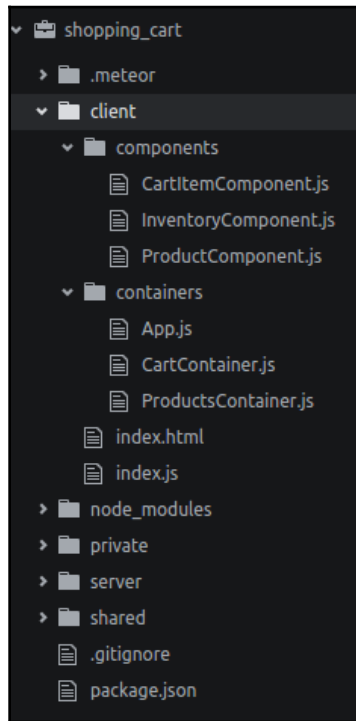
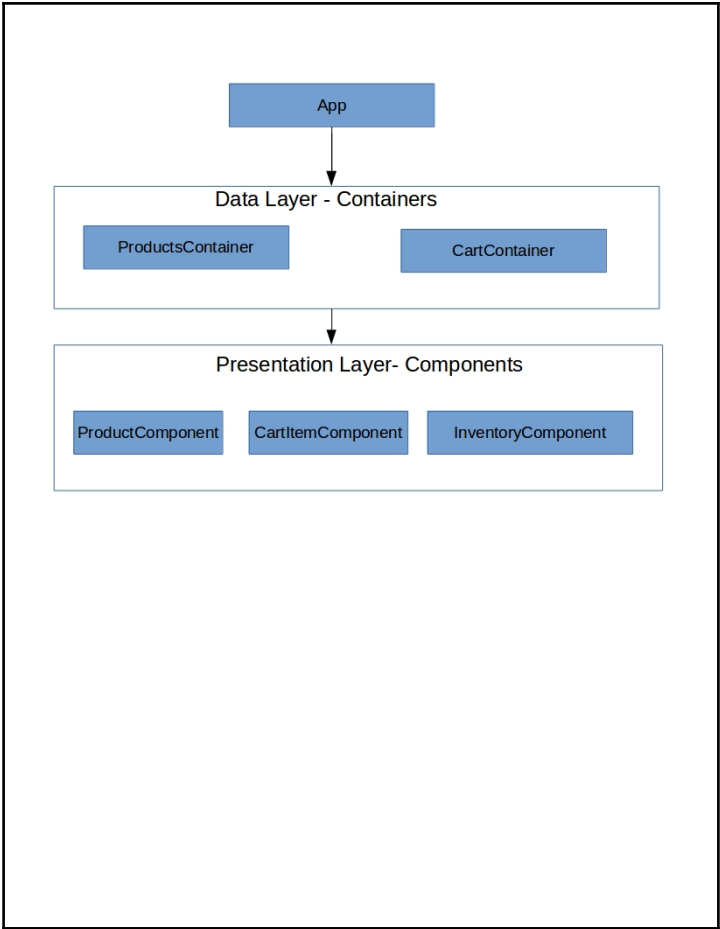
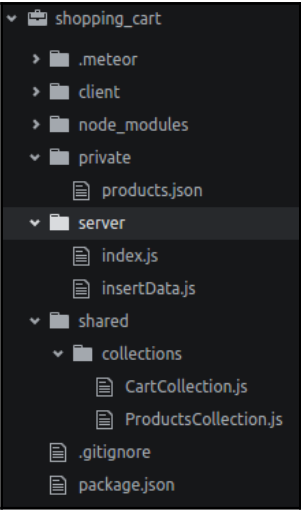


Chapter 2: Building a Shopping Cart

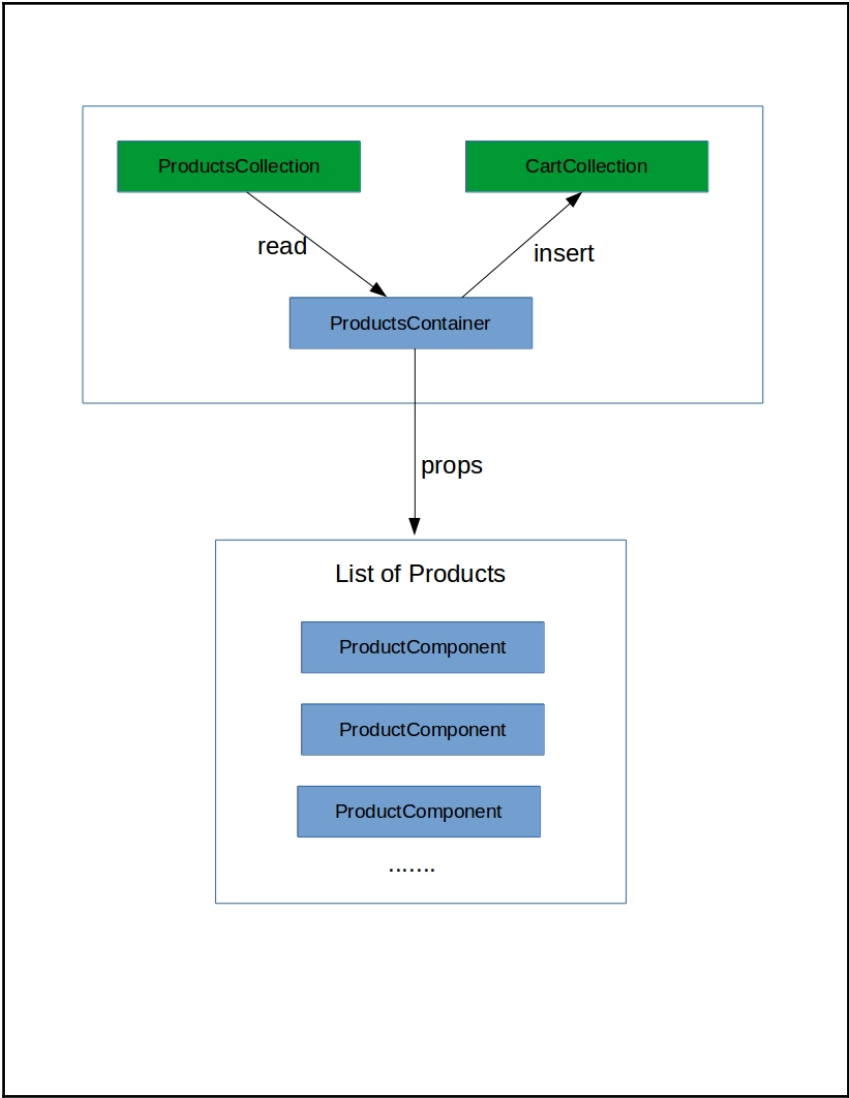






```
[{
  "id": 1,
  "title": "JavaScript: The Good Parts",
  "price": 24.54,
  "inventory": 2,
  "department": "books"
}, {
  "id": 2,
  "title": "Secrets of the JavaScript Ninja",
  "price": 49.24,
  "inventory": 10,
  "department": "books"
}, {
  "id": 3,
  "title": "Mastering JavaScript Design Patterns",
  "price": 51.68,
  "inventory": 5,
  "department": "books"
}, {
  "id": 4,
  "title": "Hardwired...To Self-Destruct (Deluxe)",
  "price": 15.97,
  "inventory": 45,
  "department": "music"
}, {
  "id": 5,
  "title": "Nevermind (Vinyl)",
  "price": 30.00,
  "inventory": 100,
  "department": "music"
}, {
```

```
▼ body data-gr-cs-loaded="true" == 30
▶ <script type="text/javascript"></script>
<script type="text/javascript" src="/packages/underscore.is7hash=8993f1a8af5a53c8887a593804b7594ee049ef91"></script>
<script type="text/javascript" src="/packages/meteor.is7hash=f9ccb2ff6079255e5772603b7fc6c401e5161ae6"></script>
<script type="text/javascript" src="/packages/meteor-base.is7hash=93d647d4f37895a036c861cc57cf6eba719db451"></script>
<script type="text/javascript" src="/packages/mobile-experience.is7hash=8932e82d8a85c8f775a6518d83363d240724658b"></script>
<script type="text/javascript" src="/packages/modules-runtime.is7hash=5b5615c907a5b9a4d19081582f04748e2ad64275"></script>
<script type="text/javascript" src="/packages/modules.is7hash=3cbe46361dc0da9d985eb325ce2a98593dd0f23"></script>
<script type="text/javascript" src="/packages/es5-shim.is7hash=fabfa8e9e2d0f4157a9d1c29bbabdcf24e2d2e78"></script>
<script type="text/javascript" src="/packages/promise.is7hash=65ca076c10732880985bc40f187f06960613ea13"></script>
<script type="text/javascript" src="/packages/ecmascript-runtime.is7hash=881a1c82b485fa7ffcc244e030cb022089b6d1a4"></script>
<script type="text/javascript" src="/packages/babel-compiler.is7hash=b00c58b51946517d0662ab00589293b2aa55d8cb"></script>
<script type="text/javascript" src="/packages/ecmascript.is7hash=32ba8df5a5f394369ec54dd7fbb58279aed7afc1"></script>
<script type="text/javascript" src="/packages/base64.is7hash=436cac2bc143a581f5edb93822b412ee15a641ab"></script>
<script type="text/javascript" src="/packages/ejson.is7hash=0ac1c5b2e1a7164cf90e47298f5411133f6590b1"></script>
<script type="text/javascript" src="/packages/id-map.is7hash=073be1ff6bd3a1dceeda0094b4761e7545568926"></script>
<script type="text/javascript" src="/packages/ordered-dict.is7hash=4c13482516a43fc43f1708a2b854c547ae6c0322"></script>
<script type="text/javascript" src="/packages/tracker.is7hash=e52e5febdf644d89e21db20456ef53daa80b912"></script>
<script type="text/javascript" src="/packages/babel-runtime.is7hash=9cb9b7f41aeb5ebcb14ef293a2d1b4512bb2a694"></script>
<script type="text/javascript" src="/packages/random.is7hash=f640404ff5ee70d6d48ddfb3846f43033005cd6"></script>
<script type="text/javascript" src="/packages/mongo-id.is7hash=cc69777cbac99617738749584c6868b4949d52e1"></script>
<script type="text/javascript" src="/packages/diff-sequence.is7hash=6d33d619a37b4bbd3db717ee6c2a25c5d880b9bd"></script>
<script type="text/javascript" src="/packages/geojson-utils.is7hash=49d3a92226e81d44af8ae4c2896ef2dda465b906"></script>
<script type="text/javascript" src="/packages/minimongo.is7hash=8aad8cfd5d18181a65321d853cab302b956e5322"></script>
<script type="text/javascript" src="/packages/check.is7hash=d4de24f57ef4d716b6ce9a7a90bf6a91b307bf4"></script>
<script type="text/javascript" src="/packages/retry.is7hash=5179d91da07544c09bc870af3e6fcbdb8be695b6"></script>
<script type="text/javascript" src="/packages/ddp-common.is7hash=7e3f0c9d877af74b7eb5219d6bfbe82794a818ca"></script>
<script type="text/javascript" src="/packages/reload.is7hash=b2d1086fd7bbc28deb93350f437ce0ef242baa3"></script>
<script type="text/javascript" src="/packages/ddp-client.is7hash=98f50c1583d868f0e596ecb98ed32c7eb2bdf6d"></script>
<script type="text/javascript" src="/packages/ddp.is7hash=6dc7ae4d7e07b3c1c2140c88207b001e5e1a8d48"></script>
<script type="text/javascript" src="/packages/ddp-server.is7hash=d113bccbf7eb5a7e546434f1fac70870711c2a7e"></script>
<script type="text/javascript" src="/packages/allow-deny.is7hash=3f84d98a06ac6f4c2e1a196fb538a26744372844"></script>
<script type="text/javascript" src="/packages/insecure.is7hash=4b295c398ffa84184b91d964043e9e8801ba69a8"></script>
<script type="text/javascript" src="/packages/mongo.is7hash=3037285b99384cbead7ba1aeeb2b56a6649844e"></script>
```



```
import React, { Component, PropTypes } from 'react'

export default class CartItem extends Component {
  render() {
    const { title, price, onRemoveItem } = this.props
    return (
      <div>
        <span>{title}</span>
        <span>Price: {price}</span>
        <button onClick={onRemoveItem}>
          Remove
        </button>
      </div>
    )
  }
}

CartItem.propTypes = {
  title: PropTypes.string,
  price: PropTypes.number,
  onRemoveItem : PropTypes.func
}
```

```
1 import React, { Component, PropTypes } from 'react'
2
3 export default class Inventory extends Component {
4   constructor(props) {
5     super(props);
6     this.changeHandler = this.changeHandler.bind(this);
7   }
8
9   changeHandler(event) {
10    this.props.onChangeQuantity(event);
11  }
12
13  render() {
14    const { inventory, quantity, _id } = this.props;
15    let options = [];
16    for (let i = 1; i < inventory + 1; i++) {
17      options.push(<option key={`inventory_${i}_${_id}`} value={i}>{i}</option>);
18    }
19    return (
20      <div>
21        <span>Quantity</span>
22        <select onChange={this.changeHandler} defaultValue={quantity} required>
23          {options}
24        </select>
25      </div>
26    )
27  }
28 ]
29
30 Inventory.propTypes = {
31   inventory: PropTypes.number,
32   _id: PropTypes.string,
33   quantity: PropTypes.number,
34   onChangeQuantity : PropTypes.func
35 }
```

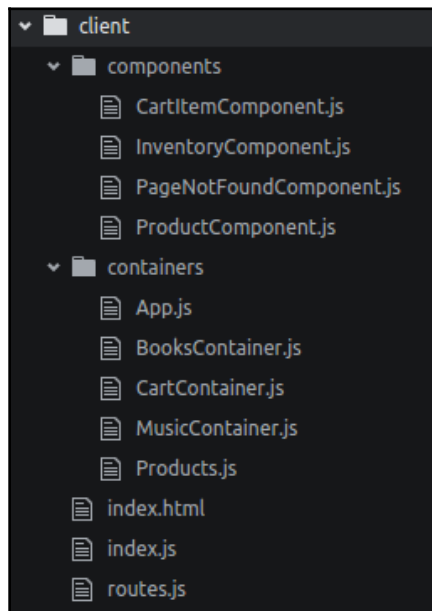
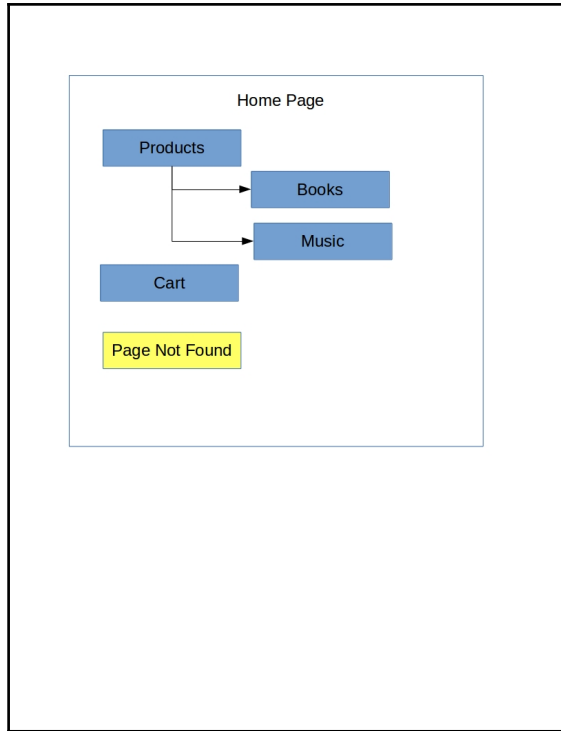

Your Cart (1)

Nevermind (Vinyl) Price: 30

Quantity

Total: 30

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20



```
export const renderRoutes = () => (  
  <Router history={browserHistory}>  
    <Route path="/" component={App}>  
      <Route path="cart" component={CartContainer}/>  
      <Route path="products" component={Products}>  
        <Route path="books" component={BooksContainer}/>  
        <Route path="music" component={MusicContainer}/>  
      </Route>  
    </Route>  
    <Route path="*" component={PageNotFound} />  
  </Router>  
)  
);
```

```
import React from 'react';  
import { Link } from 'react-router'  
  
export default class App extends React.Component {  
  constructor(props) {  
    super(props);  
  }  
  render() {  
    return (  
      <div>  
        <h1>Store</h1>  
        <ul>  
          <li><Link to="/products">Products</Link></li>  
          <li><Link to="/cart">Cart</Link></li>  
        </ul>  
        {this.props.children}  
      </div>  
    )  
  }  
}
```

