

Face Off - CS132 Capstone

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Make faces and emulate emojis in this made for mobile web game created as our capstone project for CS132. Face Off is implemented as a web app usable on both mobile and desktop browsers. We are using Meteor (www.meteor.com) as our platform for a few notable benefits. First, Meteor is reactive by design, meaning that pages will automatically update with the latest information from the database without the need to implement complicated logic to handle database operations. Second, Meteor integrates with Apache Cordova (cordova.apache.org) and provides easy packaging for iOS and Android devices, allowing us to deploy the web app in a native wrapper so that users may install the app directly from an app store.

Under the hood, our project uses Node.js, MongoDB, and websockets to connect clients to the server. We also use the Facebook Login API for login and account management. Most of our javascript is written in ES6 (ECMAScript 2015) and transpiled to widely supported javascript with the Babel transpiler. This allows us to write modern javascript while ensuring that the resultant code is still usable on all browsers.

On the front end, we are using Facebook's React.js library to create all view components. We chose React to challenge us to learn a new widely used web framework. Overall, this choice has succeeded in challenging us and has proved rewarding.

Additionally, we were able to use Meteor and Cordova to package our app into a native mobile app for both Android and iOS. This required us to include a custom Cordova camera package that could be integrated into the already complicated camera logic used on the web app.

Our native app works with every feature of the website and automatically updates as the website updates via Meteor's hot code pushes. The app is not currently on the App Store, as it requires a \$99 developer license from Apple, however it is deployable on individual controlled phones via a trusted local certificate. This means we can give our friends the app for now, but will have to pay Apple and Google for licenses for large scale distribution.

We hope to launch an official website and mobile phone app soon, but for now you can play the game at <http://face-off-cs132.herokuapp.com>.