React code smells

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Agenda

- Complex components
- Component and code duplication
- Not using the "derived state"
- Unhandled state and errors
- Components with too many props
- Prop drilling

Rules

Feel free to interrupt me for:

- questions
- relevant comments

Complex components

- != seperation of concerns
- != easy to reuse
- != good structure
- != predictable

How to fix complex components

- split them in stateful and stateless components
- create flexible and re-usable components
- create re-usable hooks
- use contextAPI / global state (later Code example)

Code example

Component and code duplication

- bad abstractions
- not DRY
- adds complexity and bugs to our code
- not easy to refactor

How to fix code duplication

- seperation of concerns
- build flexible and re-usable components
- re-usable helper functions

Code example

Use derived state

- easier to undestand code
- less side effects (useEffects) and state (useState)
- cleaner components

Code example

Unhandled state and errors

- avoid breaking / freezing the application
- provide a better and clearer UX
- give visual feedback to the user

How to fix unhandled state and errors

- handle all posible errors (especially network errors)
- handle all state values

Code example

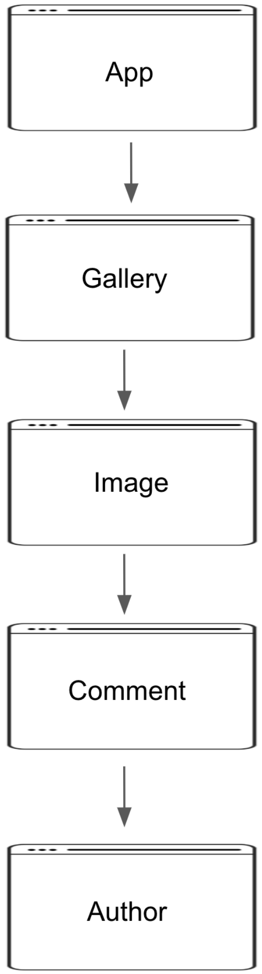
Components with too many props

- harder to read and maintain
- harder to compose

How to fix components with too many props

- create and compose smaller components

Prop drilling



App

Gallery

Image

Comment

Author

```
<Gallery user={user} avatar={avatar} />

<Image user={user} avatar={avatar} />

<Comment user={user} avatar={avatar} />

<Author user={user} avatar={avatar} />
```

How to fix prop drilling

- react Context API
- global state (redux, recoil, zustand, jotai, MobX, etc.)

Code example

Recap

- Complex components
- Component and code duplication
- Not using the "derived state"
- Unhandled state and errors
- Components with too many props
- Prop drilling

That's all folks

Questions / Discussions?