



# VulcanJS

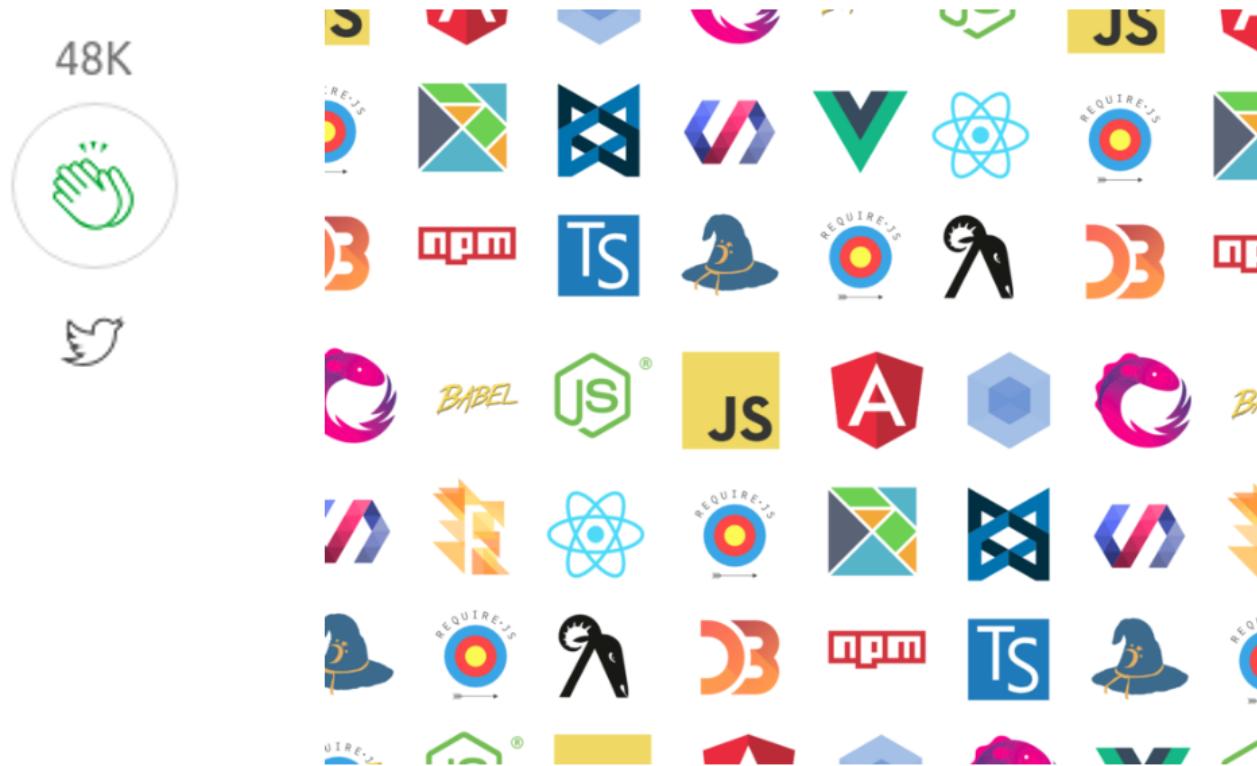
The fullstack React+GraphQL framework

7 nov. 2018

Apollinaire Lecocq

# THE PROBLEM

# How it feels to learn JavaScript in 2016



No JavaScript frameworks were created during the writing of this article.

The following is inspired by the article “It’s the future” from Circle CI. You can read the original [here](#). This piece is just an opinion, and like any JavaScript framework, it shouldn’t be taken too seriously. \*

Hey, I got this new web project, but to be honest I haven’t coded much web in a few years and I’ve heard the landscape changed a bit. You are the most up-to date web dev around here right?

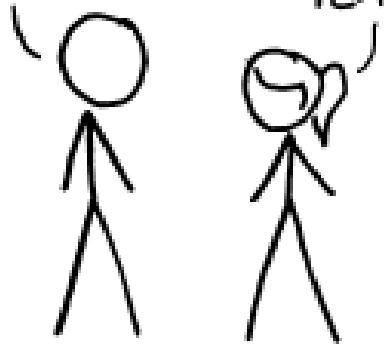
-The actual term is Front End engineer, but yeah, I’m the right guy. I do

# THE SOLUTION

HOW STANDARDS PROLIFERATE:  
(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)

SITUATION:  
THERE ARE  
14 COMPETING  
STANDARDS.

