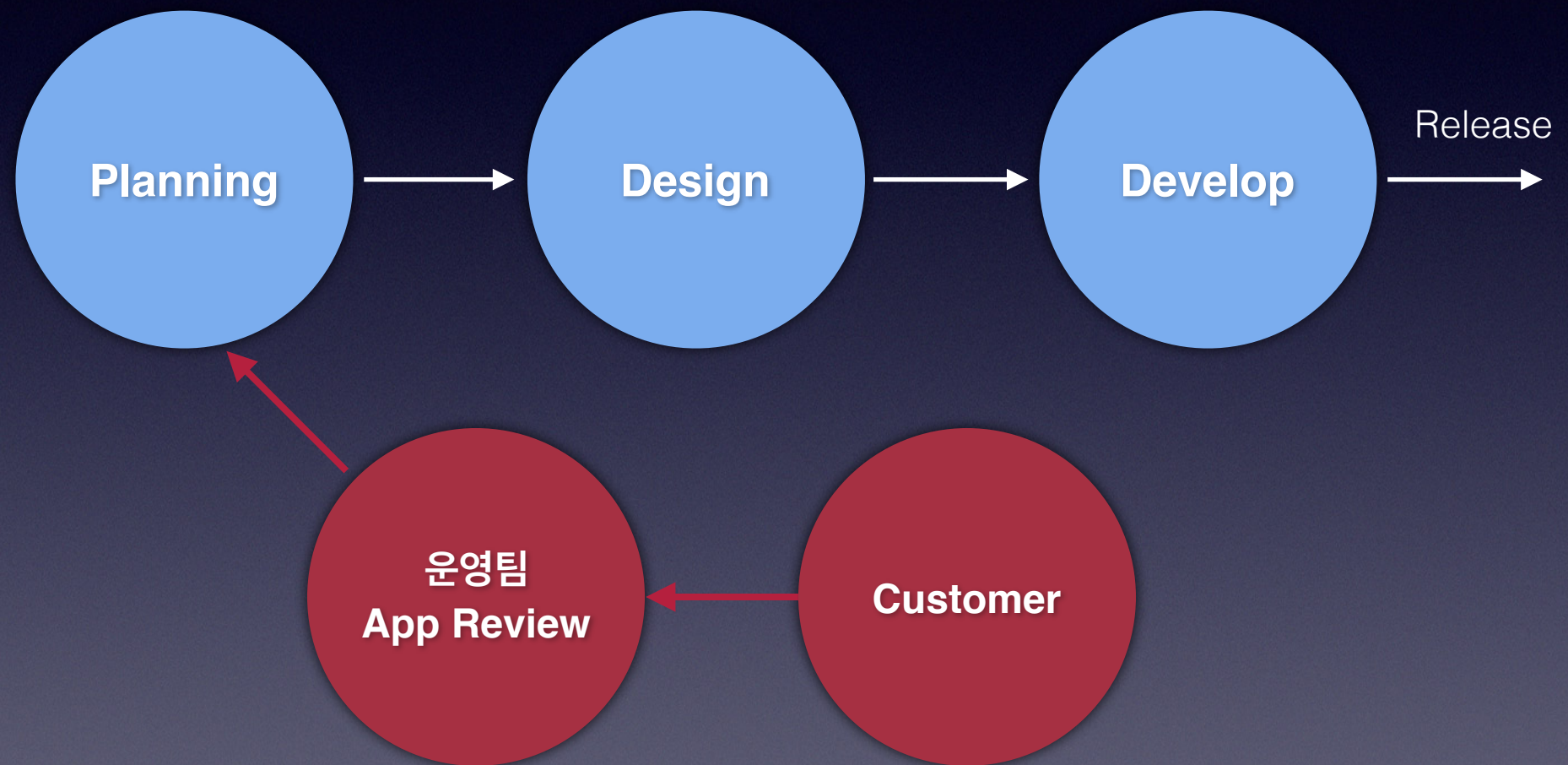
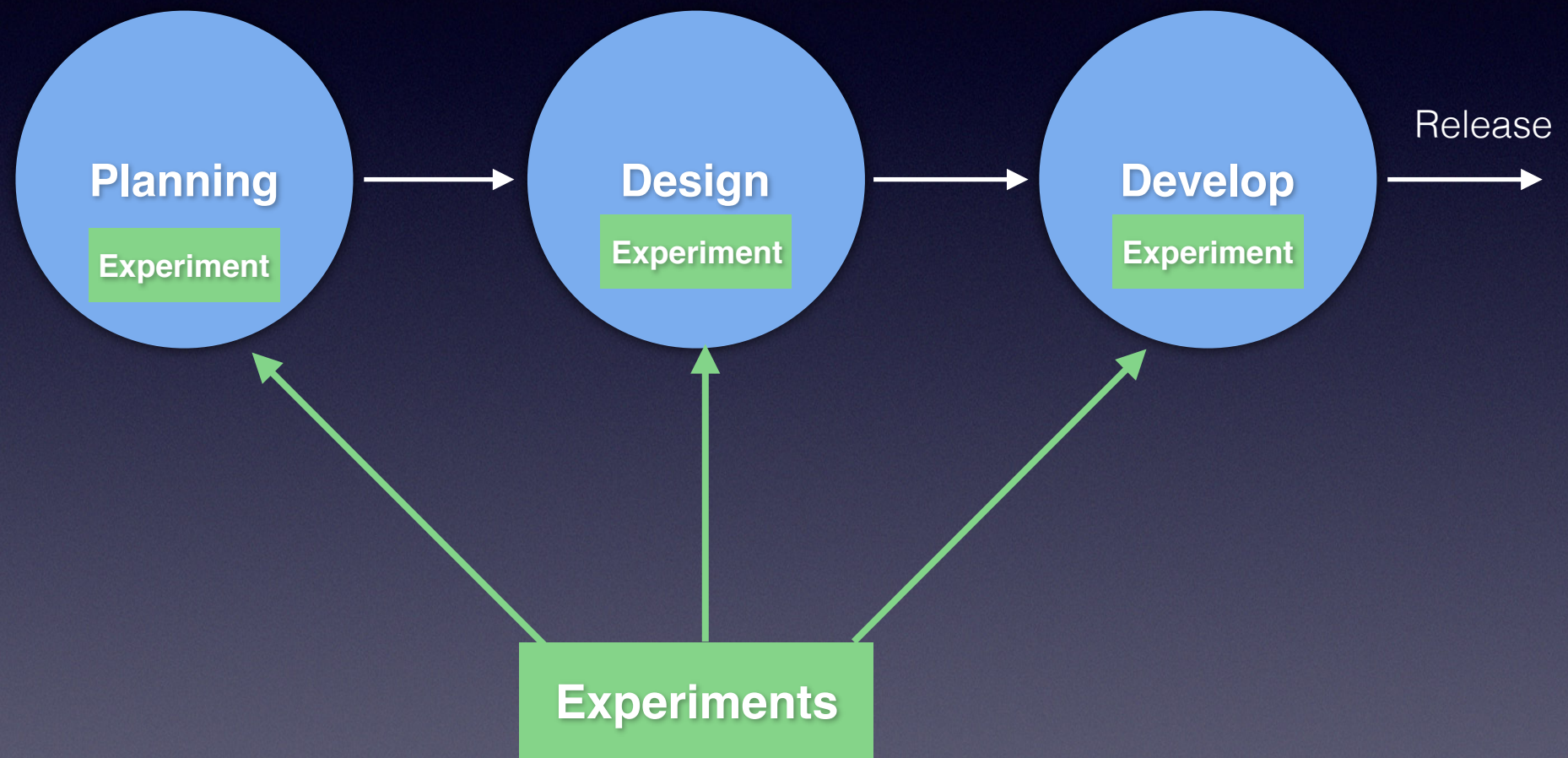


