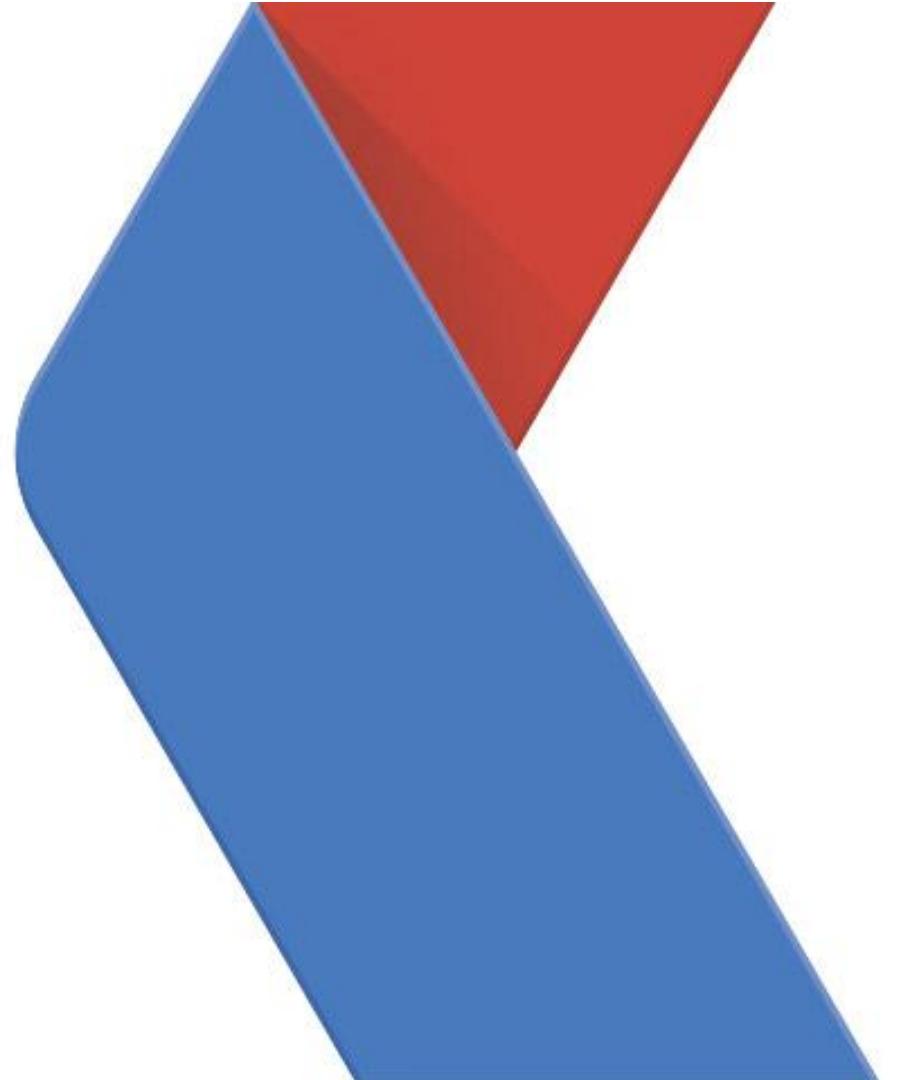


Zero to App



Develop

Backend Services

- Realtime Database
- Authentication
- Hosting
- Storage
- Cloud Messaging
- Remote Config

