

NightJarr

An aerial photograph of a city skyline, likely Johannesburg, with a blue color overlay. The image shows a dense urban landscape with various buildings, including a prominent tall tower in the background and a large circular building in the foreground. A multi-lane road curves through the lower part of the image. The text 'App tracking' and 'Firebase + GA4' is overlaid in white.

App tracking

Firebase + GA4

Please stop me at anytime

**There is no such thing
as a “stupid question”**



What we will cover today:

1.

Where does app
tracking fit in?

2.

Set up process

3.

Implementation

Event and
Parameters

4.

GA4

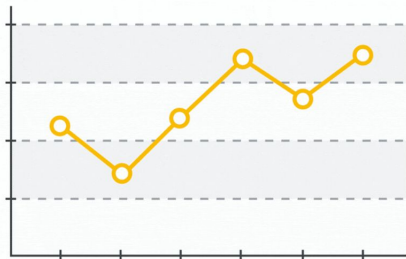
5.

Live demo

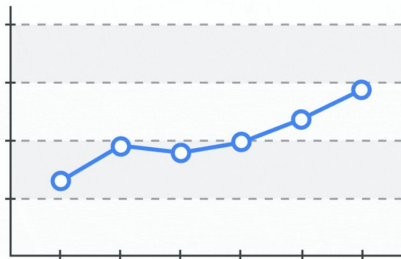
Where does app tracking fit in?

Google Analytics / GA4

- previously known as “App + Web”