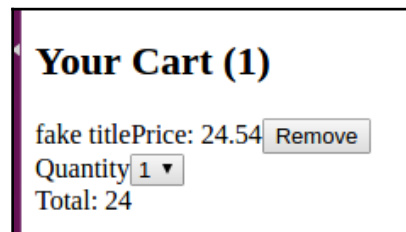
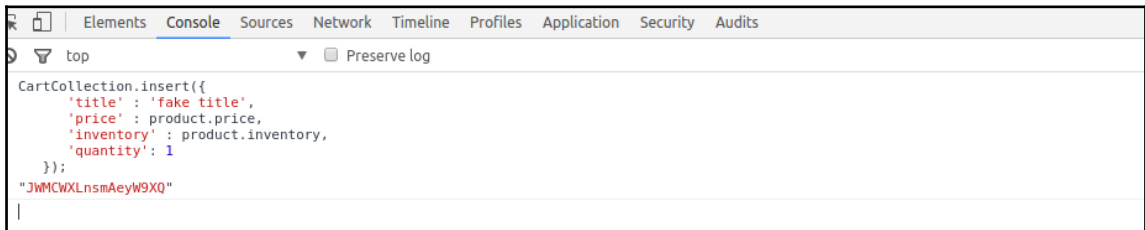
```
1 import React from 'react';
2 import { createContainer } from 'meteor/react-meteor-data';
3 import { ProductsCollection } from '../../shared/collections/ProductsCollection';
4 import Product from '../components/ProductComponent';
5 import { Link } from 'react-router';
6
7
8 export default class Products extends React.Component {
9   constructor(props) {
10    super(props);
11  }
12  render() {
13    return (
14      <div>
15        <h2> Available Products</h2>
16        <ul>
17          <li><Link to="/products/books">Books</Link></li>
18          <li><Link to="/products/music">Music</Link></li>
19        </ul>
20        {this.props.children}
21      </div>
22    )
23  }
24 }
```

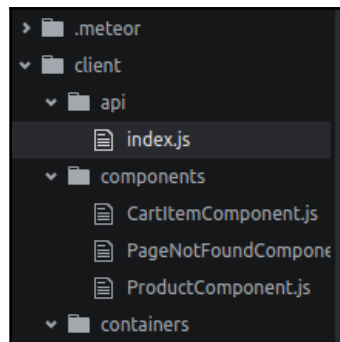
```
import React from 'react';
import { createContainer } from 'meteor/react-meteor-data';
import {ProductsCollection} from '../shared/collections/ProductsCollection';
import {CartCollection} from '../shared/collections/CartCollection';
import Product from '../components/ProductComponent';

class Books extends React.Component {
  constructor(props) {
    super(props);
    this.onAddToCart = this.onAddToCart.bind(this);
  }
  onAddToCart(product){
    CartCollection.insert({
      'title' : product.title,
      'price' : product.price,
      'inventory' : product.inventory,
      'quantity': 1
    });
    alert(product.title + ' added to your cart')
  }
  render() {
    const { products } = this.props
    return (
      <div>
        <h2>Books</h2>
        {products.map(product =>
          <Product
            title={product.title}
            price={product.price}
            inventory={product.inventory}
            key={product._id}
            onAddToCart={() => this.onAddToCart(product)}
          />
        )}
      </div>
    )
  }
}
export default createContainer(() => {
  return {
    products: ProductsCollection.find({department: 'books'}).fetch()
  };
}, Books);
```

```
import React from 'react';
import { createContainer } from 'meteor/react-meteor-data';
import {ProductsCollection} from '../shared/collections/ProductsCollection';
import Product from '../components/ProductComponent';
import {CartCollection} from '../shared/collections/CartCollection';

class Music extends React.Component {
  constructor(props) {
    super(props);
    this.onAddToCart = this.onAddToCart.bind(this);
  }
  onAddToCart(product){
    CartCollection.insert({
      'title' : product.title,
      'price' : product.price,
      'inventory' : product.inventory,
      'quantity': 1
    });
    alert(product.title + ' added to your cart')
  }
  render() {
    const { products } = this.props
    return (
      <div>
        <h2>Music</h2>
        {products.map(product =>
          <Product
            title={product.title}
            price={product.price}
            inventory={product.inventory}
            key={product._id}
            onAddToCart={() => this.onAddToCart(product)}
          />
        )}
      </div>
    )
  }
}
export default createContainer(() => {
  return {
    products: ProductsCollection.find({department: 'music'}).fetch()
  };
}, Music);
```





```
componentDidMount() {
  let self = this;
  getCartTotal().then(result => {
    self.setState({
      totalPrice: result
    })
  }).catch(error => {
    alert('error')
  });
}

componentWillReceiveProps(){
  let self = this;
  getCartTotal().then(result => {
    self.setState({ totalPrice: result })
  }).catch(error => {
    alert('error')
  });
}
```

```
cartInsert: function(product) {
  check(product.title, String);
  check(product.price, Number);
  check(product.inventory, Number);
  CartCollection.insert({
    'title' : product.title,
    'price' : product.price,
    'inventory' : product.inventory,
    'quantity': 1
  });
},
```

```
CartCollection.schema = new SimpleSchema({
  _id: {
    type: String,
    optional: false
  },
  id: {
    type: Number,
    optional: true
  },
  title: {
    type: String
  },
  price: {
    type: Number,
    decimal: true
  },
  inventory: {
    type: Number
  },
  department: {
    type: String,
    optional: true
  }
});
```

```
cartInsert: function(product) {
  CartCollection.schema.validate(product);
  check(product.title, String);
  check(product.price, Number);
  check(product.inventory, Number);
  CartCollection.insert({
    'title' : product.title,
    'price' : product.price,
    'inventory' : product.inventory,
    'quantity': 1
  });
},
```



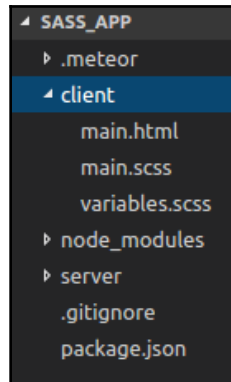
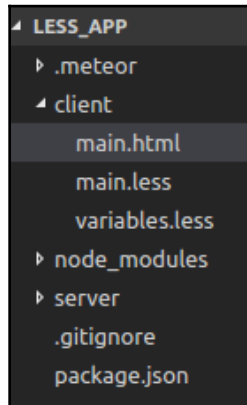
```
import { Mongo } from 'meteor/mongo';

CartCollection = new Mongo.Collection('cart');

let CartSchema = new SimpleSchema({
  _id: {
    type: String,
    optional: false
  },
  id: {
    type: Number,
    optional: true
  },
  title: {
    type: String
  },
  price: {
    type: Number,
    decimal: true
  },
  inventory: {
    type: Number
  },
  quantity: {
    type: Number,
    defaultValue: 1,
    optional: true
  },
  department: {
    type: String,
    optional: true
  }
});

CartCollection.attachSchema(CartSchema);
export default CartCollection
```

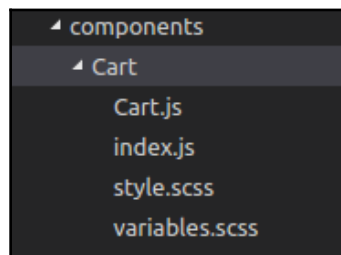
Chapter 3: Style Your React Components with Bootstrap p and Material Design



```
import React from 'react';
import { Meteor } from 'meteor/meteor';
import { render } from 'react-dom';
import { renderRoutes } from './routes';
import 'bootstrap/dist/css/bootstrap.css';

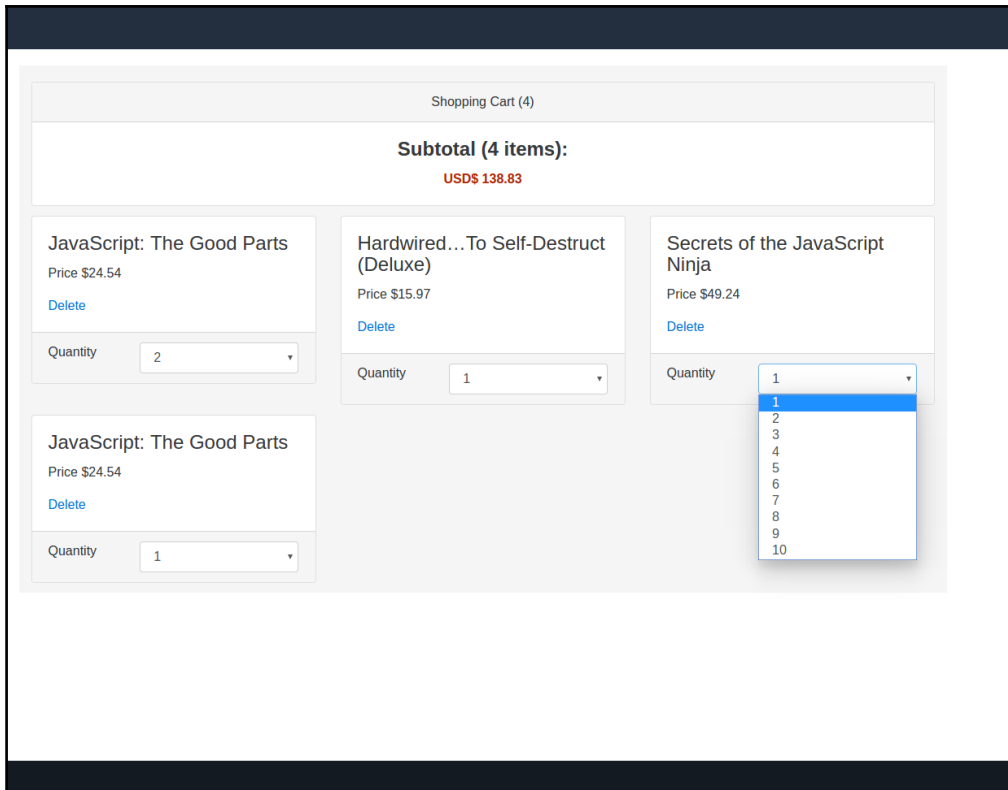
Meteor.startup(() => {
  render(renderRoutes(), document.getElementById('root'));
});
```

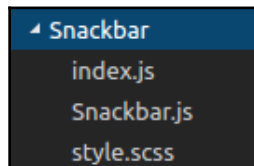
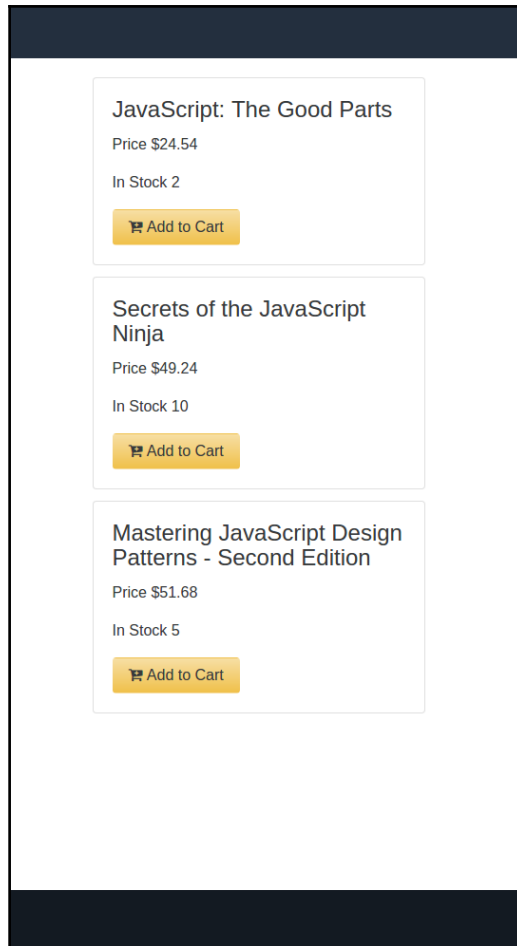
```
1 {
2   "name": "css_modules_webpack",
3   "private": true,
4   "scripts": {
5     "start": "meteor run"
6   },
7   "dependencies": {
8     "babel-runtime": "6.18.0",
9     "font-awesome": "^4.7.0",
10    "meteor-node-stubs": "~0.2.0",
11    "node-sass": "^3.13.1",
12    "react": "^15.0.0",
13    "react-addons-pure-render-mixin": "^15.0.0",
14    "react-dom": "^15.0.0",
15    "react-fontawesome": "^1.5.0",
16    "tether": "^1.4.0"
17  },
18  "version": "1.0.0",
19  "main": "server/index.js",
20  "browser": "client/index.js",
21  "author": "Dobrin Ganev",
22  "license": "ISC",
23  "description": "",
24  "devDependencies": {
25    "babel": "^6.3.26",
26    "babel-core": "^6.3.26",
27    "babel-loader": "^6.2.0",
28    "babel-plugin-add-module-exports": "^0.1.2",
29    "babel-plugin-react-transform": "^2.0.0",
30    "babel-plugin-transform-decorators-legacy": "^1.3.2",
31    "babel-preset-es2015": "^6.3.13",
32    "babel-preset-react": "^6.3.13",
33    "babel-preset-stage-0": "^6.3.13",
34    "css-loader": "^0.23.0",
35    "expose-loader": "^0.7.1",
36    "extract-text-webpack-plugin": "^0.9.1",
37    "file-loader": "^0.8.5",
38    "font-awesome": "^4.7.0",
39    "json-loader": "^0.5.4",
40    "less": "^2.3.1",
41    "node-sass": "^3.4.2",
42    "react-transform-catch-errors": "^1.0.0",
43    "react-transform-hmr": "^1.0.1",
44    "redbox-react": "^1.2.0",
45    "sass-loader": "^3.1.2",
46    "style-loader": "^0.13.0",
47    "url-loader": "^0.5.7",
48    "webpack": "^1.13.0",
49    "webpack-hot-middleware": "^2.10.0"
50  }
51 }
52
```

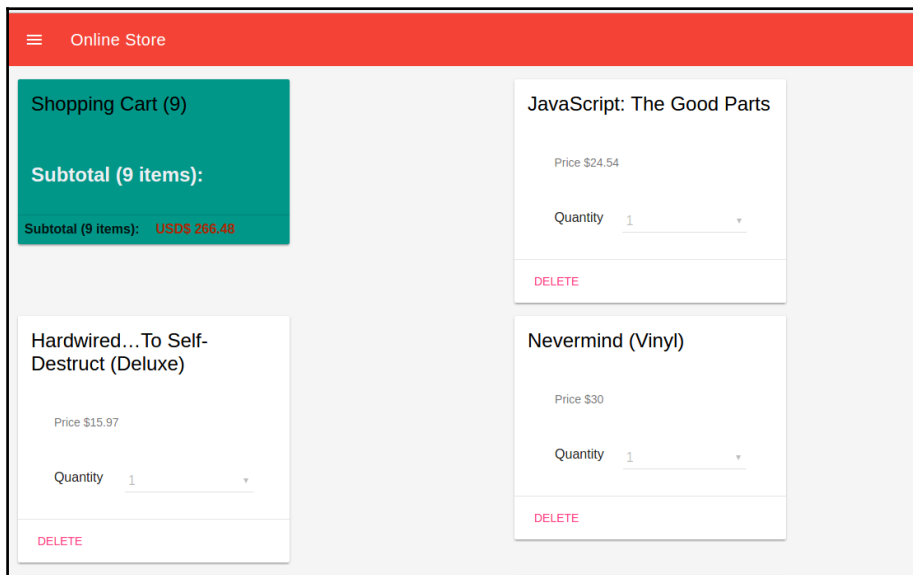
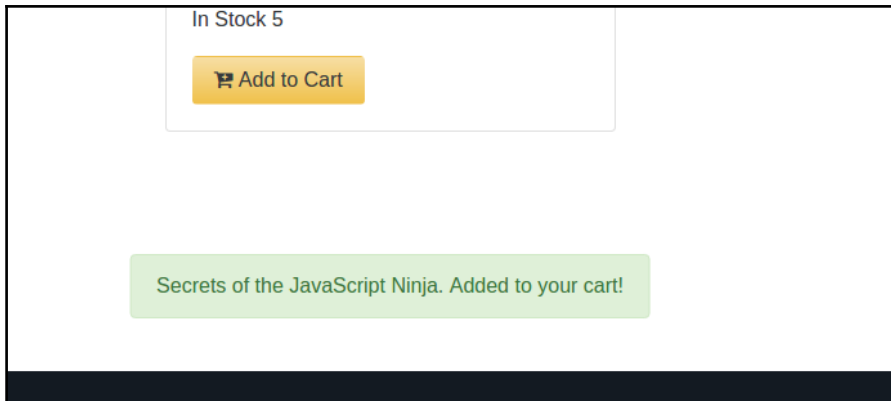