App Quality Services

- Test Lab for Android
- Crash Reporting

Grow

Acquisition

- Dynamic Links
- Invites
- AdWords

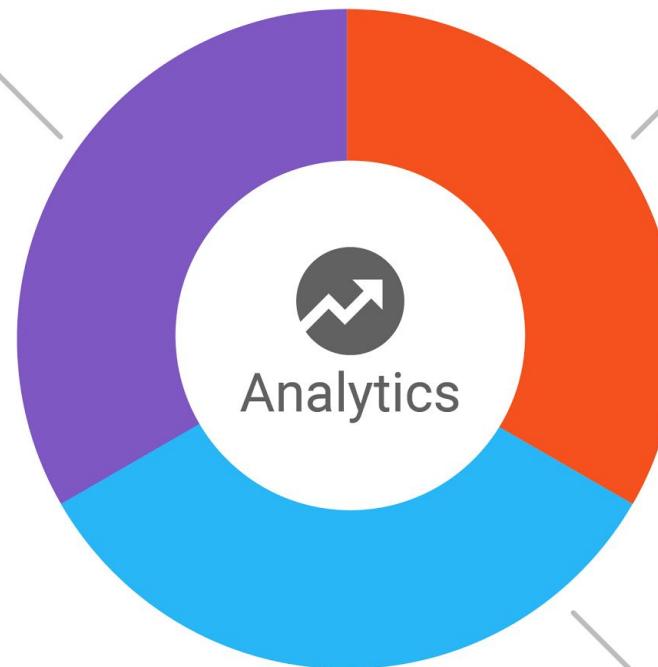
Re-Engagement

- Notifications
- App Indexing

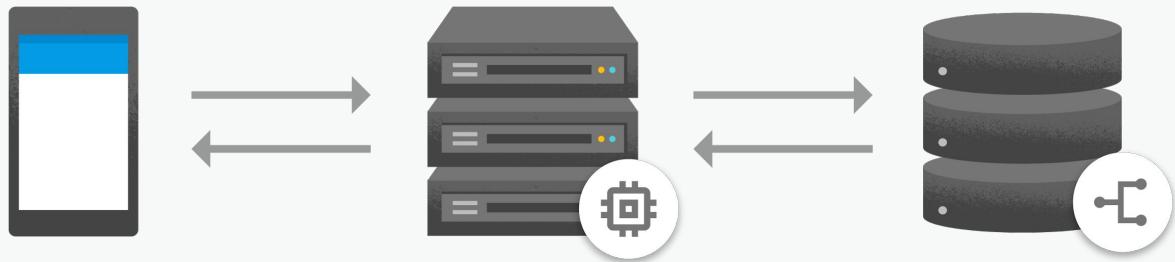
Earn

In-app Ads

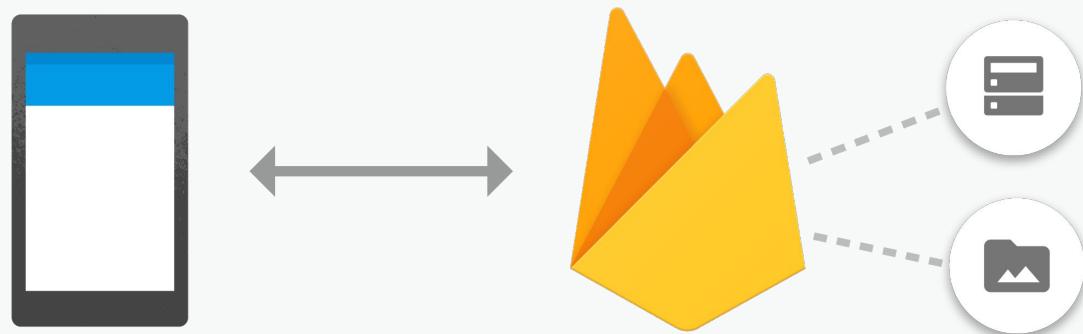
- AdMob



Zero to App



Zero to App



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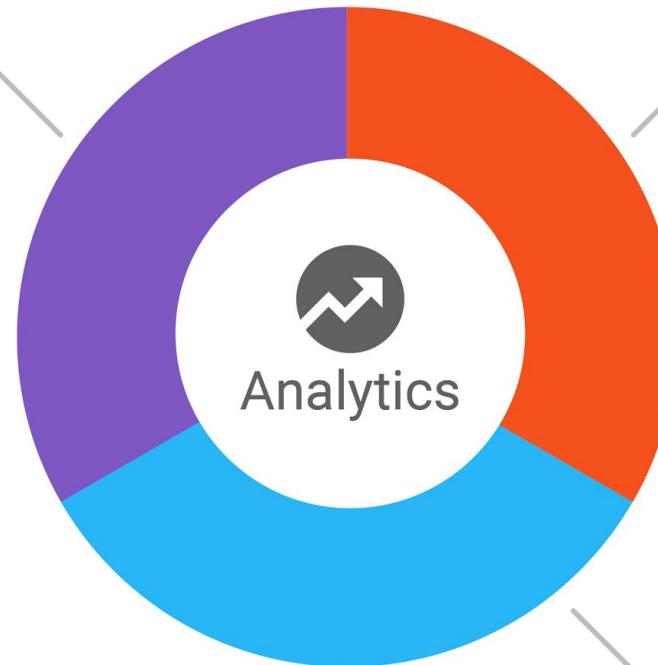
Re-Engagement

- Notifications
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Earn

In-app Ads

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0. Create an Idea

1. Pick your Platform(s)

2. Connect Firebase

3. Try it out

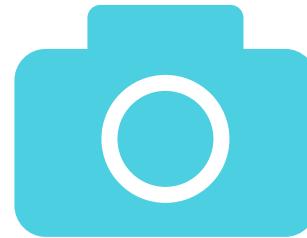
4. Ship it!

