

# Using Hooks with TypeScript

---



**Mat Warger**  
Software Consultant

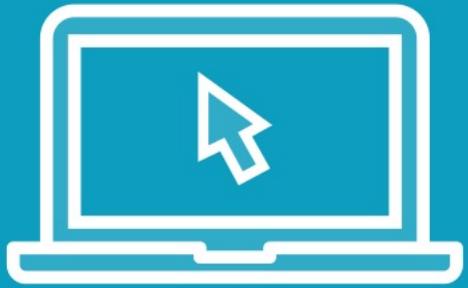
@mwarger mw.codes

# Overview



- State, context, side-effects
- Composing custom hooks
- Type-safe interactions using TypeScript

# Demo



- **TypeScript conversion**
  - **useState and Context**
  - **useEffect**
  - **useReducer and useRef**
  - **Working with APIs**

# Using useState

---

# Using Context

---

# Using useEffect

---

# Using useReducer and useRef

---

# Working with APIs

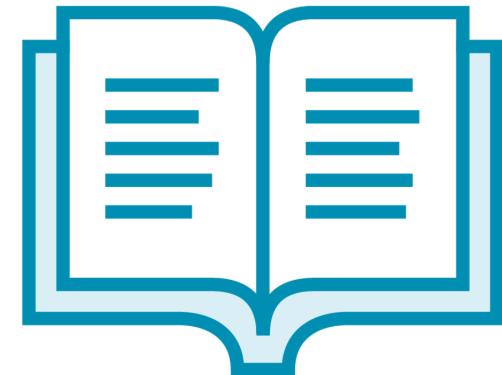
---

# Data Issues



## Shape-shifting

**Data structures change, items move or disappear**



## Documentation

**Docs easily become outdated or otherwise difficult to synchronize**

# Type Generation for APIs

**GraphQL**

Apollo CLI

`graphql-codegen`

**REST**

quicktype

# Summary



- **Hooks and TypeScript**
  - **Strongly-typed state and context**
  - **useEffect with const assertions**
  - **useRef, reducers, and the keyof operator**
  - **Strict types for application data with help from codegen tools**

## Feedback

**Questions or feedback in the discussion tab**

**Leave a star rating**

**Share this course with your team**

@mwarger  
mw.codes  
[github.com/mwarger](https://github.com/mwarger)