Client application improvement with Firebase

Agenda



Agenda



History



May 2012

Real-time DB
Hosting
Authentication



Oct. 2014

Acquired by Google
Analytics imported
Remote Config
A/B Testing

Jan. 2017

Acquired Fabric from Twitter
Crashlytics imported
App distribution

Contents

3 rules for the Firebase Analytics

Remote Config

A/B Testing

Analytics

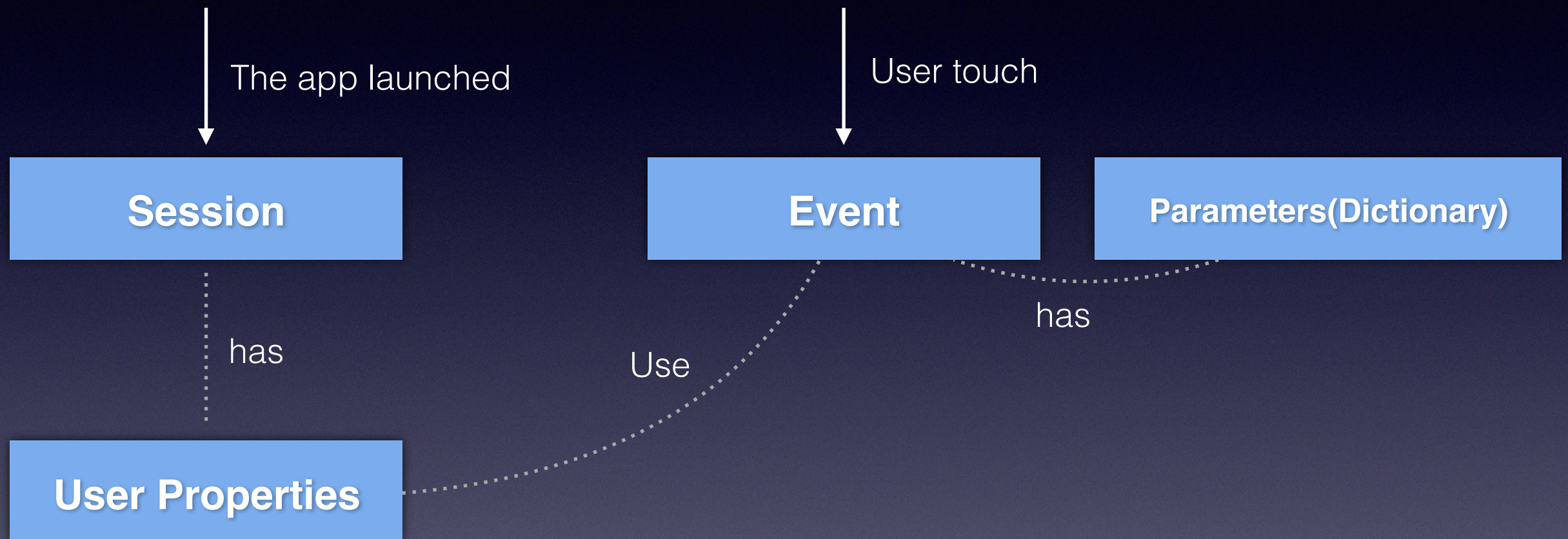
Event

What is happening in your app, such as user actions, system events, or errors.

User-Property

Attributes you define to describe segments of your user base, such as language preference or geographic location.

Analytics Map



Analytics rules

1. Let's use user-properties for event filtering

The Age, Gender, and Interests properties are automatically collected.

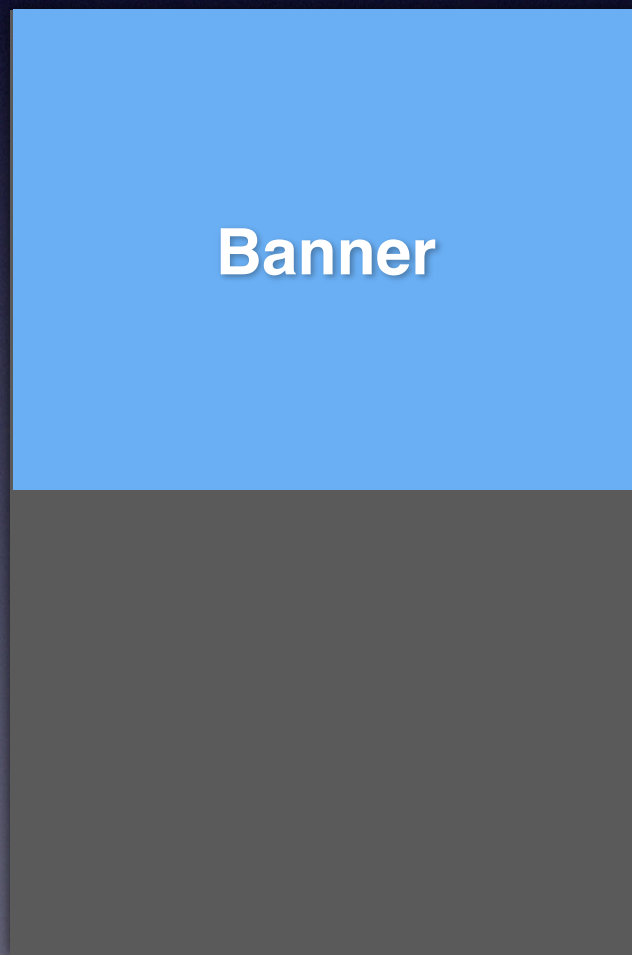
```
Analytics.setUserProperty(value, key)
```

```
Analytics.setUserProperty(7, "my_album_count")
```

```
Analytics.setUserProperty("offline_streaming", "user_right")
```


Analytics rules

1. Let's use user-properties for event filtering



'Home screen init' 100 times

'Banner_click' 50 times

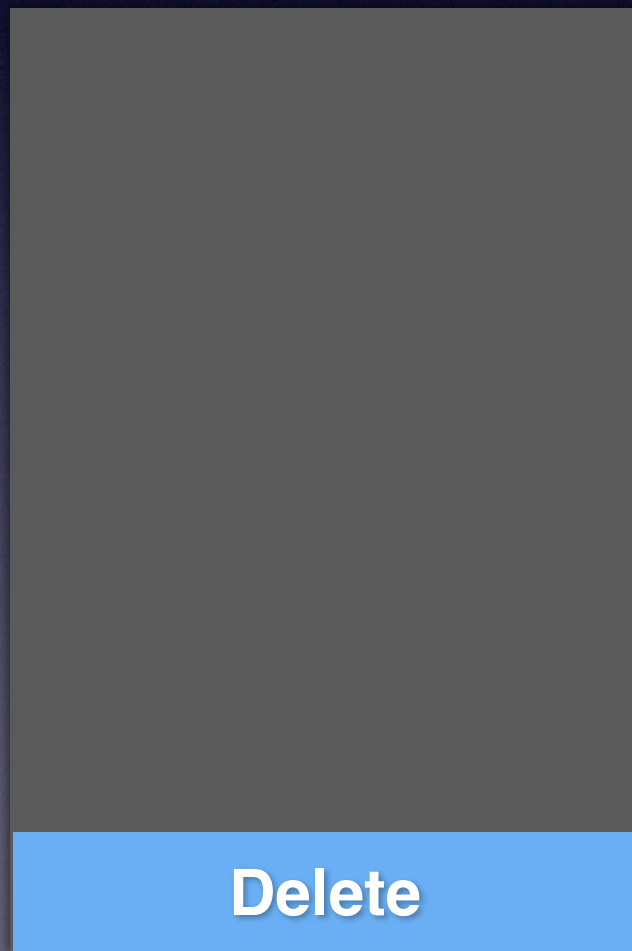
'Banner_click' event's User property (Age)

Age(20~30): 45 times / 50 persons

Age(40~50): 5 times / 50 persons

Analytics rules

1. Let's use user-properties for event filtering



Playlist

1. 'my_album_count' property registered.
2. inspect 'delete' event with user properties

Audiences

- Audience = User properties + Events.
- Let you segment your users who are important to business.
- Analyze how different user segments engage with the app.

