

Julian Tiemann und Hannes Kuhlmann



Real-Time Anwendungen mit React und React Native entwickeln

JavaScript

Moin!



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Developer



Baqend Platform
Speed Kit Plugin



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React

- Library für **Frontend** Applikationen – Batteries not included
- Entwickelt von Facebook seit 2011
- JavaScript Syntax Extension als Templatelanguage
- 15.0.0 seit 7. April 2016
- 16.0.0 seit Dienstag mit MIT-Lizenz



Warum React?

- Schnell
 - Virtual DOM und DOM Diffing
 - Selektive Aktualisierung des DOMs
- 161.7 kb (49.8 kb gzipped) => 109 kb (34.8 kb gzipped)
- React + ReactDOM (ReactDOMServer, React-Native)
- Decoupling durch Components
 - Einfaches testen



Top

Ask

65

[How to keep the information on your Macbook safe](#)

Tim Buktu | 3 answers

25

[How did you 'do things that don't scale' for your B2B startup?](#)

Sergey Fährllich | 0 answers

9

[What books and blogs are best to learn about hardware manufacturing?](#)

Julian | 0 answers

<https://ct17.baqend.com/>

<https://expo.io/>

React Component

```
class QuestionList extends React.Component {  
  constructor(props) {  
    super(props)  
    this.state = {  
      questions: []  
    }  
  }  
  
  componentWillMount() {  
    //Do Stuff  
  }  
  
  componentWillUnmount() {  
    //Do More Stuff  
  }  
  
  render() {  
    return (  
      <QuestionListComponent questions={this.state.questions} />  
    )  
  }  
}
```

Component Composition

- **Smart (Container)**
 - “Controller”
 - Lädt und stellt Daten zur Verfügung
 - Kein DOM Markup
- **Dumb (Presentational)**
 - “View”
 - Props, Daten und Callbacks
 - Keine Abhängigkeiten zur App
 - Nur UI-State