Conclusion



0. Create an Idea

dating games casual **social** geo
photo office productivity finance
books clock video radio legal
role-playing **chat** family food
health fishing todo calendar art



0. Create an Idea

1. Pick your Platform(s)

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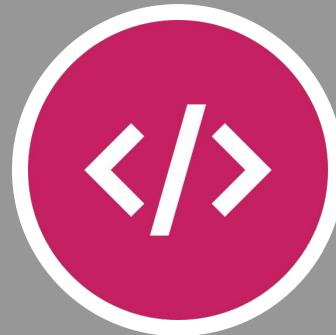
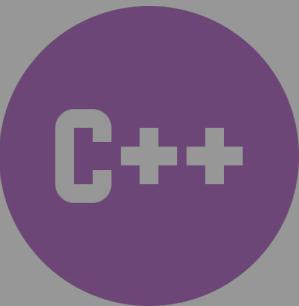
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Conclusion



1. Pick your Platform(s)



0. Create an Idea

1. Pick your Platform(s)

2. Connect Firebase

3. Try it out

4. Ship it!

Conclusion





```
1 // iOS Code
2 pod 'Firebase/Core'
3 ...
4 FIRApp.configure()
5
6
7 // Android Code
8 compile 'com.google.firebaseio:firebase-core:9.0.2'
9 ...
10
11 apply plugin: 'com.google.gms.google-services'
12
13 // Web Code
14 <script src=".../firebase.js"></script>
15
16 <script>
17 var config = {...};
18 firebase.initializeApp(config);
19 </script>
20
21
22
23
24
```



Develop

Backend Services

- Realtime Database
- Authentication
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App Quality Services

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Grow

Acquisition

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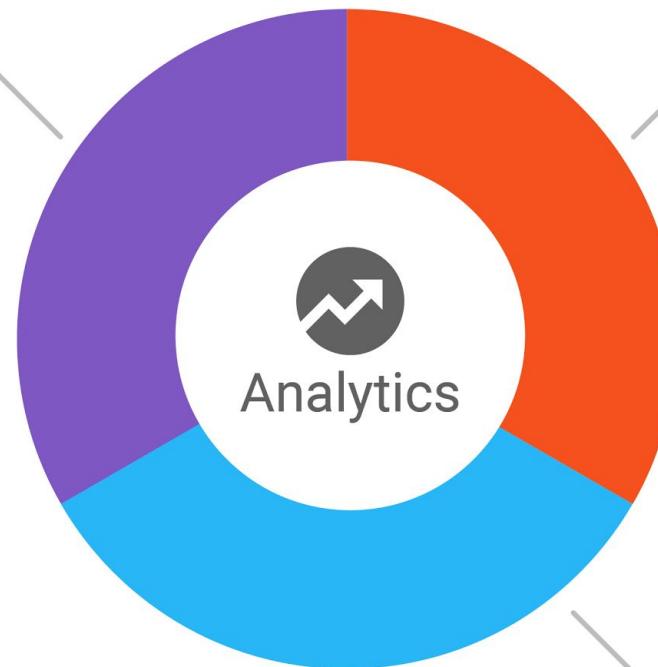
Re-Engagement

