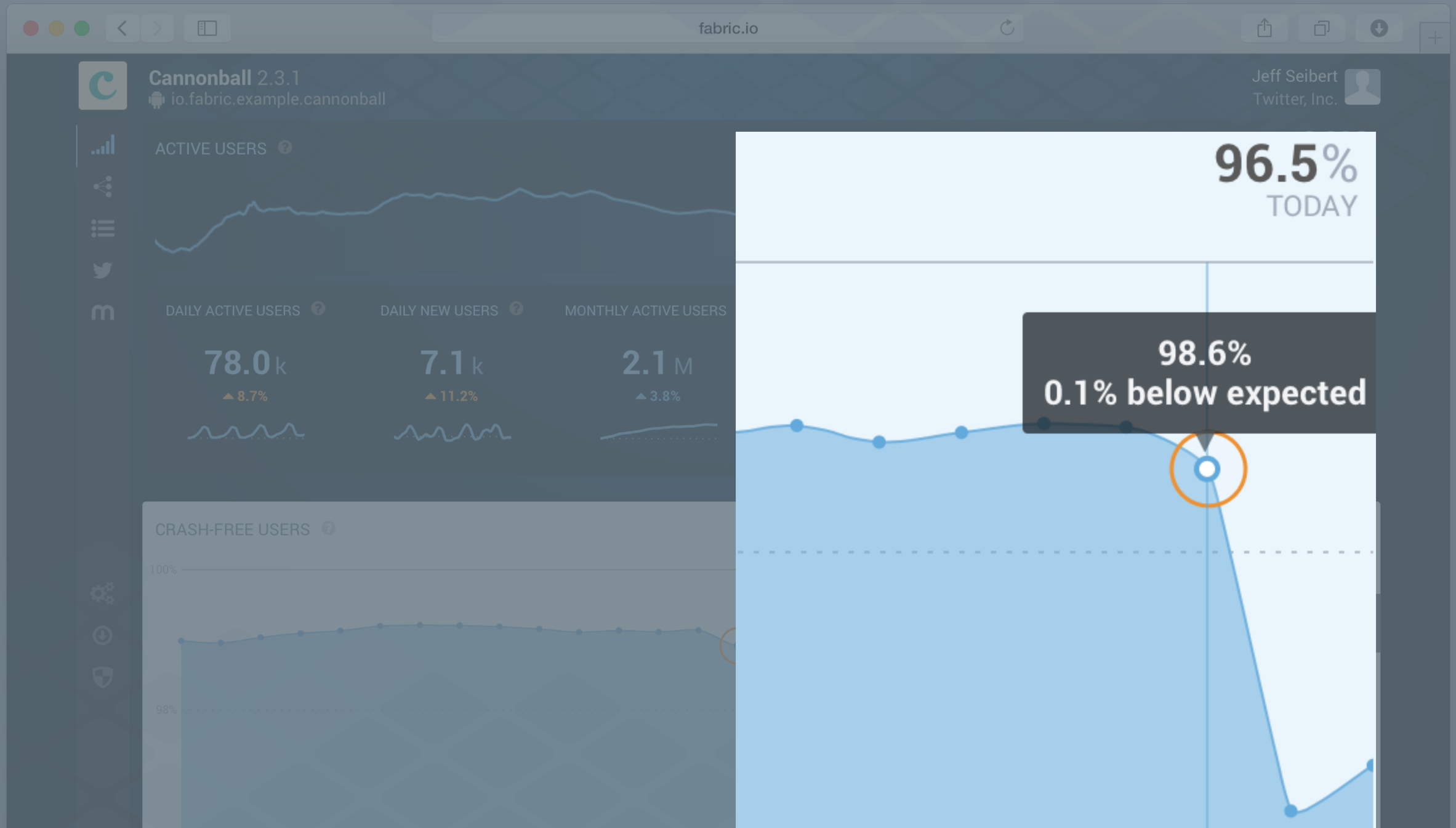
To: example@twitter.com

Cannonball Daily Summary for October 21st

AB




fabric.io
Cannonball 2.3.1
io.fabric.example.cannonball
Jeff Seibert
Twitter, Inc.
ACTIVE USERS
2,006
RIGHT NOW
DAILY ACTIVE USERS
78.0 k
▲ 8.7%
DAILY NEW USERS
7.1 k
▲ 11.2%
MONTHLY ACTIVE USERS
2.1 M
▲ 3.8%
CRASH-FREE USERS
96.5 %
▼ -2.6%
SESSIONS
248.2 k
▲ 10.2%
SESSION LENGTH
0:35 SEC
0.0%
CRASH-FREE USERS
96.5%
TODAY
100%
98%
98.6%
0.1% below expected