- ▾ components
- ▾ Cart
 - Cart.js
 - index.js
 - style.scss
 - variables.scss
- ▾ CartTotal
 - CartTotal.js
 - CartTotal.css.js
 - index.js
- ▾ Footer
 - Footer.js
 - index.js
 - style.scss
 - variables.scss
- ▾ NavBar
 - index.js
 - modulecss.css
 - NavBar.js
 - NavBar.css.js
 - style.scss
 - variables.scss
- ▾ Snackbar
 - index.js
 - Snackbar.js
 - style.scss
- CartItemComponent.js
- index.scss
- InventoryComponent.js
- PageNotFoundCompo...
- ProductComponent.js

```
render() {
  const {products, totalPrice } = this.props
  return (
    <div className="container">
      <div className="row">
        <div className="col-xs-12 col-sm-12">
          <div className="card" style={style.cartTotal}>
            <div className="card-header text-xs-center">
              Shopping Cart ({products.length})
            </div>
            <div className="card-block text-xs-center">
              <h4 className="card-title"><strong>Subtotal ({products.length} {products.length > 1
                ? `items`
                : `item`}):</strong></h4>
              <p className="card-text">
                <strong style={style.totalPriceStyle}>
                  USD&#36; {totalPrice.toFixed(2)}
                </strong>
              </p>
            </div>
          </div>
        </div>
      </div>
    </div>
  )
}
```





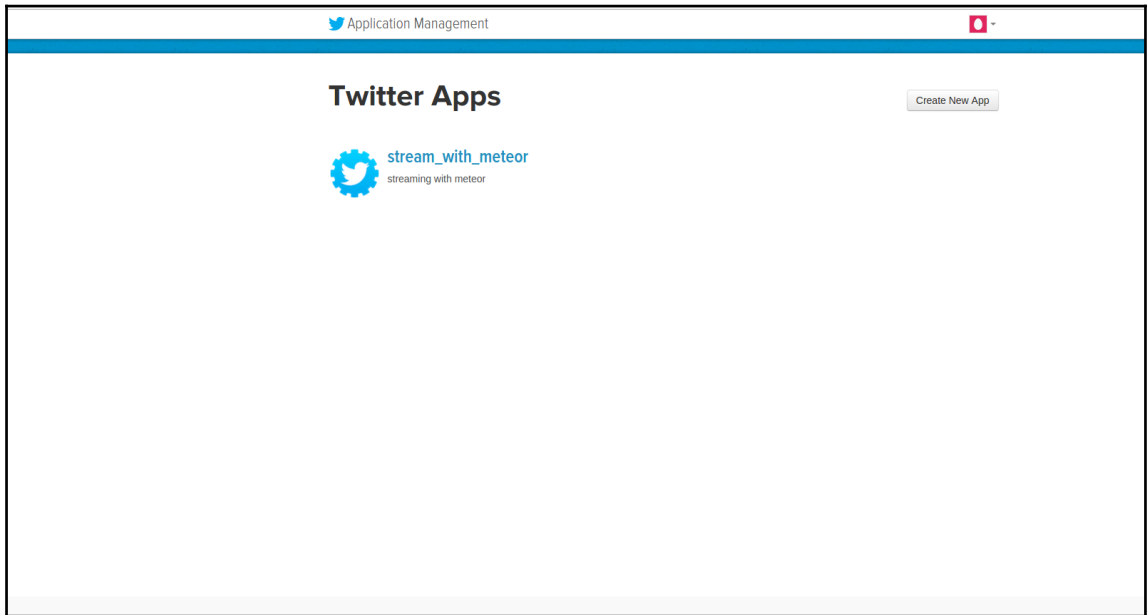



The image shows three vertically stacked product cards. Each card has a white background and is set against a light gray background. The top card is titled 'JavaScript: The Good Parts', priced at \$24.54, with 2 items in stock. The middle card is titled 'Secrets of the JavaScript Ninja', priced at \$49.24, with 10 items in stock. The bottom card is titled 'Mastering JavaScript Design Patterns - Second Edition', priced at \$51.68, with 5 items in stock. Each card features a red 'ADD TO CART' button at the bottom.

Product Title	Price	In Stock
JavaScript: The Good Parts	\$24.54	2
Secrets of the JavaScript Ninja	\$49.24	10
Mastering JavaScript Design Patterns - Second Edition	\$51.68	5

This image shows a confirmation message. At the top left, there is a red 'ADD TO CART' button. Below it, a dark gray notification box contains the text 'Secrets of the JavaScript Ninja. Added to your cart!'.

Chapter 4: Real-Time Twitter Streaming



Application Management 

Create an application

Application Details

Name *

Your application name. This is used to attribute the source of a tweet and in user-facing authorization screens. 32 characters max.

Description *

Your application description, which will be shown in user-facing authorization screens. Between 10 and 200 characters max.

Website *

Your application's publicly accessible home page, where users can go to download, make use of, or find out more information about your application. This fully-qualified URL is used in the source attribution for tweets created by your application and will be shown in user-facing authorization screens.
(If you don't have a URL yet, just put a placeholder here but remember to change it later.)

Callback URL

Where should we return after successfully authenticating? OAuth 1.0a applications should explicitly specify their oauth_callback URL on the request token step, regardless of the value given here. To restrict your application from using callbacks, leave this field blank.

Developer Agreement

Yes, I have read and agree to the [Twitter Developer Agreement](#).

Create your Twitter application

Details Settings **Keys and Access Tokens** Permissions


Application Settings

Keep the "Consumer Secret" a secret. This key should never be human-readable in your application.

Consumer Key (API Key) pXYxGFrDXb4Anv3Y7FZwBZpyf

Consumer Secret (API Secret) yIDghmNogoFFR9JgmbbfklEocVK5IQ6OIVERW49zyu7SZECIBR

Access Level Read and write ([modify app permissions](#))

Owner 

Owner ID 2785188440

Application Actions

[Regenerate Consumer Key and Secret](#) [Change App Permissions](#)

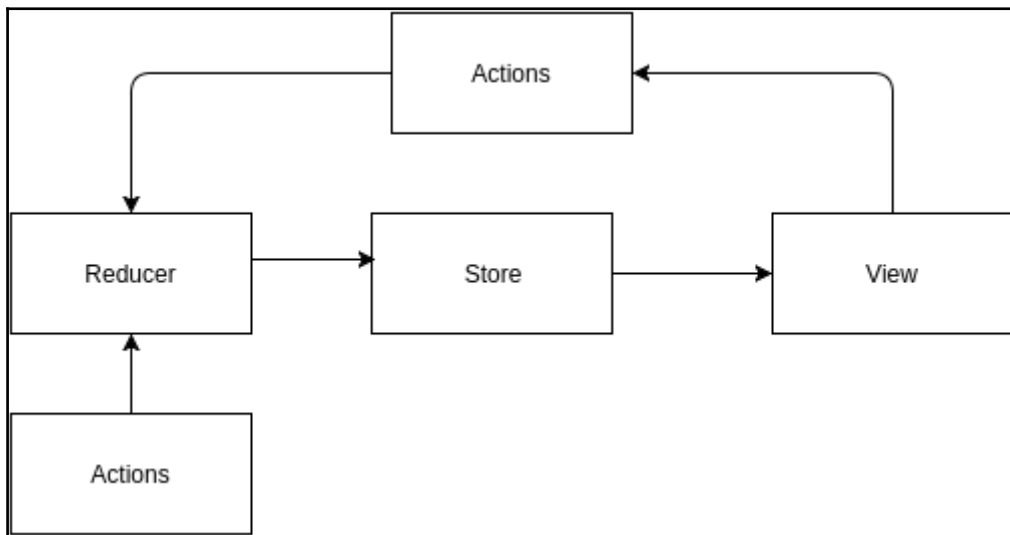
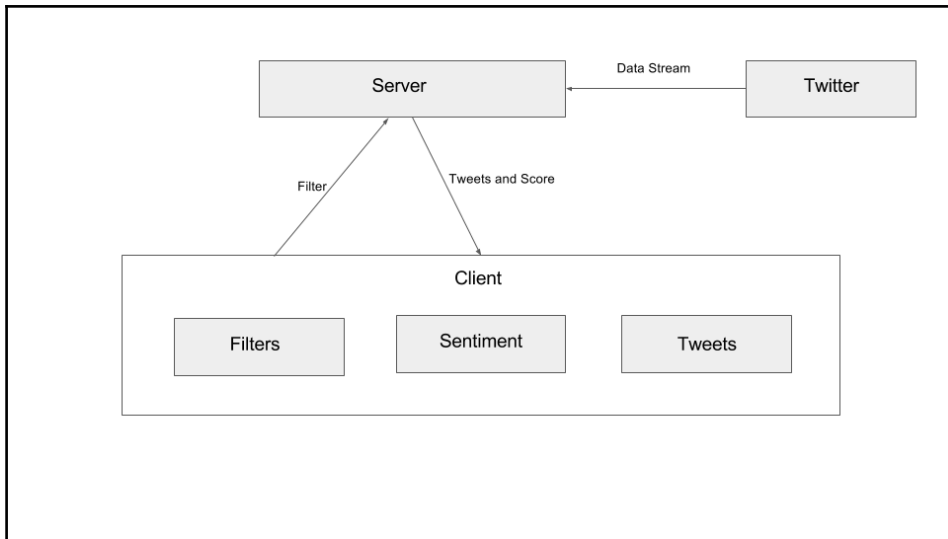
Your Access Token

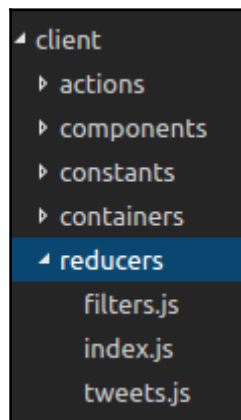
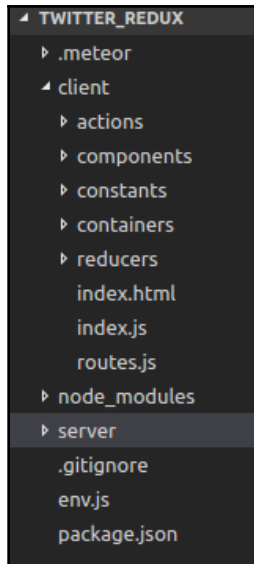
You haven't authorized this application for your own account yet.

By creating your access token here, you will have everything you need to make API calls right away. The access token generated will be assigned your application's current permission level.

Token Actions

[Create my access token](#)

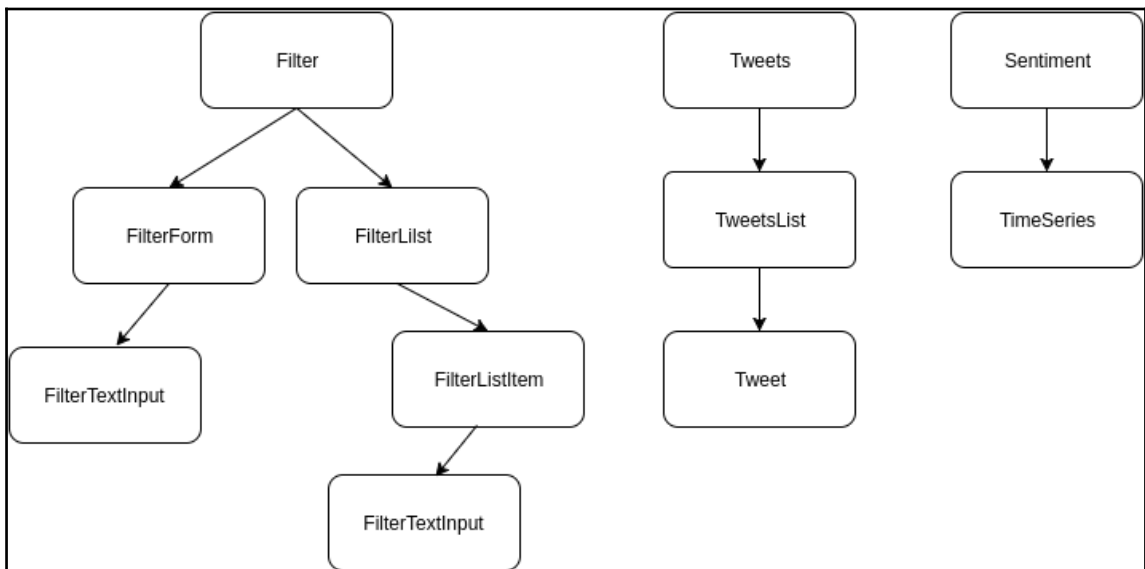
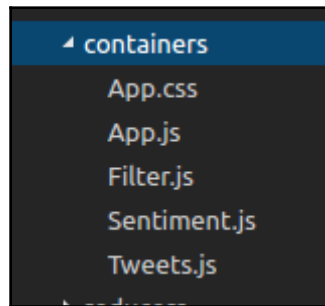




```
1 import {ADD_FILTER, DELETE_FILTER, EDIT_FILTER, SELECT_FILTER} from '../constants/ActionTypes'
2
3 const initialState = [
4   {
5     text: 'filter default text',
6     id: 0,
7     active: false
8   }
9 ]
10
11 export default function filters(state = initialState, action) {
12   switch (action.type) {
13     case ADD_FILTER:
14       return [
15         ...state, {
16           id: state.reduce((maxId, filter) => Math.max(filter.id, maxId), -1) + 1,
17           text: action.text,
18           active: false
19         }
20       ]
21     case DELETE_FILTER:
22       return state.filter(filter => filter.id !== action.id)
23     case EDIT_FILTER:
24       return state.map(filter => filter.id === action.id
25         ? {
26           ...filter,
27           text: action.text
28         }
29         : filter)
30     case SELECT_FILTER:
31       return state.map(filter => filter.id === action.id
32         ? {
33           ...filter,
34           active: true
35         }
36         : {
37           ...filter,
38           active: false
39         })
40     default:
41       return state
42   }
43 }
```

```
import * as types from '../constants/ActionTypes'
export const addFilter = text => ({type: types.ADD_FILTER, text})
export const deleteFilter = id => ({type: types.DELETE_FILTER, id})
export const editFilter = (id, text) => ({type: types.EDIT_FILTER, id, text})
export const selectFilter = (id) => ({type: types.SELECT_FILTER, id})

export const track = filter => {
  return dispatch => {
    Meteor.call('track_phrase', filter.phrase, err => {
      if (!err) {
        dispatch(selectFilter(filter.id));
      }
      //do something if you have an erro. another action
    })
  }
}
```




```
1 import React, {PropTypes, Component} from 'react'
2 import FilterTextInput from './FilterTextInput'
3
4 export default class FilterForm extends Component {
5   static propTypes = {
6     addFilter: PropTypes.func.isRequired
7   }
8
9   handleSave = text => {
10    if (text.length !== 0) {
11      this.props.addFilter(text)
12    }
13  }
14
15  render() {
16    return (
17      <div className="col-md-6">
18        <div className="form-group">
19          <FilterTextInput newFilter onSave={this.handleSave} placeholder="Enter Filter"/>
20        </div>
21      </div>
22    )
23  }
24 }
```

```
1 import React, {Component, PropTypes} from 'react'
2
3 export default class FilterTextInput extends Component {
4   static propTypes = {
5     onSave: PropTypes.func.isRequired,
6     text: PropTypes.string,
7     placeholder: PropTypes.string,
8     editing: PropTypes.bool,
9     newFilter: PropTypes.bool
10  }
11
12  state = {
13    text: this.props.text || ''
14  }
15
16  handleSubmit = e => {
17    const text = e.target.value.trim()
18    if (e.which === 13) {
19      this.props.onSave(text)
20      if (this.props.newFilter) {
21        this.setState({text: ''})
22      }
23    }
24  }
25
26  handleChange = e => {
27    this.setState({text: e.target.value})
28  }
29
30  handleBlur = e => {
31    if (!this.props.newFilter) {
32      this.props.onSave(e.target.value)
33    }
34  }
35
36  render() {
37    return (<input
38      className="form-control"
39      type="text"
40      placeholder={this.props.placeholder}
41      autoFocus="true"
42      value={this.state.text}
43      onBlur={this.handleBlur}
44      onChange={this.handleChange}
45      onKeyDown={this.handleSubmit}/>)
46  }
47 }
```

