Application Design

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Application design:
a continuous process

The Mock

GLOBOMANTICS

Providing houses all over the world

Houses currently on the market

Address	Country	Asking Price
12 Valley of Kings, Geneva	Switzerland	$900,000
89 Road of Forks, Bern	Switzerland	$500,000

Design Decisions

No hard rules

Often designer/team decision

Components that do too much are unwanted

Design is a living thing

The Mock: House Composition

1. Break up Into a Component Hierarchy

- App
  - Banner
  - HouseList
    - HouseRow
  - House
    - BidList
    - AddBid

File Structure

components
   app.js
   houseList.js
   house.js

   ...
helpers
   currencyFormatter.js
   loadingStatus.js
   navValues.js

   ...
hooks
   useHouses.js
   useBids.js
   useGetRequest.js

File Structure

app.js
houses
    houseList.js
    house.js
    useHouses.js
    useBids.js

     ...

customers
    customerList.js
    useCustomers.js

    ...

common
    currencyFormatter.js
    loadingStatus.js
    navValues.js
    useGetRequest.js

    ...

File Structure

app.js
houses
    index.js   ➡️   import HouseList from "./houses"
    house.js
    useHouses.js
    useBids.js
    ...
customers
    index.js   ➡️   import CustomerList from "./customers"
    useCustomers.js
    ...
common
    currencyFormatter.js
    loadingStatus.js
    navValues.js
    useGetRequest.js
    ...

Determining a File Structure

React doesn't have an opinion

Choose something that works for the application at hand

Limit to 3 or 4 directory levels

Create a First Application Version

No interactivity support

Without state

Just props

In-memory data source

When Application Data is a State Candidate

It is **not** passed in by the parent via a prop

It changes over time

It can **not** be computed

Determining Application State

Houses	Yes
House count	No
Default house photo	No
Bids	Yes
New Bid	Yes

There is only one component
that owns the state

Placing State

- App
    - Banner
    - HouseList
        - HouseRow
    - House
        - BidList
        - AddBid

How to Apply State?