fabric.io
Cannonball 2.3.1
io.fabric.example.cannonball
Jeff Seibert
Twitter, Inc.
ACTIVE USERS
DAILY ACTIVE USERS
78.0 k
8.7%
DAILY NEW USERS
7.1 k
11.2%
MONTHLY ACTIVE USERS
2.1 M
3.8%
CRASH-FREE USERS
100%
98%
96.5%
TODAY
98.6%
0.1% below expected

Stability Alert for Cannonball — Inbox

Answers by Crashlytics

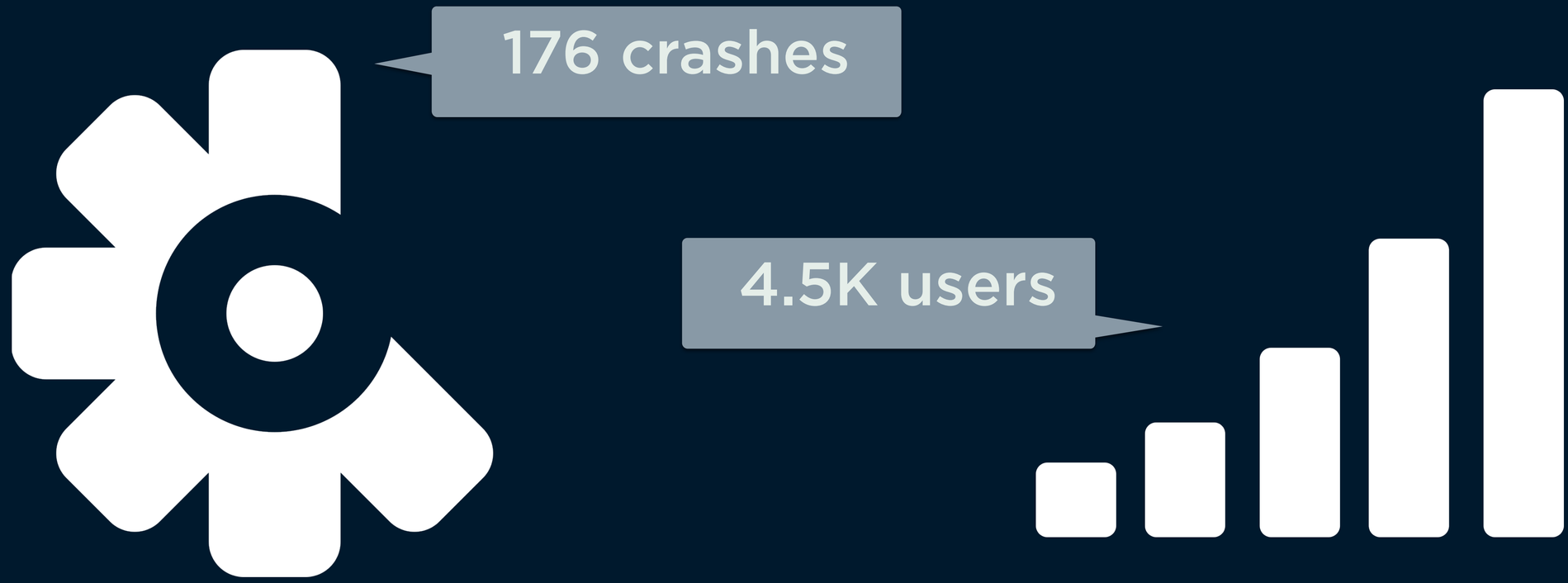
To: example@twitter.com

Stability Alert for Cannonball

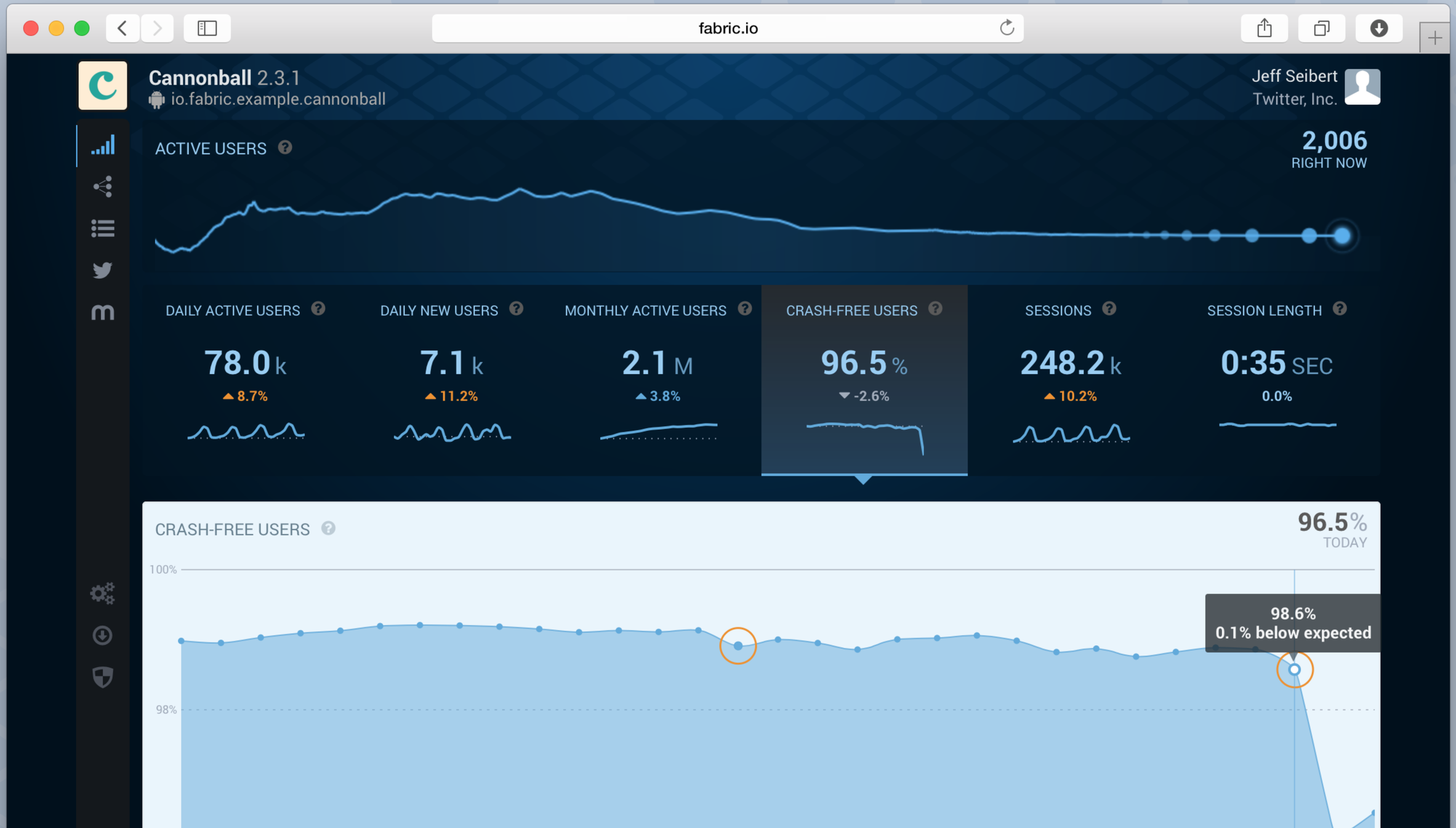
October 16, 2014 at 12:17 PM

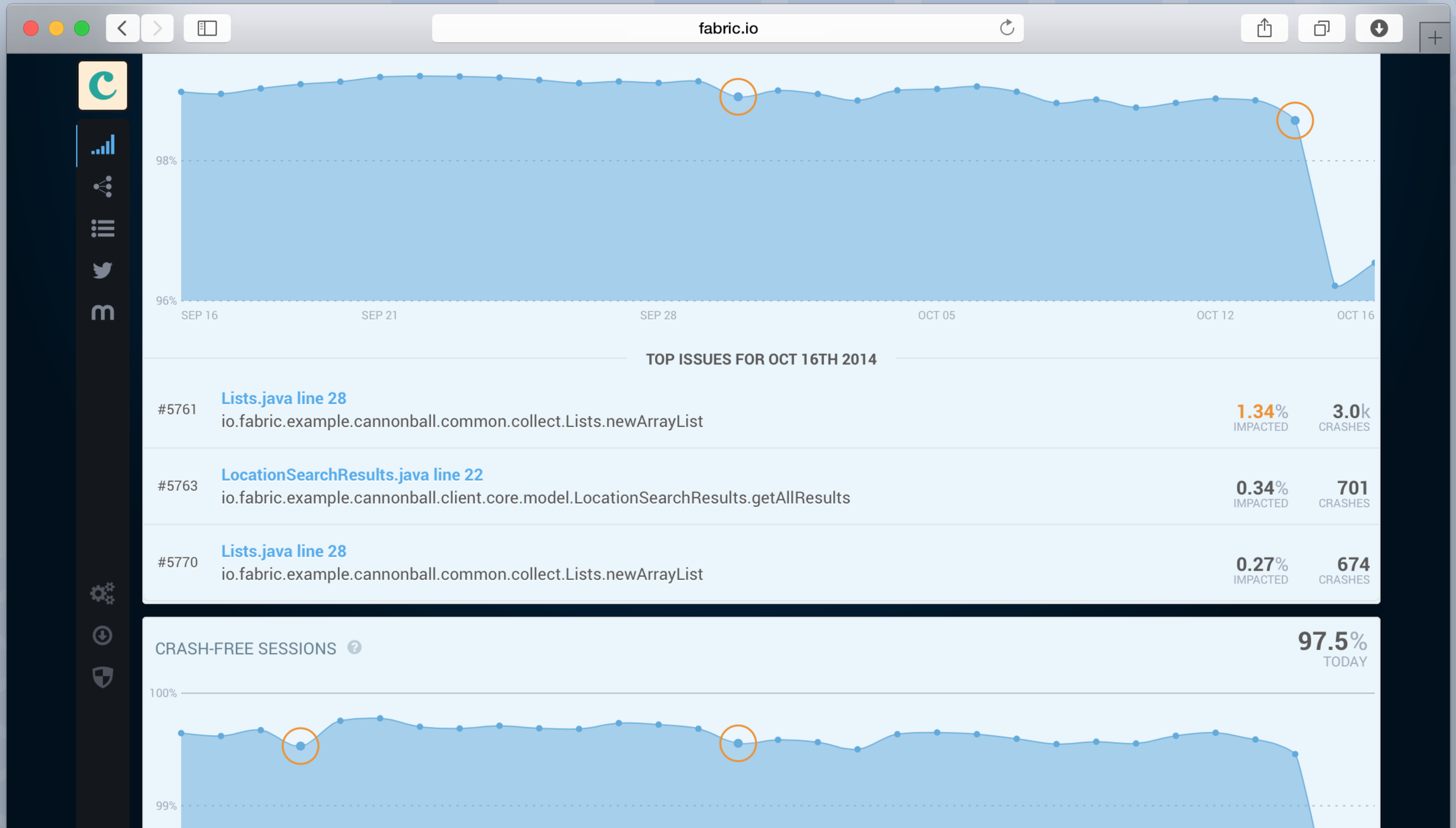
AB

Powerful stability metrics



flight


fabric.io
Cannonball 2.3.1
io.fabric.example.cannonball
Jeff Seibert
Twitter, Inc.
ACTIVE USERS
2,006
RIGHT NOW
DAILY ACTIVE USERS
78.0 k
▲ 8.7%
DAILY NEW USERS
7.1 k
▲ 11.2%
MONTHLY ACTIVE USERS
2.1 M
▲ 3.8%
CRASH-FREE USERS
96.5 %
▼ -2.6%
SESSIONS
248.2 k
▲ 10.2%
SESSION LENGTH
0:35 SEC
0.0%
CRASH-FREE USERS
96.5%
TODAY
100%
98%
98.6%
0.1% below expected