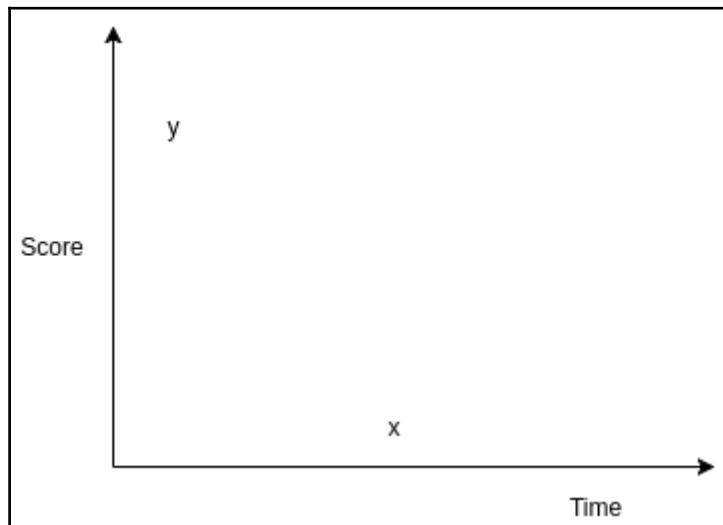
```
import React, {Component, PropTypes} from 'react'
import FilterListItem from './FilterListItem'

export default class FilterList extends Component {
  static propTypes = {
    filters: PropTypes.array.isRequired,
    actions: PropTypes.object.isRequired
  }

  render() {
    const {filters, actions} = this.props
    return (
      <div className="col-md-6">
        <ul className="list-group">
          {filters.map(filter => <FilterListItem key={filter.id} filter={filter} {...actions}/>)}
        </ul>
      </div>
    )
  }
}
```

```
render() {  
  const {filter, deleteFilter, track} = this.props  
  
  let element  
  
  if (this.state.editing) {  
    element = (<FilterTextInput  
      text={filter.text}  
      editing={this.state.editing}  
      onSave={(text) => this.handleSave(filter.id, text)}/>)  
  } else {  
    element = (  
      <div className="row">  
        <div className="col-sm-11">  
          <div onClick={this.handleClick}>  
            {filter.text}  
          </div>  
        </div>  
        <div className="col-sm-1">  
          <span onClick={() => deleteFilter(filter.id)}>  
            <i className="fa fa-times" aria-hidden="true"></i>  
          </span>  
        </div>  
      </div>  
    )  
  }  
  
  return (  
    <li  
      className={classnames("list-group-item", {'list-group-item-success': filter.active})}  
      onClick={() => track({id: filter.id, phrase: filter.text})}>  
      {element}  
    </li>  
  )  
}
```

```
5 class Tweets extends React.Component {
6
7
8   render() {
9     const {tweets, filters} = this.props
10    let filteredTweets = []
11    let activeFilter = filters.filter(filter => filter.active === true)
12    if (activeFilter[0]) {
13      filteredTweets = tweets.filter(tweet => tweet.phrase === activeFilter[0].text);
14    }
15    return (
16      <div>
17        <TweetsList tweets={filteredTweets}/>
18      </div>
19    )
20  }
21 }
22
23 Tweets.propTypes = {
24   tweets: PropTypes.array.isRequired,
25   filters: PropTypes.array.isRequired
26 }
27
28 const mapStateToProps = (state, dispatch) => {
29   return {tweets: state.tweets, filters: state.filters}
30 }
31
32 const generateComponent = connect(mapStateToProps)
33
34 export default generateComponent(Tweets);
```



```
import React, {PropTypes} from 'react'
import {Link} from 'react-router'
import {connect} from 'react-redux'
import TimeSeries from '../components/TimeSeries'

class Sentiment extends React.Component {

  render() {
    const {tweets, filters} = this.props
    let filteredTweets = []
    let activeFilter = filters.filter(filter => filter.active === true)
    if (activeFilter[0]) {
      filteredTweets = tweets.filter(tweet => tweet.phrase === activeFilter[0].text);
    }
    return (
      <div>
        <TimeSeries data={filteredTweets}/>
      </div>
    )
  }
}

Sentiment.propTypes = {
  tweets: PropTypes.array.isRequired,
  filters: PropTypes.array.isRequired
}
const mapStateToProps = (state) => ({tweets: state.tweets, filters: state.filters})

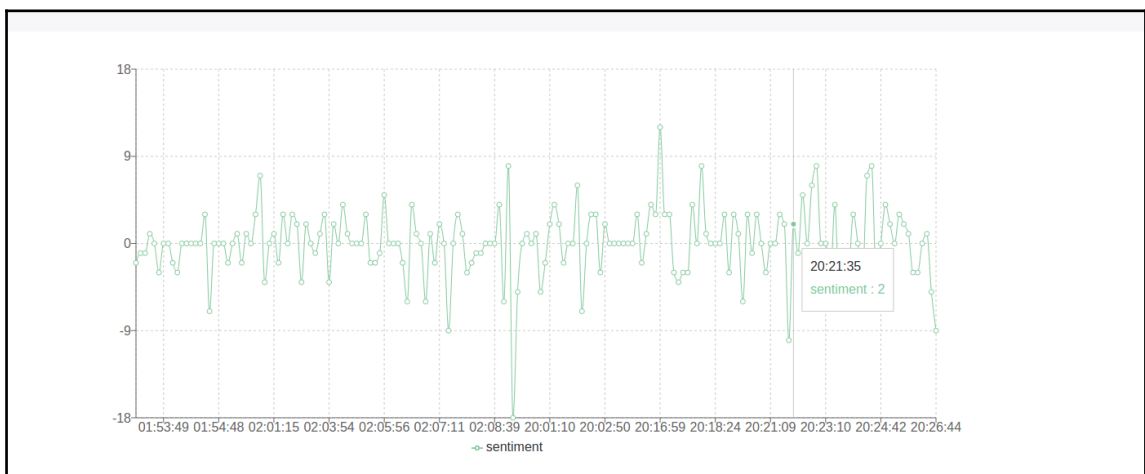
export default connect(mapStateToProps)(Sentiment)
```

```
import React, {PropTypes} from 'react'
import {
  ResponsiveContainer,
  LineChart,
  Line,
  XAxis,
  YAxis,
  Tooltip,
  CartesianGrid,
  Legend,
  ErrorBar
} from 'recharts';

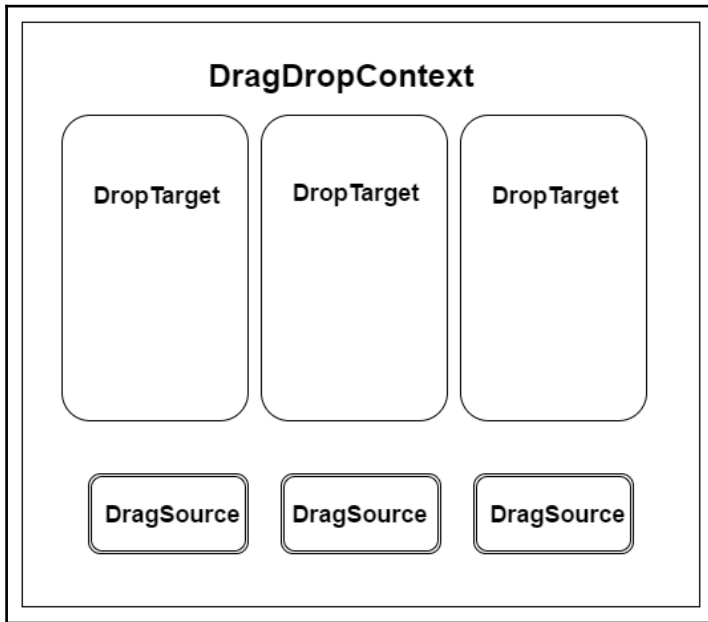
const TimeSeries = ({data}) => {

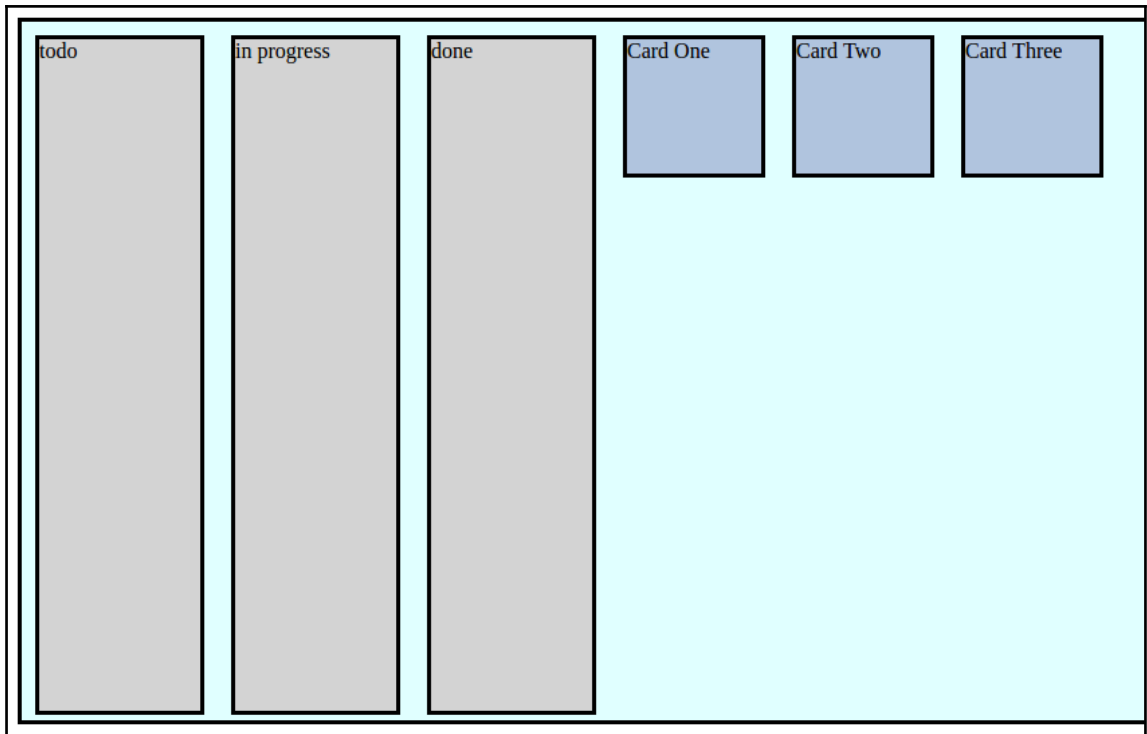
  return (
    <ResponsiveContainer minWidth={1000} minHeight={500}>
      <LineChart
        data={data}
        margin={{
          top: 20,
          right: 50,
          left: 20,
          bottom: 5
        }}>
        <XAxis dataKey="time"/>
        <YAxis/>
        <CartesianGrid strokeDasharray="3 3"/>
        <Tooltip/>
        <Legend/>
        <Line type="monotone" dataKey="sentiment" stroke="#82ca9d"/>
      </LineChart>
    </ResponsiveContainer>
  )
}

export default TimeSeries
```

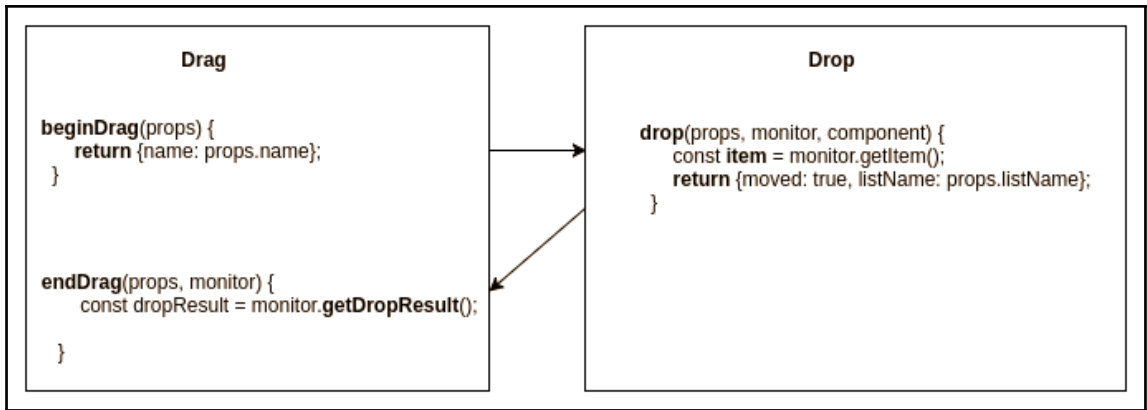


Chapter 5: Developing Kanban Project Management Tool





```
client
├── Board.js
├── Card.js
├── CardList.js
├── index.css
├── index.html
└── index.js
```



- client
 - actions
 - components
 - constants
 - containers
 - reducers
 - App.css
 - index.html
 - index.js
 - observe.js

```
import {Meteor} from 'meteor/meteor';
import {Tasks} from '../shared/tasksCollection'

Meteor.startup(() => {
  Meteor.methods({
    initial_load() {
      return Tasks.find({}).fetch()
    },

    add_Card(data) {
      let id = Tasks.insert({title: data.title, task: data.task, status: data.status})
      return Tasks.findOne({_id: id})
    },

    delete_Card(data) {
      Tasks.remove({_id: data.id});
    },

    update_CardStatus(data) {
      Tasks.update({_id: data.id}, {
        $set: {
          status: data.status
        }
      });
    }
  });
});
```

```
import * as types from '../constants/ActionTypes'
export const initialLoad = data => ({type: types.INITIAL_LOAD, data})
export const receiveCard = (id, title, task, status) => ({type: types.RECEIVE_CARD, id, title, task, status})
export const addCard = (id, title, task, status) => ({type: types.ADD_CARD, id, title, task, status})
export const deleteCard = id => ({type: types.DELETE_CARD, id})
export const updateCardStatus = (id, status) => ({type: types.UPDATE_STATUS, id, status})

export const initial_load = () => {
  return dispatch => {
    Meteor.call('initial_load', (err, data) => {
      if (!err) {
        dispatch(initialLoad(data))
      }
    })
  }
}

export const add_Card = (data) => {
  return dispatch => {
    Meteor.call('add_Card', data, (err, result) => {
      if (!err) {
        dispatch(addCard(result._id, result.title, result.task, result.status))
      }
    })
  }
}

export const delete_Card = id => {
  return dispatch => {
    Meteor.call('delete_Card', id, (err) => {
      if (!err) {
        dispatch(deleteCard(id))
      }
    })
  }
}

export const update_CardStatus = (id, status) => {
  return dispatch => {
    Meteor.call('update_CardStatus', {
      id,
      status
    }, (err) => {
      if (!err) {
        dispatch(updateCardStatus(id, status))
      }
    })
  }
}
}
```

```
import {ADD_CARD, DELETE_CARD, UPDATE_STATUS, RECEIVE_CARD, INITIAL_LOAD} from '../constants/ActionTypes'

export default function cards(state = [], action) {
  switch (action.type) {
    case INITIAL_LOAD:
      return action.data;
    case ADD_CARD:
      if (state.filter(card => card._id === action.id).length > 0) {
        return state;
      }
      return [
        ...state, {
          _id: action.id,
          title: action.title,
          task: action.task,
          status: action.status
        }
      ]
    case DELETE_CARD:
      return state.filter(card => card._id !== action.id)
    case UPDATE_STATUS:
      return state.map(card => card._id === action.id
        ? {
            ...card,
            status: action.status
          }
        : card)
    case RECEIVE_CARD:
      if (state.filter(card => card._id === action.id).length > 0) {
        return state;
      }
      return [
        ...state, {
          _id: action.id,
          title: action.title,
          task: action.task,
          status: action.status
        }
      ]
    default:
      return state
  }
}
```