useState

Custom hook

Context

Applying State

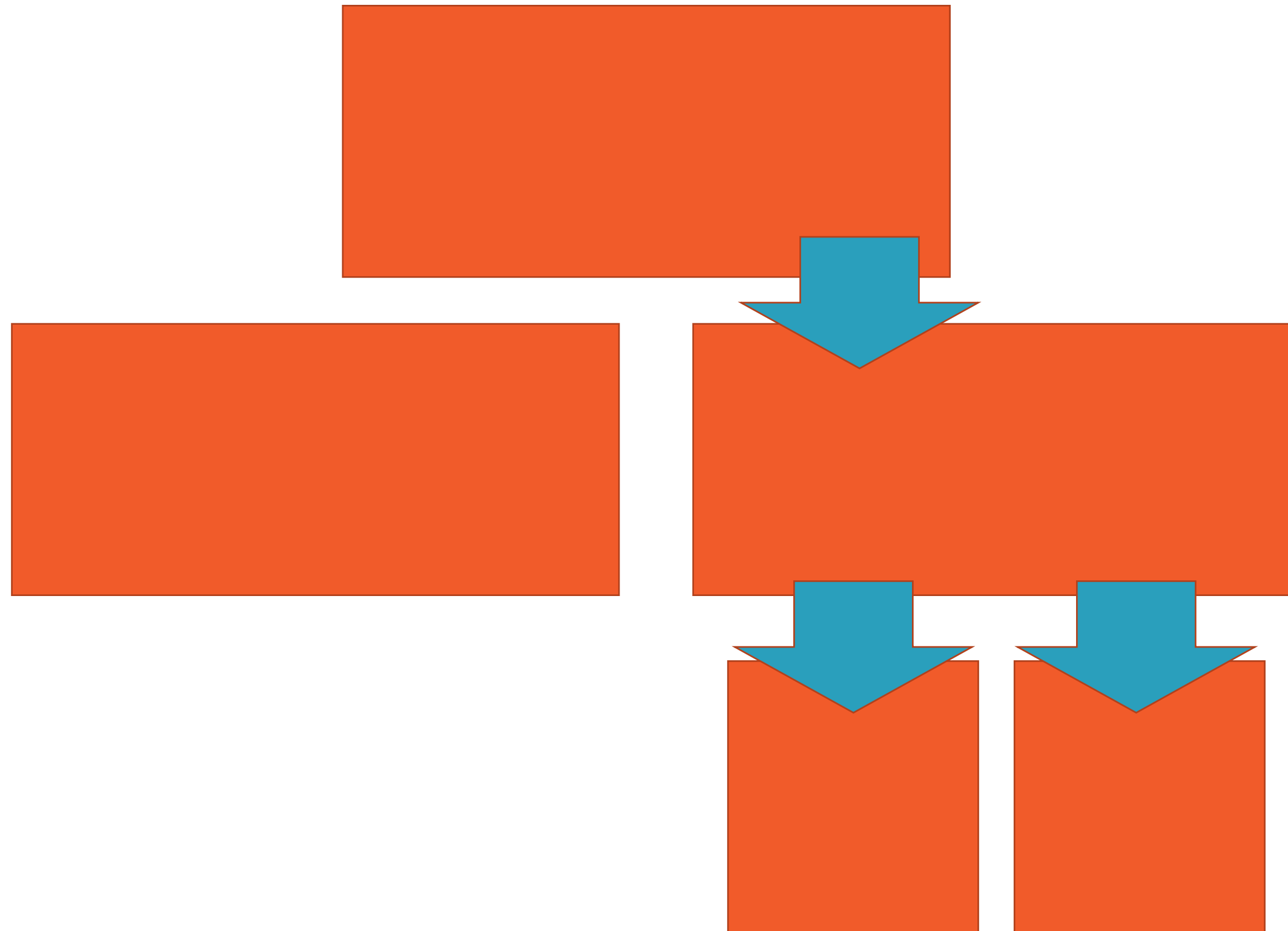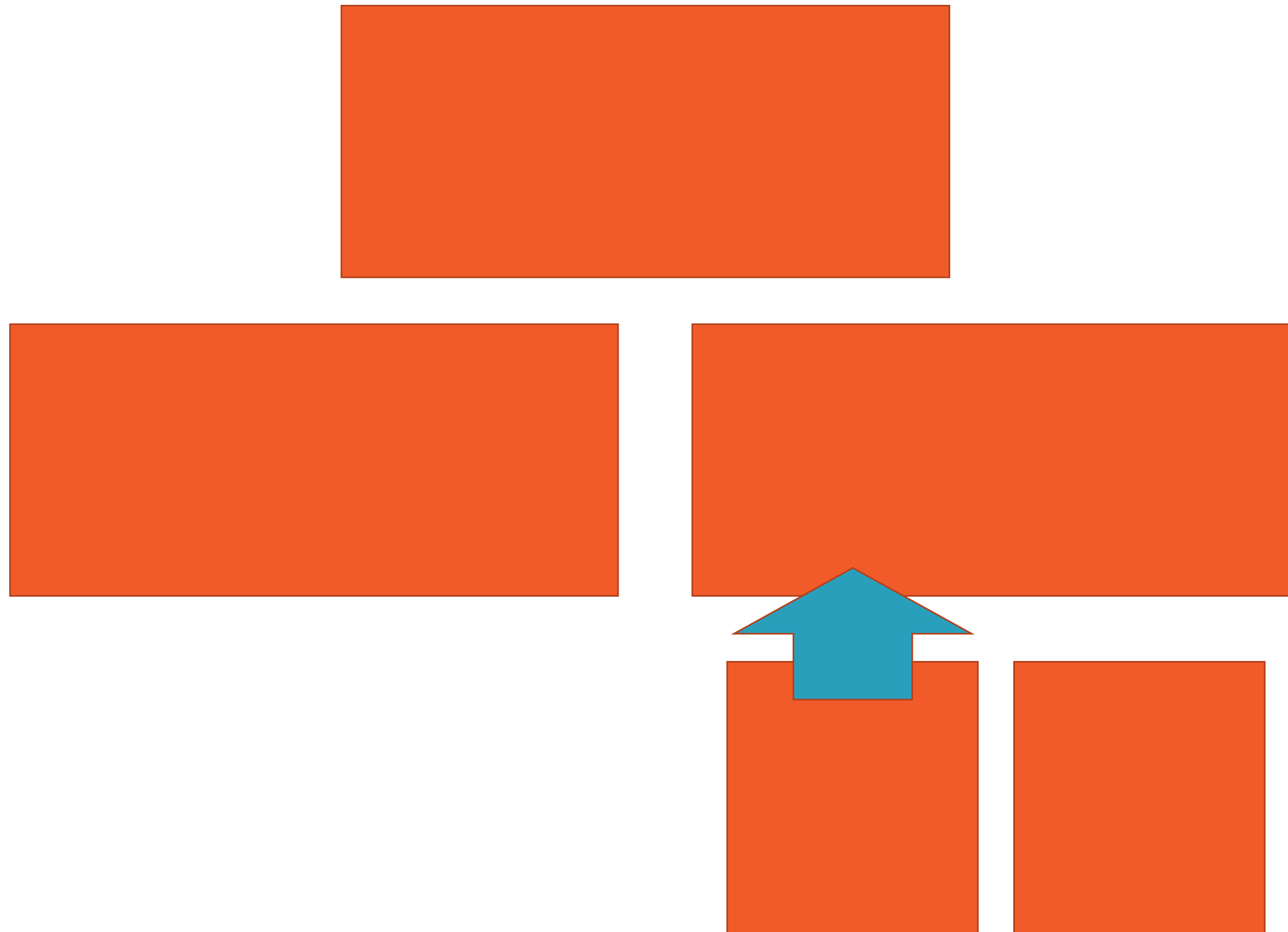|		
What	**Where**	**How**