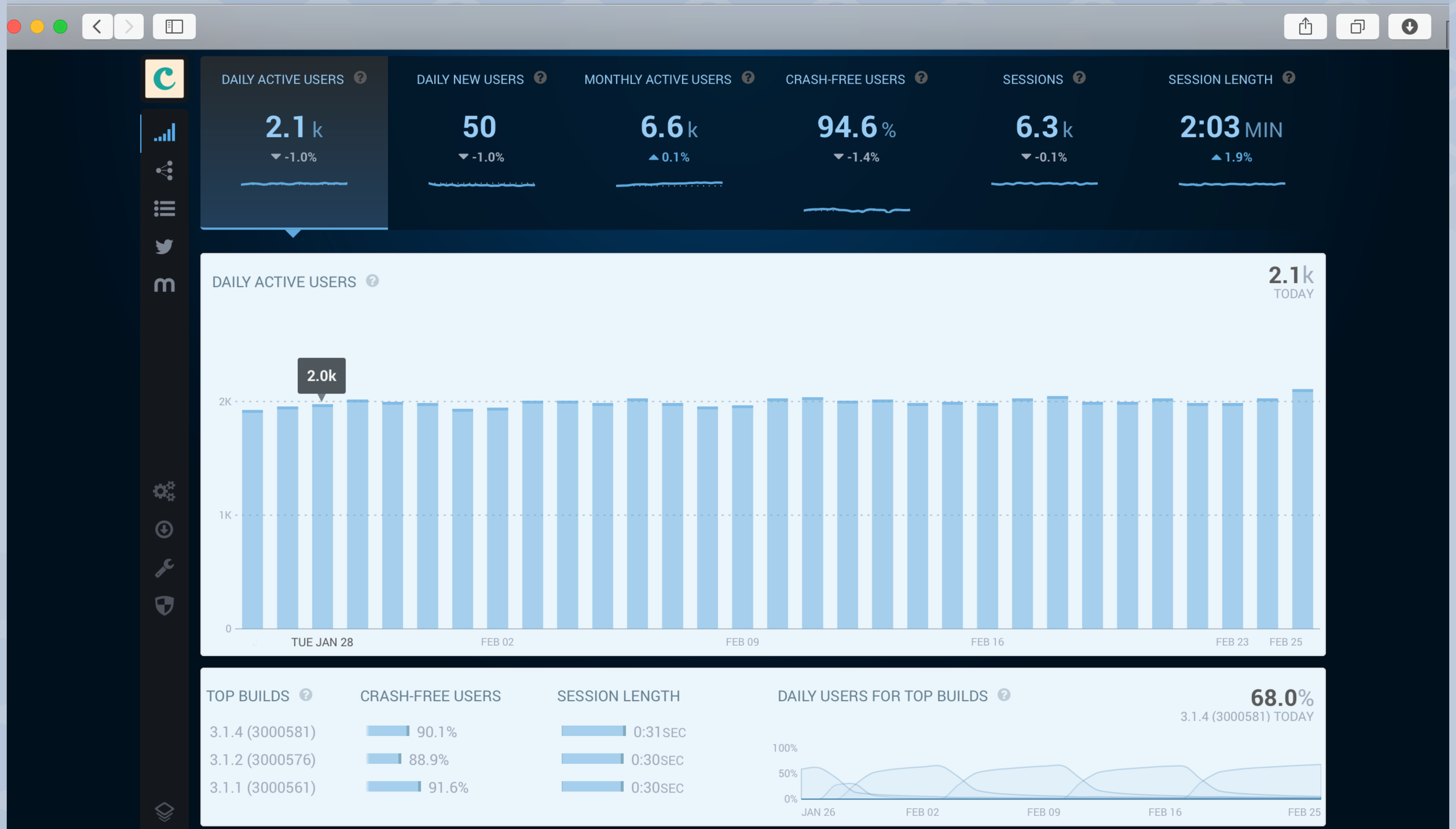

fabric.io
98%
96%
SEP 16
SEP 21
SEP 28
OCT 05
OCT 12
OCT 16
TOP ISSUES FOR OCT 16TH 2014
#5761
Lists.java line 28
io.fabric.example.cannonball.common.collect.Lists.newArrayList
1.34% IMPACTED
3.0k CRASHES
#5763
LocationSearchResults.java line 22
io.fabric.example.cannonball.client.core.model.LocationSearchResults.getAllResults
0.34% IMPACTED
701 CRASHES
#5770
Lists.java line 28
io.fabric.example.cannonball.common.collect.Lists.newArrayList
0.27% IMPACTED
674 CRASHES
CRASH-FREE SESSIONS
97.5% TODAY
100%
99%