App

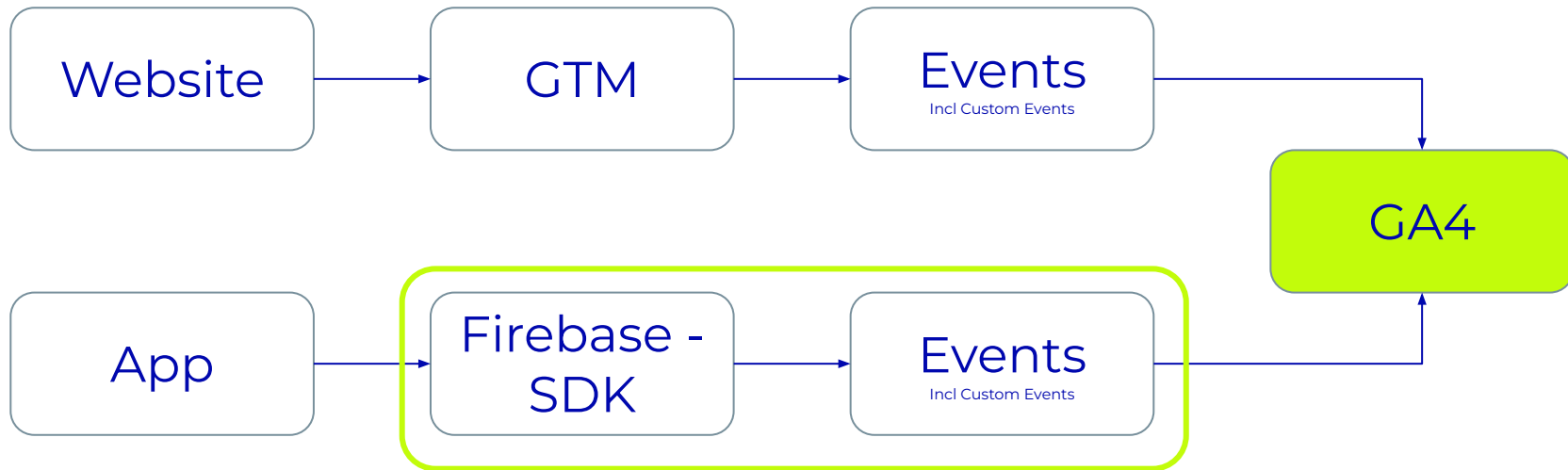


Web

GA4 is the future (now) of Analytics and Reporting

GA4 combines web and app data on an EVENT based model

Overview



Firebase is essential for GA4

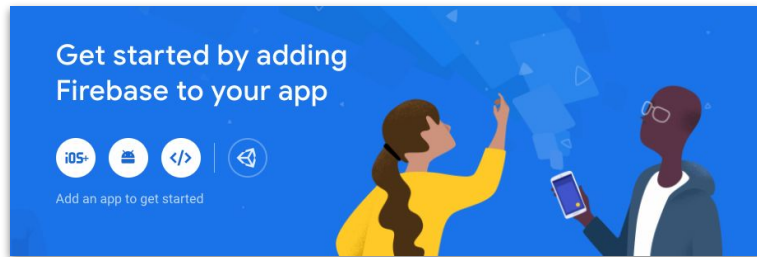


Set up process

Set up process

1. Have an App
2. Create / Login to Google account
3. Sign up [here](#)
4. Create Project
5. Add Firebase to app

(iOS and Android as needed)



×

Add Firebase to your Apple app

1

Register app

Apple bundle ID ⓘ

com.company.appname

App nickname (optional) ⓘ

My Apple App

App Store ID (optional) ⓘ

123456789

Register app

2

Download config file

3

Add Firebase SDK

4

Add initialization code

5

Next steps

Add Firebase to your Android app

1 Register app

Android package name ⓘ
com.company.appname ⓘ

App nickname (optional) ⓘ
My Android App

Debug signing certificate SHA-1 (optional) ⓘ
00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
Required for Dynamic Links, and Google Sign-in or phone number support in Auth. Edit SHA-1s in Settings.

Register app

2 Download config file

3 Add Firebase SDK

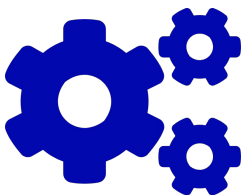
4 Next steps

Set up process

6-8. Download and install SDK, then submit to App Stores



Download



Install SDK



App Store
Release

Automatic Tracking

Over 30 events automatically tracked if data/ touch point exists, including:

- Ad engagement
- App remove
- App Store Subscription / Purchase
- App Update
- Dynamic Links
- In-app Messages
- **First Open***
- Notification Engagement
- **Screen View***
- **Campaign***

Click here for full list:
[\[GA4\] Automatically collected events - Analytics Help](#)

While Dev is busy installing....



Plan what else *you* would like to track in your application

Also include desired *user details* where possible

We recommend that you complete a **Measurement Framework/Tracking Plan**



Any Other
User Engagement
to be tracked as
Events

(Requires set up)

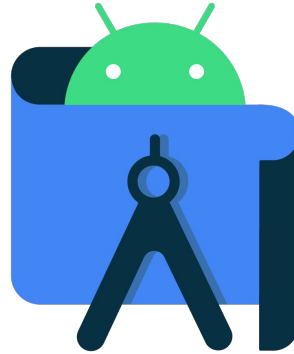
Implementation

Events and parameters

iOS vs Android



Swift



Java Android



Kotlin+KTX Android

ios



Swift

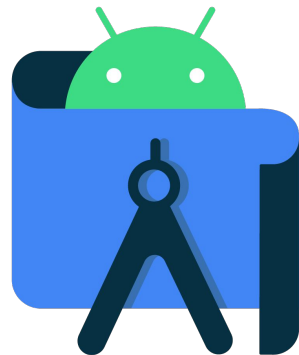
```
Analytics.logEvent (AnalyticsEvent{ {eventName} },  
parameters: [  
    AnalyticsParameter{{param1}}: "value1",  
    AnalyticsParameter{{param2}}: "value2",  
    AnalyticsParameter{{param3}}: "value3",  
])
```

ios



```
[FIRAnalytics logEventWithName:kFIREvent{ {eventName} }
parameters:@
{
    kFIRParameterItemID:
    [NSString stringWithFormat:@"id-%@",self.title],
    kFIRParameterItemName:self.title,
    kFIRParameterContentType:@"image"
}
];
```

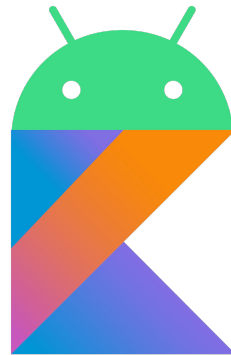
Android



Java Android

```
Bundle bundle = new Bundle();  
bundle.putString(FirebaseAnalytics.Param.{{param1}}, value1);  
bundle.putString(FirebaseAnalytics.Param.{{param2}}, value2);  
bundle.putString(FirebaseAnalytics.Param.{{param3}}, value3);  
mFirebaseAnalytics.logEvent(FirebaseAnalytics.Event.{{eventName  
}}, bundle);
```