Expressions

```
{question.answers ? question.answers.length : 0}
```

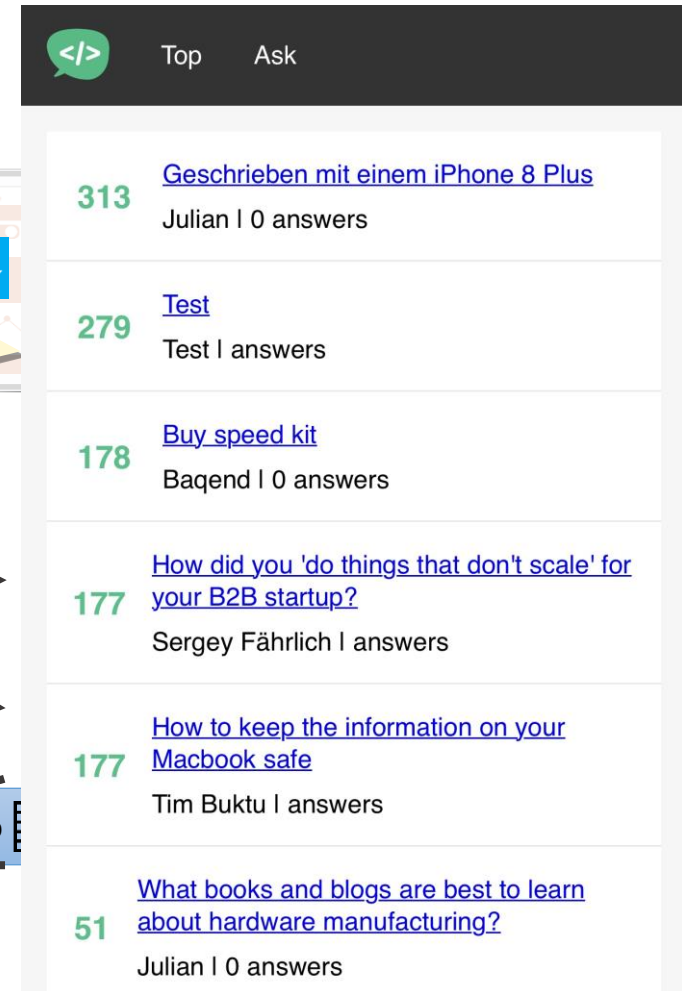
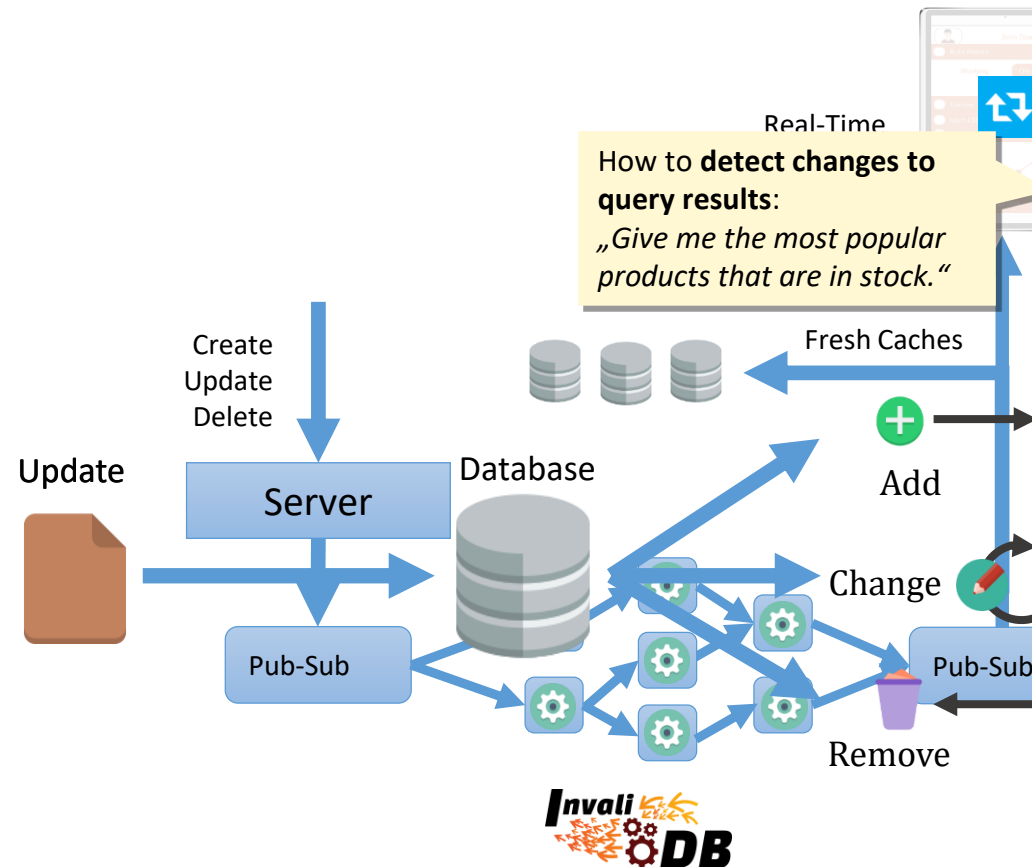
```
{answers.map((answer) => (  
  <div key={answer.key}>  
    {answer.upvotes}  
    <div>  
      <div>  
        {answer.author}  
      </div>  
      {answer.text}  
    </div>  
  </div>  
)) }
```


Event Handling

```
<form onSubmit={this.handleSubmit}>
  <label>
    Name:
    <input type="text" value={this.state.value} onChange={this.handleChange} />
  </label>
  <input type="submit" value="Submit" />
</form>
```

```
<div className="upvotes" onClick={() => this.handleUpvoteAnswer(answer)}>
  {answer.upvotes}
</div>
```

Baqend Realtime



Router

- Nicht offiziell
- <https://github.com/ReactTraining/react-router>

```
<Router>
  <div className="app">
    <Route exact path="/" component={QuestionList}/>
    <Route exact path="/create" component={QuestionCreate}/>
    <Route path="/item/:id" component={QuestionDetails}/>
  </div>
</Router>
```

Router Navigation

- Link Component

```
<div>
  <Link to="/">Home</Link>
  <Link to="/create">New Question</Link>
</div>
```

- Higher Order Navigation Component

```
class QuestionCreateComponent extends Component {
  onSubmit() {
    const { history } = this.props
    history.push('/')
  }
}
export default withRouter(QuestionCreateComponent)
```

React Native

- Native Apps mit React
- React Native Bridge
- JavaScript Core Framework
- Eigene JSX Components => Native Components
- Logik in JavaScript

React Native View

```
<TouchableHighlight onPress={this.handleUpvote}>
  <View style={styles.upvotes}>
    <Text style={styles.score}>
      {question.upvotes}
    </Text>
  </View>
</TouchableHighlight>
```

```
const styles = StyleSheet.create({
  upvotes: {
    justifyContent: 'center',
    alignItems: 'center',
    alignSelf: 'stretch',
    flexDirection: 'row',
    padding: 16,
    width: 72,
    flex: 1
  }
})
```





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