# 1. A Roadmap for React

-All essential **popular libraries**: <https://www.robinwieruch.de/react-libraries>

+**React Router**: <https://www.robinwieruch.de/react-router/>

+**React Table Library**: <https://www.robinwieruch.de/react-table-component/>

-Advanced Feature: React Context

+React Context: <https://www.robinwieruch.de/react-context/>

+React’s useContext Hook: <https://www.robinwieruch.de/react-usecontext-hook/>

+Advanced pattern by combining multiple hooks: <https://www.robinwieruch.de/react-state-usereducer-usestate-usecontext/>

-Patterns for components:

+Component composition: <https://www.robinwieruch.de/react-component-composition/>

+Reusable components: <https://www.robinwieruch.de/react-reusable-components/>

+React Render Prop Components: <https://www.robinwieruch.de/react-render-props/>

+React Higher-Order Components: <https://www.robinwieruch.de/react-higher-order-components/>

-Set up project from scratch: <https://www.robinwieruch.de/minimal-react-webpack-babel-setup/>

-The path: All chapters will build upon the current app. No other chap will inherit changes from other chapter.

A diagram of a process

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# 2. React’s Legacy

## 2.1 React Class Component

-React components have many changes: createClass components->class components->function component

-Class component is JS class with a mandatory render method that returns JSX. The class extends from React.Component to inherit all React component features. Props are accessed via class instance (this) in any class method (e.g. render)

A screen shot of a computer program

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-With React Hooks, function components were granted the same features as class components with state and side-effects.

-Read more: Class component:

<https://www.robinwieruch.de/react-hooks-migration/>

<https://bit.ly/3lYzrfT>

<https://bit.ly/3FXUibf>

https://www.robinwieruch.de/react-component-types/

## 2.2 React Class Components: State

-With class constructor, we can set an initial state for component. Component’s instance (this) give access to current state (this.state) and state updater method (this.setState)

A screen shot of a computer code

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A computer code on a white background

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-In class component, this.state and this.setState to manage state. In function component, use usetState() and useReducer() hooks

## 2.3 Imperative React

-ref and its usage had few versions

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# 3. Styling in React

## 3.1 CSS in React

## 3.2 CSS Module in React

## 3.3 Styled Components in React

## 3.4 SVGs in React

# 4. React Maintenance

## 4.1 Performance in React (Advanced)

## 4.2 TypeScript in React

## 4.3 Testing in React

## 4.4 React Project Structure

# 5. Real World React (Advanced)

## 5.1 Sorting

## 5.2 Reverse Sort

## 5.3 Remember Last Searches

## 5.4 Paginated Fetch

# 6. Deploying a React Application

## 6.1 Build Process

## 6.2 Deploy to Firebase

# 7. Outline

-Routing: <https://www.robinwieruch.de/react-router/>

-Connect to Database and/or Authentication: <https://www.roadtofirebase.com/>

-Connect to Backend: <https://www.roadtofirebase.com/>

-State Management: https://www.roadtoredux.com/