14?! RIDICULOUS!  
WE NEED TO DEVELOP  
ONE UNIVERSAL STANDARD  
THAT COVERS EVERYONE'S  
USE CASES.

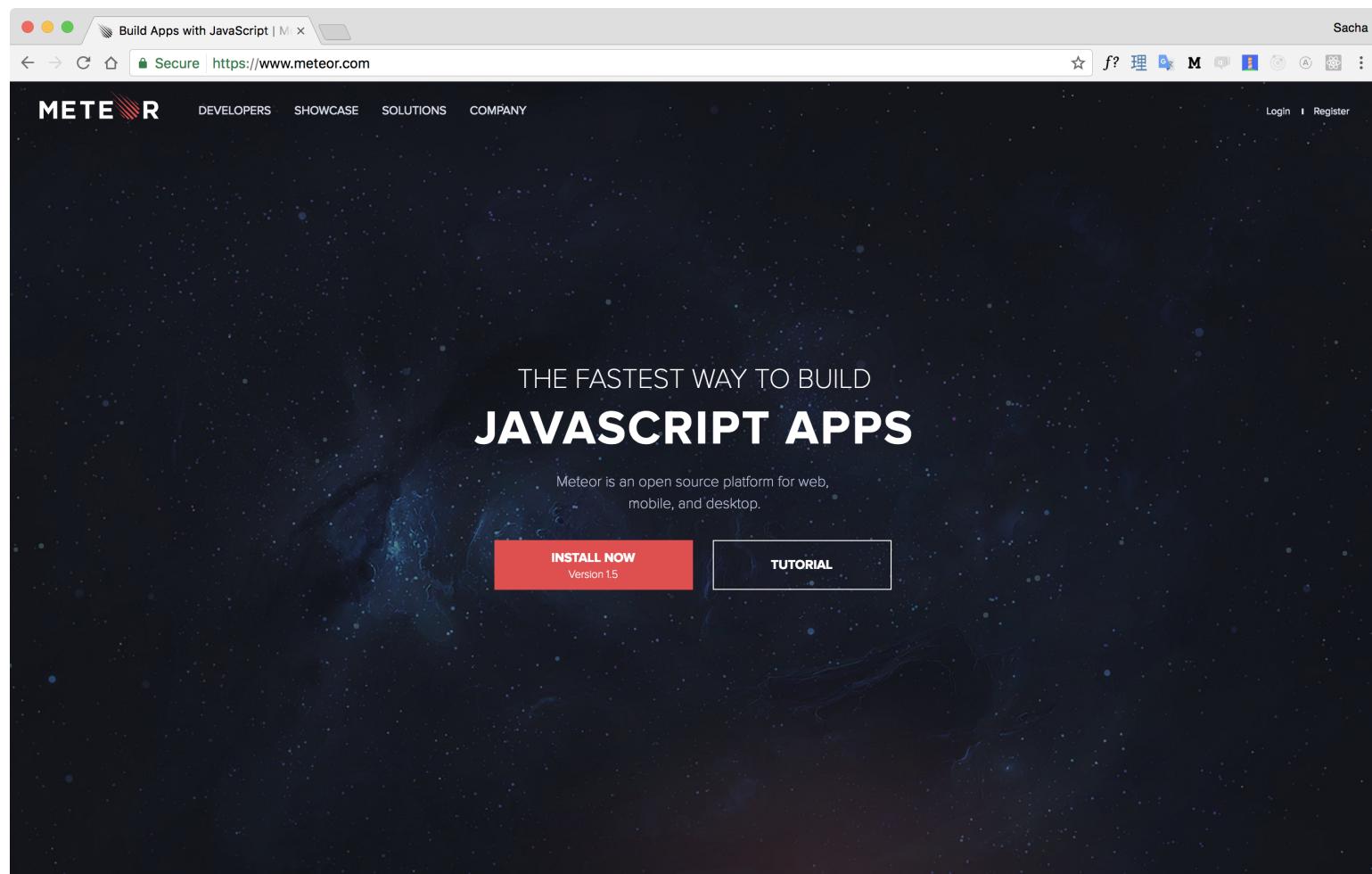


SOON:

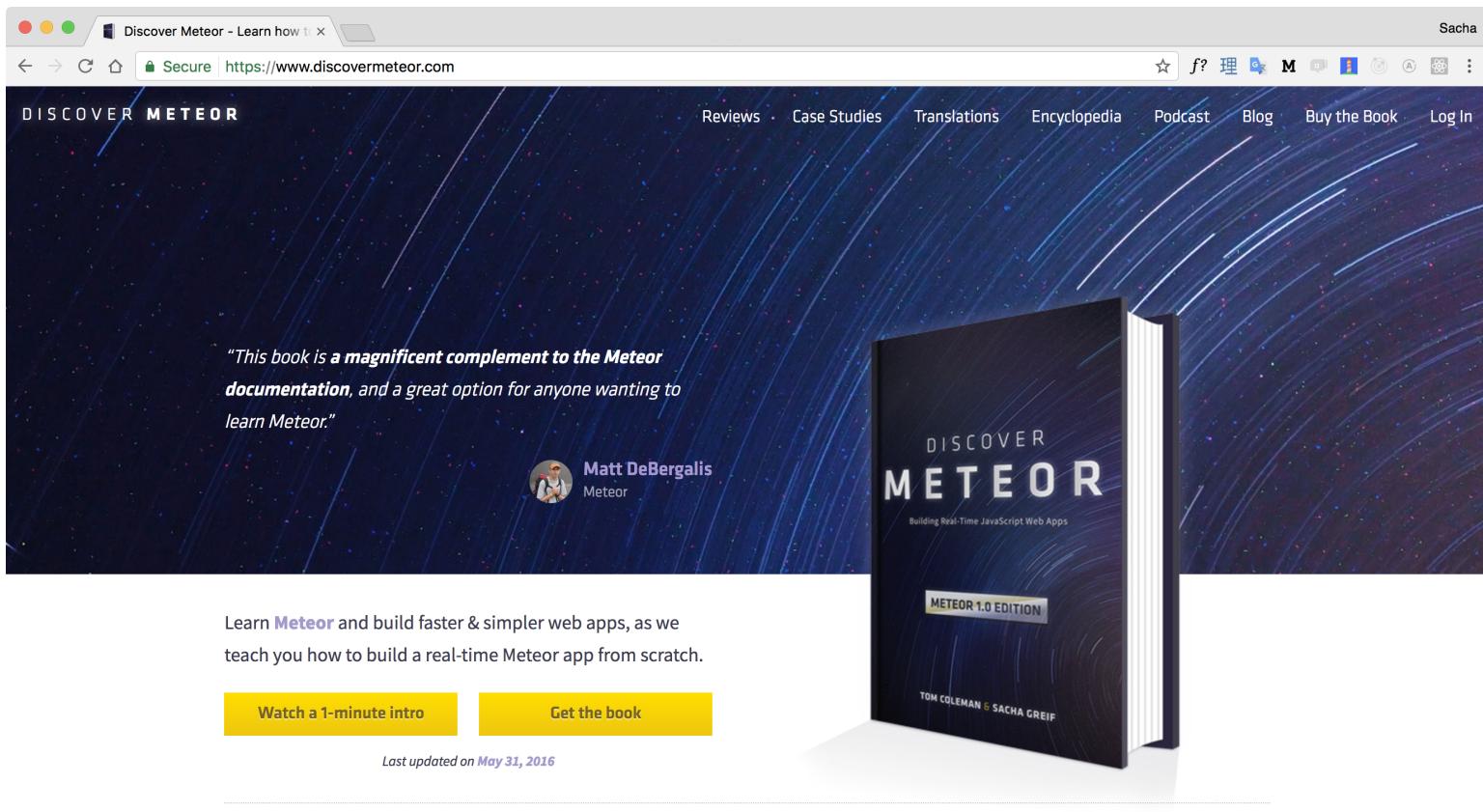
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# ORIGIN STORY