- ◀ components
 - Board
 - Card
 - CardForm
 - CardList
 - Modal
 - NavBar
 - NewTask
- constants
- ◀ containers
 - App.js

```
render() {
  const {cards, delete_Card, update_CardStatus, add_Card} = this.props
  return (
    <div className="container">
      <div className="row">
        <div className="col-sm-12"><NewTask add_Card={add_Card}/></div>
      </div>
      <div className="row">
        <div className="col-sm-4">
          <CardList
            title={"To-Do"}
            listName
              ={"todo"}
            delete_Card={delete_Card}
            update_CardStatus={update_CardStatus}
            cards={cards.filter((card) => card.status === "todo")} />
        </div>

        <div className="col-sm-4">
          <CardList
            title={"In Progress"}
            listName
              ={"inprogress"}
            delete_Card={delete_Card}
            update_CardStatus={update_CardStatus}
            cards={cards.filter((card) => card.status === "inprogress")} />
        </div>

        <div className="col-sm-4">
          <CardList
            title={"Done"}
            listName
              ={"done"}
            delete_Card={delete_Card}
            update_CardStatus={update_CardStatus}
            cards={cards.filter((card) => card.status === "done")} />
        </div>
      </div>
    </div>
  )
}
```

```
└─ client
   ├── index.css
   ├── index.html
   ├── index.js
   └── Modal.js
```

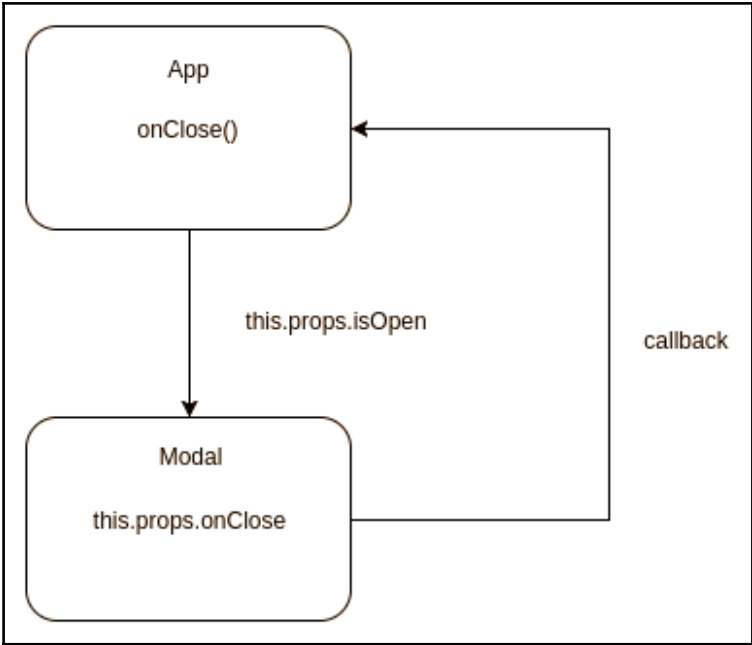
```
import React from 'react'
import {render} from 'react-dom'
import Modal from './Modal'

Meteor.startup(() => {

  class App extends React.Component {
    constructor(props) {
      super(props)
      this.state = {
        isModalOpen: false
      }
    }
    openModal() {
      this.setState({isModalOpen: true})
    }
    closeModal() {
      this.setState({isModalOpen: false})
    }

    render() {
      return (
        <div>
          <button type="button" onClick={() => this.openModal()}>Open Modal</button>
          <Modal isOpen={this.state.isModalOpen} onClose={() => this.closeModal()}></Modal>
        </div>
      )
    }
  }

  render(
    <App/>, document.getElementById('root'))
});
```

```
import React, {Component, PropTypes} from 'react'
import Modal from '../Modal'
import CardForm from '../CardForm'

class NewTask extends Component {
  constructor(props) {
    super(props)
    this.state = {
      isModalOpen: false
    }
  }
  openModal() {
    this.setState({isModalOpen: true})
  }
  closeModal() {
    this.setState({isModalOpen: false})
  }
  render() {
    return (
      <div>
        <button
          type="button"
          className="btn btn-success btn-lg"
          onClick={() => this.openModal()}>Create Task</button>
        <Modal isOpen={this.state.isModalOpen} onClose={() => this.closeModal()}>
          <CardForm add_Card={this.props.add_Card} onClose={() => this.closeModal()}/>
        </Modal>
      </div>
    )
  }
}

export default NewTask
```

```
import React, {PropTypes, Component} from 'react';
import {DropTarget} from 'react-dnd';
import Card from '../Card'

const ItemTypes = {
  CARD: 'card'
}

const spec = {
  drop(props, monitor, component) {
    return {listName: props.listName};
  }
};

function collect(connect, monitor) {
  return {
    connectDropTarget: connect.dropTarget()
  };
}

class CardList extends Component {
  static propTypes = {
    connectDropTarget: PropTypes.func.isRequired
  };

  render() {
    const {listName, cards, delete_Card, connectDropTarget, update_CardStatus, title } = this.props;
    return connectDropTarget(
      <div className="list-card">
        <div className="card-block">
          <h3 className="card-title">{title}</h3>
        </div>

        {cards.map(card =>
          <Card key={card._id} {...card}
            update_CardStatus={update_CardStatus}
            delete_Card={delete_Card}/>)}
      </div>
    )
  }
}

export default DropTarget(ItemTypes.CARD, spec, collect)(CardList);
```

```
import React, {Component, PropTypes} from 'react'
import {DragSource} from 'react-dnd'

const ItemTypes = { CARD: 'card' };
const style = {margin: '8px' };

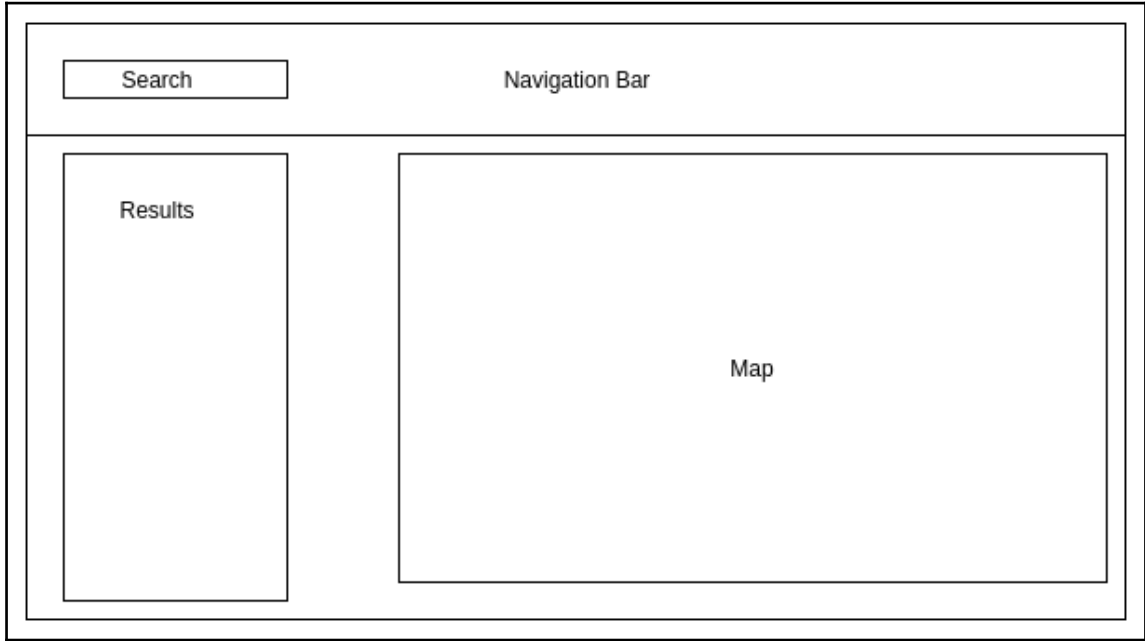
const source = {
  beginDrag(props) {
    return {title: props.title, _id: props._id};
  },
  endDrag(props, monitor) {
    const item = monitor.getItem();
    const dropResult = monitor.getDropResult();
    if (dropResult) {
      props.update_CardStatus(item._id, dropResult.listName);
    }
  }
};

const collect = (connect, monitor) =>{
  return {
    connectDragSource: connect.dragSource()
  };
}

class Card extends Component {
  render() {
    const {task, title, _id, update_CardStatus, delete_Card, connectDragSource} = this.props;
    return connectDragSource(
      <div className="card" style={{...style}}>
        <div className="card-block">
          <h4 className="card-title">{title}</h4>
          <p className="card-text">{task}</p>
          <div className="btn btn-danger" onClick={() => delete_Card(_id)}>DELETE</div>
        </div>
      </div>
    )
  }
}

export default DragSource(ItemTypes.CARD, source, collect)(Card);
```

Chapter 6: Building a Real-Time Search Application



```
client  
└─ actions  
└─ components  
└─ constants  
└─ containers  
└─ reducers  
  App.css  
  index.html  
  index.js
```

```
import {QUERY, RECEIVE_RESULT, GO_TO} from '../constants/ActionTypes'

export default function search(state = {
  isFetching: false,
  result: [],
  lat: 40.7484,
  lng: -73.9857,
  restaurant_name: '',
  cuisine: ''
}, action) {
  switch (action.type) {
    case QUERY:
      return {
        ...state,
        query_string: action.query_string,
        isFetching: true
      }
    case RECEIVE_RESULT:
      return {
        ...state,
        result: action.result,
        isFetching: false
      }
    case GO_TO:
      return {
        ...state,
        lat: action.lat,
        lng: action.lng,
        restaurant_name: action.restaurant_name,
        cuisine: action.cuisine
      }
    default:
      return state
  }
}
```

```
import React, {Component, PropTypes} from 'react'

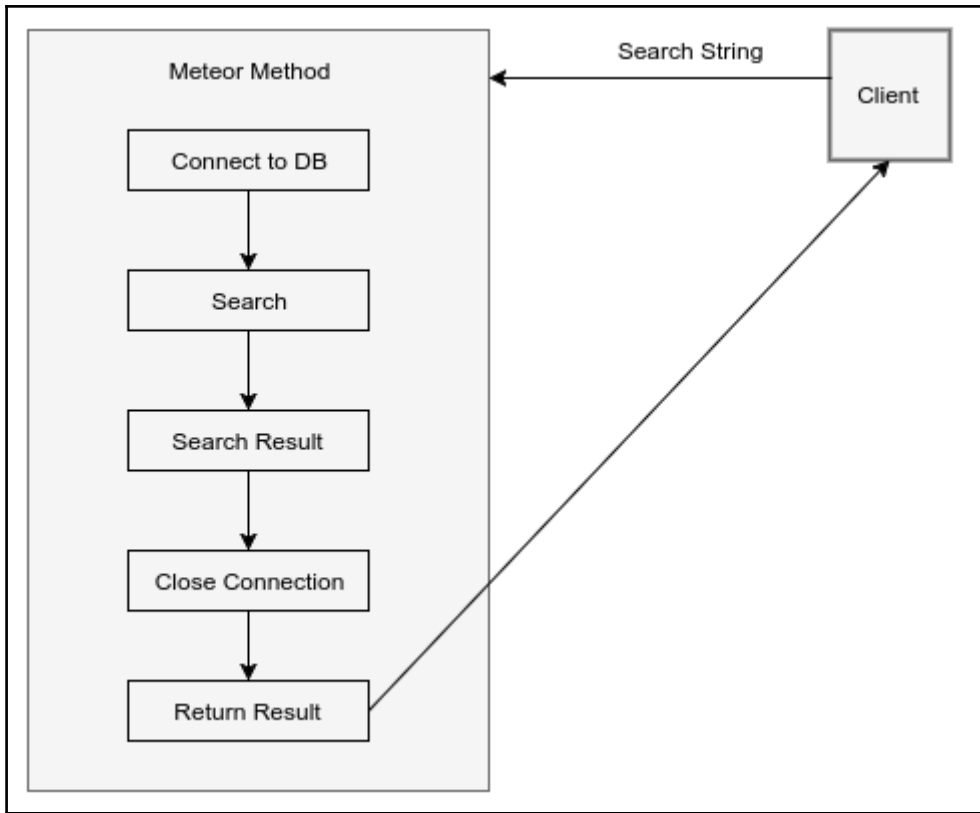
class SearchForm extends Component {
  constructor(props) {
    super(props);
    this.state = {
      query_string: ''
    };
    this.handleChange = this.handleChange.bind(this);
    this.handleSubmit = this.handleSubmit.bind(this);
  }

  handleChange(event) {
    this.setState({query_string: event.target.value});
  }

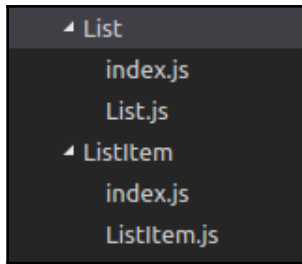
  handleSubmit(event) {
    event.preventDefault()
    this.props.search(this.state.query_string)
  }

  render() {
    return (
      <form className="form-inline" onSubmit={this.handleSubmit}>
        <input
          className="form-control mr-sm-2"
          type="text"
          placeholder="Search"
          autoFocus="true"
          value={this.state.query_string}
          onChange={this.handleChange}/>
        <button className="btn btn-outline-success my-2 my-sm-0">Search</button>
      </form>
    )
  }
}

export default SearchForm
```







```
import React, {PropTypes} from 'react'
import ListItem from '../ListItem'
import Spinner from '../Spinner'

class List extends React.Component {
  constructor(props) {
    super(props)
    this.onClickItem = this.onClickItem.bind(this)
  }

  onClickItem(item) {
    this.props.actions.goTo(item.coord[1], item.coord[0], item.restaurant_name, item.cuisine)
  }

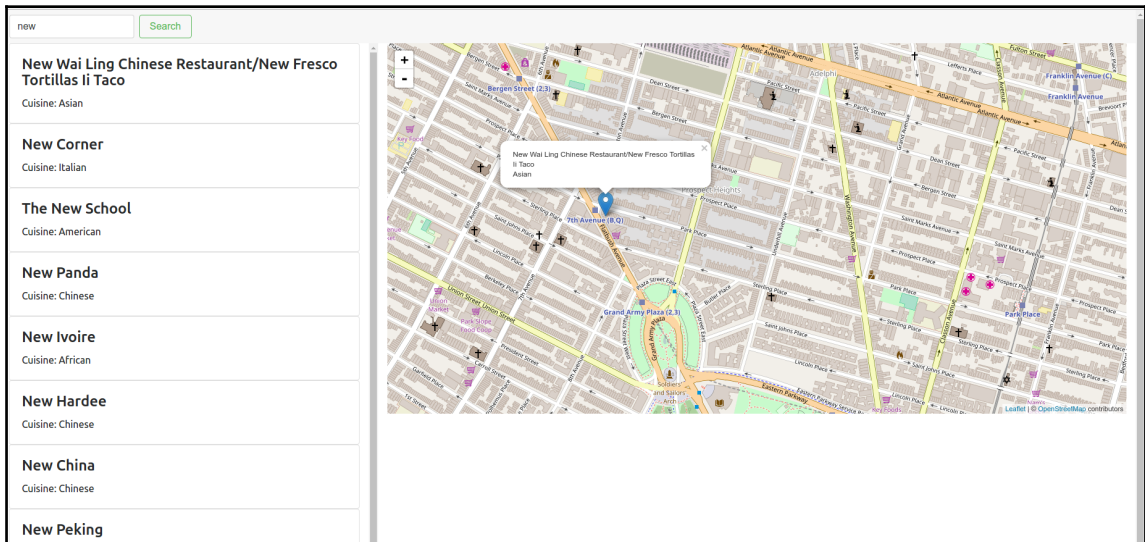
  render() {
    let spinner = null
    const {result} = this.props;
    if (this.props.search.isFetching) {
      spinner = <div className="centered"><Spinner/></div>
    }
    const list = (
      <div>
        {result.map(data => <ListItem key={data.restaurant_id} onClickItem={this.onClickItem} {...data}/>)}
      </div>
    );
    return (
      <div>
        {spinner}
        {list}
      </div>
    )
  }
}

export default List
```

```
import React, {PropTypes} from 'react'

class ListItem extends React.Component {
  constructor(props) {
    super(props)
    this.handleClick = this.handleClick.bind(this)
  }
  handleClick() {
    this.props.onClickItem({coord: this.props.address.coord, restaurant_name: this.props.name, cuisine: this.props.cuisine})
  }
  render() {
    return (
      <div className="card" onClick={this.handleClick}>
        <div className="card-block">
          <h4 className="card-title">{this.props.name}</h4>
          <p className="card-text">Cuisine: {this.props.cuisine}</p>
        </div>
      </div>
    )
  }
}

export default ListItem
```



