React Hooks

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Agenda

- Hooks vs HOCs - what's the point?
  - (Note the amazing wordplay in the previous bullet)
- Standard hooks
- Custom hooks
- Hooks in 3rd party libraries

What's the point of React Hooks?

- React has a functional structure with a side-effect free rendering mechanism
- Preference for functional component implementation
  - Class-based components still remain available!
- HOCs always supported for modularization
- Complex class and HOC structures end up with deep nesting
- Hooks: functional state management based on closures
- Popular by now in other JS-based environments

The Hook Rules

```
const MyComponent = () => {
  // Only use hook calls at the top level (that's rule 1)
  // of React functions (that's rule 2).
  // Note that "React functions" include custom hooks.

  const [val, setVal] = useState();

  return <div>Val is {val}</div>;
};
```

Demo

Classes, HOCs, and Hooks

Custom Hooks

Standard Hooks

- `useState` - simple state management
- `useEffect` - run imperative code when deps change
- `useContext` - access React context
- `useReducer` - advanced state management
- `useMemo` - memoize a value and recalculate when deps change
- `useCallback` - memoization helper for functions, simplify syntax just a little over `useMemo`

- `useRef` - "local variable", often used with refs
- `useImperativeHandle` - special support for forward refs
- `useLayoutEffect` - special variant of `useEffect` for synchronous effects
- `useDebugValue` - add debug label to custom hook

Hooks in 3rd party libraries

- 3rd party libraries started adopting hooks quickly

- Most current libraries now offer hooks as an alternative to their old APIs

- Examples coming up: Material UI and Redux

Demo

Standard and 3rd Party Hooks

Sources

- This presentation:
  https://oliversturm.github.io/react-hooks/

- Repository with sample code:
  https://github.com/oliversturm/react-hooks

- PDF download:
  https://oliversturm.github.io/react-hooks/slides.pdf

Thank You

Please feel free to contact me about the content anytime.

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