CS47: Cross-Platform Mobile Development

Lecture 9A: Firebase Storage + authentication
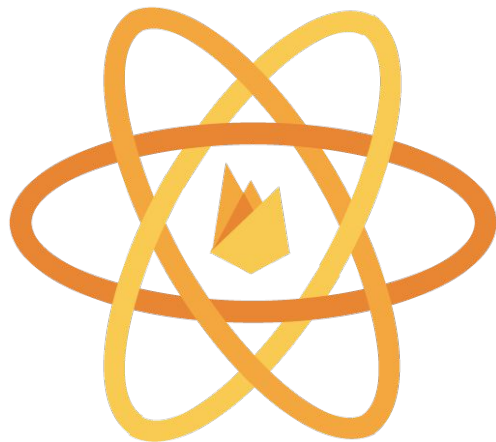
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https://cs47.stanford.edu
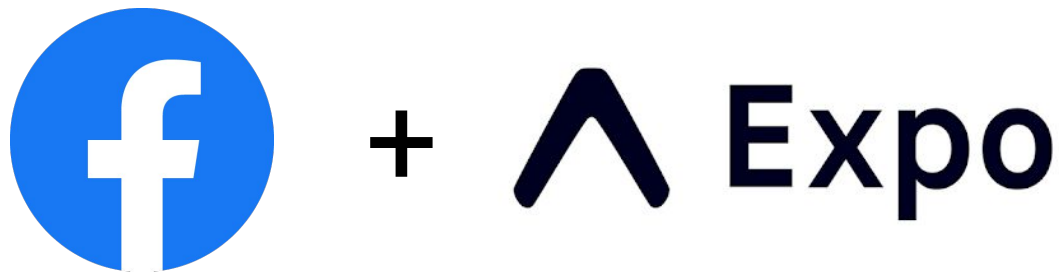
cs47-fall19.slack.com

Fall 2019

Overview for Today

- Facebook login
- Firebase Storage Overview
- Firebase upload example
- Firebase download solution

Facebook login
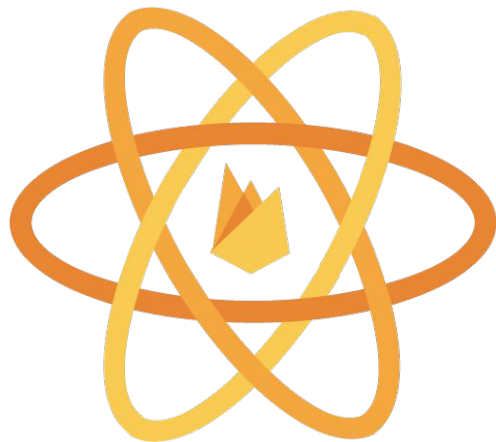

[Facebook login docs](#)

Steps

1. Create a Facebook developer account
2. Create an app
3. Go to settings/basic on the left, and follow the Expo guide
4. Copy the code from Expo. Make sure to enter your correct App_ID
5. Yay! FB login works
6. Optional, but likely you wanna do it: Save token and expiration date locally. No one likes to login again every time

Demo

Overview for Today

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- Firebase Storage Overview
- Firebase upload example
- Firebase download solution

What is Firebase Storage?

Cloud Storage for Firebase lets you upload and share user generated content, such as images and video.

How do you use Firebase Cloud Storage?

1. Go to Firebase Console
2. Create an app (cannot use Stanford email)
3. Go to storage and get started
4. Similar to Firestore, install Firebase (`npm install --save firebase`)
5. Copy firebase config from the console (make sure the app you created is a web app)
6. Put the code somewhere accessible for your app (a firebase.js file for instance)
7. Import firebase in your screen

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Copy code

Copy and paste these scripts into the bottom of your `<body>` tag, but before you use any Firebase services:

```
<!-- The core Firebase JS SDK is always required and must be listed first -->
<script src="https://www.gstatic.com/firebasejs/7.3.0/firebase-app.js"></script>

<!-- TODO: Add SDKs for Firebase products that you want to use
     https://firebase.google.com/docs/web/setup#available-libraries -->

<script>
  // Your web app's Firebase configuration
  var firebaseConfig = {
    apiKey: "AIzaSyCKd6GDihn1JOndnj35uK2cfUfnA3qy0Zs",
    authDomain: "cs47lecture8a.firebaseapp.com",
    databaseURL: "https://cs47lecture8a.firebaseio.com",
    projectId: "cs47lecture8a",
    storageBucket: "cs47lecture8a.appspot.com",
    messagingSenderId: "908096994778",
    appId: "1:908096994778:web:11c7303c1ce040e725d4e3"
  };
  // Initialize Firebase
  firebase.initializeApp(firebaseConfig);
</script>
```

Learn more about Firebase for web: Get Started, Web SDK API Reference, Samples

Continue to console

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Create a firebase.js file and paste code

firebase.js — Lecture7A-Starter-master

JS firebase.js ✕

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∨ LECTURE7A-STARTER-MASTER
- › .expo
- › .expo-shared   ●
- › App   ●
- › assets   ●
- › node_modules
- ◇ .gitignore   U
- JS App.js   U
- {} app.json   U
- JS babel.config.js   U
- JS firebase.js   U
- {} package-lock.json   U
- {} package.json   U

JS firebase.js > ...

```
1   import * as firebase from 'firebase';
2   import 'firebase/firebase-firestore';
3
4   // Your web app's Firebase configuration
5   var firebaseConfig = {
6     apiKey: "AIzaSyCKd6GDihn1JOndnj35uK2cfUfnA3qy0Zs",
7     authDomain: "cs47lecture8a.firebaseapp.com",
8     databaseURL: "https://cs47lecture8a.firebaseio.com",
9     projectId: "cs47lecture8a",
10    storageBucket: "cs47lecture8a.appspot.com",
11    messagingSenderId: "908096994778",
12    appId: "1:908096994778:web:11c7303c1ce040e725d4e3"
13  };
14  // Initialize Firebase
15  firebase.initializeApp(firebaseConfig);
16  var firestore = firebase.firestore();
17
18  export default firestore;
```

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Uploading to firebase

First, obtain a reference

```javascript
// Create a root reference
var storageRef = firebase.storage().ref();

// Create a reference to 'mountains.jpg'
var mountainsRef = storageRef.child('mountains.jpg');

// Create a reference to 'images/mountains.jpg'
var mountainImagesRef = storageRef.child('images/mountains.jpg');
```

Second, put file there

```javascript
ref.put(file).then(function(snapshot) {
  console.log('Uploaded a blob or file!');
});
```

Getting local files

Use [ImagePicker](#) from Expo

- Get photos from camera
- Get photos from camera roll
- Note: You need permissions first!

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Some implementation details

- You will get a uri
- We will "fetch(uri)"
- Turn fetched data to blob
- The blob will be given to firebase storage

Demo