- Notifications
- App Indexing

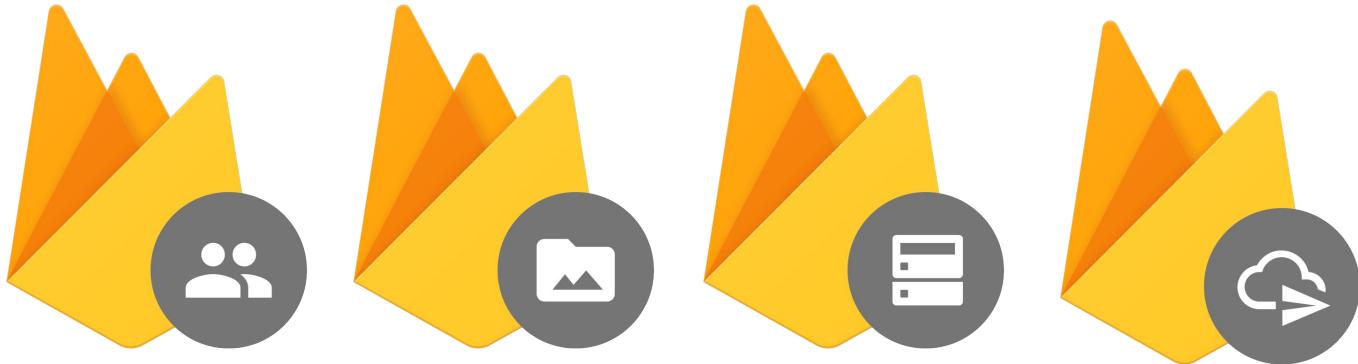
Earn

In-app Ads

- AdMob



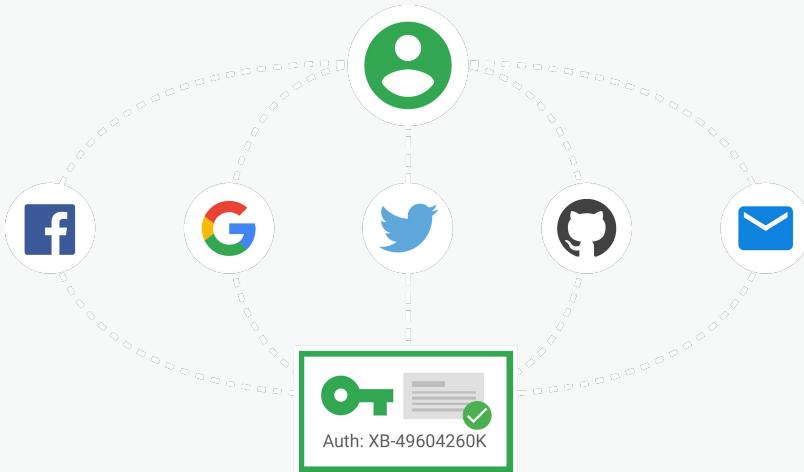
2. Connect Firebase



Firebase Auth



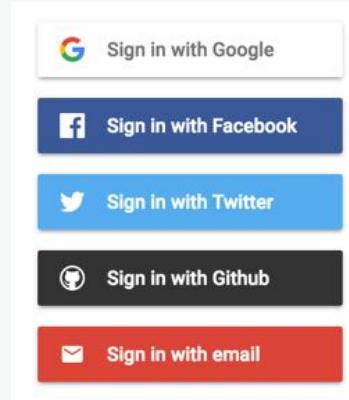
- Email / Password
- Custom Auth
- Common Western Providers - Google, Twitter, Facebook, etc.



Firebase Auth



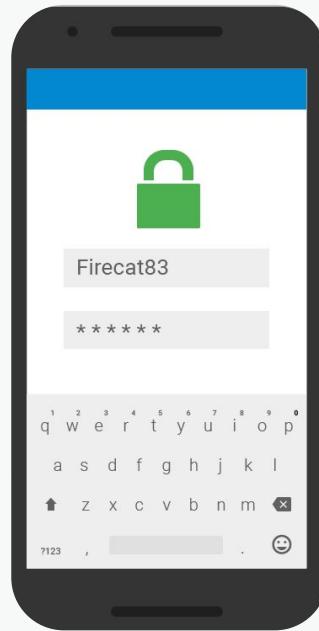
- Ready-made UI



Firebase Auth



- Password resets made easy



Firebase Auth



- Anonymous Accounts



Firebase Auth



```
1 // Email Sign-in
2
3 firebase.auth()
4     .signInWithEmailAndPassword(email, password)
5     .then(function(result) {
6         var user = result.user;
7     }).catch(function(error) {
8         // Handle Errors here.
9         var errorCode = error.code;
10        var errorMessage = error.message;
11    });
12
13
14
15
16
17
18
19
20
21
22
23
24
```