Audiences

Experiment: A user who has a lot of my albums will not leave our service.

Solution: create 'leave_bugs_audience' Audience

User property: my_album_count, user_streaming_right ...

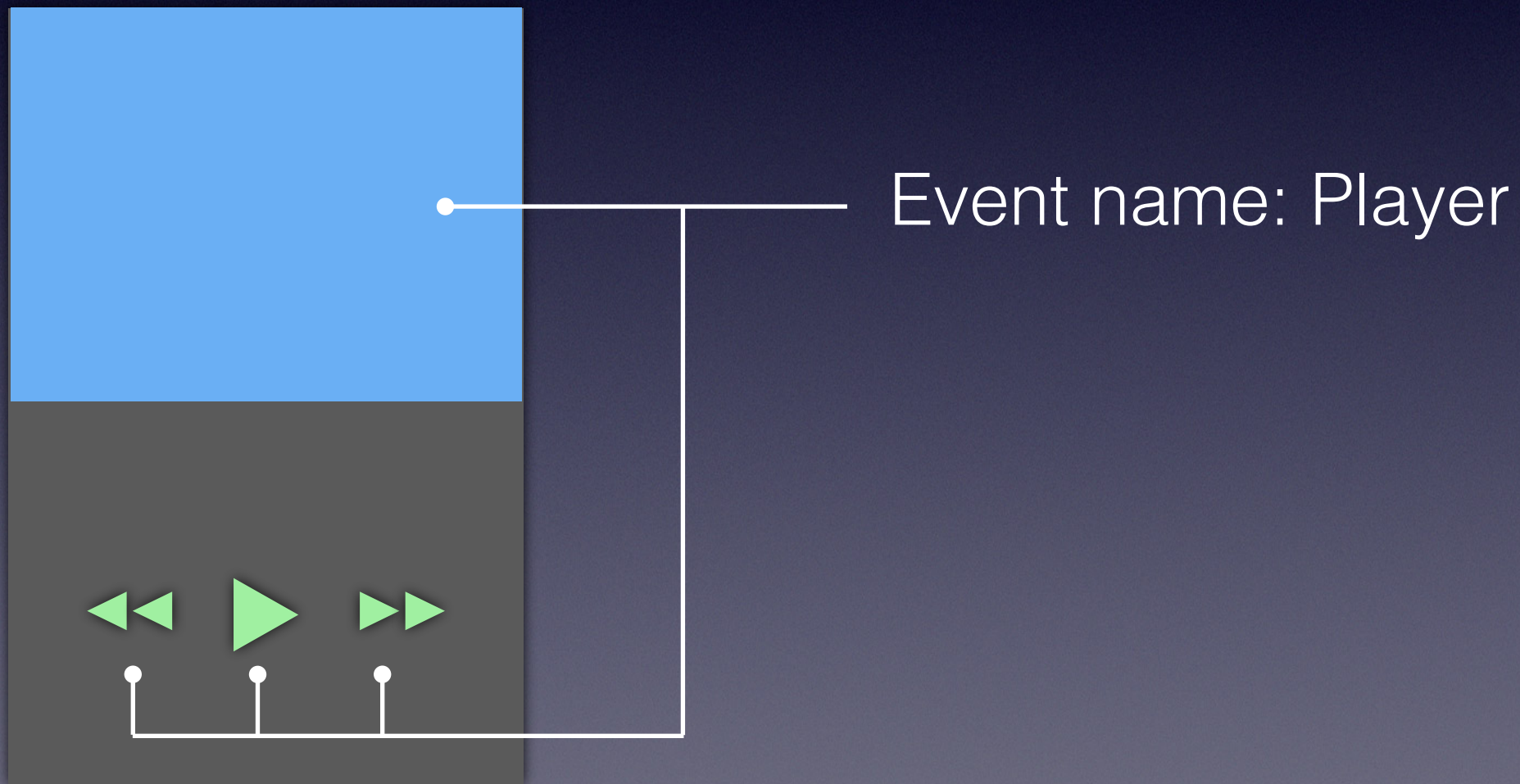
Event: leave_bugs

Demo of User property, Audiences

Analytics rules

2. Describe the event name in detail

as is



Funnels

Visualize and optimize the completion rate of a series of steps(events)



Goal

Step A : 90% Users remain

Step B : 80% Users remain

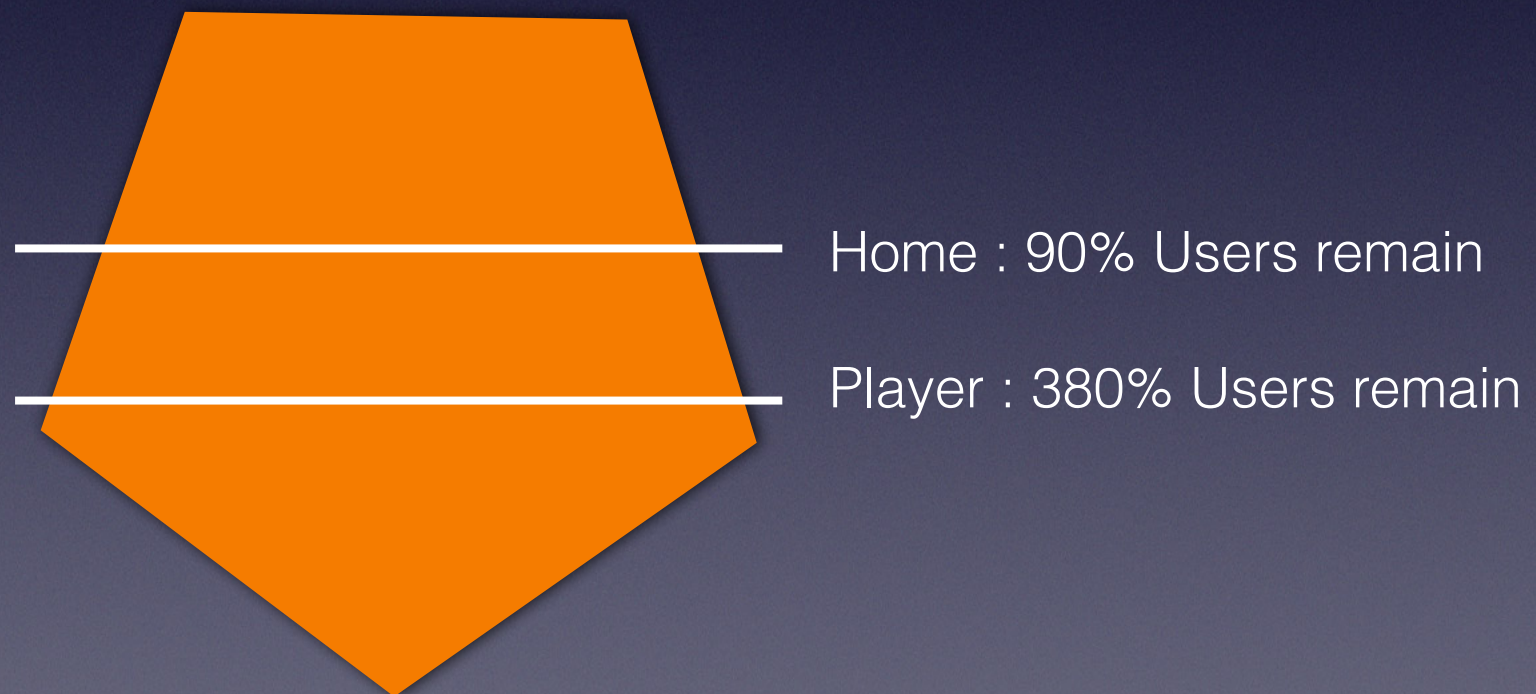
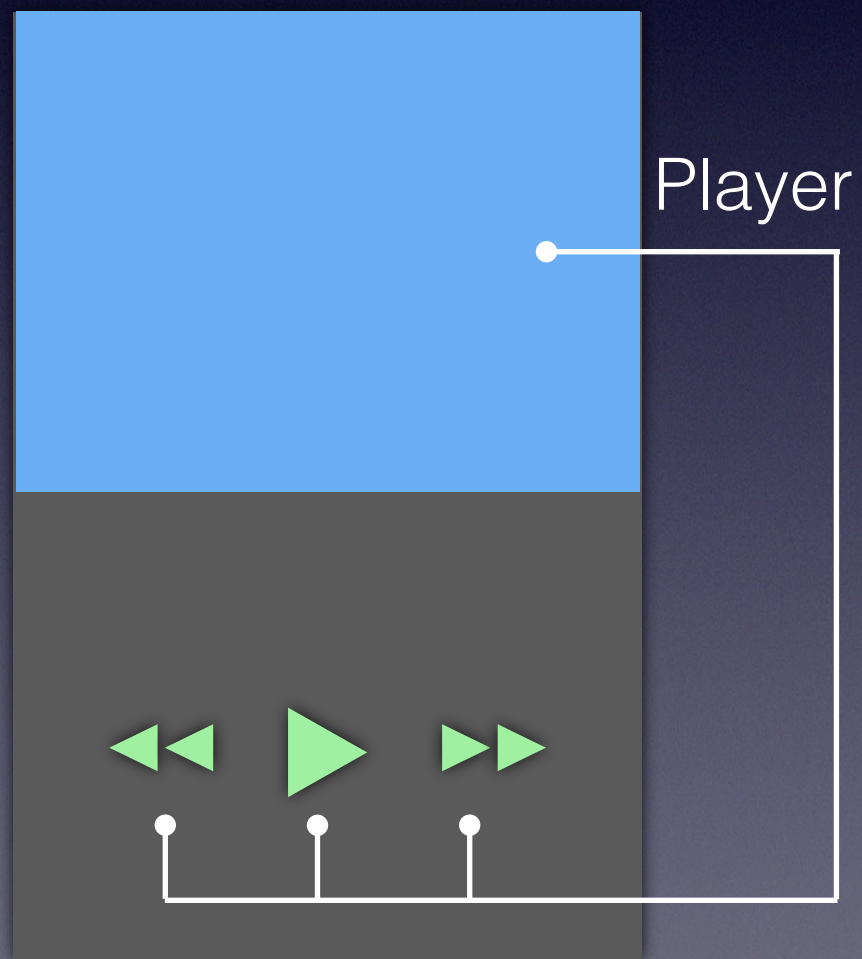
Step C : 10% Users remain

