

Firebase for iOS

박보영

12, 19 Feb 2020

저는

- 뱅크샐러드 iOS App 개발자
- GITGET
- FastCampus iOS School 4기



우리는

- 2/12
 - Firebase 시작하기
 - Database를 이용한 ChatApp 만들기
- 2/19
 - Analytics를 이용한 Event 추적
 - FirebaseUI를 이용한 소셜 로그인

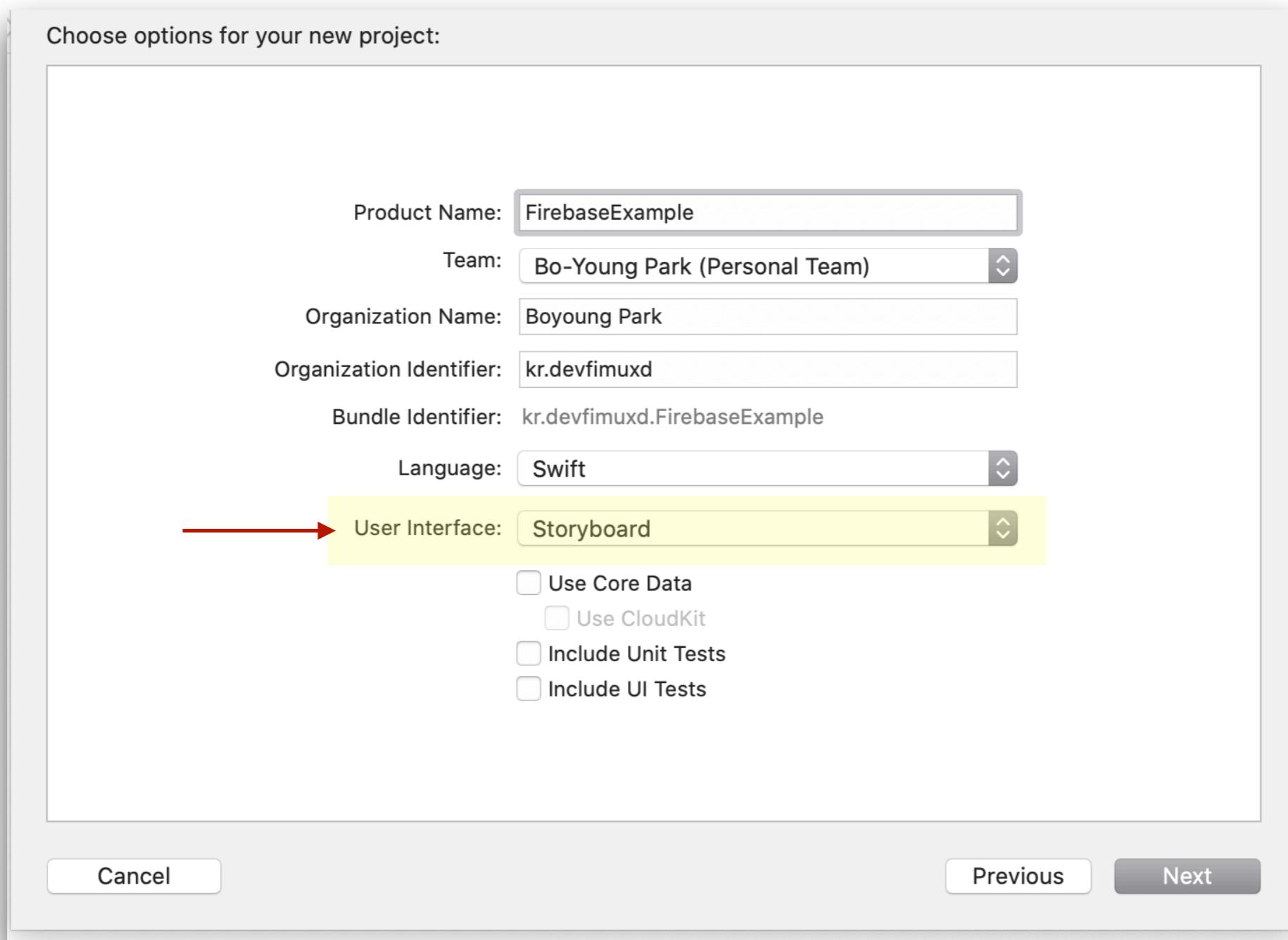
Firebase 시작하기

1. Xcode에 프로젝트 만들기
2. Firebase Console에 프로젝트 추가하기
3. Firebase SDK 추가하기

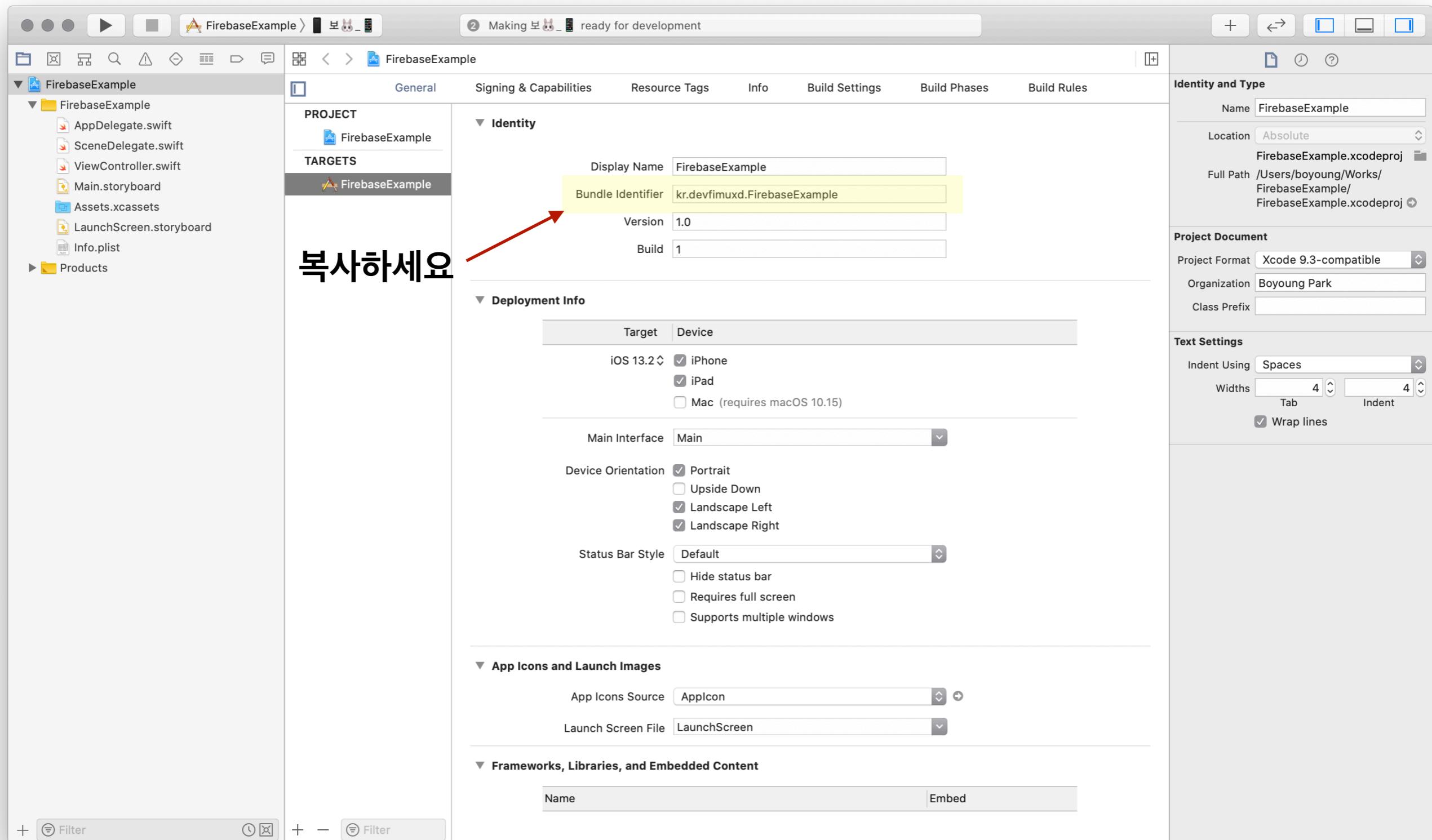
Xcode에 프로젝트 만들기



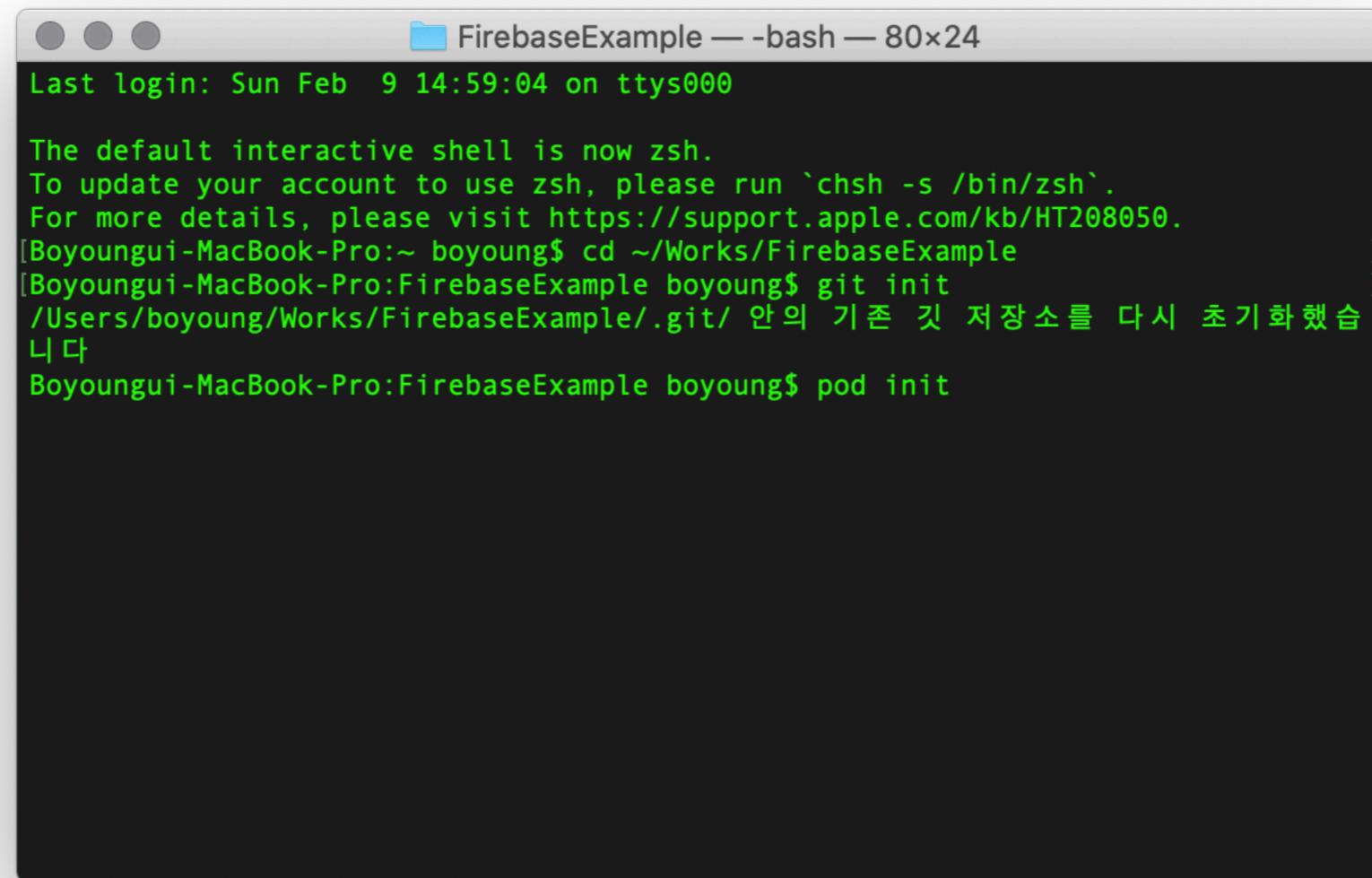
Xcode에 프로젝트 만들기



Xcode에 프로젝트 만들기



Xcode에 프로젝트 만들기



```
Last login: Sun Feb  9 14:59:04 on ttys000
The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
[Boyoungui-MacBook-Pro:~ boyoung$ cd ~/Works/FirebaseExample
[Boyoungui-MacBook-Pro:FirebaseExample boyoung$ git init
/Users/boyoung/Works/FirebaseExample/.git/ 안의 기존 깃 저장소를 다시 초기화했습니다
Boyoungui-MacBook-Pro:FirebaseExample boyoung$ pod init
```

pod init

Console에 프로젝트 추가하기

<https://console.firebaseio.google.com>

프로젝트 만들기

Console에 프로젝트 추가하기

×

프로젝트 만들기(1/3단계)