Android



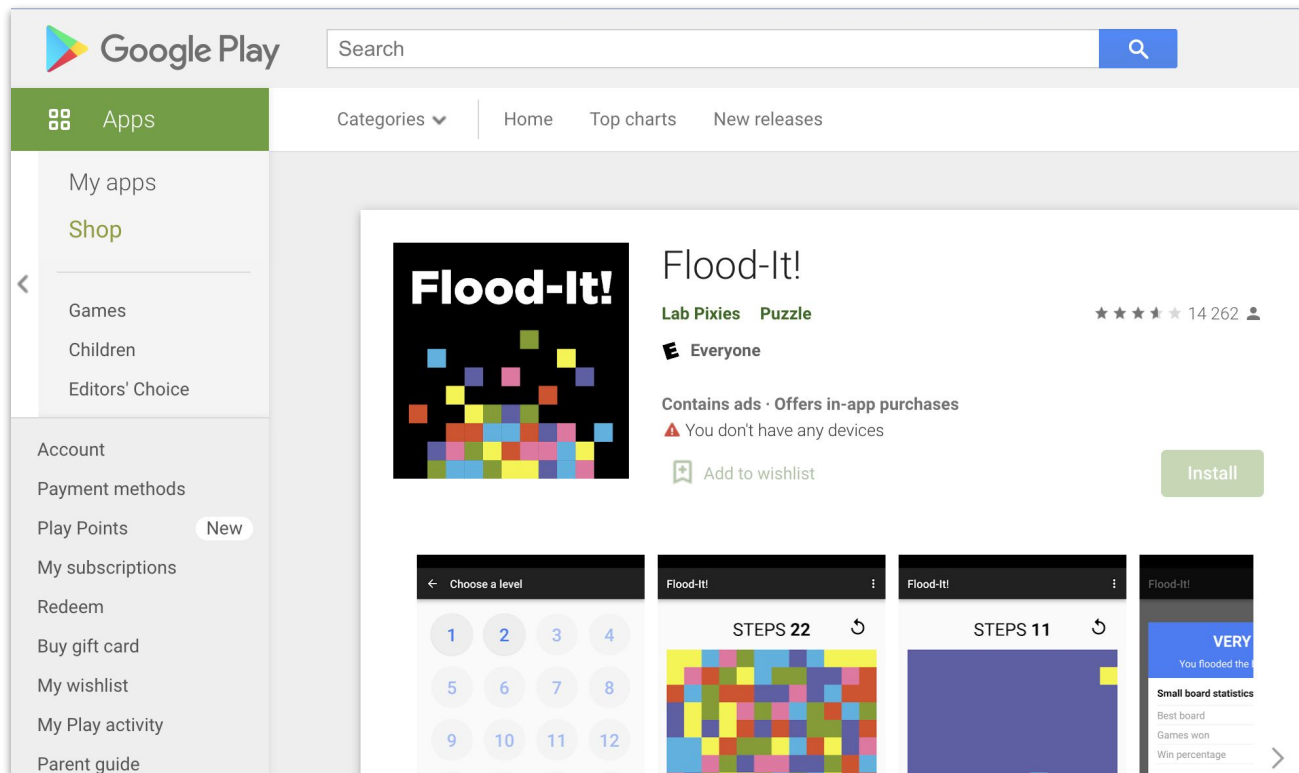
Kotlin+KTX Android

```
firebaseAnalytics.logEvent(FirebaseAnalytics.Event.{{event  
Name}}) {  
    param(FirebaseAnalytics.Param.{{param1}}, value1)  
    param(FirebaseAnalytics.Param.{{param2}}, value2)  
    param(FirebaseAnalytics.Param.{{param3}}, value3)  
}
```