Goal : 3% Users reach the goal

Analytics rules

2. Describe the event name in detail

as is



Analytics rules

2. Describe the event name in detail

to be



Demo of Funnels

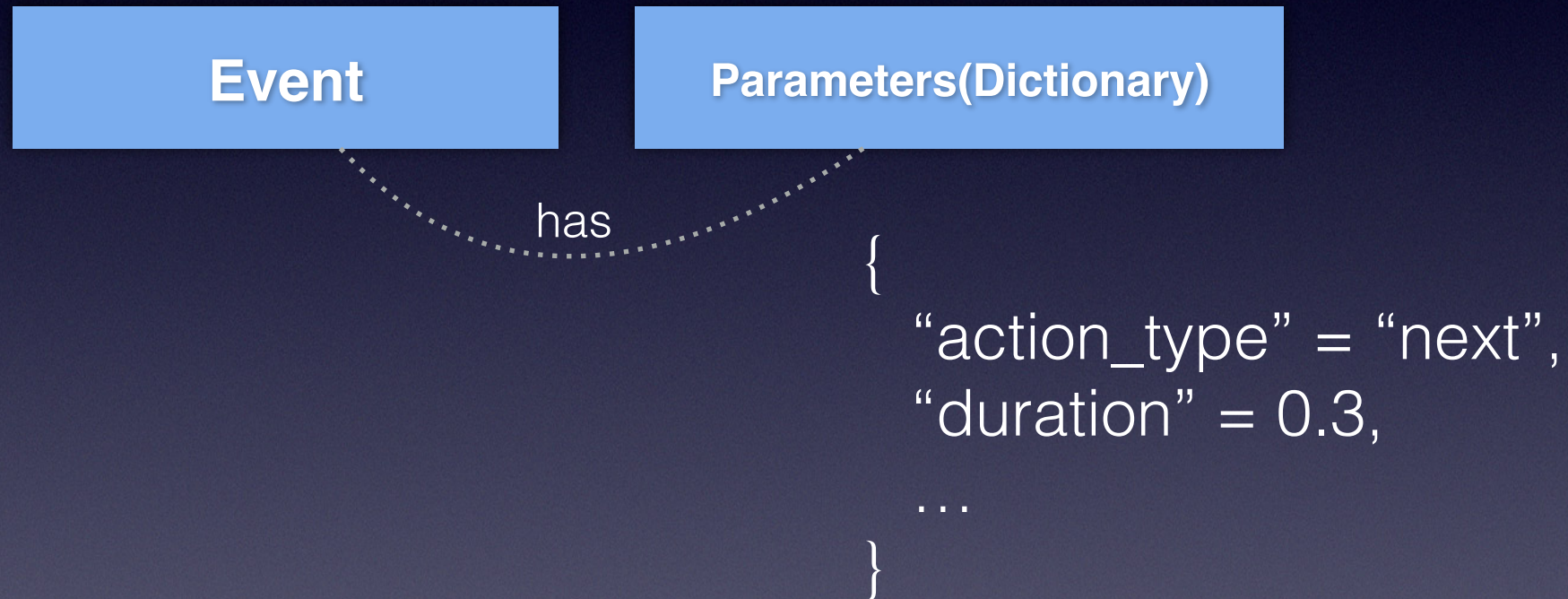
Analytics rules

Problem: Too many events can make we feel confuse to analyze it



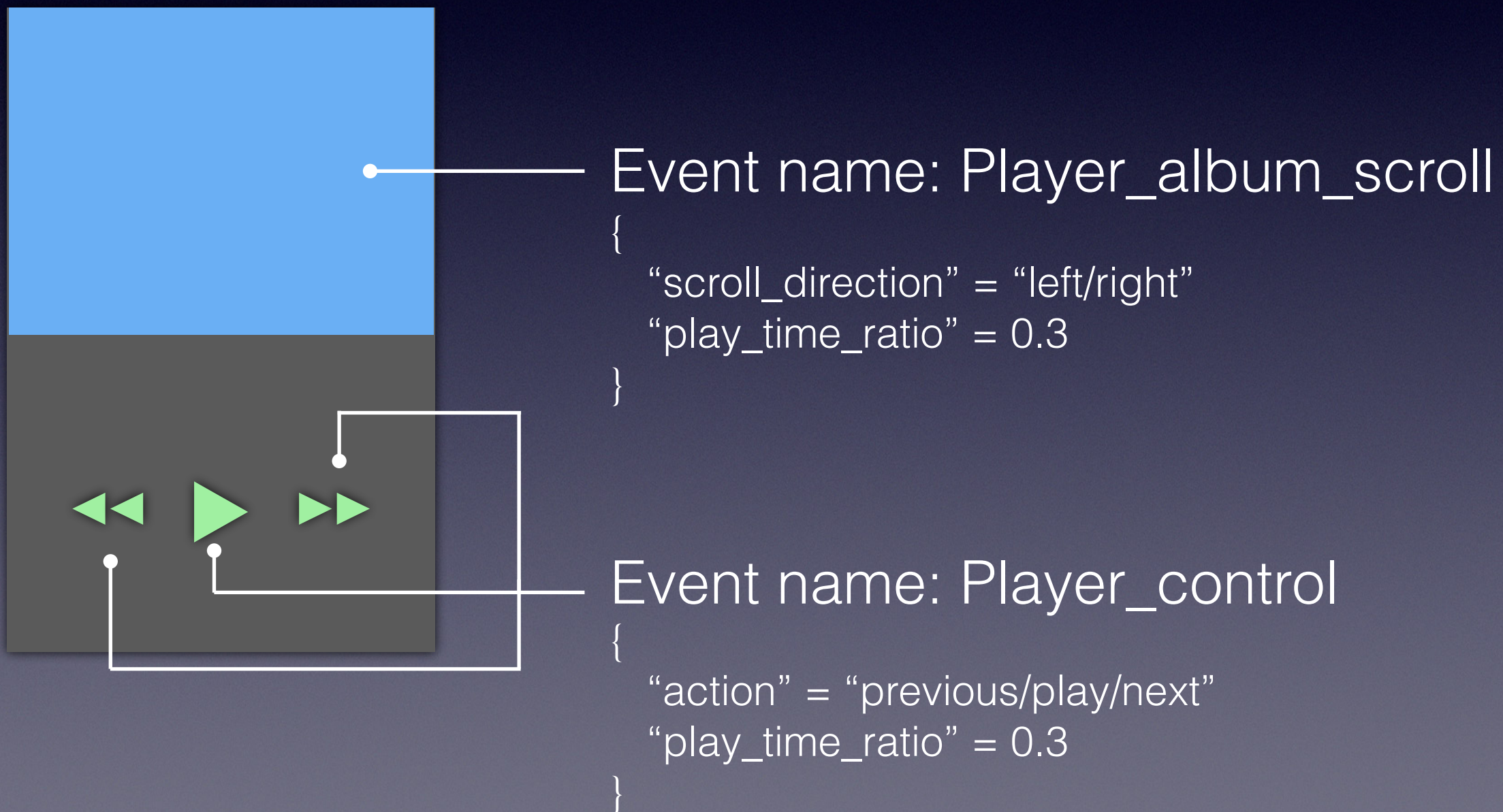
Analytics rules