# 2012: Meteor



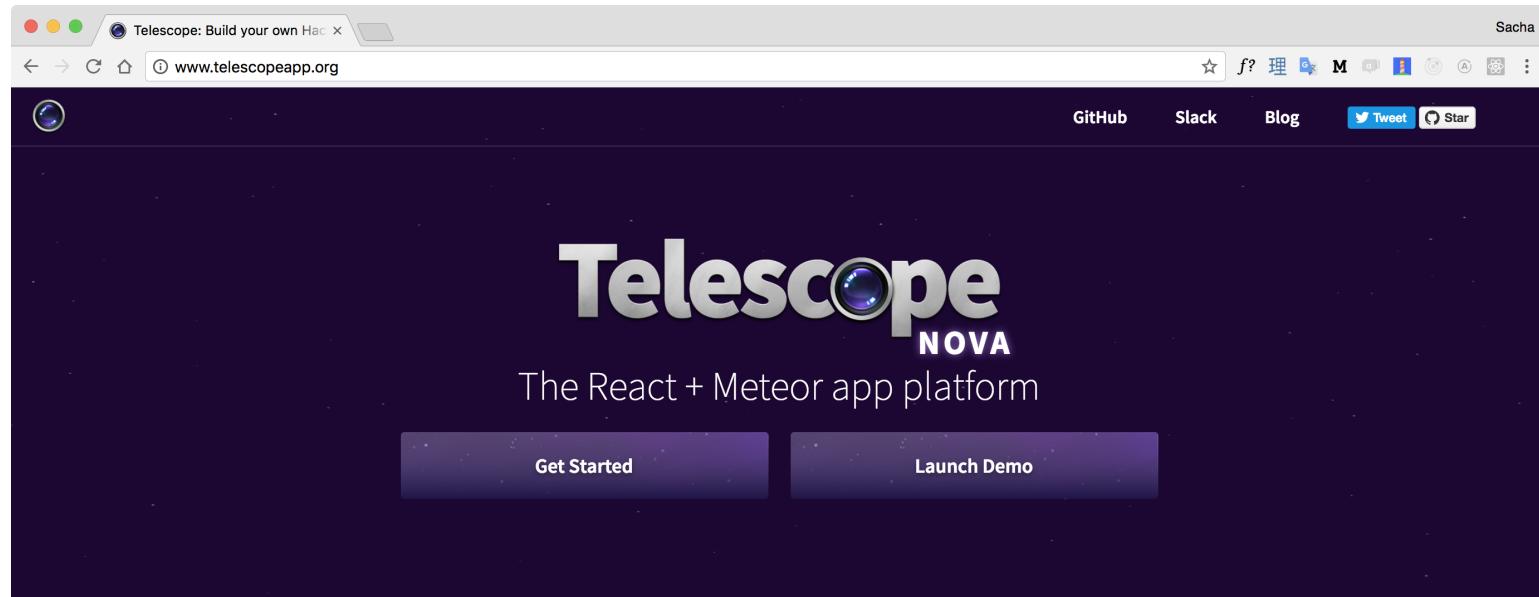
# 2013: Discover Meteor



What People Are Saying

 Contact us

# 2013-2017: Telescope/Nova



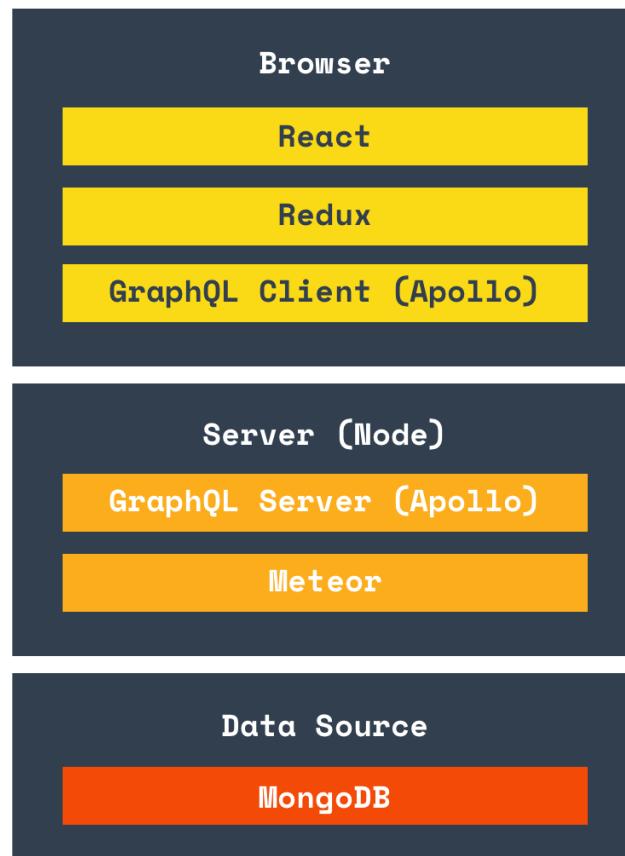
Telescope Nova is a **free, open-source** app platform built with **React** and  
powered by **Meteor** on the back-end.

