

# Improving React Performance with useMemo, memo and useCallback

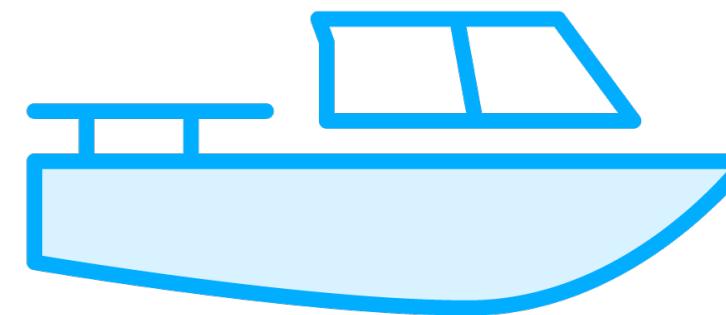


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# React Is Fast by Default



**React well architected**

**React optimizes rendering automatically**

**React functions used in optimization**

- useMemo
- useCallback
- memo



# Two React Hooks Used to Improve Performance

- Reducing the amount of work in a render
- Reducing the number of re-renders



# Two React Hooks Used to Improve Performance

## useMemo

Caches the result of calculation  
between renders

## useCallback

Caches a function definition  
between renders



# One React Method Used to Improve Performance

**memo**

Keeps components from re-rendering when props are unchanged



## **useMemo**

**Caches the result of calculation between renders**

## **useCallback**

**Caches a function definition between renders**

## **memo**

**Keeps components from re-rendering when props are unchanged**



# Takeaways

**React optimizations are usually not necessary**

**When needed, functions provided**

- useMemo
- useCallback
- memo



**Up Next:**

# **Improve UI Experience with useTransition, useDeferredValue and Course Takeaways**

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