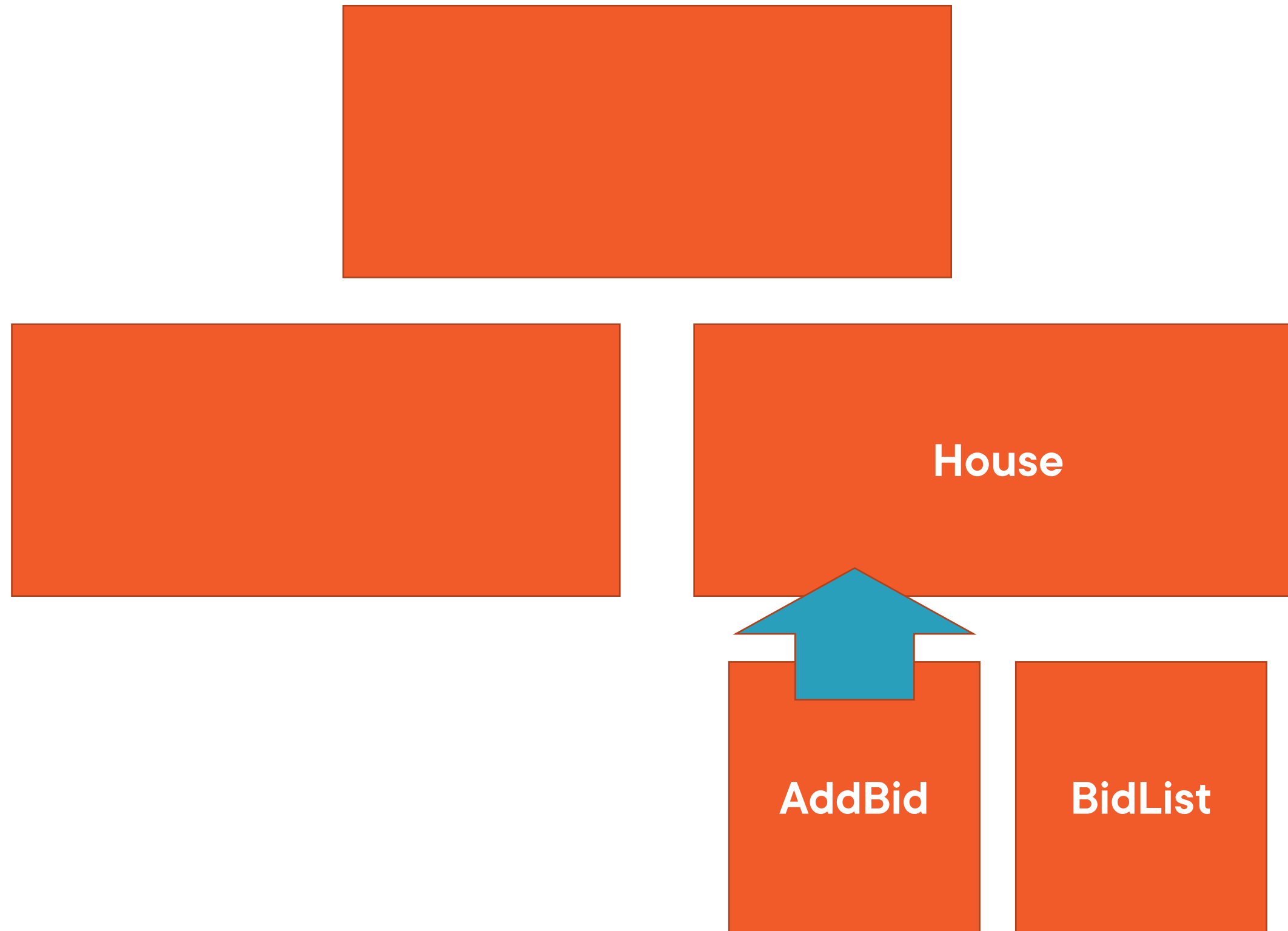# React's Data Flow

Inversing Data Flow

Inversing Data Flow

Implementing Design Changes

- App
    - Banner
    - HouseList
        - HouseRow
    - House
        - BidList
        - AddBid

Where to Go Next

Practice fundamentals first

Create an application by yourself

Design first

Advanced courses

Related Topics

TypeScript

Redux

React Query

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Thanks!

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