3. Use event's parameters with multiple and specific values



Analytics rules

3. Use event's parameters with multiple and specific values

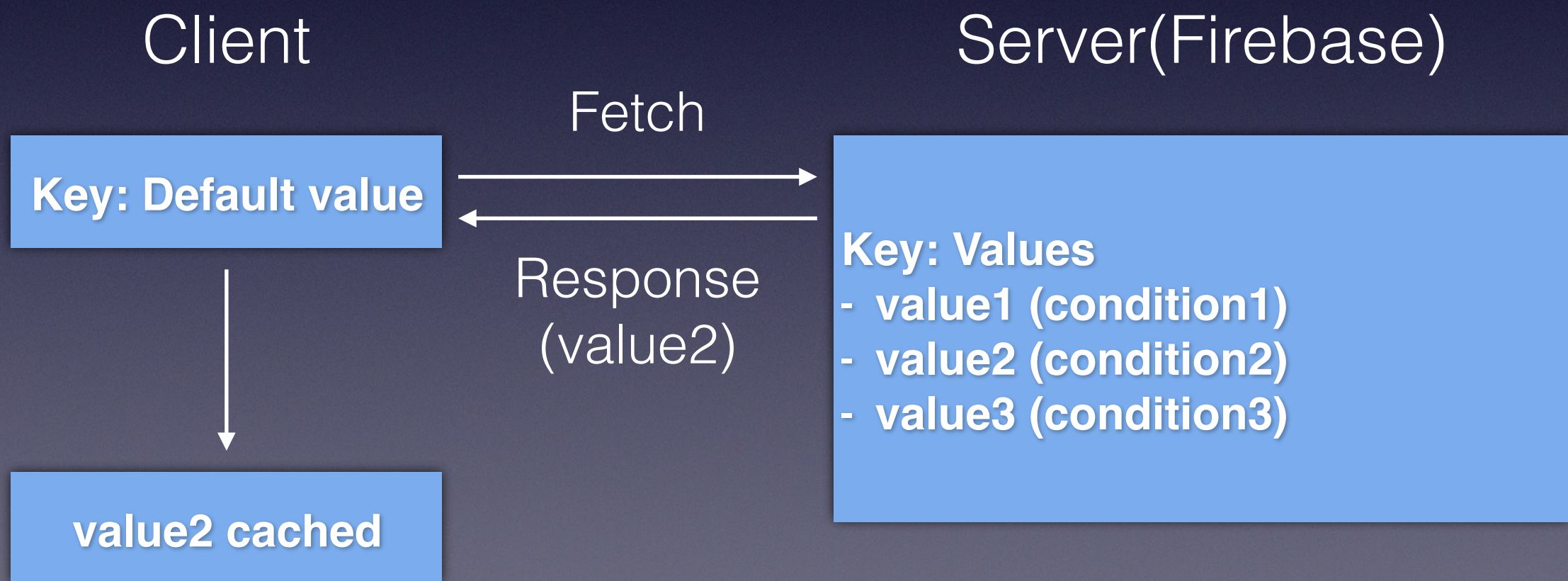


Analytics rules

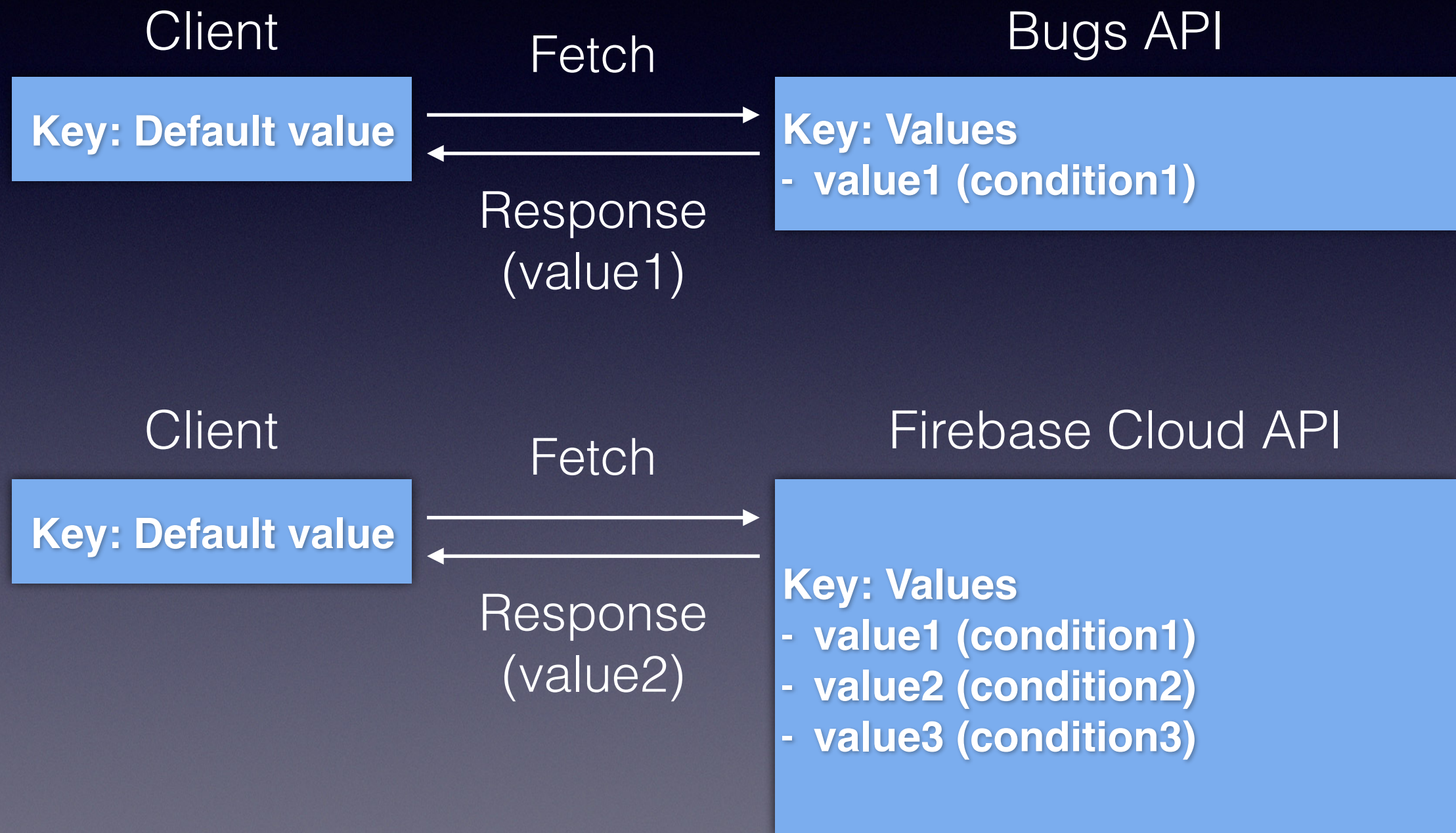
1. Let's use user-properties for event filtering
2. Describe the event name in detail
3. Use event's parameters with multiple and specific values