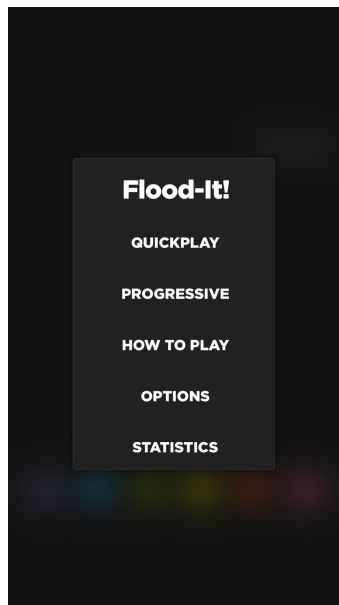
GA4 Limits

| Logged item | Limit | Can I delete items if I'm close to the limit? |
|---------------------------------|---|---|
| Distinctly named events | 500 per app instance (app) Automatically collected events , like first_open and in_app_purchase, and events you collect via enhanced measurement do not count toward the limits. | No |
| Length of event name | 40 characters | N/A |
| Event parameters per event | 25 event parameters | Yes |
| Length of event-parameter name | 40 characters | N/A |
| Length of event-parameter value | 100 characters | N/A |
| User properties | 25 per property | No |
| Length of user-property names | 24 characters | N/A |
| Length of user-property values | 36 characters | N/A |
| Length of User-ID values | 256 characters | N/A |