Firebase Auth



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Firebase Auth



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11    });
12
13
14
15
16
17
18
19
20
21
22
23
24
```



Firebase Auth



```
1 // Google Sign-in
2
3 var provider =
4     new firebase.auth.GoogleAuthProvider();
5
6 // Open a pop-up OAuth Prompt
7 firebase.auth().signInWithPopup(provider)
8     .then(function(result) {
9         var user = result.user;
10    }).catch(function(error) {
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Firebase Auth



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13        var errorMessage = error.message;
14    });
15
16
17
18
19
20
21
22
23
24
```



Firebase Auth



```
1 // Custom Sign-in
2
3 firebase.auth().signInWithCustomToken(token)
4     .then(function(result) {
5         var user = result.user;
6     }).catch(function(error) {
7         // Handle Errors here.
8         var errorCode = error.code;
9         var errorMessage = error.message;
10    });
11
12
13
14
15
16
17
18
19
20
21
22
23
24
```

Firebase Storage



```
1 <!-- HTML -->
2 <input type="file" id="file"/>
3 <button id="submit">Upload!</button>
4
5 // JavaScript
6 var ipt_File = document.querySelector('#file');
7 var btn_Submit = document.querySelector('#submit');
8
9 btn_Submit.addEventListener('click', function () {
10     // Gets file from input
11     var file = ipt_File.files[0];
12
13     var ref = firebase.storage().ref('upload.jpg');
14
15     // Upload to Firebase
16     ref.put(file)
17         .then(function(snapshot) {
18             console.log('Uploaded!');
19             var image_url = snapshot.downloadURL;
20         });
21     });
22
23
24
```



Firebase Storage



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19             console.log('Uploaded!');
20             var imageUrl = snapshot.downloadURL;
21         });
22
23
24});
```



Firebase Database



- JSON based
- Key/Value Store
- Realtime Sync
- Offline Support



Firebase Database



```
1  {
2      "chats": {
3          "CHAT_ID": {
4              "-23432dsadsa": {
5                  "uid": "1442",
6                  "text": "First Message"
7              },
8              "-2fsadfdsadsa": {
9                  "uid": "2131",
10                 "text": "Second Message",
11                 "image_url": "https://..."
12             }
13             ...
14         },
15         ...
16     }
17 }
```



Firebase Database



```
1  {
2      "chats": {
3          "CHAT_ID": {
4              "-23432dsadsa": {
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```



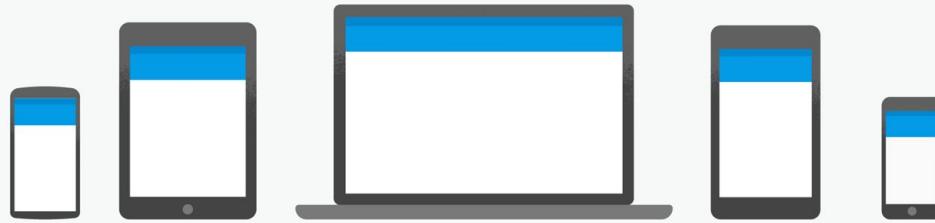
Firebase Database



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12             }
13             ...
14         },
15         ...
16     }
17 }
```



Firebase Database



Firebase Database



```
1 var database = firebase.database();
2 var chatRef = database.ref('chats/' + chatId);
3
4 function sendChatMessage(message) {
5     chatRef.push({
6         uid: uid,
7         message: message
8     });
9 }
10
11
12 chatRef.on('child_added', function (snapshot) {
13     displayChatMessage(snapshot.val());
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15
16
17
18
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```



Firebase Database



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Firebase Database



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17
18
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22
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```



Firebase Cloud Messaging