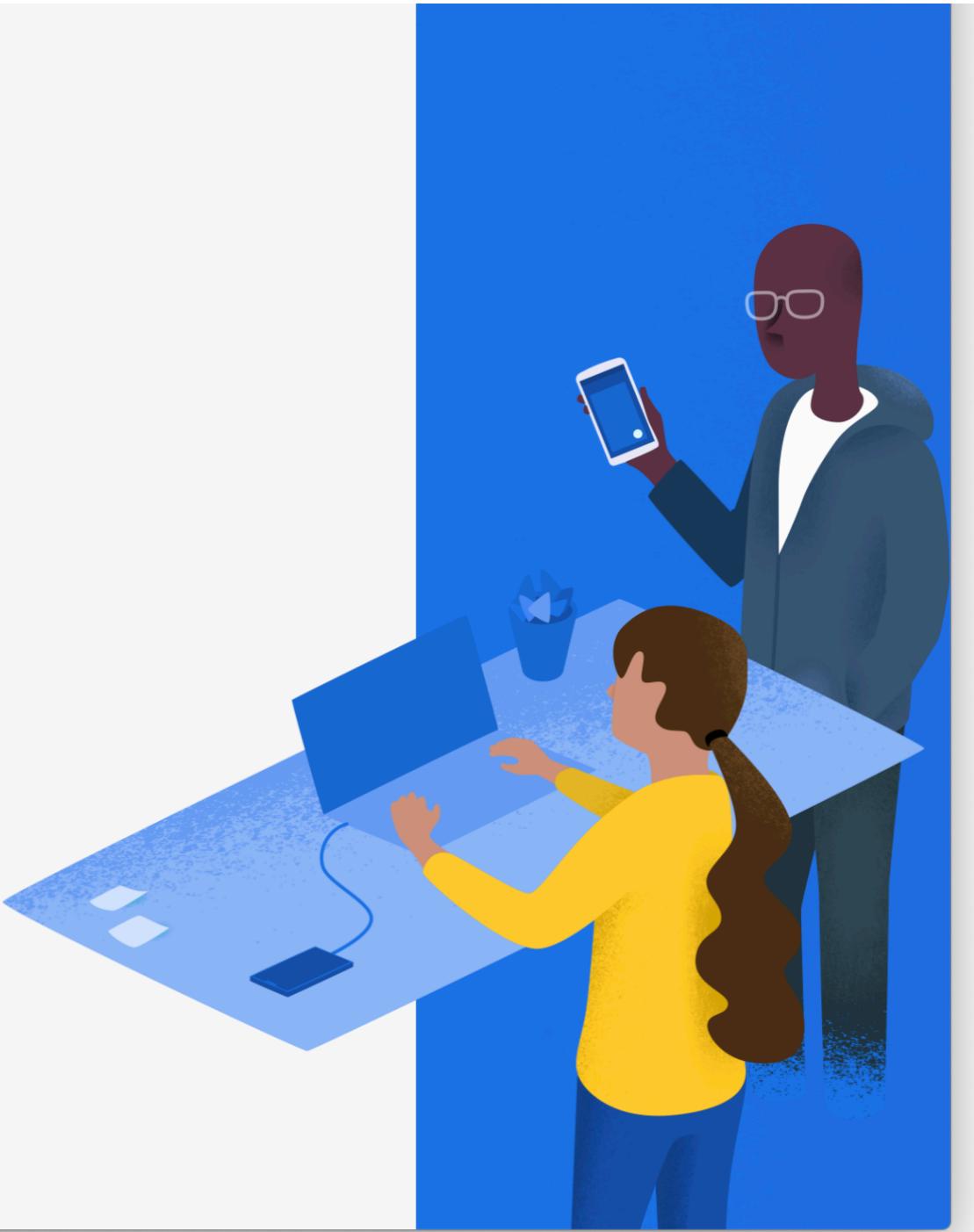
프로젝트[®] 이름을 지정하여 시작
하기

프로젝트 이름

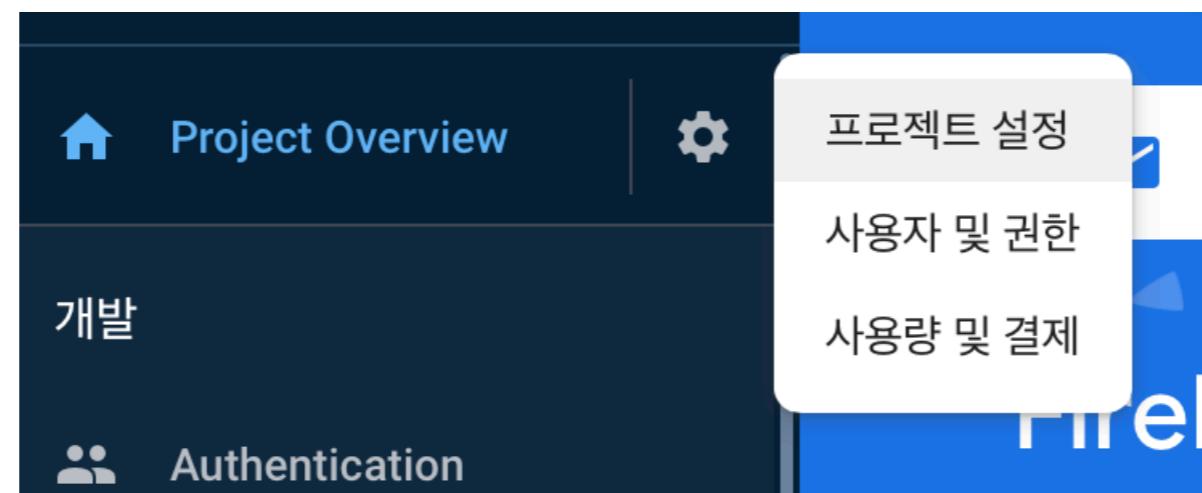
FirebaseExample

fir-example-bcb1c

계속



Console에 프로젝트 추가하기



Console에 프로젝트 추가하기

문서로 이동

×

iOS 앱에 Firebase 추가

1 앱 등록

iOS 번들 ID ⓘ

kr.devfimuxd.FirebaseExample

앱 닉네임 (선택사항) ⓘ

내 iOS 앱

App Store ID(선택사항) ⓘ

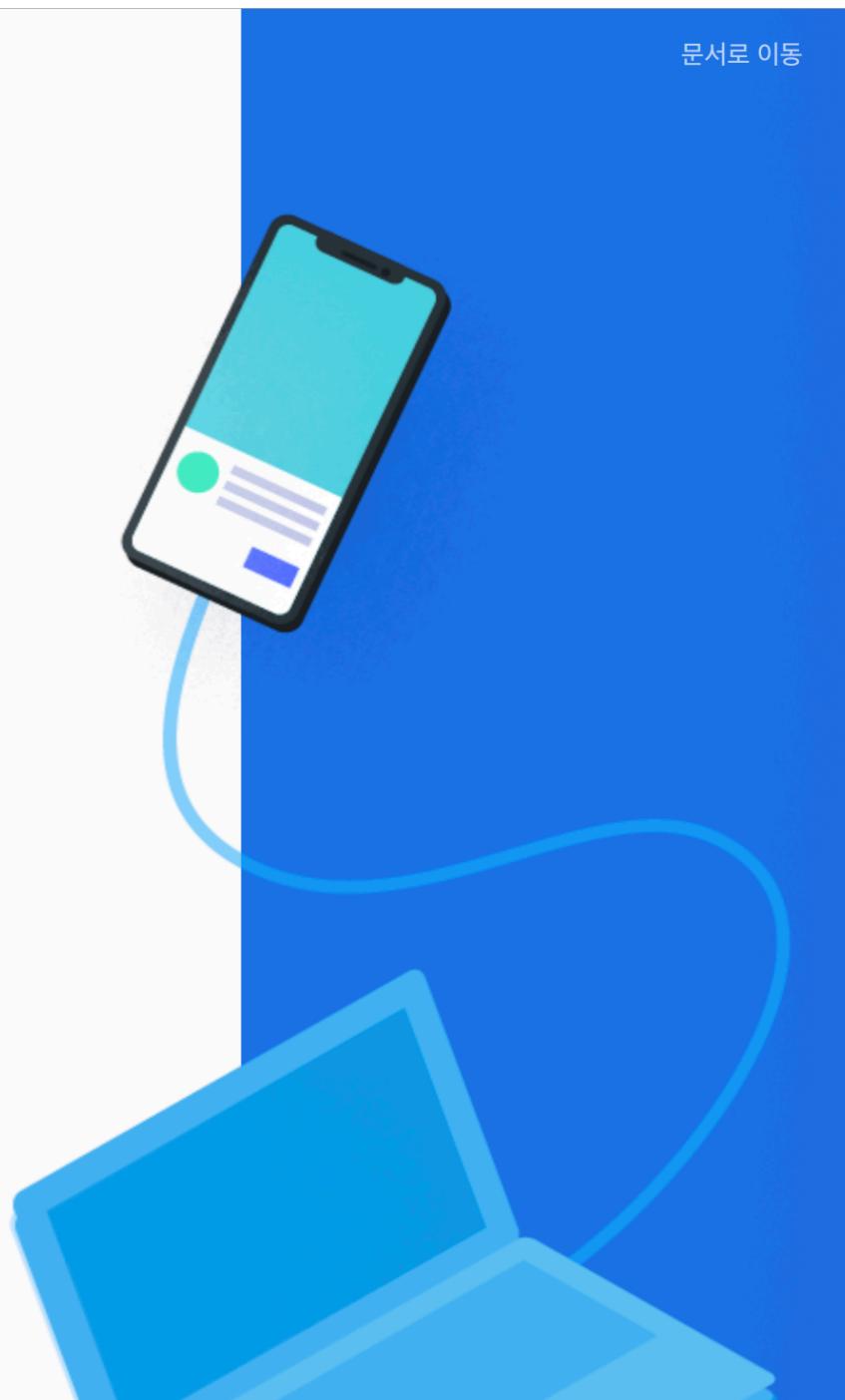
123456789

앱 등록

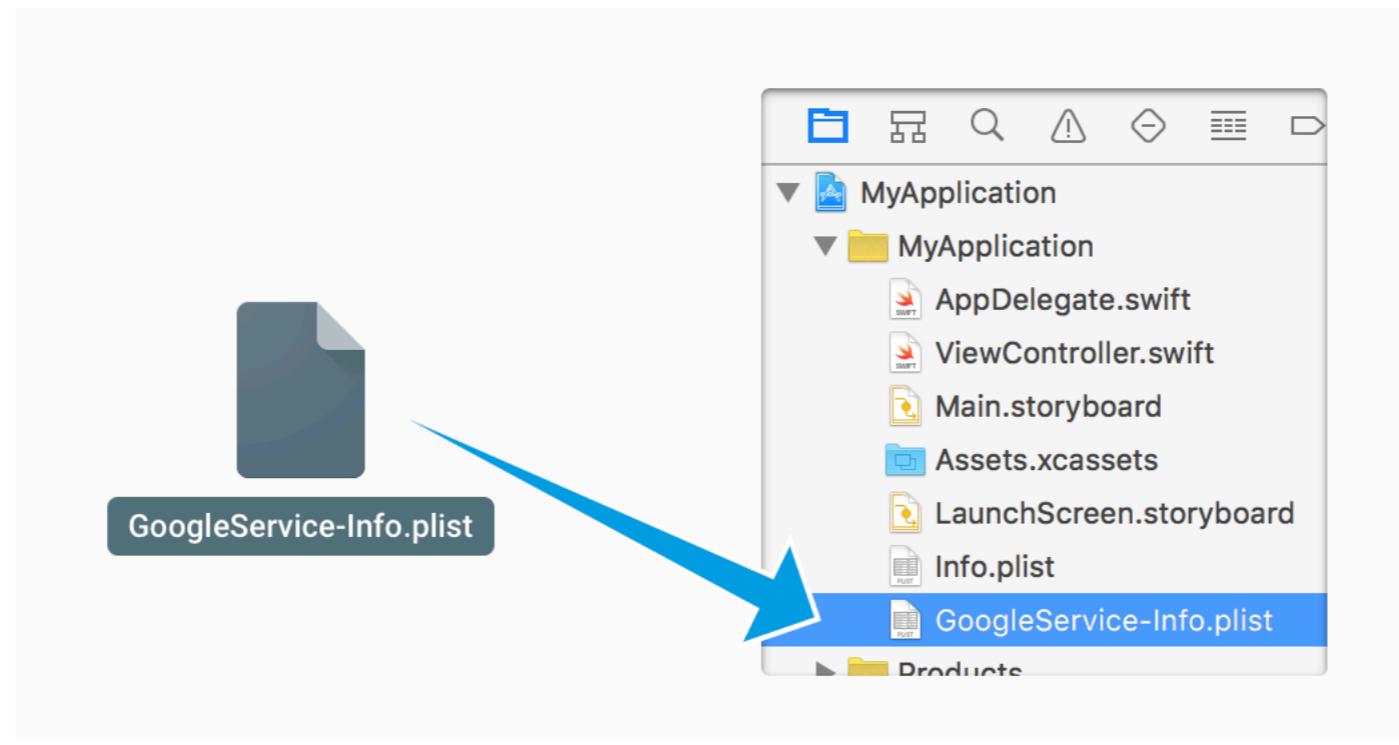
2 구성 파일 다운로드

3 Firebase SDK 추가

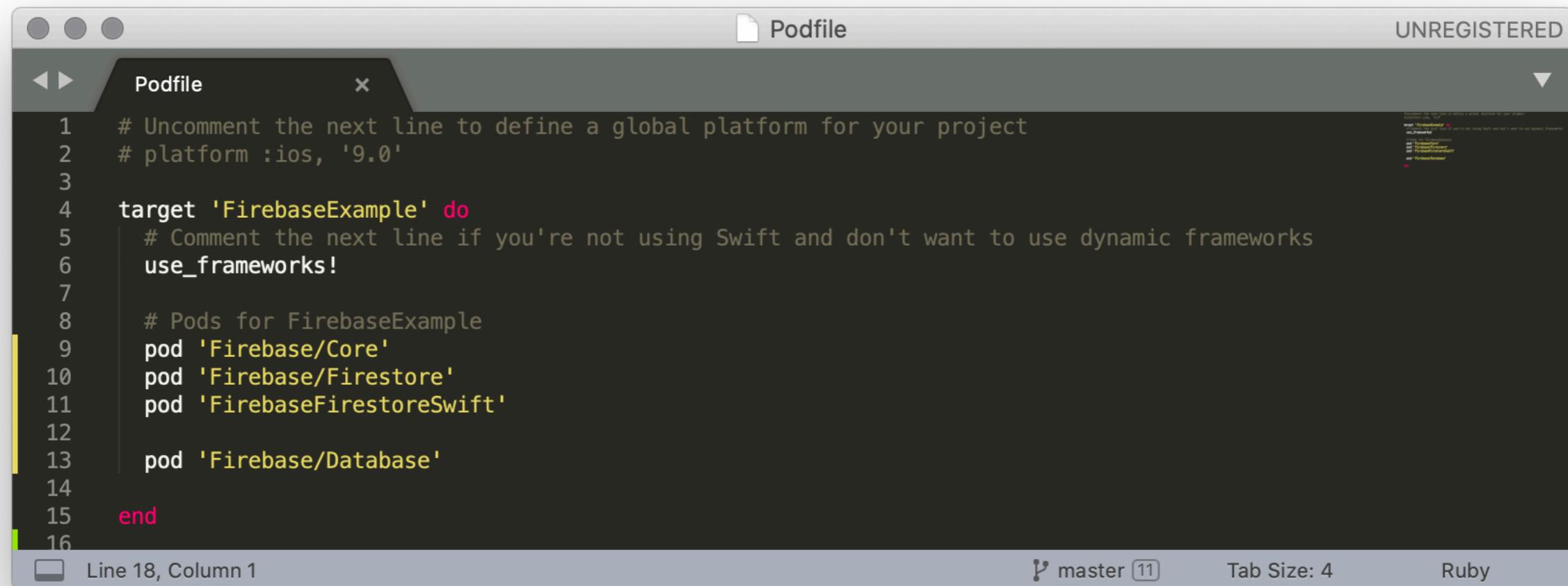
4 초기화 코드 추가



Console에 프로젝트 추가하기



Firebase SDK 추가하기



```
# Uncomment the next line to define a global platform for your project
# platform :ios, '9.0'

target 'FirebaseExample' do
  # Comment the next line if you're not using Swift and don't want to use dynamic frameworks
  use_frameworks!

  # Pods for FirebaseExample
  pod 'Firebase/Core'
  pod 'Firebase/Firestore'
  pod 'FirebaseFirestoreSwift'
  pod 'Firebase/Database'

end
```