Remote config

Cloud service that lets you change the behavior and appearance of your app without requiring users to download an app update



Remote config



Remote config

Conditions

- App os version, Date/Time, User random(10%, 20%...)
- Device language, region
- User in Audience(User properties)

Remote config

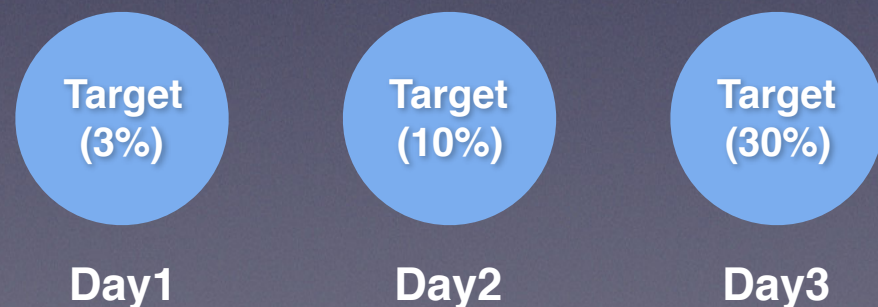
Phased release to random user not by platform but ourselves

Example: Let's roll out 'Equalizer'

1. Make a target audience (Equalizer_tester)

“radson_on” = true, “user_streaming_right” = “streaming”

2. Make a random condition with audience



Remote config

Set banner differently as a condition



Section

TYPE A : BTS new album banner (Age: 30↓, Favorite :“idol”)

TYPE B : 19 Prohibited contents banner (Age: 30↑)

TYPE C : 7080 K-Pop remix banner (Age: 40↑)

TYPE D : 아기 상어 Banner (Favorite: “child”)

TYPE E : Recent episode (Favorite: “radio”)

박범석: Birth 1965(54), Favorite : “none”

송레지나: Birth 1997(22), Favorite : “idol”

김이영: Favorite : “Rock”

Demo of Remote config

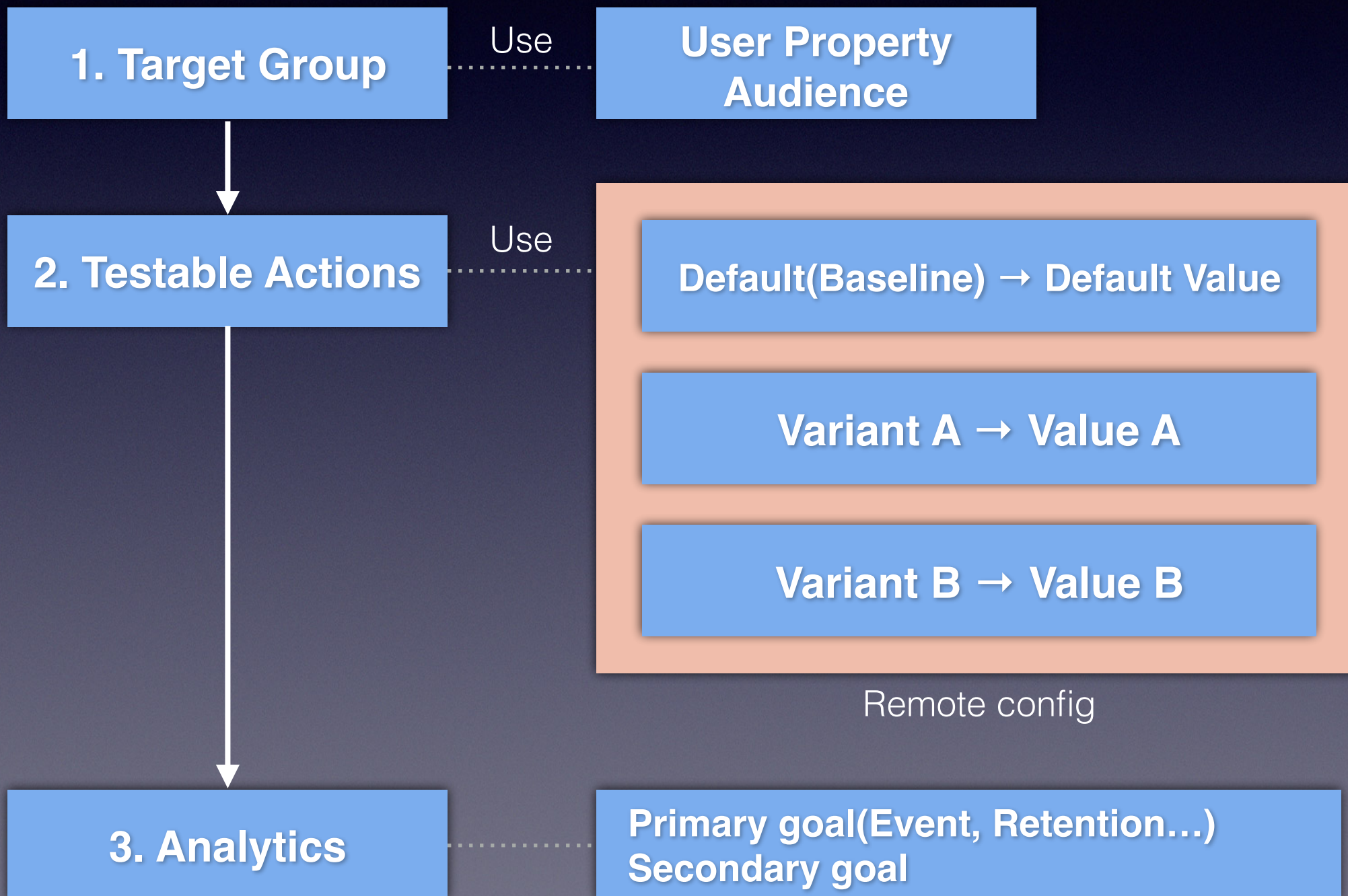
A/B Testing

Optimize your app experience by making it easy to run, analyze and scale product and marketing experiments.