```
1 var messaging = firebase.messaging();
2
3 // Get a FCM Token
4 messaging.getToken()
5   .then(function(currentToken) {
6     if(currentToken) {
7       sendTokenToServer(currentToken);
8     } else {
9       // No token, request permission
10      requestPermission();
11    }
12  });
13
14 // Receive incoming Push Notification
15 messaging.onMessage(function(payload) {
16   console.log("Message received. ", payload);
17 });
18
19
20
21
22
23
24
```



Firebase Cloud Messaging



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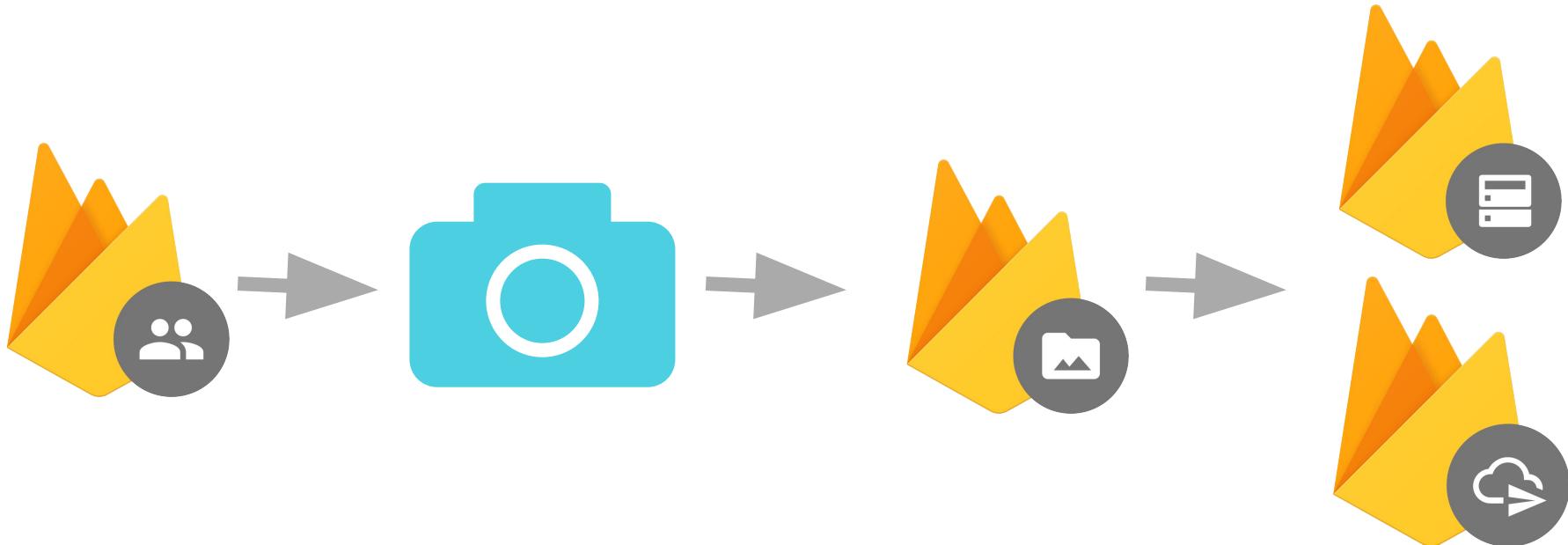
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```



2. Connect Firebase



0. Create an Idea

1. Pick your Platform(s)

2. Connect Firebase

3. Try it out

4. Ship it!

Conclusion



Zero to App



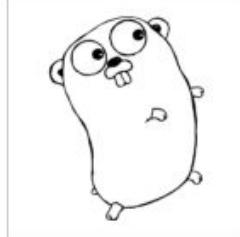
Google Developer Day

FriendlyChat

[Sign In!](#)

#Golang Chatroom

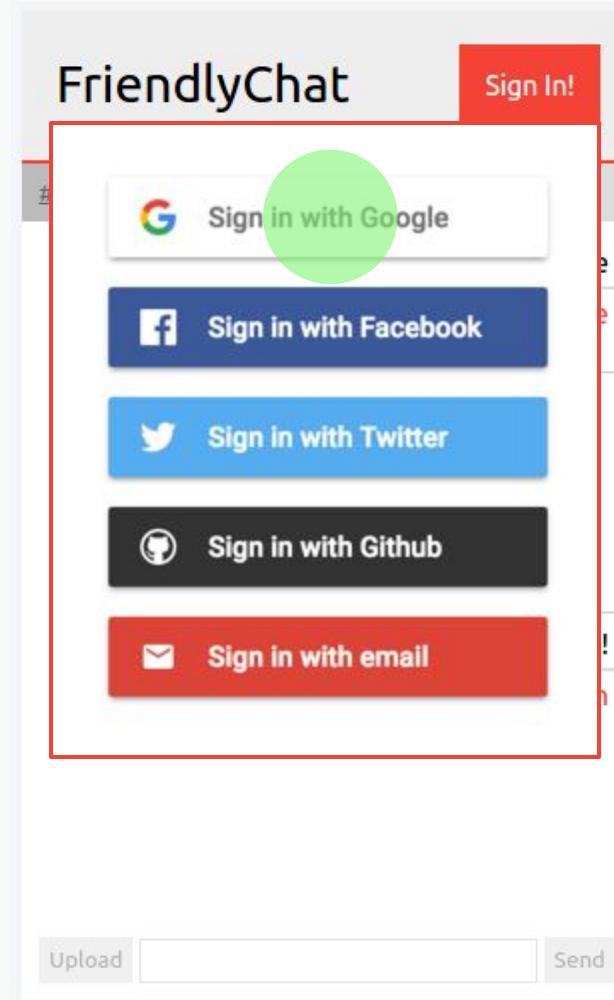
This is a first message
abe



Great! Here's a first image!
lauren

Upload Send

Zero to App



Google Developer Day

Zero to App



Google Developer Day

FriendlyChat

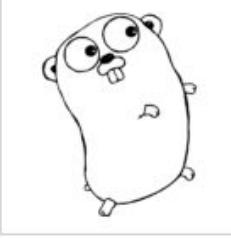
Welcome, Ben

Sign out!

#Golang Chatroom

This is a first message

abe



Great! Here's a first image!

lauren

Upload Send

Zero to App



Google Developer Day

FriendlyChat

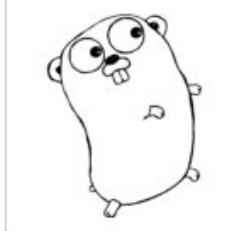
Welcome, Ben

Sign out!

#Golang Chatroom

This is a first message

abe



Great! Here's a first image!

lauren

Upload Send

The screenshot shows a user interface for a chat application named "FriendlyChat". At the top, it says "Welcome, Ben" and has a "Sign out!" button. Below that is a header bar with the text "#Golang Chatroom". The main content area displays a message from "abe" that reads "This is a first message" followed by a line separator and the name "abe" again. Below this is a small image of a cartoon gopher. Another message from "lauren" follows, reading "Great! Here's a first image!" followed by a line separator and the name "lauren" again. At the bottom, there are "Upload" and "Send" buttons, along with a text input field.

FriendlyChat

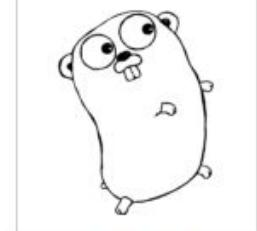
Welcome, James

Sign out!

#Golang Chatroom

This is a first message

abe



Great! Here's a first image!

lauren

Upload Send