Line 18, Column 1 master [11] Tab Size: 4 Ruby

```
pod 'Firebase/Core'
pod 'Firebase/Firestore'
pod 'FirebaseFirestoreSwift'
pod 'Firebase/Database'
```

Firebase SDK 추가하기

```
 FirebaseExample — bash — 118x30
Last login: Sun Feb  9 14:59:04 on ttys000

The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
[Boyoungui-MacBook-Pro:~ boyoung$ cd ~/Works/FirebaseExample
[Boyoungui-MacBook-Pro:FirebaseExample boyoung$ git init
/Users/boyoung/Works/FirebaseExample/.git/ 안의 기존 깃 저장소를 다시 초기화했습니다
Boyoungui-MacBook-Pro:FirebaseExample boyoung$ pod init
[Boyoungui-MacBook-Pro:FirebaseExample boyoung$ pod install
[Analyzing dependencies
  Downloading dependencies
    Installing Firebase (6.13.0)
    Installing FirebaseAuthInterop (1.0.0)
    Installing FirebaseCore (6.4.0)
    Installing FirebaseCoreDiagnostics (1.1.1)
    Installing FirebaseCoreDiagnosticsInterop (1.1.0)
    Installing FirebaseDatabase (6.1.2)
    Installing GoogleDataTransport (3.1.0)
    Installing GoogleDataTransportCCTSupport (1.2.1)
    Installing GoogleUtilities (6.3.2)
    Installing leveldb-library (1.22)
    Installing nanopb (0.3.9011)
  Generating Pods project
  Integrating client project

[!] Please close any current Xcode sessions and use `FirebaseExample.xcworkspace` for this project from now on.
Sending stats
Pod installation complete! There is 1 dependency from the Podfile and 11 total pods installed.
```

pod install

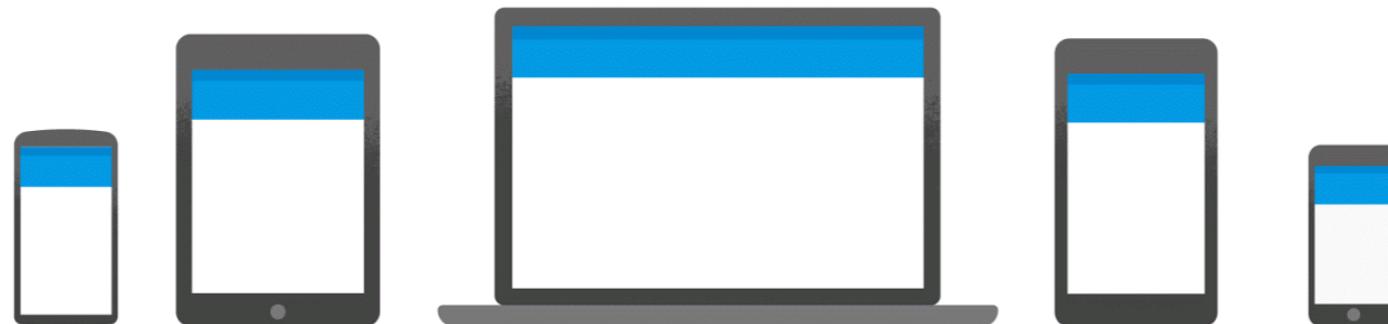
Firebase SDK 추가하기

The screenshot shows the Xcode interface with the project navigation bar at the top. The main area displays the `AppDelegate.swift` file under the `FirebaseExample` group. The code is as follows:

```
4 // Created by Bo-Young PARK on 2020/02/09.  
5 // Copyright © 2020 Boyoung Park. All rights reserved.  
6 //  
7 //  
8  
9 import UIKit  
10 import Firebase ← Red arrow points here  
11  
12 @UIApplicationMain  
13 class AppDelegate: UIResponder, UIApplicationDelegate {  
14  
15  
16  
17     func application(_ application: UIApplication, didFinishLaunchingWithOptions launchOptions:  
18         [UIApplication.LaunchOptionsKey: Any]?) -> Bool { ← Red arrow points here  
19         FirebaseApp.configure()  
20         return true  
21     }  
22  
23     // MARK: UISceneSession Lifecycle  
24  
25     func application(_ application: UIApplication, configurationForConnecting  
26         connectingSceneSession: UISceneSession, options: UIScene.ConnectionOptions) ->  
27         UISceneConfiguration {  
28         // Called when a new scene session is being created.  
29         // Use this method to select a configuration to create the new scene with.  
30         return UISceneConfiguration(name: "Default Configuration", sessionRole:  
31             connectingSceneSession.role)  
32     }  
33  
34     func application(_ application: UIApplication, didDiscardScenes sceneSessions:  
35         Set<UISceneSession>) {  
36         // Called when the user discards a scene session.  
37         // If any sessions were discarded while the application was not running, this will be  
38         // called shortly after application:didFinishLaunchingWithOptions.  
39         // Use this method to release any resources that were specific to the discarded scenes,  
40         // as they will not return.  
41     }  
42  
43 }
```

A red arrow points to the `import Firebase` statement at line 10. Another red arrow points to the `FirebaseApp.configure()` call at line 18. The status bar at the bottom right says "No Selection".

Firebase/Database



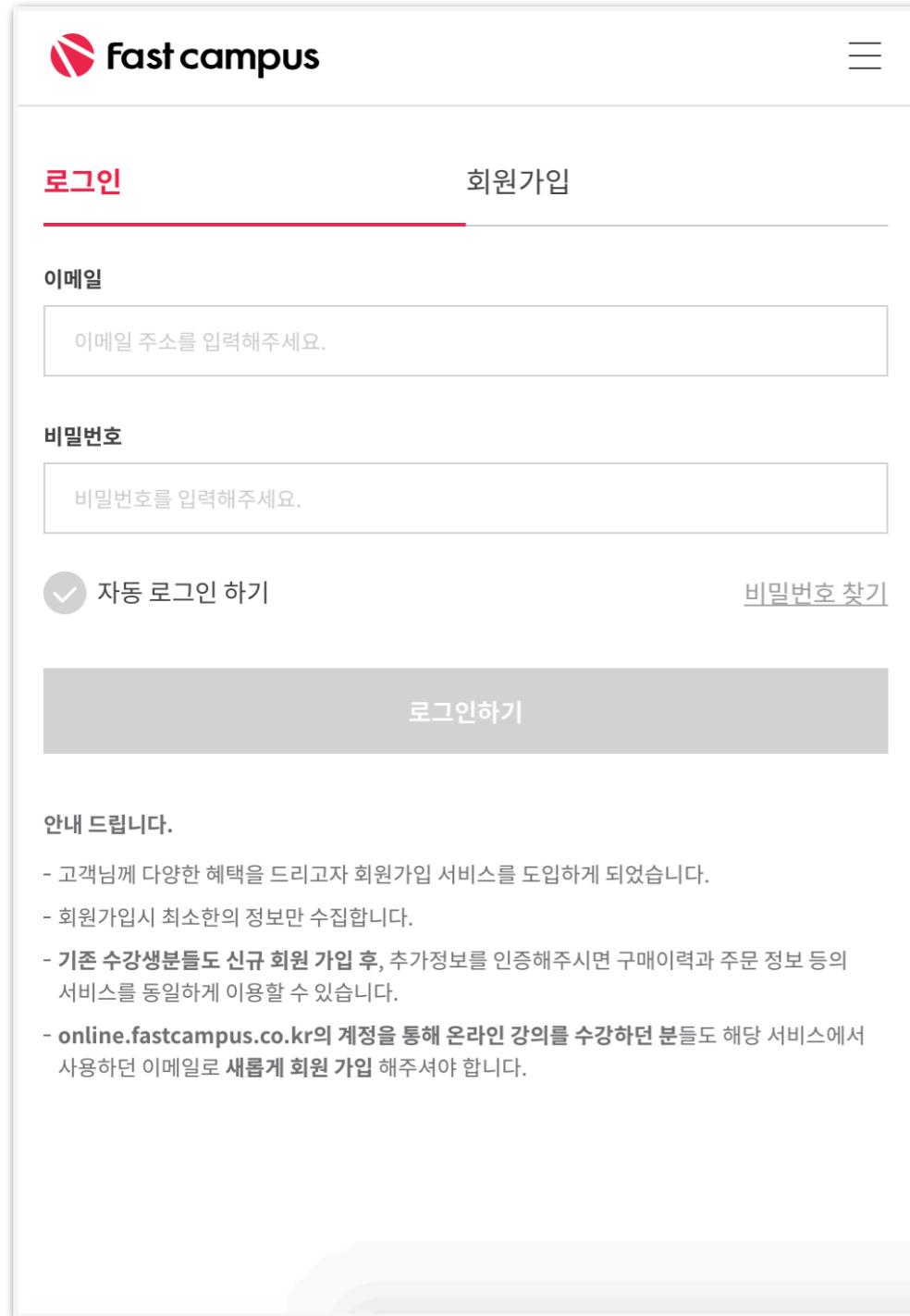
Firebase/Database

1. Database 종류
2. 데이터 구조화
3. 데이터 읽기 및 쓰기

Firebase/Database

<https://firebase.google.com/docs/firestore/rtdb-vs-firebase?authuser=0>

데이터 구조화



```
{  
  "users" : {  
    "Dd14vfDfoea04d" : {  
      "email": "me@boyoung.dev",  
      "password": "fastcampus2@",  
      "auto_signin": false  
    }  
  }  
}
```

Realtime Database에 쓰기

JSON

```
{  
  "users" : {  
    "Dd14vfDfoea04d" : {  
      "email": "me@boyoung.dev",  
      "password": "fastcampus2@",  
      "auto_signin": false  
    }  
  }  
}
```