Nova provides simple building blocks such as posts, comments, forms,  
and modals, and makes it easy to quickly customize them to build  
modern, social web apps.

**2017: ENTER VULCAN.JS**

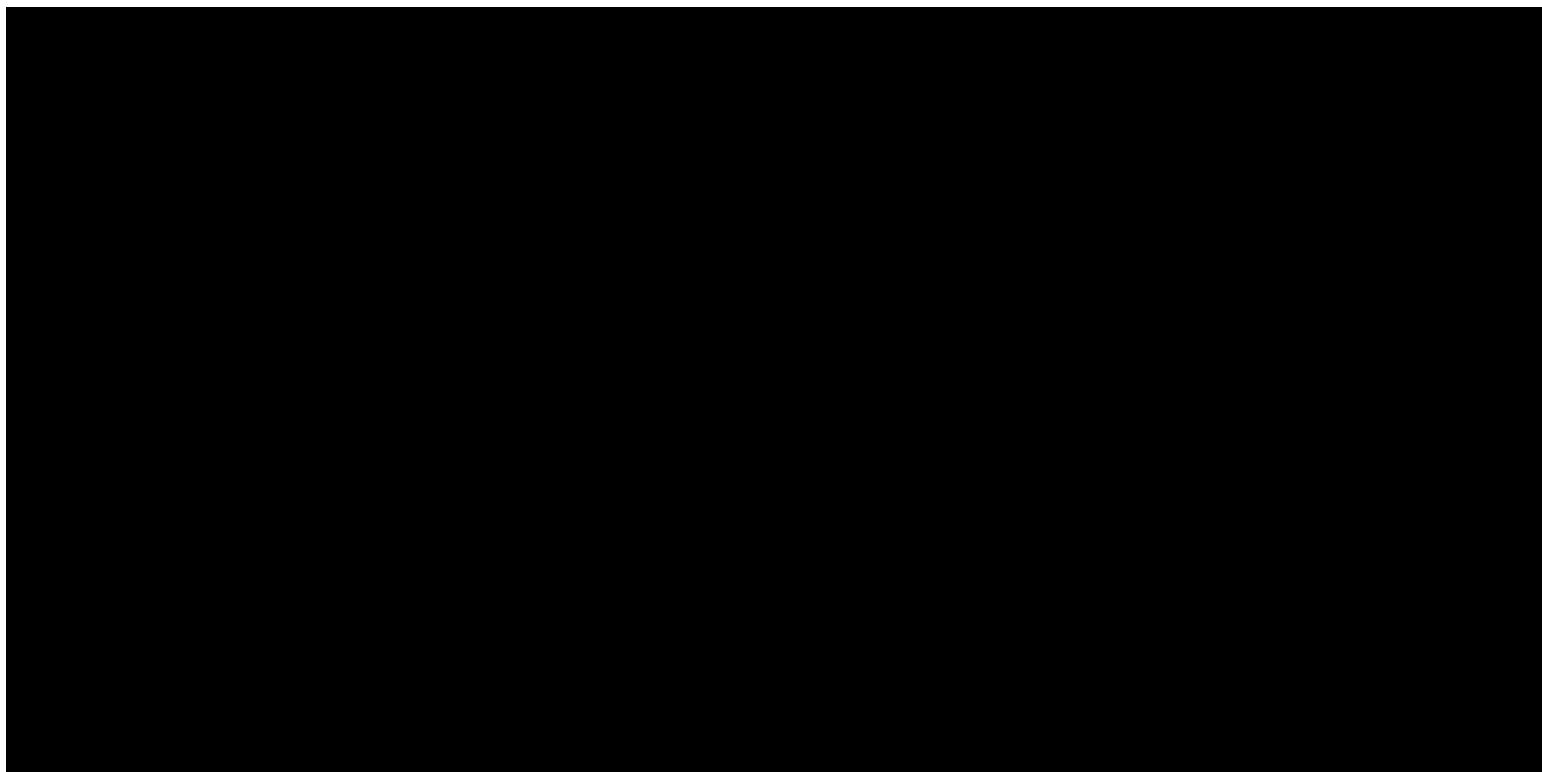
**So what's Vulcan.js ?**

# The Vulcan.js Stack



# FEATURES

# User accounts



# GraphQL schema generation

```
const schema = []
  id: {
    type: String,
    optional: true,
    canRead: ['guests'],
  },
  createdAt: {
    type: Date,
    optional: true,
    canRead: ['guests'],
  },
  userId: {
    type: String,
    optional: true,
    canRead: ['guests'],
    resolveAs: {
      fieldName: 'user',
      type: 'User',
      resolver: (movie, args, context) => {
        return context.Users.findOne({ _id: movie.use })
      },
      addOriginalField: true,
    },
  },
  name: {
    label: 'Name',
    canRead: ['guests'],
    type: String,
    optional: false,
  },
  year: {
    label: 'Year',
    canRead: ['guests'],
    type: Number,
    optional: true,
  },
  review: {
    label: 'Review',
    canRead: ['guests'],
    type: String,
    optional: true,
  },
};

export default schema;
```

Query
movie(input:SingleMovieInput): SingleMovieOutput
movies(input:MultiMovieInput): MultiMovieOutput

SingleMovieOutput
result: Movie

MultiMovieOutput
results: [Movie]
totalCount: Int

Movie
_id: String
createdAt: Date
user: User
userId: String
name: String
year: Float
review: String

# CRUD Operations

```
const Movies = createCollection({  
  collectionName: 'Movies',  
  typeName: 'Movie',  
  schema: schema,  
  resolvers: getDefaultResolvers({typeName: 'Movie'}),  
  mutations: getDefaultMutations({typeName: 'Movie'}),  
});
```

# Simple data loading and updating

```
const listOptions = {  
  collection: Movies,  
  fragment: fragment  
};  
  
export default withMulti(listOptions)(MoviesList);
```

# Automated forms

```
<Components.SmartForm collection={Movies} />
```

```
<Components.SmartForm  
  collection={Movies}  
  documentId={this.props.documentId} />
```

Never code a form again!