The screenshot shows a user interface for a chat application named "FriendlyChat". At the top, it says "Welcome, James" and has a "Sign out!" button. Below that is a header bar with the text "#Golang Chatroom". The main content area displays a message from "abe" that reads "This is a first message" followed by a line separator and the name "abe" again. Below this is a small image of a cartoon gopher. Another message from "lauren" follows, reading "Great! Here's a first image!" followed by a line separator and the name "lauren" again. At the bottom, there are "Upload" and "Send" buttons, along with a text input field.

Zero to App



Google Developer Day

FriendlyChat

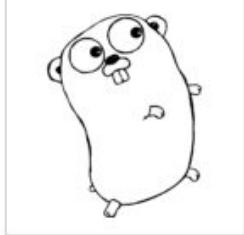
Welcome, Ben

[Sign out!](#)

#Golang Chatroom

This is a first message

abe



Great! Here's a first image!

lauren

Upload Send

FriendlyChat

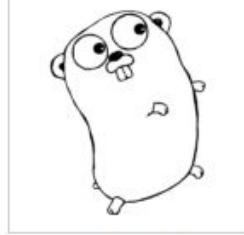
Welcome, James

[Sign out!](#)

#Golang Chatroom

This is a first message

abe



Great! Here's a first image!

lauren

Upload Send

Zero to App



Google Developer Day

FriendlyChat

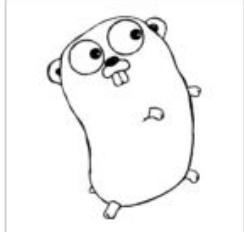
Welcome, Ben

Sign out!

#Golang Chatroom

This is a first message

abe



Great! Here's a first image!

lauren

I really think this should be #CSharp ;/

you

Upload Send

FriendlyChat

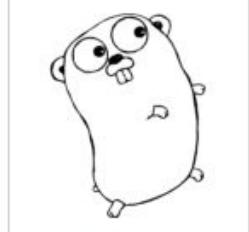
Welcome, James

Sign out!

#Golang Chatroom

This is a first message

abe



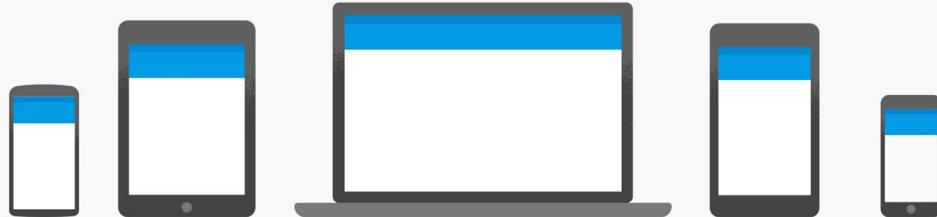
Great! Here's a first image!

lauren



Upload Send

Zero to App



Zero to App



Google Developer Day

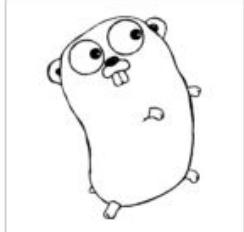
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[Sign out!](#)

#Golang Chatroom

This is a first message
abe



Great! Here's a first image!
lauren

I really think this should be #CSharp :/
you

Upload Send

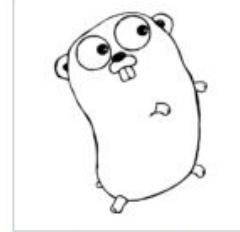
FriendlyChat

Welcome, James

[Sign out!](#)

#Golang Chatroom

This is a first message
abe



Great! Here's a first image!
lauren

I really think this should be #CSharp :/
ben

Upload Send

Zero to App

No servers. Just Firebase.



Google Developer Day

Zero to App

0. Create an Idea

1. Pick your Platform(s)

2. Connect Firebase

3. Try it out

4. Ship it!

Conclusion



4. Ship it!



Firebase Hosting

Firebase Hosting



Firebase Hosting