Realtime Database

```
Database.database().reference()  
  .child("users")  
  .childByAutoId()  
  .setValue([  
    "email": "me@boyoung.dev",  
    "password": "fastcampus2@",  
    "auto_signin": false  
  ])
```

Cloud Firestore에 쓰기

JSON

```
{  
  "users" : {  
    "Dd14vfDfoea04d" : {  
      "email": "me@boyoung.dev",  
      "password": "fastcampus2@",  
      "auto_signin": false  
    }  
  }  
}
```



Cloud Firestore

```
Firestore.firebaseio()  
  .collection("users")  
  .addDocument(data: [  
    "email": "me@boyoung.dev",  
    "password": "fastcampus2@",  
    "auto_signin": false  
  ])
```

데이터 읽기



Realtime Database

```
Database.database().reference()  
    .queryOrdered(byChild: "email")  
    .queryEqual(toValue: "me@boyoung.dev")  
    .queryLimited(toFirst: 1)  
    .observeSingleEvent(of: .value){ ... }
```



Cloud Firestore

```
Firestore.firestore()  
    .collection("users")  
    .whereField(  
        "email",  
        isEqualTo: "me@boyoung.dev"  
    )  
    .getDocuments { ... }
```

데이터 삭제하기



Realtime Database

```
Database.database().reference()  
  .queryOrdered(byChild: "email")  
  .queryEqual(toValue: "me@boyoung.dev")  
  .queryLimited(toFirst: 1)  
  .observeSingleEvent(of: .value){ ... }
```



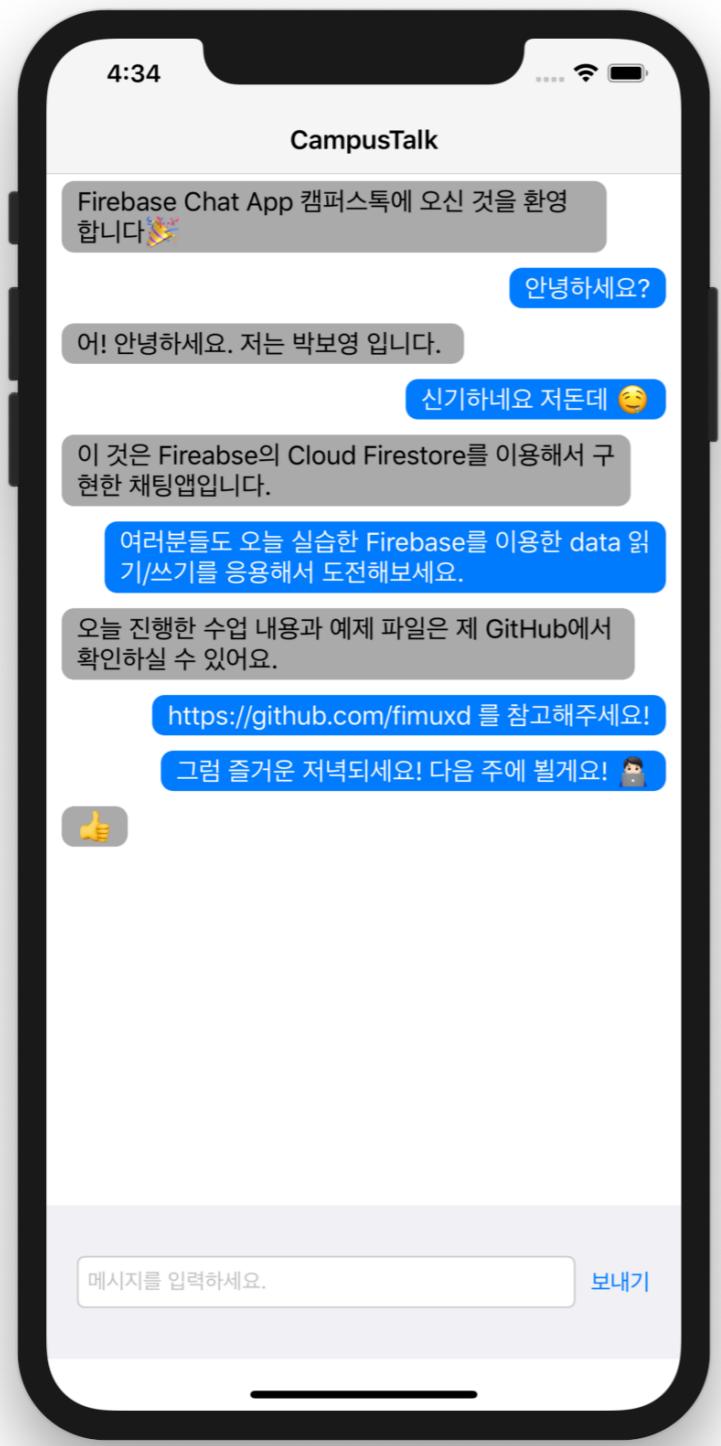
Cloud Firestore

```
Firestore.firebaseio()  
  .collection("users")  
  .document("d43gGDFd14")  
  .delete()
```

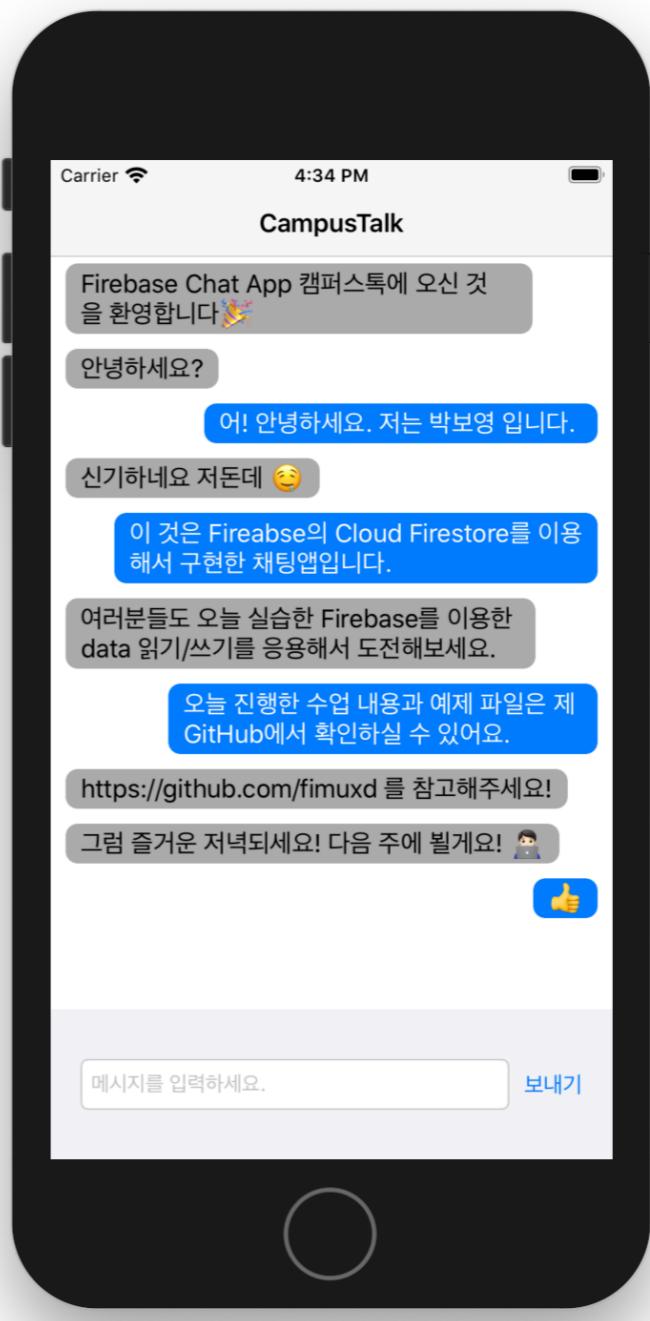
간단한 예제로 확인하기

[https://github.com/fimuxd/FastCampus Firebase Example](https://github.com/fimuxd/FastCampus_Firebase_Example)

CampusTalk



iPhone 11 Pro Max — 13.3



iPhone 8 — 13.3

Firebase/Analytics

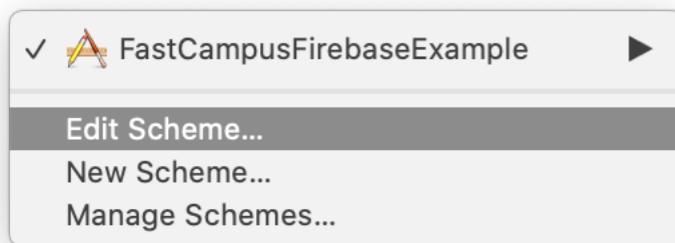
```
pod 'Firebase/Analytics'
```

이벤트 로깅

```
Analytics.logEvent(name: parameters: )
```

실시간 디버깅

1. Edit Scheme 선택



2. Run 선택

A screenshot of the Xcode scheme editor for the 'FastCampusFirebaseExample' project. The 'Run' configuration is selected in the left sidebar. The main area shows the 'Arguments' tab of the scheme editor. The 'Arguments Passed On Launch' section contains the argument `-FIRAnalyticsDebugEnabled`. A red arrow points from the text '5. -FIRAnalyticsDebugEnabled 입력' to this argument. Below it, another red arrow points from the text '4. + 선택' to the '+' button in the Arguments list. The 'Environment Variables' section is shown below.