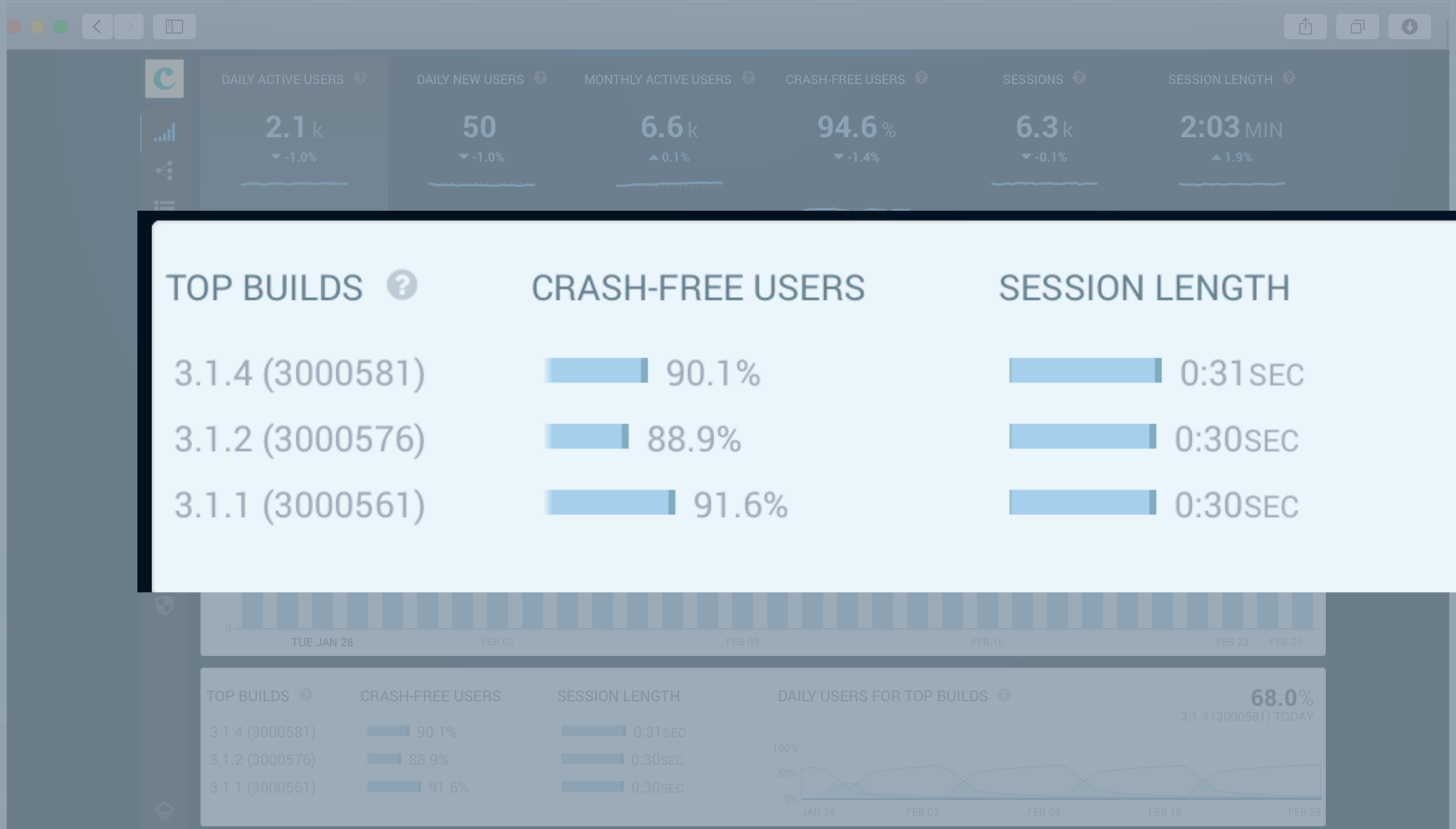
“ Hootsuite is now able to discover and find root causes of crashes **twice as fast** as before, and consistently keep its **crash rates below 1%**.

The resulting stability has led to increased user retention and improved app store ratings.”