```
// Initialize the Firebase Project
$ firebase init

// Serve the app locally
$ firebase serve

// Deploy to YOUR_APP.firebaseio.com
$ firebase deploy
```



0. Create an Idea

1. Pick your Platform(s)

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4. Ship it!

Conclusion



Develop

Backend Services

Realtime Database
Authentication
Hosting
Storage
Cloud Messaging
Remote Config

App Quality Services

Test Lab for Android
Crash Reporting

Grow

Acquisition

Dynamic Links
Invites
AdWords

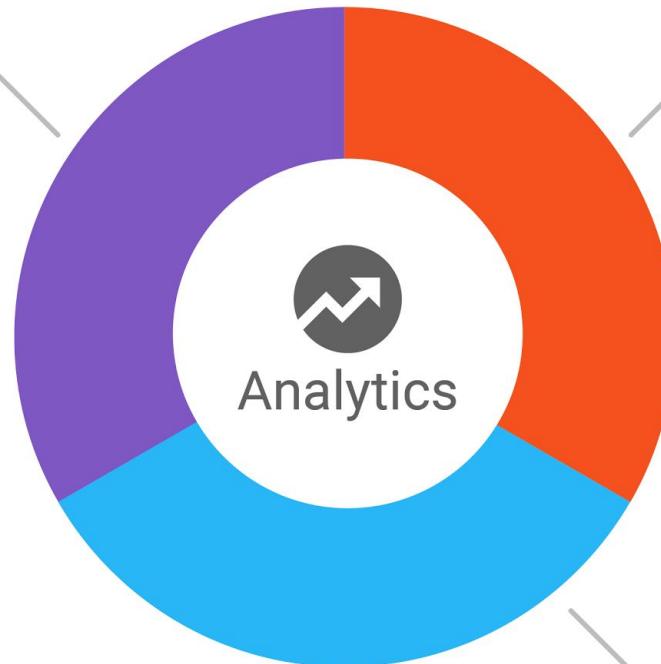
Re-Engagement

Notifications
App Indexing

Earn

In-app Ads

AdMob



Zero to App

- **Firebase Website**
<https://firebase.google.com>