FastCampusFirebaseExample > iPhone 11 Pro Max

Build
3 targets

Run
Debug

Test
Debug

Profile
Release

Analyze
Debug

Archive
Release

Arguments

Info

-FIRAnalyticsDebugEnabled

+

Environment Variables

Name Value

No Environment Variables

+

Expand Variables Based On FastCampusFirebaseExample

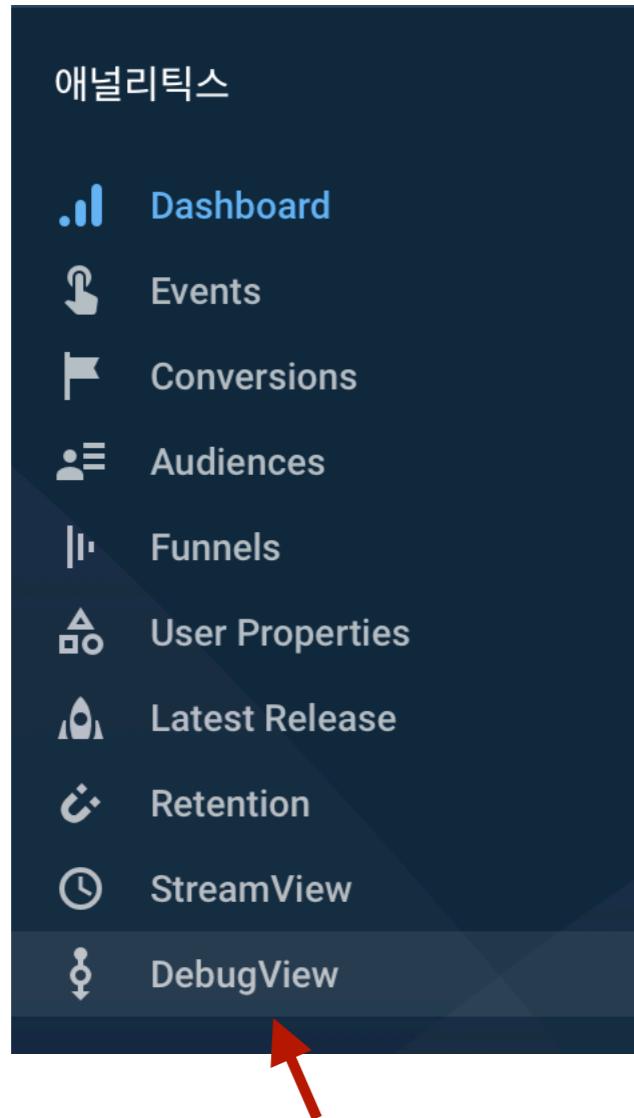
Duplicate Scheme Manage Schemes... Shared Close