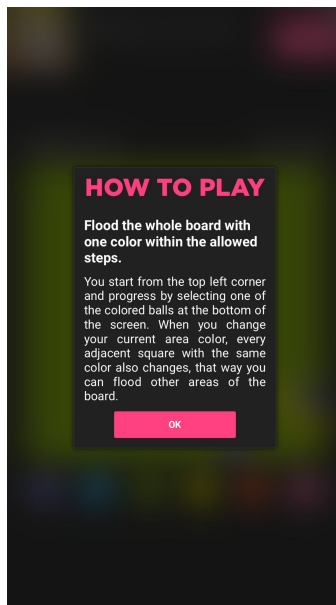
Demo Account



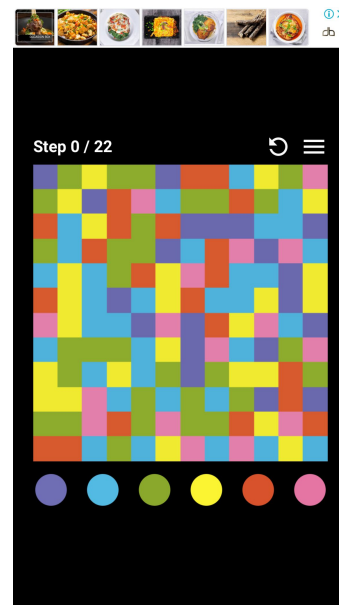
In-app events



Menu

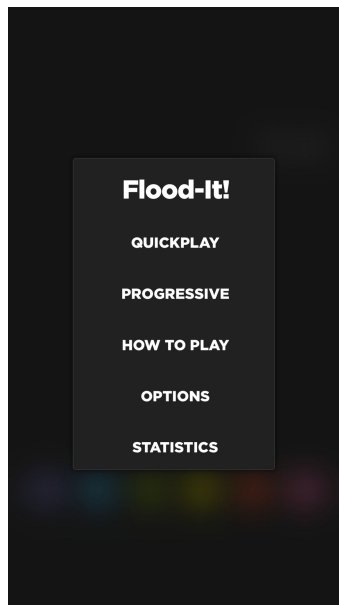


How to
play

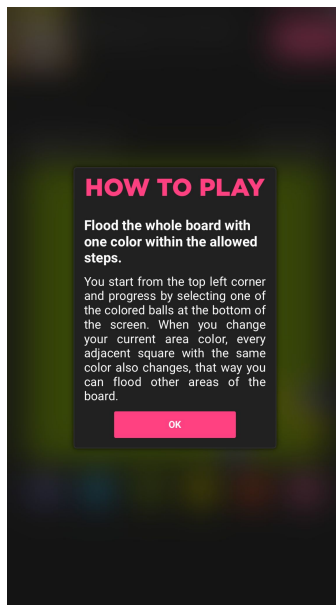


Level Start

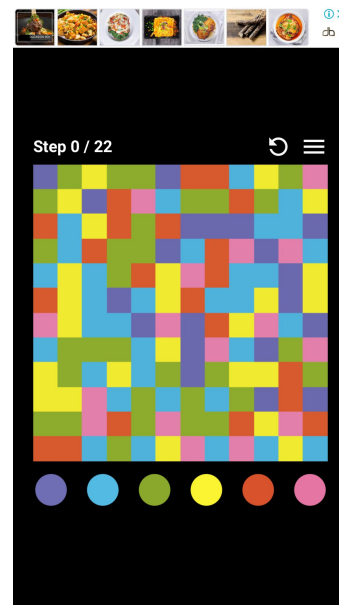
In-app events



screen_view

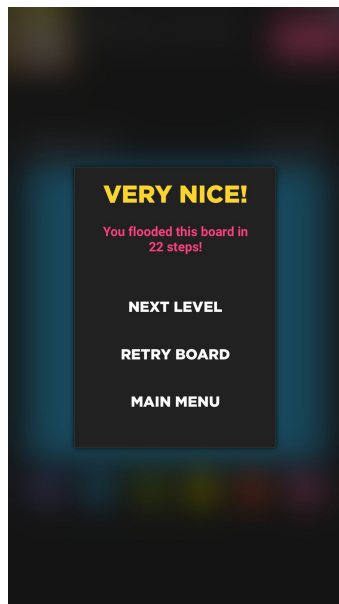


screen_view

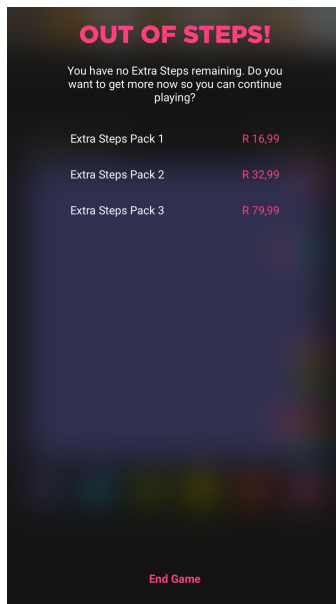


level_start

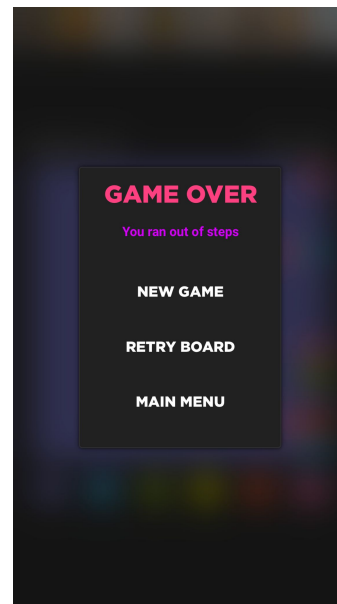
In-app events



Success

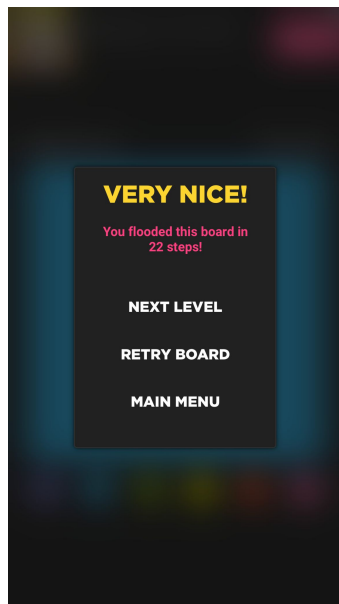


In-app
Purchase

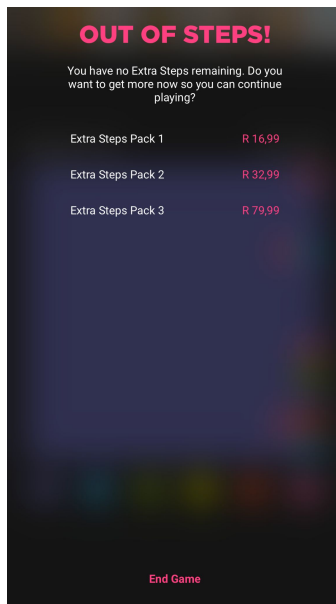


Game Over

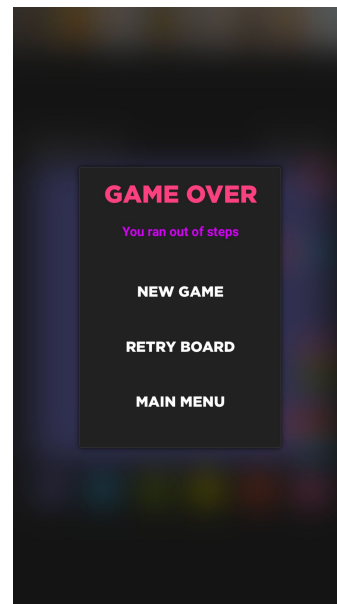
In-app events



level_complete



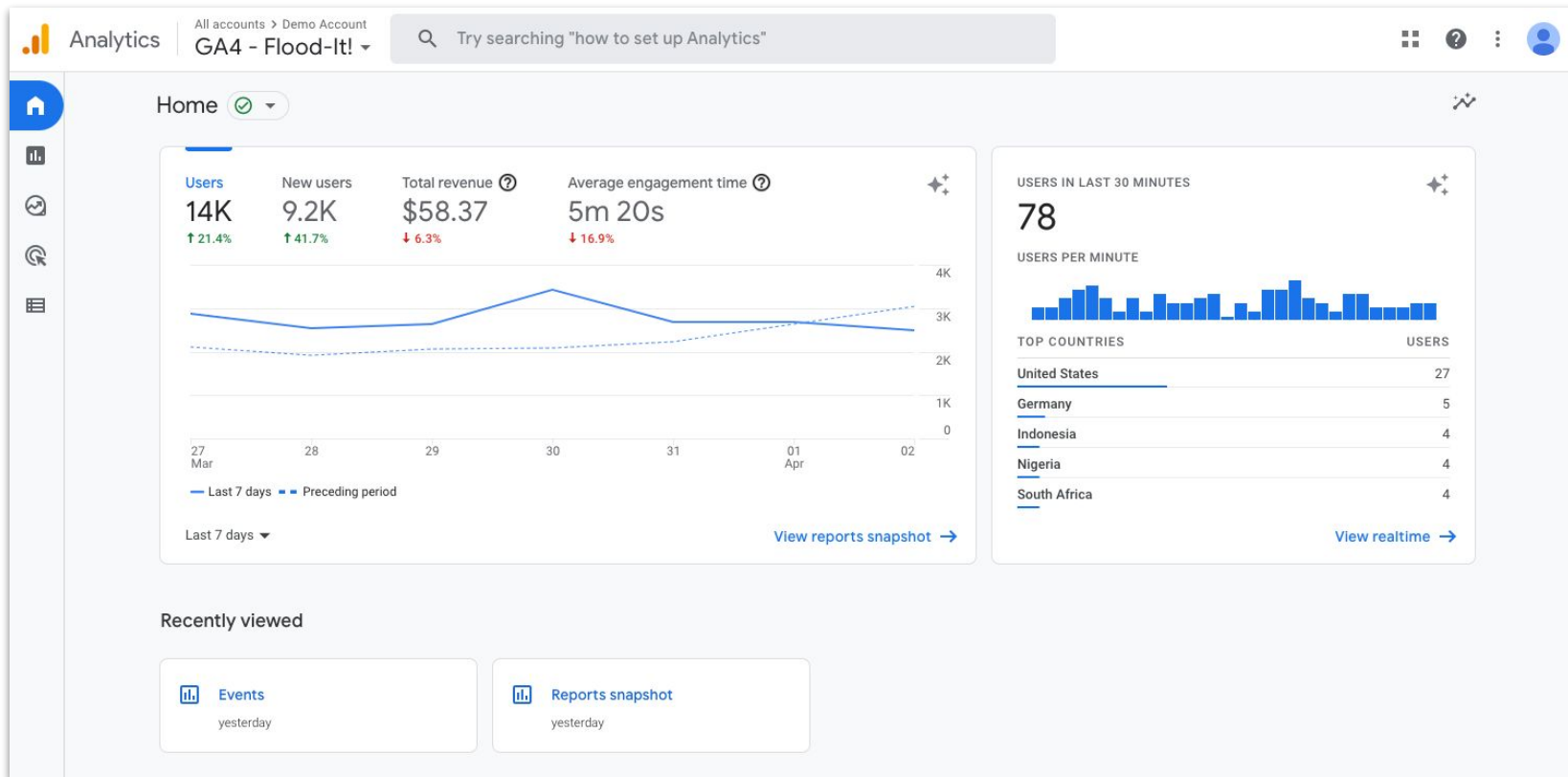
use_extra_steps



level_fail

GA4

New interface



Explore

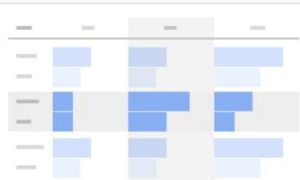


Techniques



Blank

Create a new exploration



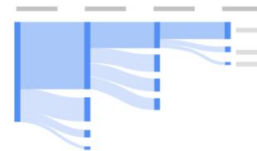
Free form

What insights can you uncover with custom charts and tables?



Funnel exploration

What user journeys can you analyze, segment, and breakdown with multi-step funnels?



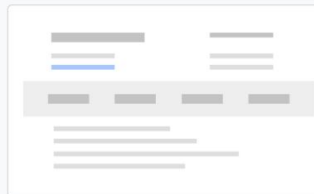
Path exploration

