

Day - 4

## \* How re-rendering works with Context

→ When a component consumes some context value and the value of this context changes, that component re-renders.

→ When it comes to the default behavior of React rendering, if a component renders, React will recursively re-render all its children regardless of props or context.

e.g. Top level component injects a context provider at the top.

```
⇒ function App() {
  return (
    <AppContext.Provider>
      <CompA />
    </AppC.Pro.>
  )
}
```

```
const CompA = () ⇒ <CompB />
```

```
const CompB = () ⇒ <CompC />
```

```
const CompC = () ⇒ null
```

} functions  
same  
as

```
func CompA() { ... }
```

Now, if App re-renders, A, B, C all three will re-render as well.

App(Context Provider) → A → B → C



If the components are complex in nature, this could result in performance hit.

→ How to solve this issue?

⇓  
React.memo() & useMemo hook

\* React.memo()

→ If your component renders the same result given the same props, you can wrap it in a call to React.memo() for a performance boost by memoizing the result.

→ Memoization is a programming technique that accelerates performance by caching the return values of expensive func. calls.

→ This means that React will skip rendering the component, and reuse the last rendered result.

\* useMemo()

→ Used for caching a specific calculation or value accepts 2 arguments

→ const memoized = useMemo(compute, dependencies)

(More about hooks in next module)