5. -FIRAnalyticsDebugEnabled 입력

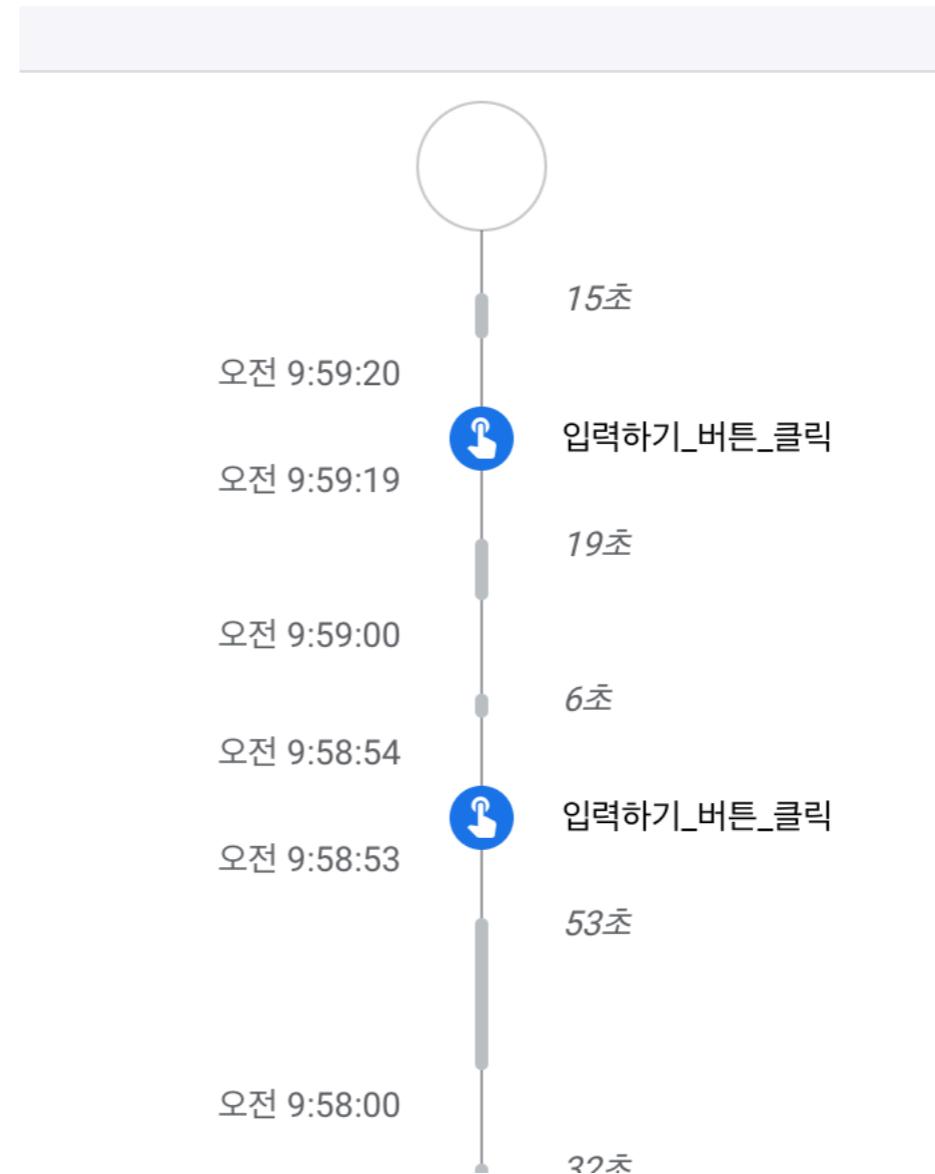
3. Arguments 선택

4. + 선택

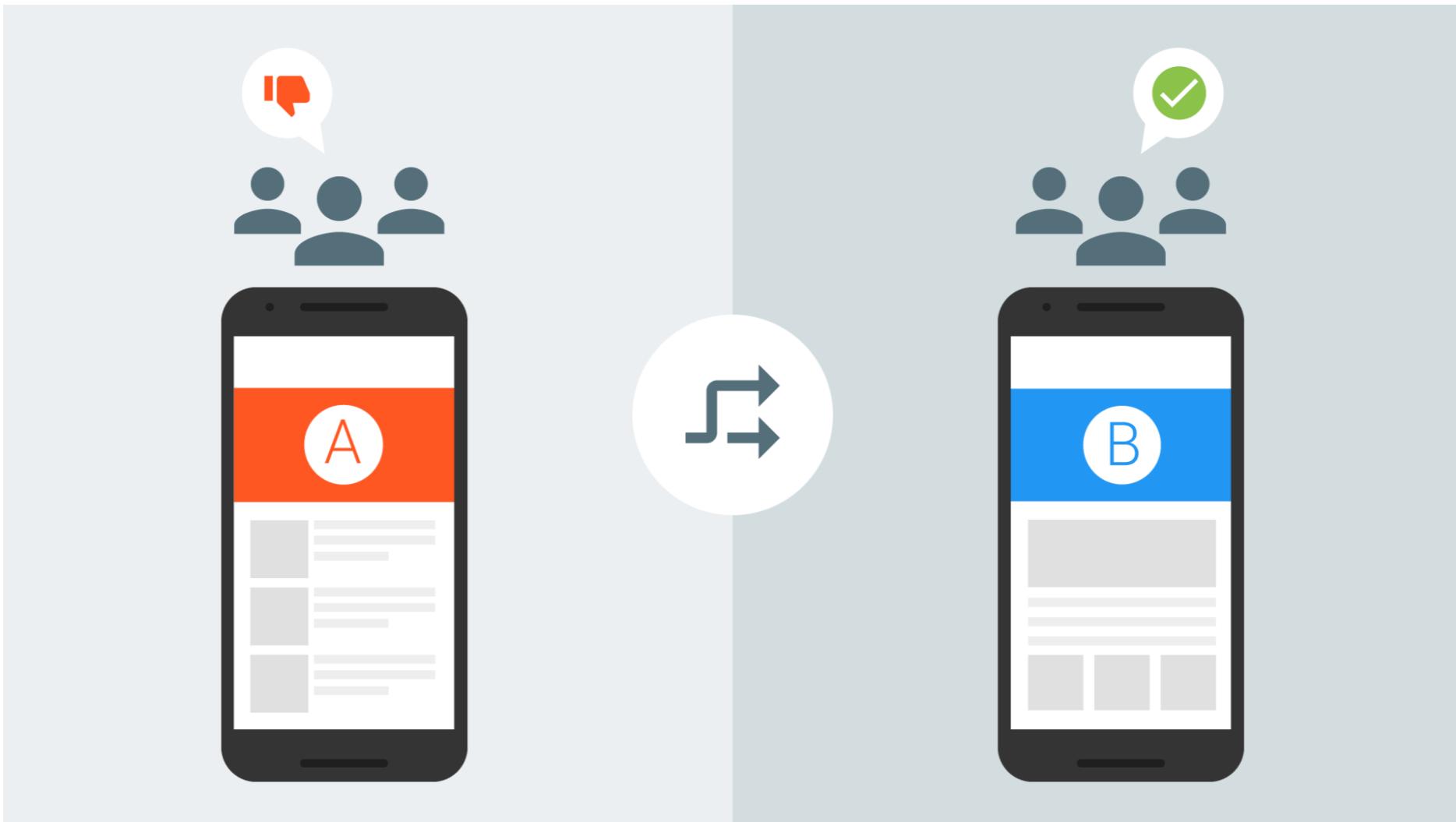
실시간 디버깅



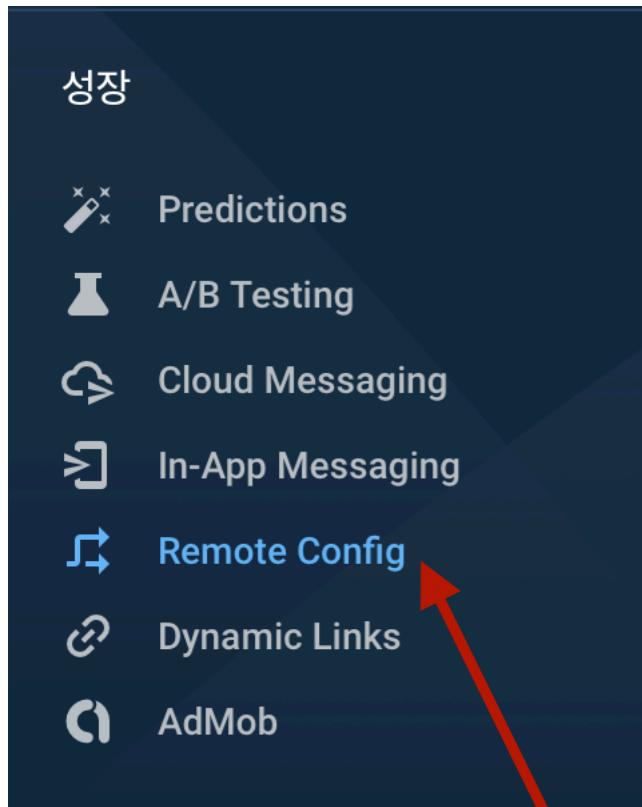
DebugView 선택



Remote Config



Remote Config

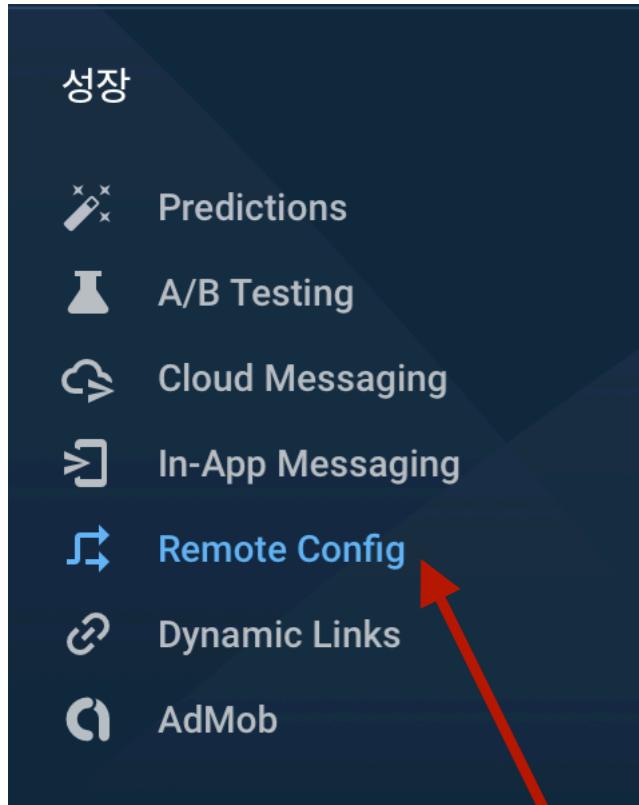


Remote Config 선택

The screenshot shows the 'Add Variable' screen for Remote Config. It has three main sections: 'FirstHalf' (green), 'SecondHalf' (orange), and 'Basic Value' (grey). Each section has a 'Key' input field ('helloTextHidden'), a 'Value' input field ('true' for FirstHalf, 'false' for SecondHalf, and 'true' for Basic Value), and a 'Condition' dropdown menu (each with a delete button 'X'). A blue 'Add Variable' button is at the bottom right. The background is white with a light blue header bar.

key: value + 조건 입력

Remote Config



1. Remote Config 선택