Chapter 7: Real-Time Maps

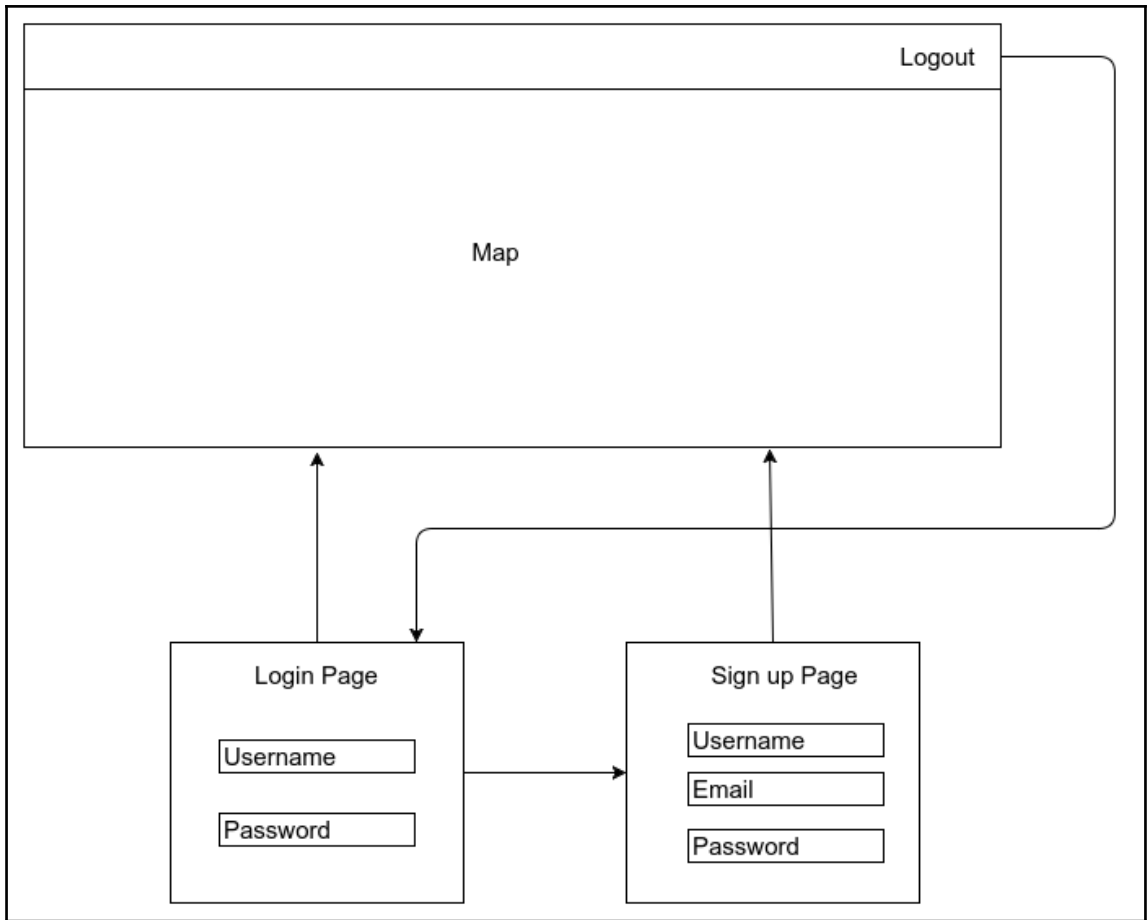
[Close](#)

Email

Password

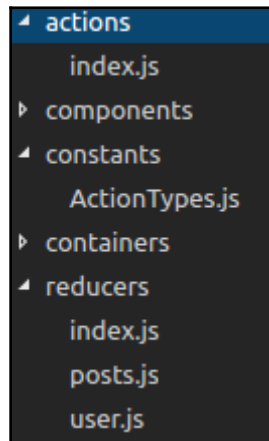
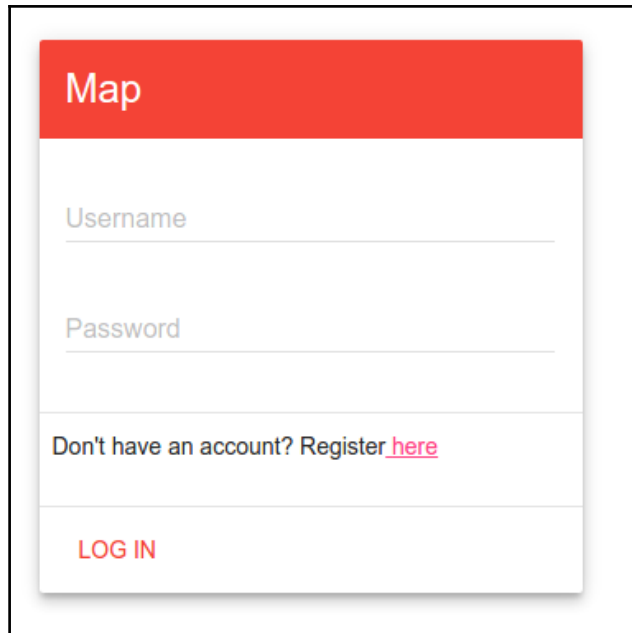
[Sign in](#)

[Forgot password](#) [Create account](#)



```
└─ client
  ├── actions
  ├── components
  ├── constants
  ├── containers
  ├── reducers
  ├── App.css
  ├── index.html
  ├── index.js
  ├── observe.js
  └── routes.js
```

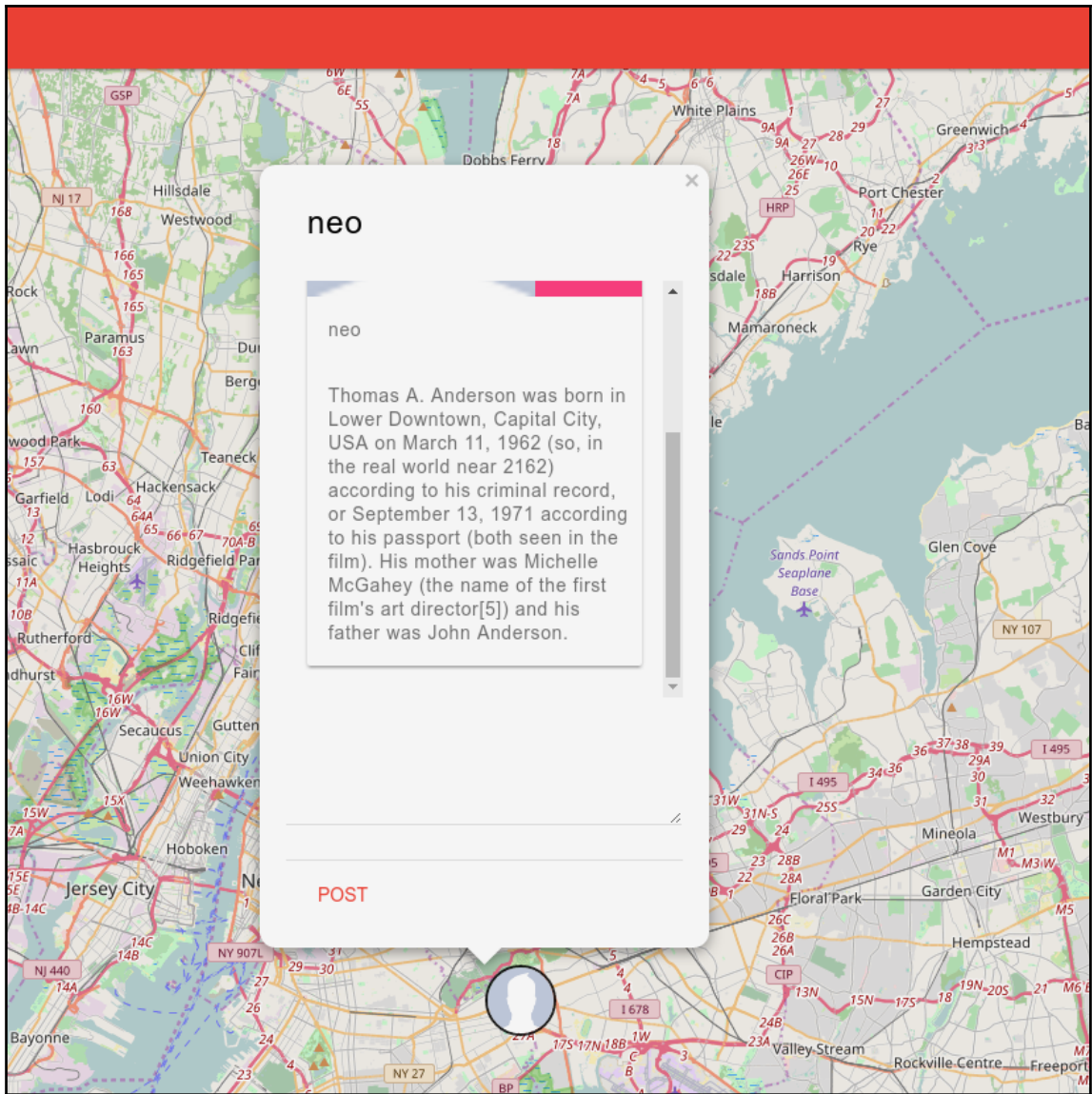
```
└─ containers
  ├── App
  │   ├── App.js
  │   └── index.js
  ├── Login
  │   ├── index.js
  │   └── Login.js
  └── Signup
      ├── index.js
      └── Signup.js
```



- └ components
 - └ Main
 - index.js
 - Main.js
 - └ Map
 - index.js
 - Map.js
 - └ PageNotFound
 - index.js
 - PageNotFound.js
 - └ PostForm
 - index.js
 - PostForm.js
 - └ PostListItem
 - index.js
 - PostListItem.js
 - └ PostsList
 - index.js
 - PostsList.js



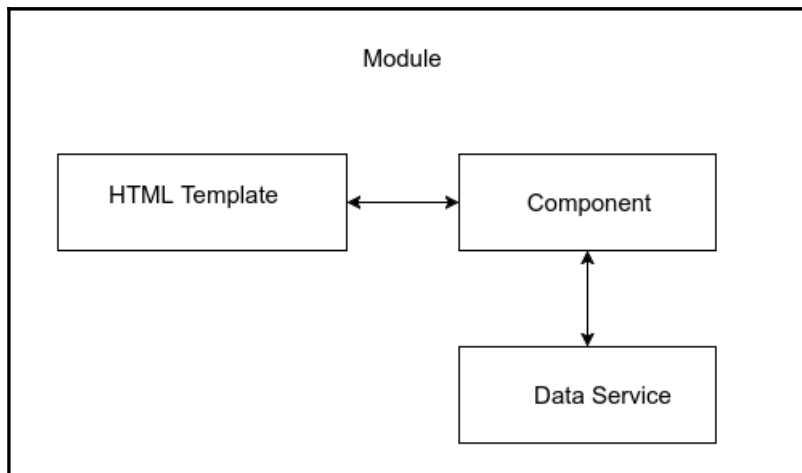

```
class MapComponent extends React.Component {
  constructor(props) {
    super(props);
    this.state = {zoom: 10, position: [40.7484, -73.9857]}
  }
  componentDidMount() {
    let self = this;
    const map = this.map.leafletElement;
    map.locate({setView: true, watch: true})
    .on('locationfound', function (e) {
      self.setState({
        position: [e.latitude, e.longitude]
      })
      self.props.actions
        .update_location([lat: e.latitude, long: e.longitude]);
    })
    .on('locationerror', function (e) {
      console.log(e);
    });
  }
  render() {
    const {posts, actions} = this.props;
    let list = [];
    for (let i = 0; i < posts.length; i++) {
      let profile_picture = '</img>';
      let divIcon = L.divIcon({className: 'custom-div-icon', iconSize: null, html: profile_picture});
      list.push(<Marker position={posts[i].location} icon={divIcon} key={posts[i]._id}>
        <Popup>
          <PostForm actions={actions} user_posts={posts[i]} />
        </Popup>
      </Marker>
    )
  }
  return <Map
    center={this.state.position}
    zoom={this.state.zoom}
    ref={map => {
      this.map = map;
    }}>
    <TileLayer
      attribution='&copy; <a href="http://osm.org/copyright">OpenStreetMap</a> contributors'
      url="http://{s}.tile.osm.org/{z}/{x}/{y}.png"></TileLayer>
    <LayerGroup>
      {list}
    </LayerGroup>
  </Map>
  );
}
export default MapComponent;
```



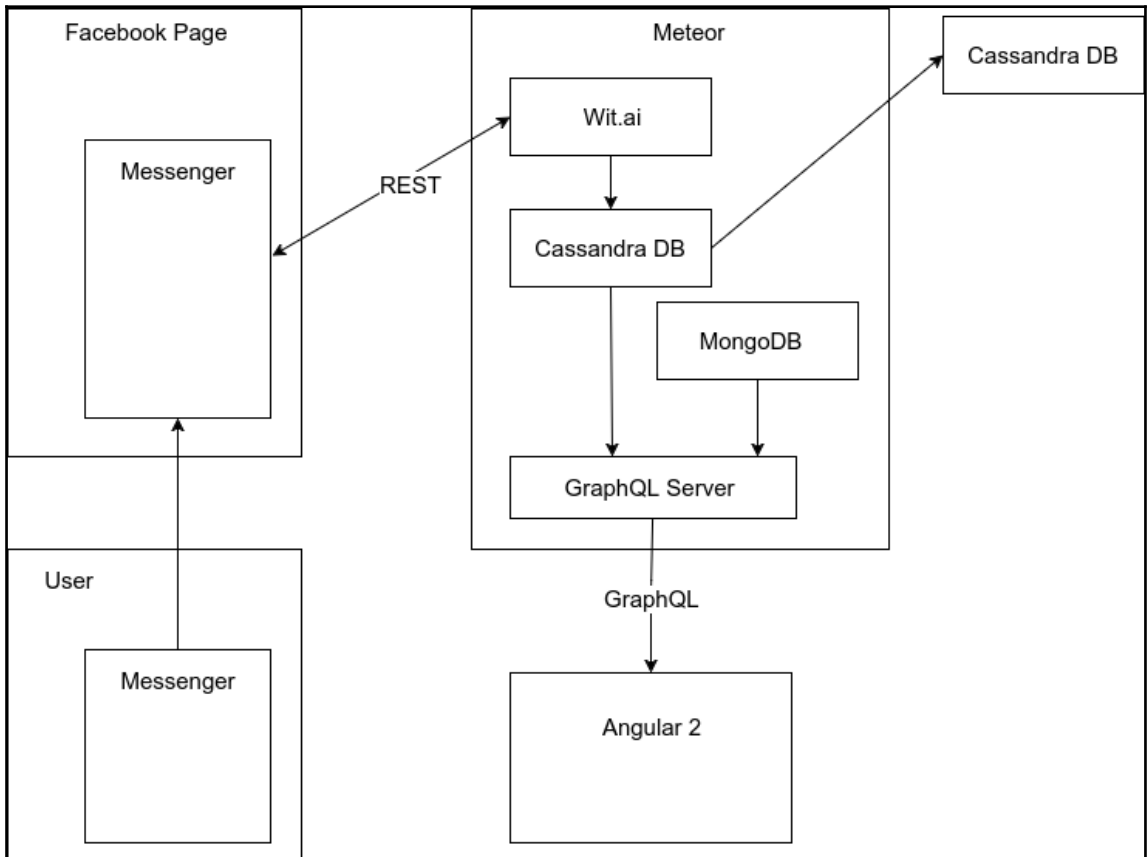
```
Meteor.methods({
  create_new_user(data) {
    let profile_number = Math.floor(Math.random() * (10000));
    Posts.insert({user_id: this.userId, posts: [], username: data.username, location: random_coordinates(), profile_number: profile_number});
    Meteor.users.update(this.userId, {
      $set: {
        profile_number: profile_number
      }
    });
    return Posts.find({}).fetch()
  },
  get_loggedin_user() {
    let user = Meteor.user();
    return {username: user.username, user_id: user._id};
  },
  get_all_users() {
    return Posts.find({}).fetch();
  },
  post(params) {
    let user = Meteor.user();
    Posts.update({
      user_id: user._id
    }, {
      $push: {
        posts: {
          from: user.username,
          post: params.post,
          profile_number: user.profile_number
        }
      }
    });
  },
  update_location(params) {
    let user = Meteor.user();
    Posts.update({
      user_id: user._id
    }, {
      $set: {
        location: [params.lat, params.long]
      }
    });
  }
});
```