What user journeys can you uncover with tree graphs?



Segment overlap

What do intersections of your segments of users tell you about their behavior?



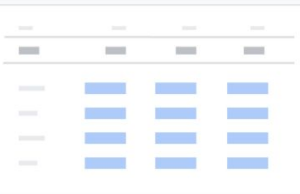
User explorer

What individual behaviors can you uncover by drilling into individual user activities?



Cohort exploration

What insights can you get from your user cohorts behavior over time?



User lifetime

What can you learn by analyzing the entire lifetime of your users?

Events

Analytics

All accounts > Demo Account

GA4 - Flood-It!

Try searching "how to set up Analytics"

?

:

Reports snapshot

Realtime

App developer

Firestore

Games reporting

Acquisition

Retention

Engagement

Engagement

Events

Conversions

Monetization

User

Demographics

Tech

Events: Event name

✓

A

+

Last 28 days Mar 7 - Apr 3, 2022

| | | | | | |
|----|--|-----------|--------|-------|----------|
| 1 | screen_view | 1,420,645 | 35,149 | 40.57 | \$0.00 |
| 2 | user_engagement | 327,457 | 34,661 | 9.53 | \$0.00 |
| 3 | level_start_quickplay | 252,170 | 18,852 | 13.53 | \$0.00 |
| 4 | level_end_quickplay | 142,014 | 6,487 | 21.92 | \$0.00 |
| 5 | select_content | 120,198 | 26,129 | 4.65 | \$0.00 |