The screenshot shows the 'Add Variable' screen in the Firebase Remote Config interface. It has a light blue header bar with the text '매개변수 추가'. Below this, there are three main sections: 'FirstHalf 값' (Value for FirstHalf), 'SecondHalf 값' (Value for SecondHalf), and '기본값' (Default Value). Each section contains a text input field with a placeholder value ('true', 'false', 'true') and a delete button (an 'X' icon) to its right. To the left of these sections is a '설명 추가' (Add Description) button. In the top right corner, there is a '조건 값 추가' (Add Condition Value) button and another 'X' icon. At the bottom right is a large blue '매개변수 추가' (Add Variable) button.

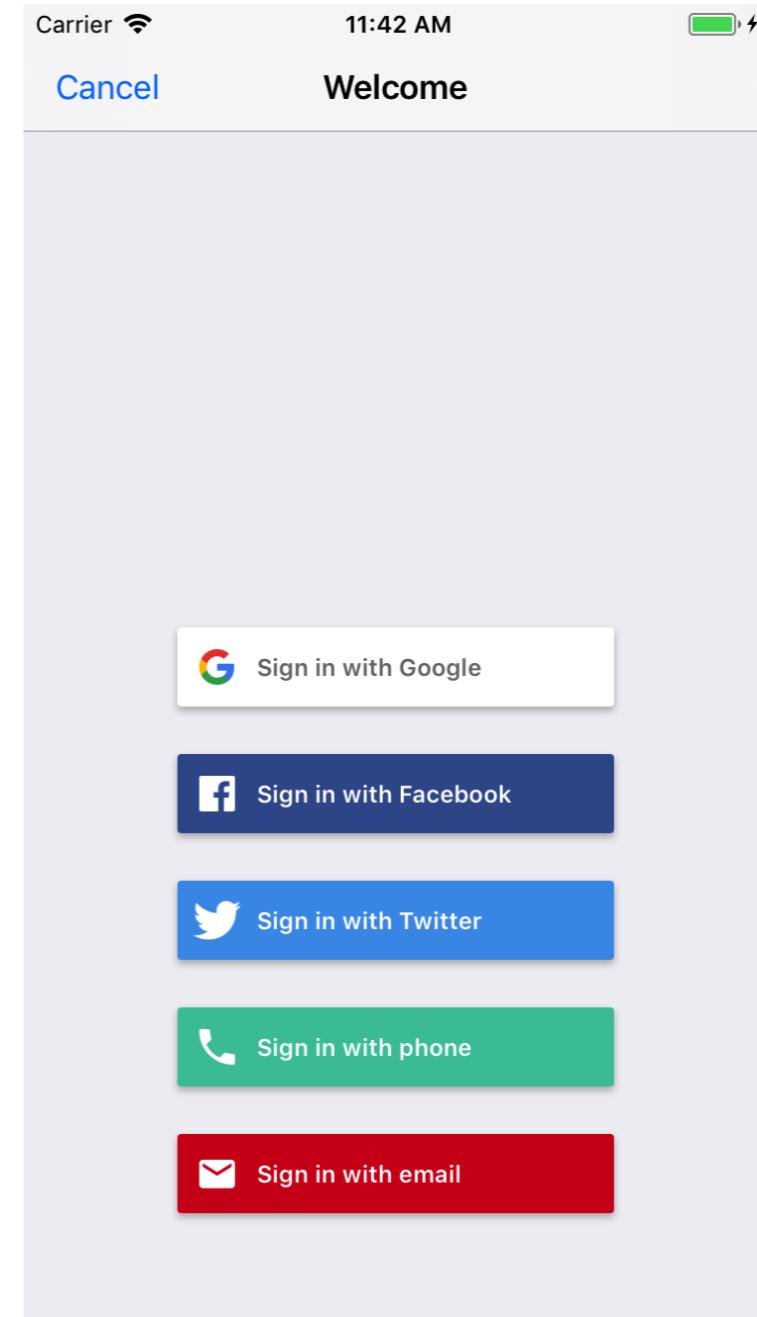
2. key: value + 조건 입력

Remote Config

remoteConfig[{key}]

FirebaseUI

- FirebaseUI를 이용한 로그인 환경
- 여러 제공 업체 지원
- Customizing 가능



FirebaseUI

```
pod 'FirebaseUI'
```

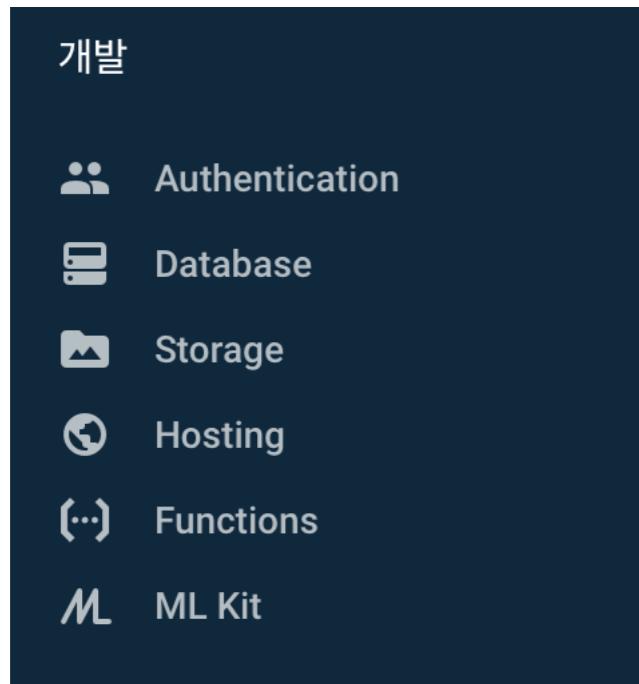
또는 내가 원하는 인증 업체만 추가

```
pod 'FirebaseUI/Auth'  
pod 'FirebaseUI/Google'  
pod 'FirebaseUI/Facebook'  
pod 'FirebaseUI/Twitter'  
pod 'FirebaseUI/Phone'
```

...