- Hootsuite

flight

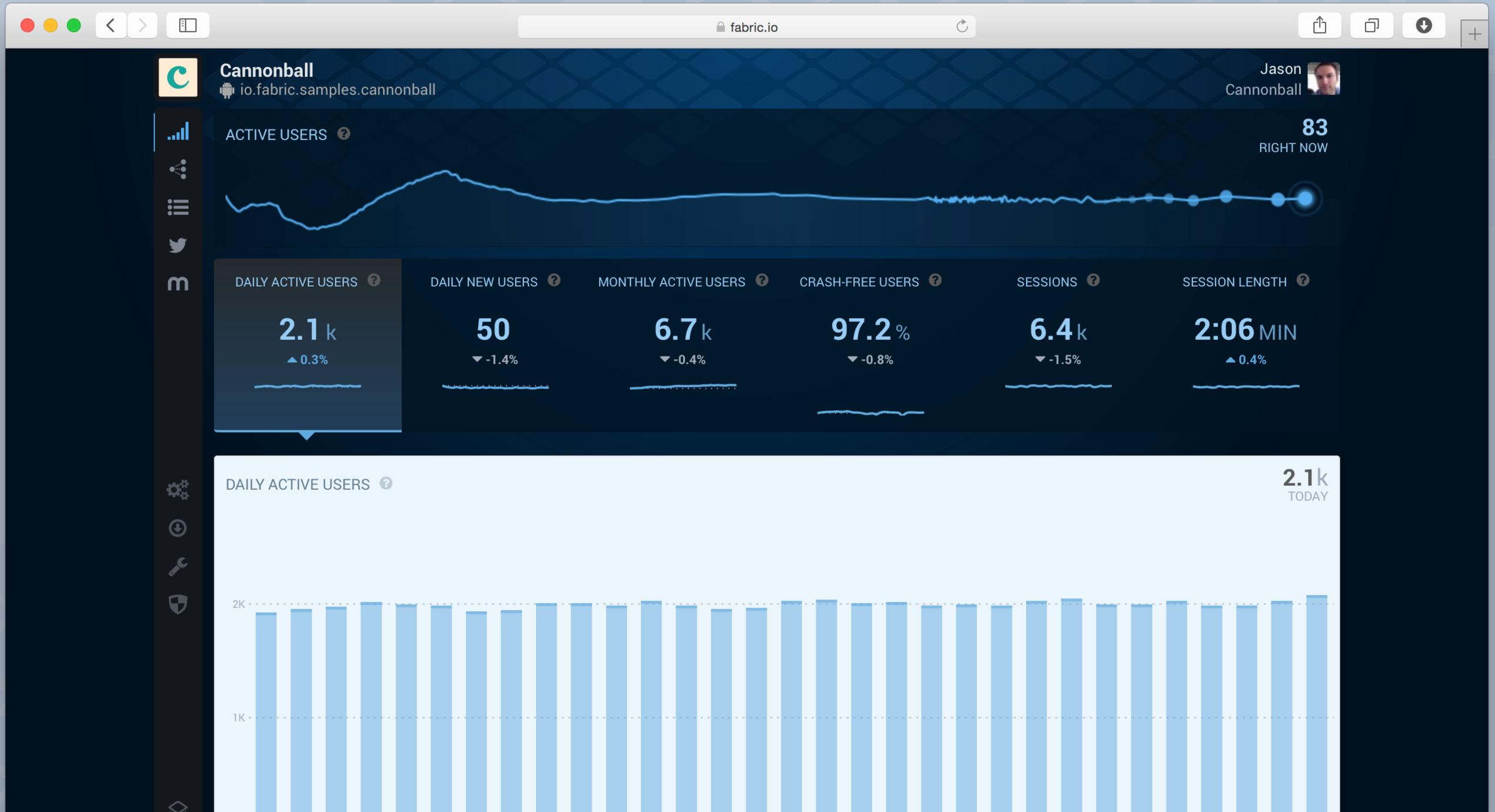

DAILY ACTIVE USERS
2.1 k
-1.0%
DAILY NEW USERS
50
-1.0%
MONTHLY ACTIVE USERS
6.6 k
0.1%
CRASH-FREE USERS
94.6 %
-1.4%
SESSIONS
6.3 k
-0.1%
SESSION LENGTH
2:03 MIN
1.9%
DAILY ACTIVE USERS
2.1k
TODAY
2.0k
2K
1K
0
TUE JAN 28
FEB 02
FEB 09
FEB 16
FEB 23
FEB 25
TOP BUILDS
CRASH-FREE USERS
SESSION LENGTH
3.1.4 (3000581)
90.1%
0:31SEC
3.1.2 (3000576)
88.9%
0:30SEC
3.1.1 (3000561)
91.6%
0:30SEC
DAILY USERS FOR TOP BUILDS
68.0%
3.1.4 (3000581) TODAY
100%
50%
0%
JAN 26
FEB 02
FEB 09
FEB 16
FEB 25