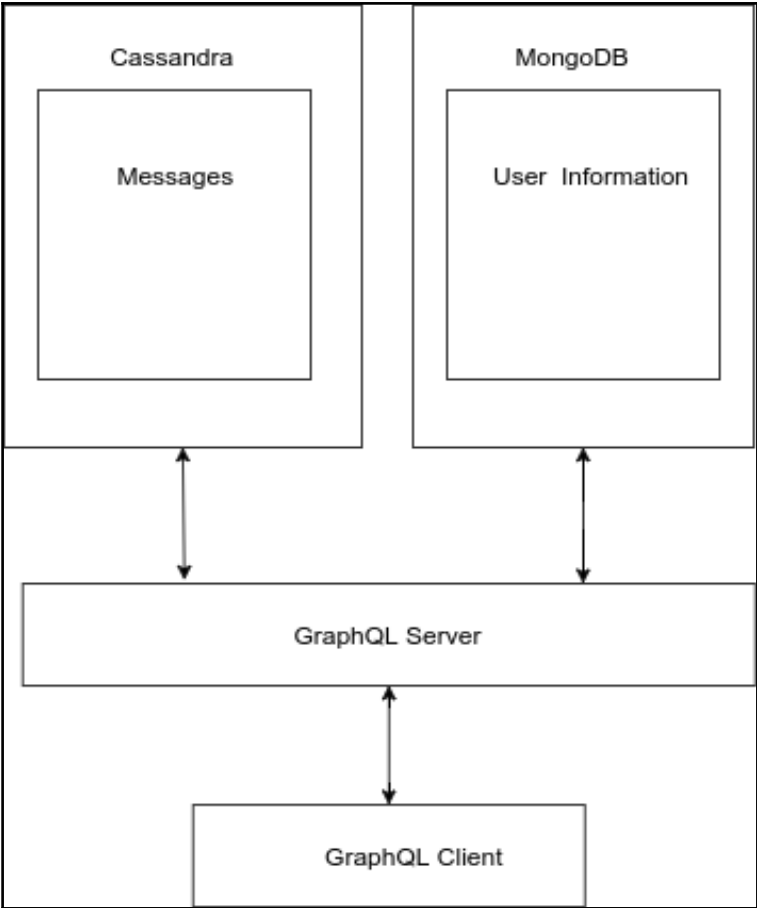
Chapter 8: Build a Chatbot with Facebook's Messenger Platform

```
└─ client
  └─ imports
    └─ app
      app.component.css
      app.component.html
      app.component.ts
      app.module.ts
    styles
    index.html
    main.ts
```




```
└─ client
  └─ imports
    └─ app
      └─ list
        list.component.html
        list.component.ts
        list.service.ts
      index.html
      main.ts
```






Create a Page


Give your brand, business or cause a voice on Facebook and connect with the people who matter to you. It's free to set up. Just choose a Page type to get started.




Local Business or Place




Company, Organization or Institution



Artist, Band or Public Figure



Entertainment



Cause or Community

Brand or Product

Software ▾

By clicking Get Started, you agree to the Facebook Pages Terms.

Get Started


Start Over

Skip and Create App ID

www

Quick Start for Website

Choose an existing app or type the name of your new app

 Meteor-chatbot-messenger

Create a New App ID

Get started integrating Facebook into your app or website

Display Name

Contact Email

Category
Apps for Messenger ▾

- Choose a Category
- ✓ **Apps for Messenger**
- Apps for Pages
- Books
- Business
- Communication
- Education
- Entertainment
- Fashion
- Finance
- Food & Drink
- Games

Meteor-chatbot-m... | APP ID: 286366675117222 | View Analytics

Dashboard
Settings
Roles
Alerts
App Review

PRODUCTS
Messenger
Settings
+ Add Product

Check out some resources that may help you in development. Quick start (opens a messenger app in a simulator) and Complete Documentation. Also join our Messenger Platform Developers Community on Facebook to get latest news and learn more!

Token Generation

Page token is required to start using the APIs. This page token will have all messenger permissions even if your app is not approved to use them yet, though in this case you will be able to message only app admins. You can also generate page tokens for the pages you don't own using Facebook Login.

Page	Page Access Token
Select a Page ▾	You must select a Page to generate an access token.
✓ Select a Page Meteor-chat-bot	<input type="button" value="Create a new page"/>

Webhooks

To receive messages and other events sent by Messenger users, the app should enable webhooks integration.

Create a new page

New Page Subscription ✕

Callback URL

Verify Token

Subscription Fields

<input checked="" type="checkbox"/> messages	<input type="checkbox"/> messaging_postbacks	<input type="checkbox"/> messaging_optins
<input type="checkbox"/> message_deliveries	<input type="checkbox"/> message_reads	<input type="checkbox"/> messaging_payments
<input type="checkbox"/> messaging_pre_checkouts	<input type="checkbox"/> messaging_checkout_updates	<input type="checkbox"/> messaging_account_linking
<input type="checkbox"/> messaging_referrals	<input type="checkbox"/> message_echoes	

[Learn more](#)

Cancel
Verify and Save

```

ngrok by @inconshreveable (Ctrl+C to quit)

Session Status      online
Version             2.1.18
Region              United States (us)
Web Interface        http://127.0.0.1:4040
Forwarding           http://2dc40bc0.ngrok.io -> localhost:3000
Forwarding           https://2dc40bc0.ngrok.io -> localhost:3000

Connections         ttl    opn    rt1    rt5    p50    p90
                   6      1      0.02   0.01   126.32 126.77

HTTP Requests
-----
GET /app/105605e340215f065547d888ee0cc2c5816eb8a7.map 200 OK
GET /packages/8024f6bce97bd768bcff7fc9d76449e74f051e36.m 200 OK
GET /packages/9651dba61aa212828975b89e7c889af540c6a5da.m 200 OK
GET /packages/8645fc685d558a15e6207c847f5709d20f6a14d9.m 200 OK
GET /packages/90f037f47abee1e74ba80360e6b3f3dbaa792260.m 200 OK
GET /packages/a3be1ee923a6fc933f063c7f8de3e15243e12f47.m 200 OK
GET /sockjs/939/bvwfs7hk/websocket 101 Switching Protocols
GET /favicon.ico 404 Not Found
GET /sockjs/info 200 OK

```

Create a new page

New Page Subscription

Callback URL

Verify Token

Subscription Fields

<input checked="" type="checkbox"/> messages	<input type="checkbox"/> messaging_postbacks	<input type="checkbox"/> messaging_optins
<input type="checkbox"/> message_deliveries	<input type="checkbox"/> message_reads	<input type="checkbox"/> messaging_payments
<input type="checkbox"/> messaging_pre_checkouts	<input type="checkbox"/> messaging_checkout_updates	<input type="checkbox"/> messaging_account_linking
<input type="checkbox"/> messaging_referrals	<input type="checkbox"/> message_echoes	

[Learn more](#)

GET /webhook

Summary Headers Raw Binary Replay

Query Params

hub.challenge	1782293377
hub.mode	subscribe
hub.verify_token	meteor_token_chatbot

200 OK

Summary Headers Raw Binary

10 bytes

```
1782293377
```

Webhooks Edit events

To receive messages and other events sent by Messenger users, the app should enable webhooks integration. ✔ Complete

Selected events: **messages**

Select a page to subscribe your webhook to the page events ✔ Meteor-chat-bot Subscribe

The app is not subscribed to any pages

POST /webhook

Summary

Headers

Raw

Binary

Replay


275 bytes application/json


```
{
  "object": "page",
  "entry": [
    {
      "id": "1677545705872197",
      "time": 1490072697677,
      "messaging": [
        {
          "sender": {
            "id": "1279113062177466"
          },
          "recipient": {
            "id": "1677545705872197"
          },
          "timestamp": 1490072697577,
          "message": {
            "mid": "mid.$cAAWvTDUGRoFhIIZC6Va70D53IRYP",
            "seq": 1253,
            "text": "testing it"
          }
        }
      ]
    }
  ]
}
```

Create a new App

dobringanev /

Language

 **Open**
Your data will be open to the community


 **Private**
Your data will be private and accessible only by you and the developers you decide to share your app with.


Import your app from a backup

API Details

You can use the tokens below to start making API requests from your app. [Learn more through the quickstart guide](#), or [contact us](#) at anytime. We look forward to what you create :)

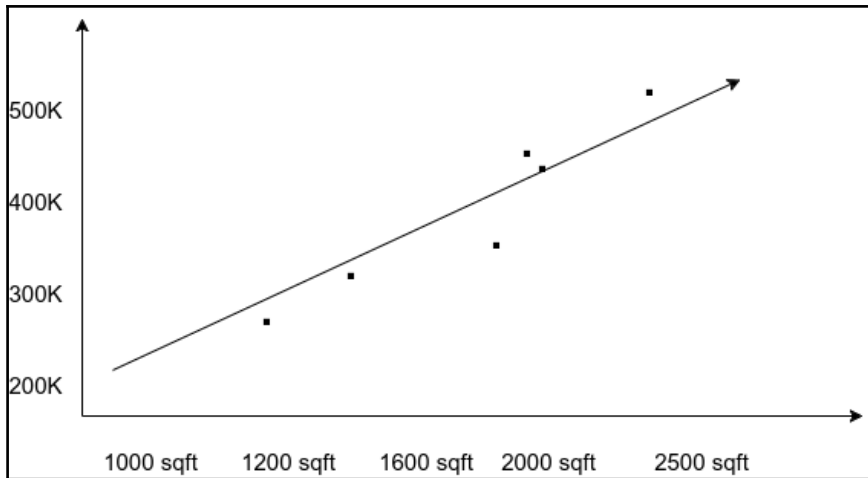
App ID

Server Access Token 

Client Access Token 

Allowed domains

No items!



Inbox Understanding Stories beta Actions Logs Settings

Test how your bot understands a sentence

You can train your bot by adding more examples

User says...

Add a new entity

Test how your bot understands a sentence

You can train your bot by adding more examples

Can I order a bouquet of roses

+ Add a new entity

wit/age_of_person	The age of a person, pet or object, like '22 years old'. The entity returns an integer, representing the year. It does not support smaller granularity (months, weeks, etc)
wit/agenda_entry	Extrapolates typical agenda items from free text
wit/amount_of_money	Money like '\$20', '30 euros'
wit/contact	Captures free text that's either the name or a clear reference to a person, like 'Paul', 'Paul Smith', 'my husband', 'the dentist'.
wit/datetime	Date and time, like 'tomorrow at 6pm'
wit/distance	Capture a distance in miles or kilometers like '5km', '5 miles' and '12m'.
wit/duration	Capture the duration like '30min', '2 hours' or '15sec' and normalize the value in seconds.
wit/email	Capture an email but do not try to check the validity of the email. Like 'help@wit.ai', 'francis.renard@mail.wit.com'
wit/local_search_query	Captures free text that's a query for a local search, like 'flowers shop' or 'peets coffee'.
wit/location	Capture free text that's a typical location, place or address like '350 Cambridge Ave Palo Alto', '925 Alma Street', 'SFO', and 'Sausalito, CA'. Use wit/local_search_query for local place like 'my flower shop' and 'Peet's'
wit/math_expression	Captures free text that's a mathematical, computable expression like '2+2'
wit/message_body	Captures free text that's the body of a message (email, SMS).
wit/message_subject	Captures free text that's the subject or headline of a message (email, SMS, social media status).

Test how your bot understands a sentence

You can train your bot by adding more examples

Can I order a **bouquet** of roses

Intent bouquet

+ Add a new entity

Validate

Your app uses 1 entity

Name	Search Strategy	Values
intent → User-defined entity	<input type="radio"/> trait <input checked="" type="radio"/> free-text <input type="radio"/> keywords	bouquet

Can I order a **bouquet** of roses

Intent

+ bouquet

Press Enter ↵ to create a new entity called **bouquet**.

Can I order a **bouquet** of roses

Intent

+ Add a new entity

Create option "roses"


✓ Validate

Your app uses 2 entities




Name	Search Strategy ?	Values
bouquet → User-defined entity	<input type="radio"/> trait <input checked="" type="radio"/> free-text <input type="radio"/> keywords	roses
intent → User-defined entity	<input type="radio"/> trait <input checked="" type="radio"/> free-text <input checked="" type="radio"/> keywords	bouquet


bouquet

User-defined entity


Search strategy  trait free-text keywords

Keywords







Keyword 	Synonyms 
roses	 Add synonym...


 Add a new keyword

Expressions Filter by: all values

 Search through your expressions.

Text

 What kind of bouquets do you have?	
 A bouquet of roses please	
 Can I order a bouquet of roses	

 See More

Test how your bot understands a sentence

You can train your bot by adding more examples

A classic bouquet of roses please ✕

bouquetSize classic ✕ ▾

intent bouquet ✕ ▾

+ Add a new entity

✓ Validate

Your app uses 3 entities

Name	Search Strategy	Values
bouquet → User-defined entity	trait free-text keywords	roses, lilies, tulips
bouquetSize → User-defined entity	trait free-text keywords	classic
intent → User-defined entity	trait free-text keywords	bouquet

CHAT-BOT

Can I order a bouquet Cancel Save Story

All Stories

Can I order a bouquet •

+ Create a story

Can I order a bouquet

intent bouquet ✕ ▾

intent bouquet ✕ ▾

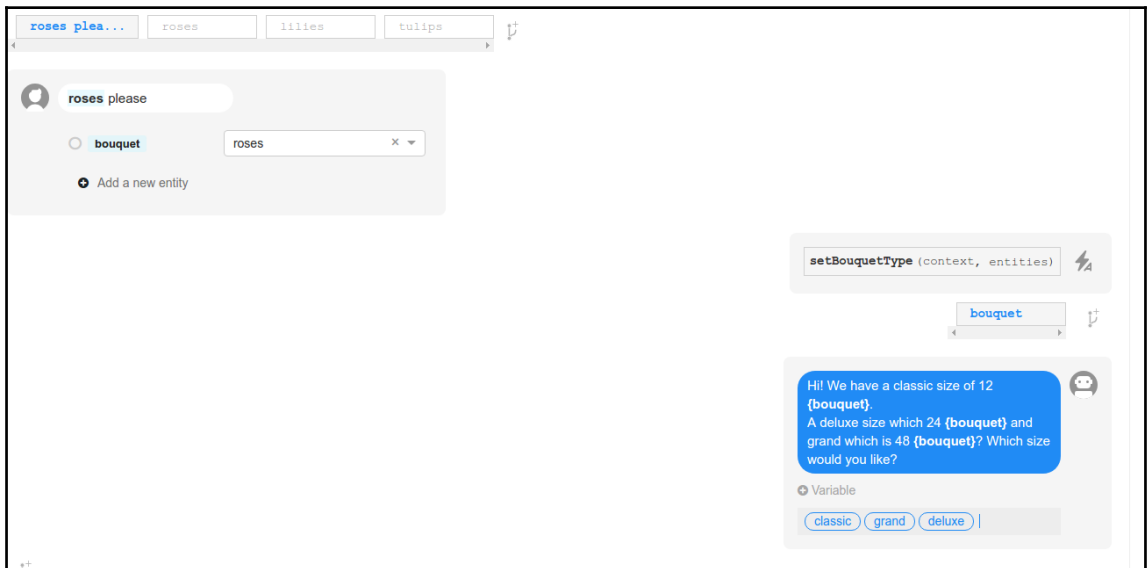
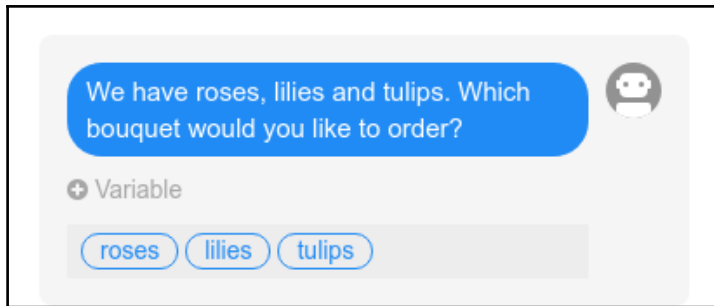
• Add a new entity

✕


We have roses, lilies and tulips. Which bouquet would you like to order? 🗨

Variable

Set quick replies



The screenshot shows a chatbot interface with a top navigation bar containing tabs: "classic ro...", "classic", "grand", and "deluxe". A dropdown menu is open under "classic ro...". On the left, a panel titled "classic roses" contains two radio buttons: "bouquet" (selected) and "bouquetSize". The "bouquet" option has a dropdown menu showing "roses", and "bouquetSize" has a dropdown menu showing "classic". Below these is a button "Add a new entity". On the right, a code editor shows the function `setBouquetSize (context, entities)` and a variable `bouquet ** bouquetSize`. Below the code is a blue message bubble: "Your {bouquetSize} {bouquet} will be delivered today in the next 2 hours." with a "Variable" dropdown and a "Set quick replies" button.

