

Title: What is prop drilling and how can you avoid it?

Answer:

React passes data to child components via props from top to bottom. While there are few props or child components, it is easy to manage and pass down data. But when the application grows, and want to pass data from the top level component to a 3rd or 4th level level component but we end up passing these data to components on each level of the tree. This is called **Prop-drilling**.

Context API

The Context API solves some of these prop drilling problems. It let pass data to all of the components in the tree without writing them manually in each of them. Shared data can be anything: state, functions, objects, we name it, and it is accessible to all nested levels that are in the scope of the context.

Example:

```
import React from "react"
import ReactDOM from "react-dom"

// Create a Context
const NumberContext = React.createContext()
// It returns an object with 2 values:
// { Provider, Consumer }

function App() {
  // Use the Provider to make a value available to all
  // children and grandchildren
  return (
    <NumberContext.Provider value={10}>
      <div>
        <Display />
      </div>
    </NumberContext.Provider>
  )
}

function Display() {
  const value = useContext(NumberContext)
  return <div>The answer is {value}</div>
}
```

Tags: react-hooks