| 6 | post_score | 111,022 | 10,738 | 10.39 | \$0.00 |
| 7 | level_complete_quickplay | 84,191 | 3,154 | 26.71 | \$0.00 |
| 8 | level_start | 84,109 | 11,550 | 7.32 | \$0.00 |
| 9 | session_start | 80,057 | 36,526 | 13.46 | \$0.00 |
| 10 | level_reset_quickplay | 60,229 | 7,511 | 8.21 | \$0.00 |
| 11 | level_fail_quickplay | 57,824 | 5,650 | 10.26 | \$0.00 |
| 12 | ad_impression | 50,107 | 4,452 | 11.75 | \$210.55 |
| 13 | level_end | 44,434 | 8,352 | 5.35 | \$0.00 |
| 14 | level_retry | 40,989 | 7,802 | 5.30 | \$0.00 |
| 15 | level_up | 26,833 | 8,097 | 3.34 | \$0.00 |
| 16 | level_complete | 26,489 | 8,019 | 3.33 | \$0.00 |
| 17 | first_open | 24,059 | 23,904 | 1.01 | \$0.00 |
| 18 | level_reset | 20,723 | 5,931 | 3.67 | \$0.00 |

Live demo

Coming Soon....

Features Coming Soon...

- Machine Learning
 - Including conversion modelling
- Predictive Audiences
 - Based on Conversion Probability
 - Based on Churn Probability
- User Lifetime Value Predictions

Next steps

Next workshops

Top KPIs to generate more B2B sales

Reporting with Google Data Studio

Get marketing insights (complimentary)

Click here to book

Leave us a Google review [Click here](#)



Thank You