Press  to chat with your bot

The screenshot shows a chat window with a title bar (red, yellow, green buttons). The chat history includes:

- User: "Can I order a bouquet?" 23:32:24
- Bot: "We have roses, lilies and tulips. Which bouquet would you like to order" 23:32:25
- User: "tulips" 23:32:26
- Bot: "> setBouquetType ()" 23:32:27

Below the chat is a table titled "Updates context keys with...":

bouquet	✓
---------	---

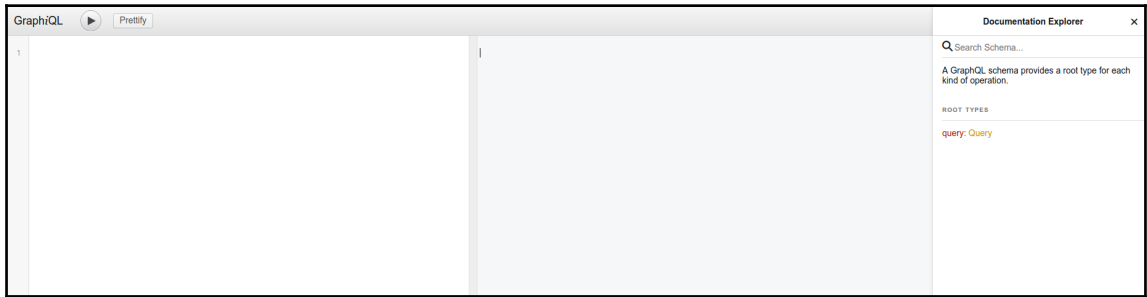
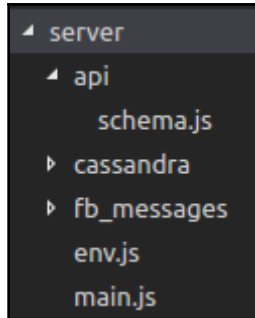
At the bottom, it says "User says..."

```
server
├── fb_messages
│   ├── bot.js
│   ├── fb_message.js
│   ├── index.js
│   ├── webhook.js
│   ├── env.js
│   └── main.js
```

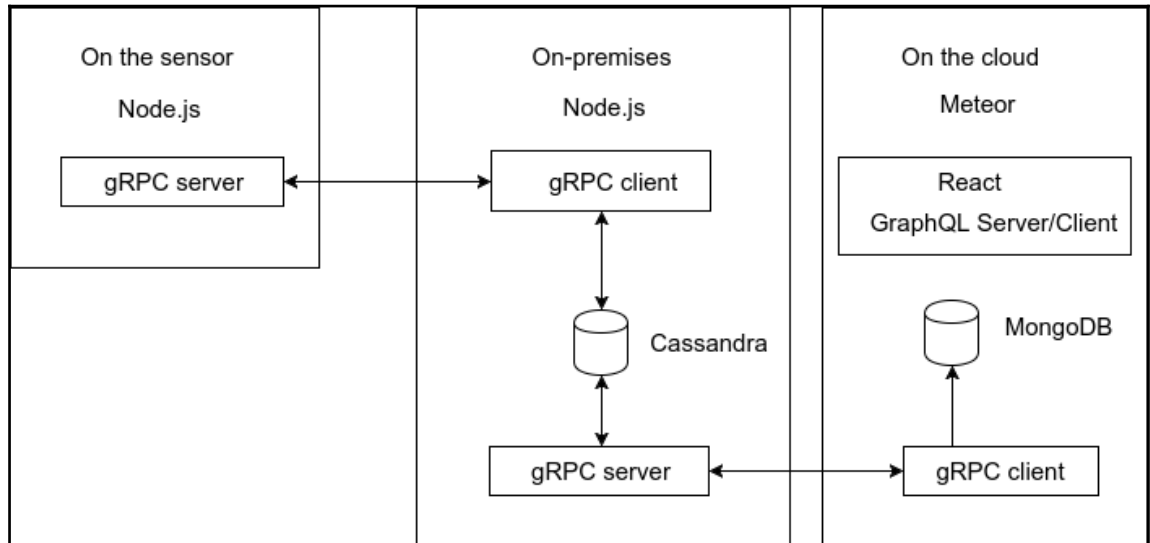
```
setBouquetType (context, entities) ⚡
└── bouquet ⚙
```

```
setBouquetSize (context, entities) ⚡
└── bouquet && bouquetSize ⚙
```

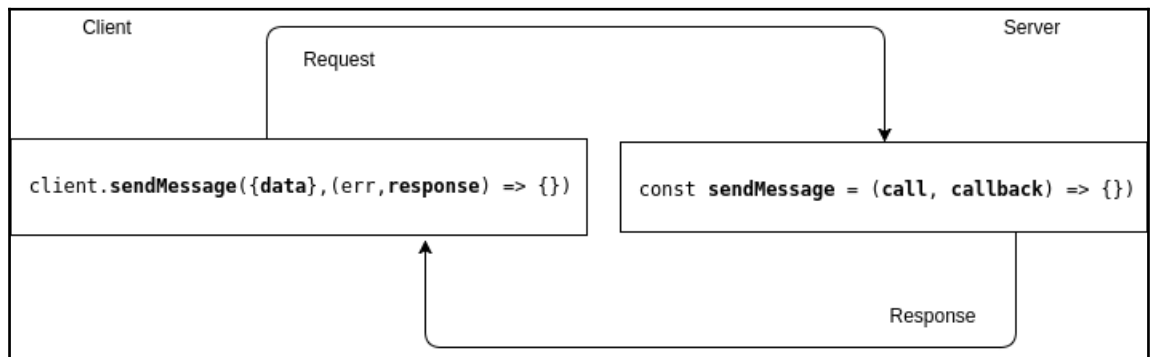
```
server
├── cassandra
│   └── index.js
├── fb_messages
│   ├── env.js
│   └── main.js
```

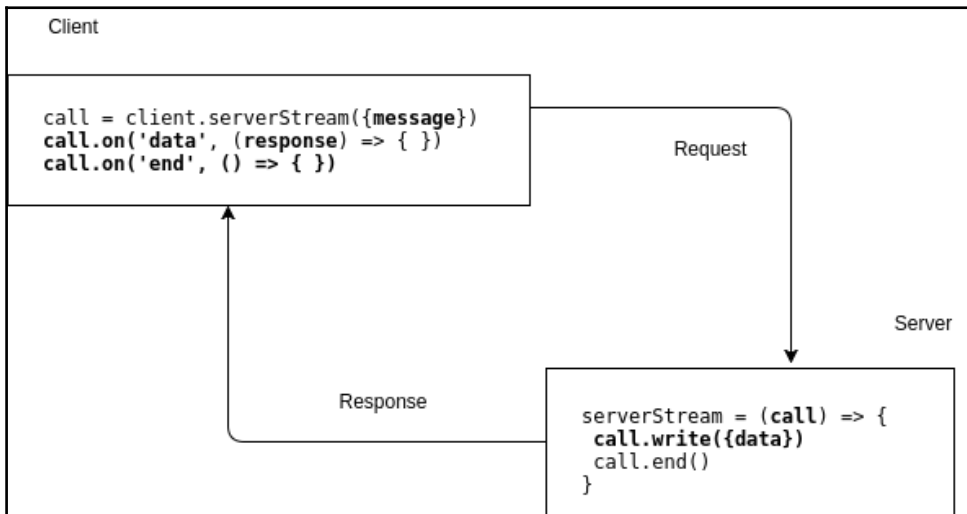
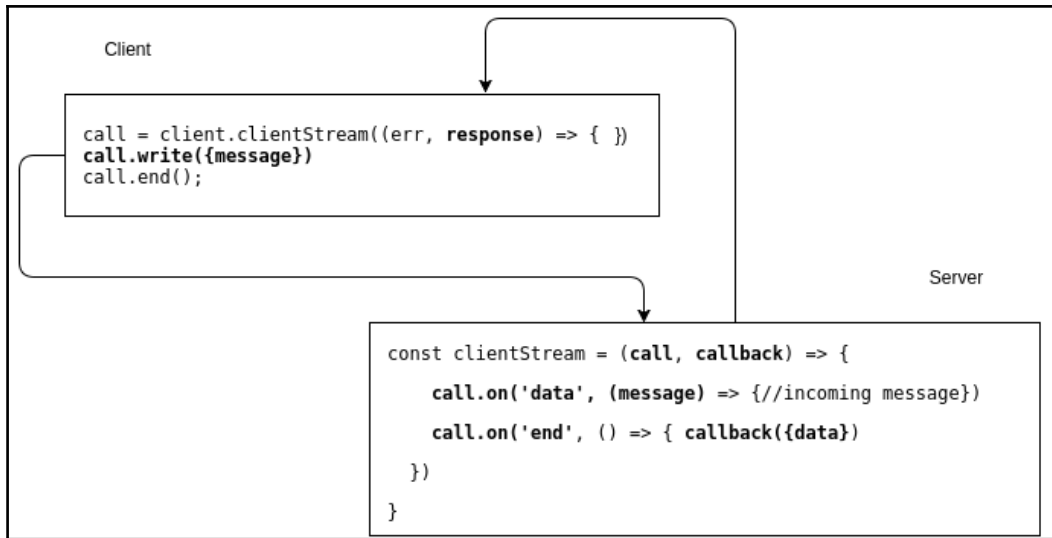


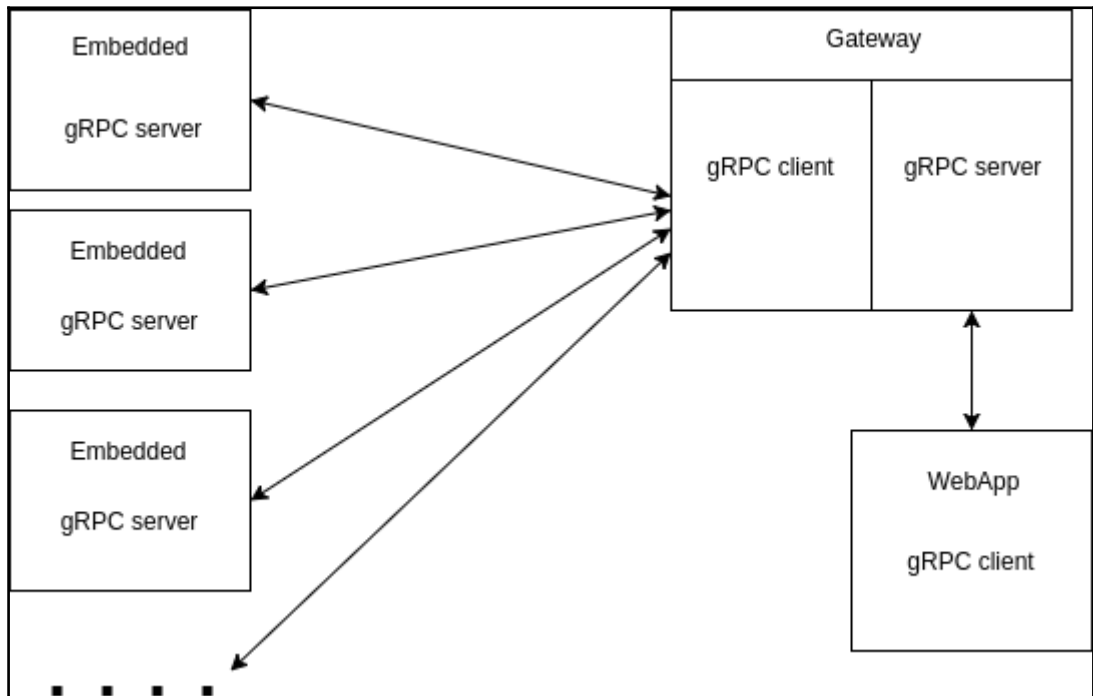
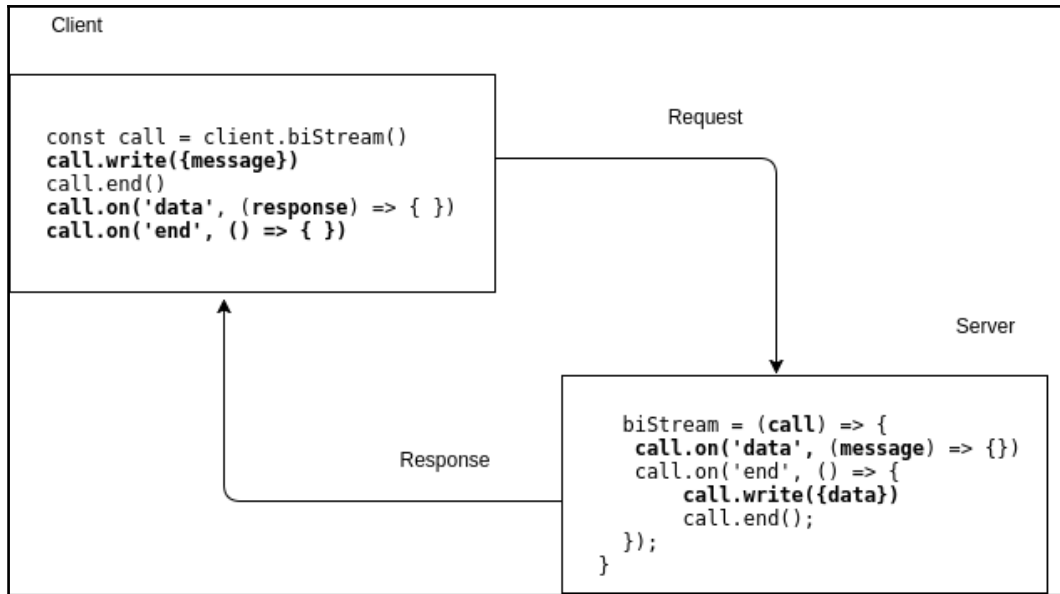
Chapter 9: Build Internet of Things Platform



```
└─ GRPC_INTRO
  └─ node_modules
    └─ client.js
    └─ messages.proto
    └─ package.json
    └─ server.js
    └─ yarn.lock
```







```
└─ GRPC_EMBEDDED
  └─ node_modules
    └─ package.json
    └─ server.js
    └─ temperature.proto
    └─ yarn.lock
```

```
└─ GRPC_GATEWAY
  └─ cassandra
    └─ scripts.js
  └─ grpc
    └─ client.js
    └─ server.js
  └─ node_modules
  └─ protos
    └─ cloud_service.proto
    └─ temperature.proto
  └─ .babelrc
  └─ index.js
  └─ package.json
  └─ yarn.lock
```

```
server
├── api
│   └── schema.js
├── collections
│   └── temperature.js
├── grpc
│   └── cloud_service.js
├── protos
│   └── cloud_service.proto
├── main.js
├── .gitignore
└── package.json
```