A/B Testing = Remote config + Analytics

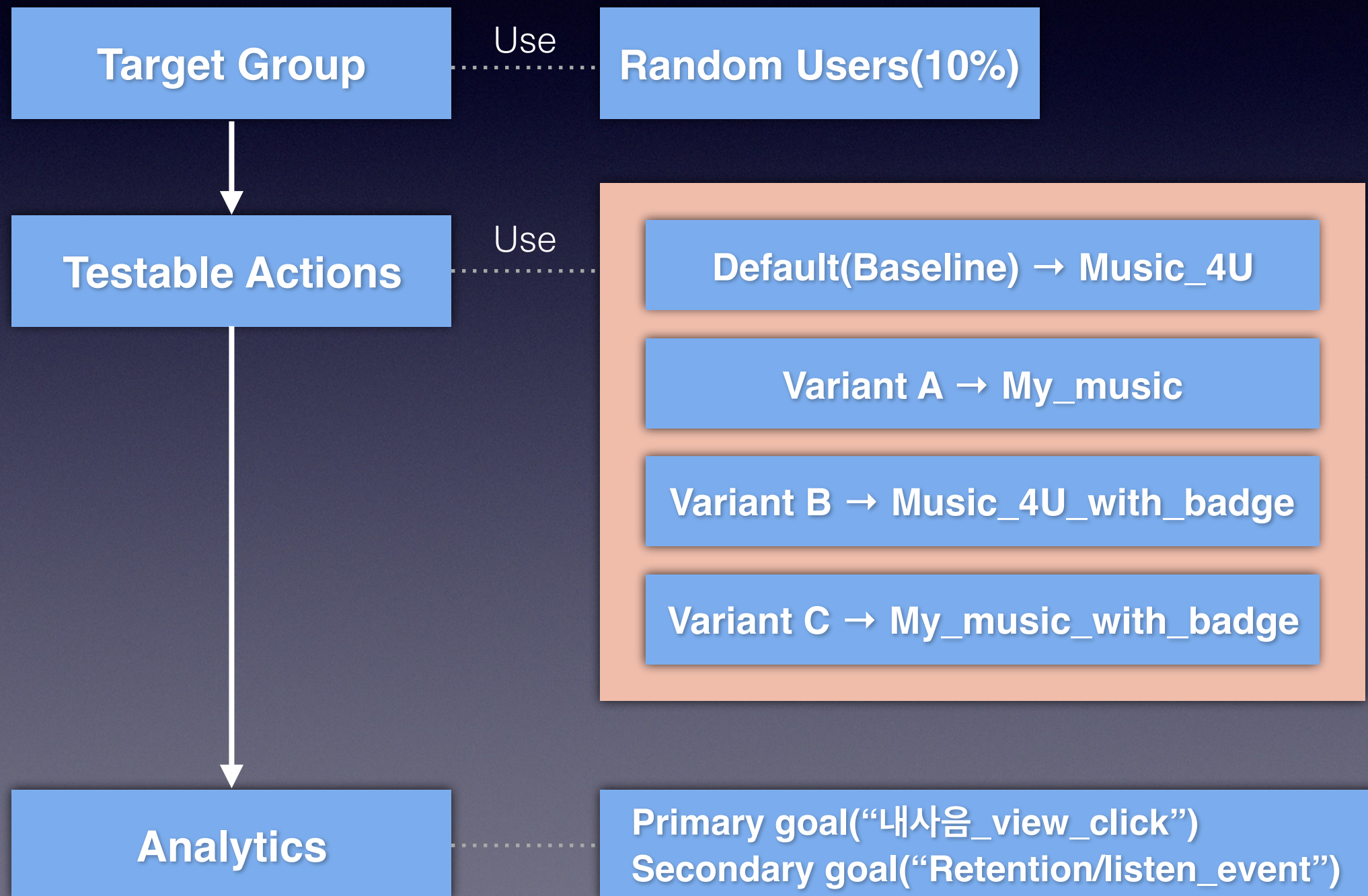
A/B Testing

Experiment



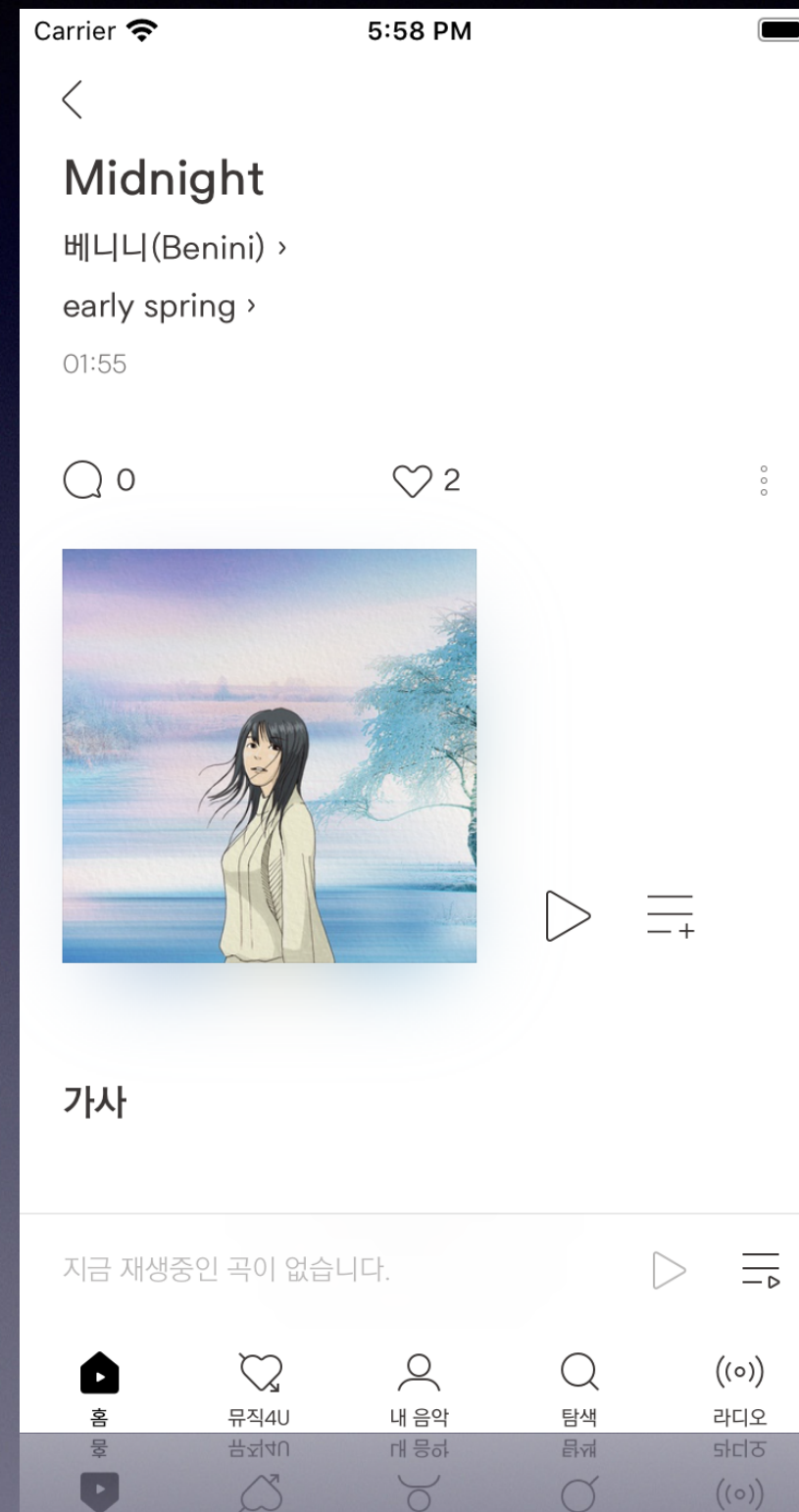
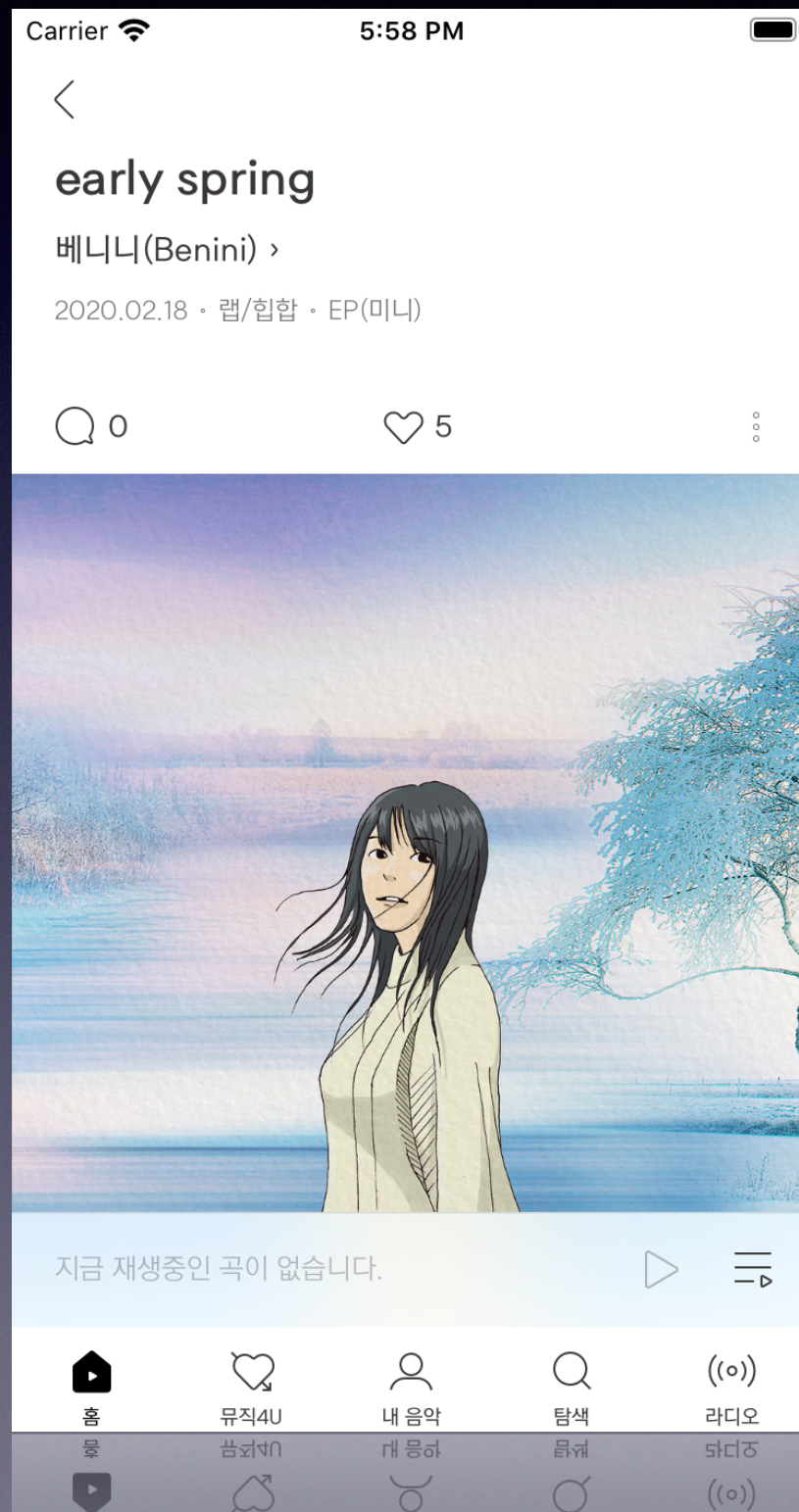
A/B Testing