FirebaseUI

1. Authentication 선택



A screenshot of the 'Authentication' screen in the Firebase console. The top navigation bar shows 'Realtime Database' and other account-related icons. Below it, the title 'Authentication' is displayed above a table header with columns: 사용자 (User), 로그인 방법 (Login Method), 템플릿 (Template), and 사용량 (Usage). A search bar at the top of the table allows filtering by email, phone number, or user ID. The main area features a large icon of a person's face on an ID badge. Text below the icon states: '서버측 코드 없이 다양한 제공업체의 사용자를 인증하고 관리할 수 있습니다.' (You can authenticate and manage users from various providers without server-side code). Buttons for '로그인 방법 설정' (Set login methods) and '문서 보기' (View documentation) are present. The bottom right corner contains the text '2. 로그인 방법 설정 선택' (Select login method settings).

FirebaseUI

Realtime Database ▾ 문서로 이동 🔔 📈

Authentication

?

사용자 **로그인 방법** 템플릿 사용량

로그인 제공업체

제공업체 상태

✉️ 이메일/비밀번호

1. 이메일/비밀번호 선택

2. 사용 설정 on

사용자가 자신의 이메일 주소와 비밀번호를 사용해 로그인할 수 있도록 허용합니다. Google SDK는 이메일 주소 인증, 암호 복구, 이메일 주소 변경 기본 형식도 제공합니다. [자세히 알아보기](#)

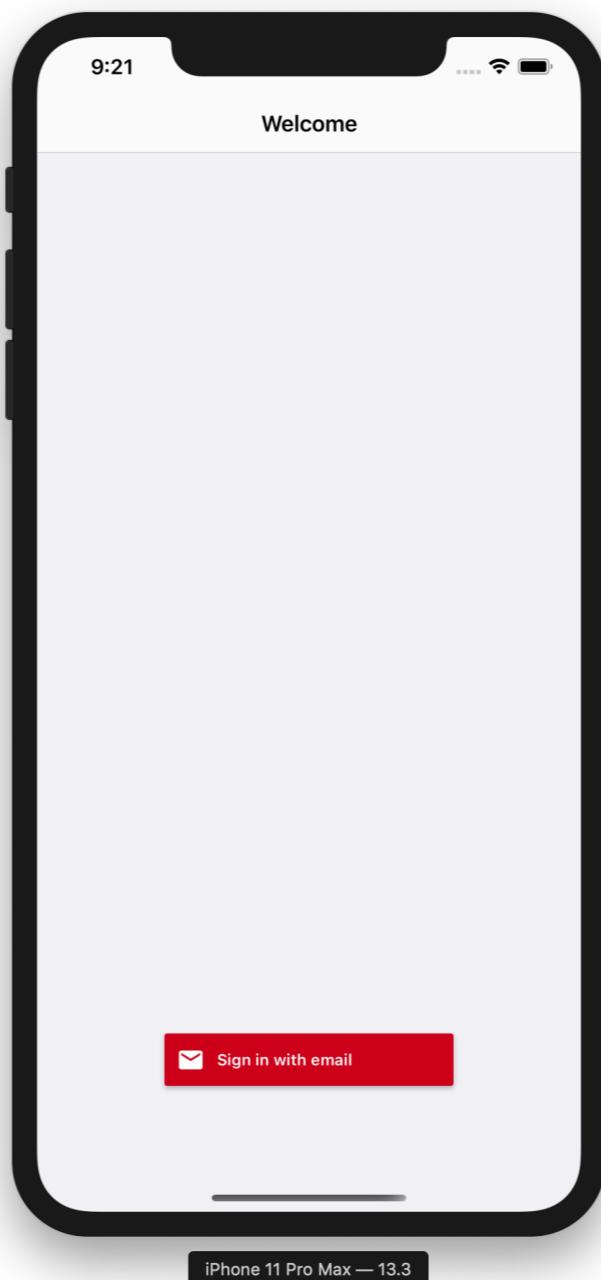
이메일 링크(비밀번호가 없는 로그인)

3. 저장

전화 중지됨

취소 저장

FirebaseUI_Email



FirebaseUI_Google

The screenshot shows the configuration steps for integrating Google sign-in into a Firebase project:

- 1. Google 선택**: The first step where "Google" is selected from a list.
- 2. 사용 설정 on**: The "Usage settings" toggle is turned on.
- 3. 앱 이름 설정**: The app name is set to "패스트캠퍼스 Firebase 실습 앱". A red arrow points from this step to the "Email selection" screen.
- 4. 이메일 선택**: The email address "iosdeveloperkr@gmail.com" is selected.
- 4. 저장**: The final step where the configuration is saved.

Below the main configuration area, there are two dropdown sections:

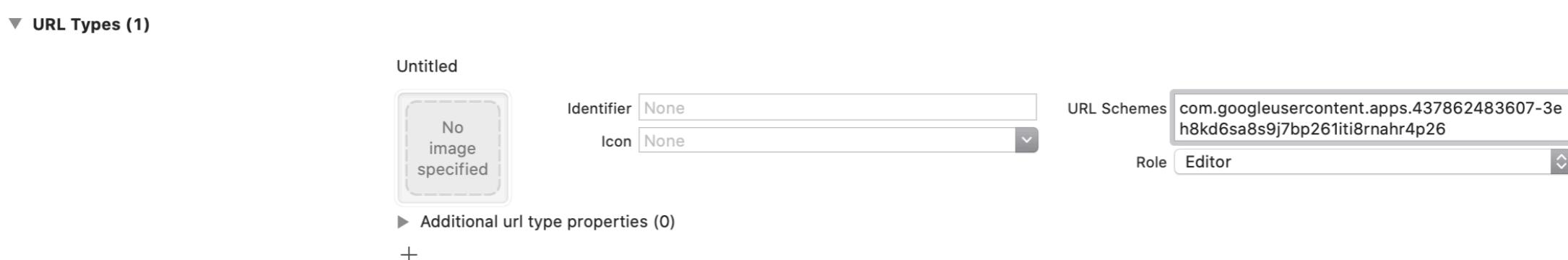
- 외부 프로젝트의 클라이언트 ID 허용(선택사항) ⓘ
- 웹 SDK 구성 ⓘ

FirebaseUI_Google

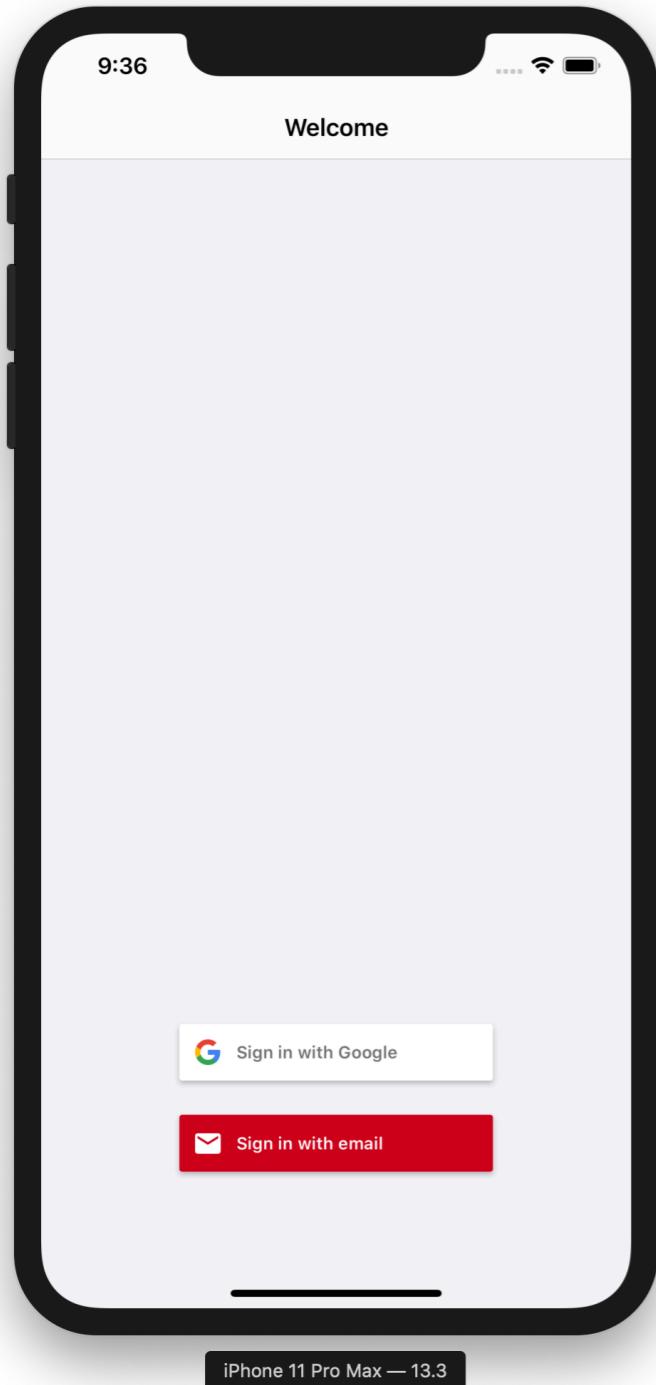
1. **GoogleService-Info.plist**
2. **REVERSED_CLIENT_ID** 값 복사

REVERSED_CLIENT_ID	String	com.googleusercontent.apps.437862483607-3eh8kd6sa8s9j7bp261iti8rnahr4p26
--------------------	--------	--

3. **Project -> Target -> Info**
4. **URL Types + 선택**



FirebaseUI_Google



Authentication

사용자 로그인 방법 템플릿 사용량

식별자	제공업체	생성일	최종 로그인 날짜	사용자 UID ↑
me@boyoung.dev		2020. 2. 18.	2020. 2. 18.	jrgSjaH3gxclkz1oDJyES3zi1J93

페이지당 행 수: 50 ▾ 1명 중 1~1명 < >