DAILY ACTIVE USERS
2.1 k
-1.0%
DAILY NEW USERS
50
-1.0%
MONTHLY ACTIVE USERS
6.6 k
0.1%
CRASH-FREE USERS
94.6 %
-1.4%
SESSIONS
6.3 k
-0.1%
SESSION LENGTH
2:03 MIN
1.9%
TOP BUILDS
CRASH-FREE USERS
SESSION LENGTH
3.1.4 (3000581)
90.1%
0:31SEC
3.1.2 (3000576)
88.9%
0:30SEC
3.1.1 (3000561)
91.6%
0:30SEC
0
TUE JAN 28
FEB 02
FEB 09
FEB 16
FEB 23
FEB 25
TOP BUILDS
CRASH-FREE USERS
SESSION LENGTH
DAILY USERS FOR TOP BUILDS
68.0%
3.1.4 (3000581) TODAY
3.1.4 (3000581)
90.1%
0:31SEC
3.1.2 (3000576)
88.9%
0:30SEC
3.1.1 (3000561)
91.6%
0:30SEC
100%
50%
0%
JAN 26
FEB 02
FEB 09
FEB 16
FEB 25

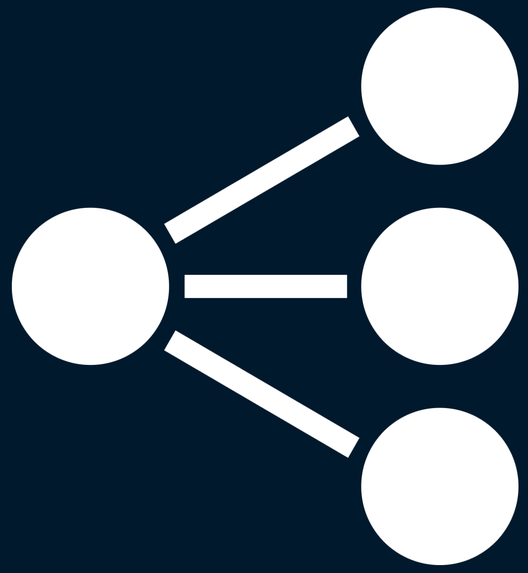
“With Answers by Crashlytics, Runkeeper saved **2 hours of developer time** on release days.

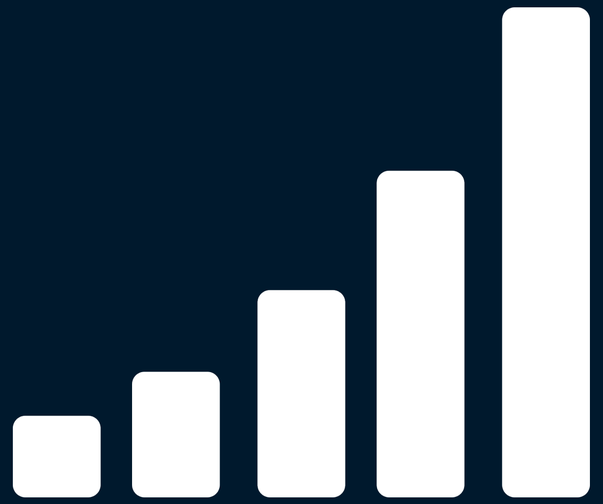
We just launched a new version and it was amazing to **immediately compare its stability** to our previous versions.”

- Runkeeper


fabric.io
Cannonball
io.fabric.samples.cannonball
Jason
Cannonball
ACTIVE USERS
83
RIGHT NOW
DAILY ACTIVE USERS
2.1 k
▲ 0.3%
DAILY NEW USERS
50
▼ -1.4%
MONTHLY ACTIVE USERS
6.7 k
▼ -0.4%
CRASH-FREE USERS
97.2 %
▼ -0.8%
SESSIONS
6.4 k
▼ -1.5%
SESSION LENGTH
2:06 MIN
▲ 0.4%
DAILY ACTIVE USERS
2.1k
TODAY
2K
1K

Crashlytics Kit





flight

Thank You