Experiment: What_I_like_most_located



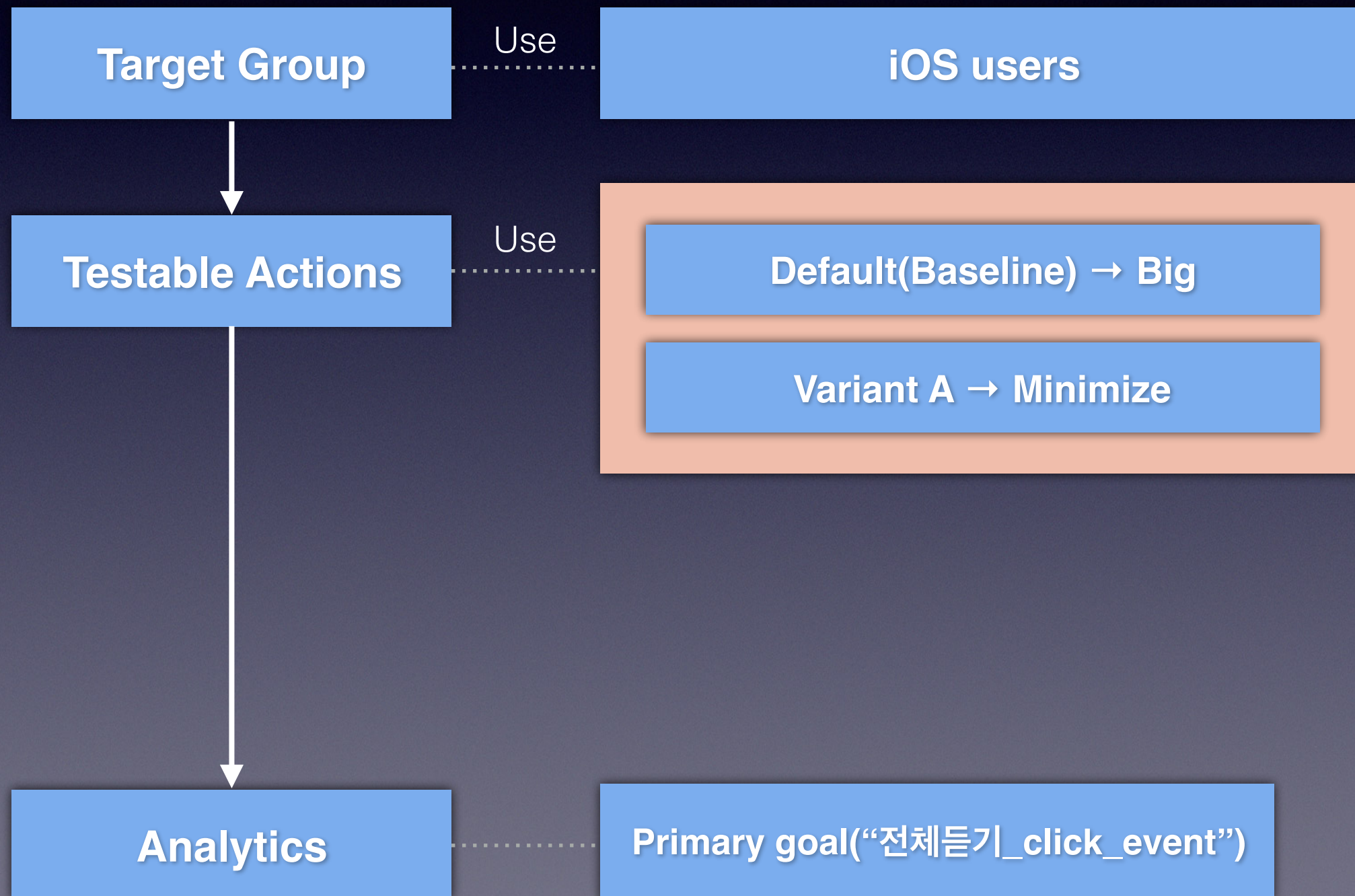
Demo of A/B Testing

A/B Testing



A/B Testing

Experiment: album_play_all_easily



A/B Testing

Experiment: From_Apple_to_Bugs

Target Group

Payment = "app_store"
period_month \geq 6
my_album_count > 1

Testable Actions

Default(Baseline)

Variant A → Present_default_toast
message '벅스를 싸게 이용하는 법!', A View

Variant B → Present_discount_view
message "내 신용카드로 벅스 싸게 이용하는 법!", B View

Analytics

Primary goal("결재수단_변경_view_click")
Secondary goal("결재수단_변경","close_event")

Q & A