

Use Higher Order Components (HOCs) and Render Props with Course Takeaways



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HOCs and Render Props have
common goals but different
implementations



HOCs Versus Render Props

HOC

Render Props

HOCs Versus Render Props

HOC

```
const Speakers =  
  ({ speakers }) => {  
    return <div>{speakers}...</div>  
  }  
  
export default withData()(Speakers)
```

Render Props

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  ({ speakers }) => {  
    return <div>{speakers}...</div>  
  }  
  
export default withRouter(Speakers)
```

Render Props

```
const Speakers = () => {  
  return (<MyRP>  
    ({ speakers }) => {  
      return <div>{speakers}...</div>  
    }  
  </MyRP> )  
  
  export default Speakers
```

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```
const Speakers =  
  ({ speakers }) => {  
    return <div>{speakers}...</div>  
  }  
  
export default withRouter(Speakers)
```

Render Props

```
const Speakers = () => {  
  return (<MyRP>  
    ({ speakers }) => {  
      return <div>{speakers}...</div>  
    }  
  </MyRP>)  
  
  export default Speakers
```

HOCs Versus Render Props

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const Speakers =  
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Render Props

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const Speakers = () => {  
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    ({ speakers }) => {  
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HOCs Versus Render Props

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```


Higher Order Component (HOC)

a higher-order component is a function that takes a component and returns a new component.

```
const EnhancedComponent =  
  higherOrderComponent(WrappedComponent);
```



Render Props

A component with a render prop takes a function that returns a React element and calls it instead of implementing its own render logic.



Combining HOCs with React
Context is very powerful



Higher Order Components

Downside

Naming collisions are possible if HOC returns props that are named the same as existing receiving props to a component

Upside

Implementation details are invisible to the consumer of the HOC



Building an Authentication Example

Higher Order Component

Gives components easy access to authentication details

React Context API

Gives authentication HOC a place to store information shared between components



Powerful Combination

HOCs

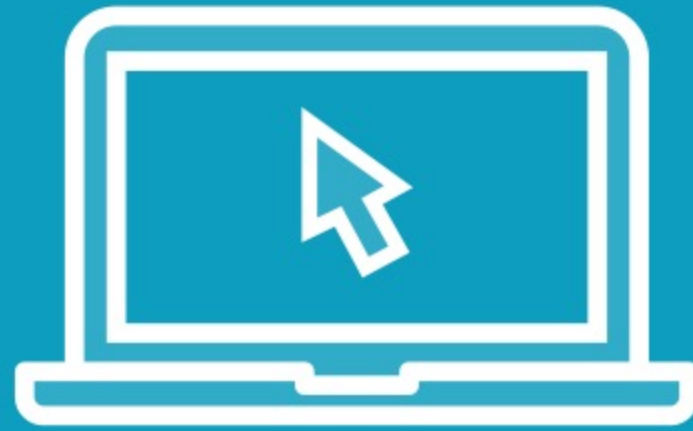
**Higher order components
hide implementation details**

Context API

**Add create and delete
operations to our custom
React hook**



Demo



The parts needed for HOC and Context

AuthContext

App

withAuth

Components to update

Header

SpeakerAdd



Demo



Course Summary



**Components bring together everything
about a React app**

All about component communications

Continue to provide feedback

peterkellner.net

[github repo](#)

[Course discussions](#)