## Insert New Document

Name

Year

Review

**Submit**

## Edit Movie

Name

Year

Review

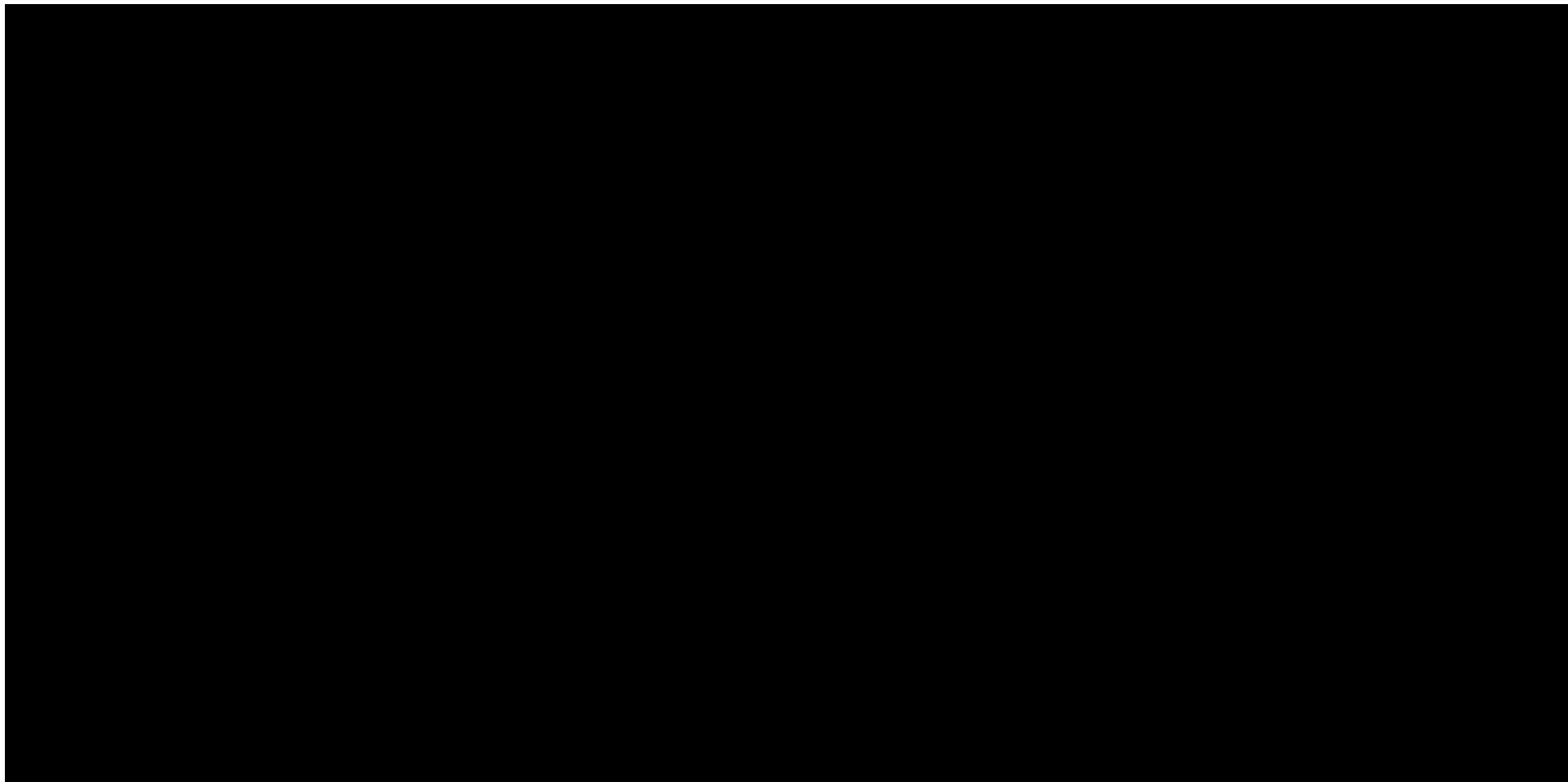
**Submit**

[Delete](#)

# Permission system

```
const schema = {  
  name: {  
    type: String,  
    label: 'Name',  
    optional: false,  
    canRead: ['guests'],  
    canCreate: ['members'],  
    canUpdate: ['admins', Users.owns]  
  }  
}
```

# Internationalization



# And more!

SSR

Components

Debug tools

Integrations

Community plugins

Theming

Email, newsletter and templates

# Getting started tutorial

## Welcome to Vulcan!

This interactive tutorial will teach you the basics of using Vulcan. In fact, the tutorial itself is the Vulcan app that we'll be working on! So meta!

On your left, you'll find this tutorial's **steps**. Right now they're greyed out, but as you unlock them by completing tasks you'll be able to progress forward.

On your right is your **work area**. As we build up our app starting on Step 10, its components will appear there.

During this tutorial, you'll have to edit a number of files. These are all located inside the **Getting Started** example package, which you can find at [/your-vulcan-directory/packages/getting-started](#). From now on, file paths will be referenced using that directory as root.

While we're on this topic, let's take a quick look at that package's file architecture:

```
lib
|- client          # client-only code
|
|- components      # React components
|   |- movies
|   |- other
|   +- steps
|
|- hocs            # higher-order components
|
|- modules         # other JavaScript modules
|
|- server          # server-only code
|
|- stylesheets     # stylesheets
|
+- package.js      # package manifest
```

Everything starts with the `package.js` file, which defines the contents of the package. From there, two entry points in `client/main.js` and `server/main.js` tell Meteor which files to load in each environment.

By convention, every file *outside* of `client` and `server` will be loaded in *both* environments. This includes React components, higher-order components (special component wrapper functions), and all the other files in `modules`.

Throughout this tutorial, we'll be modifying files in both `components` and `modules`. But of course, feel free to take a look at the other parts of the package as well!

# QUESTIONS ?

[vulcanjs.org](http://vulcanjs.org)

[slack.vulcanjs.org](https://slack.vulcanjs.org)

[github.com/VulcanJS/Vulcan](https://github.com/VulcanJS/Vulcan)

