_nology

TALENT IN **TECH**NICOLOUR

React Props

Learning Objectives

- What are props and how can we pass them around.
- How data flows in a React Application
- What is object destructuring.
- How to install and use React dev tools.

Props

Dynamic Data

Component Tree

"Properties"

Parent / Child

Unidirectional

Props

- Short for properties
- Passes data between components
- Create dynamic components that display "props" passed to them
- If our components are functions, props are the parameters to the function

```
const Welcome => (props) {
  return <h1>Hello, {props.name}</h1>;
}

const App = () => {
  return (
    <div>
      <Welcome name="Andy" />
      <Welcome name="Sam" />
      <Welcome name="Matt" />
    </div>
  );
}
```

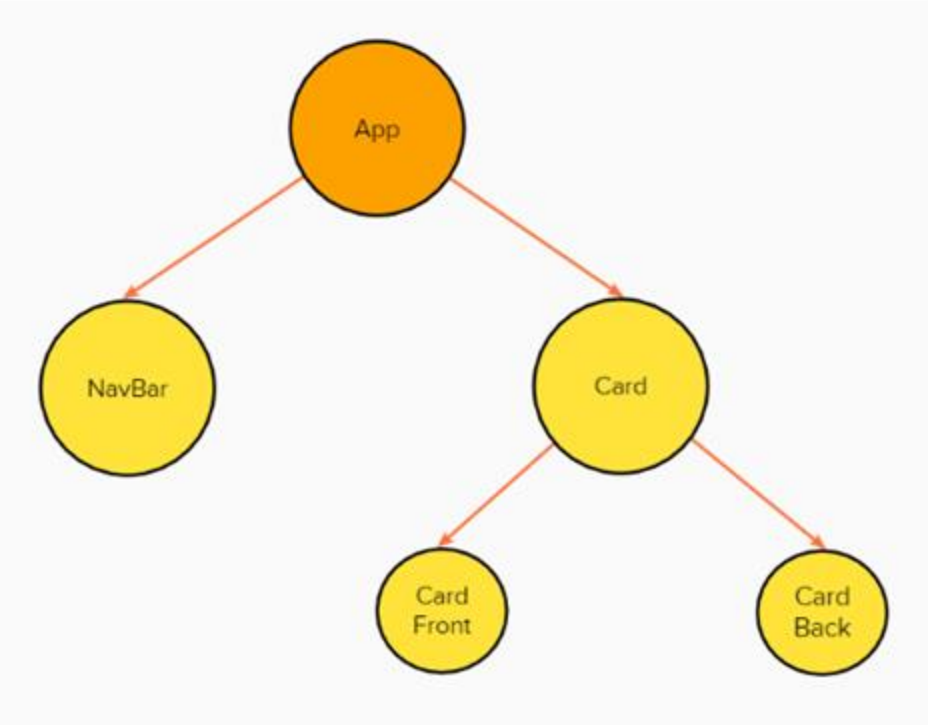
Mealworm Hierarchy

App is on top.

Every Arrow is a prop.

New parent & child / container & component relationship.

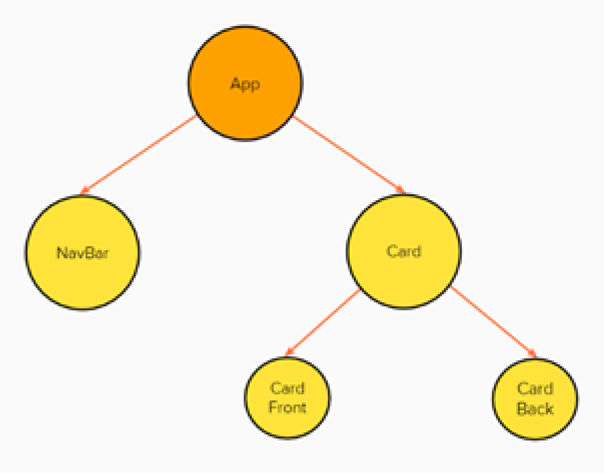
Which way is the data/ props flowing through the application?

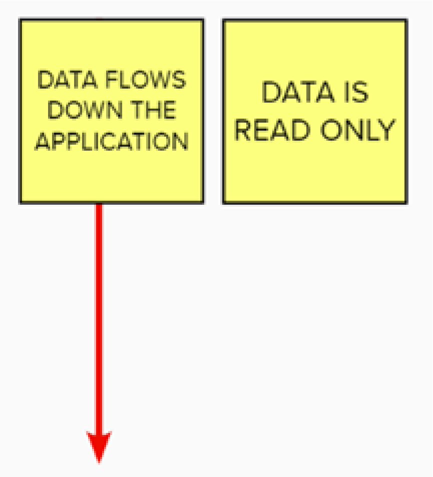

App
NavBar
Card
Card Front
Card Back

Data Flow

Unidirectional / One way / Top-To-Bottom Flow.

React's data flow between components is unidirectional (from parent to child only)... so is imported as the highest level that is necessary, then passes down through the levels

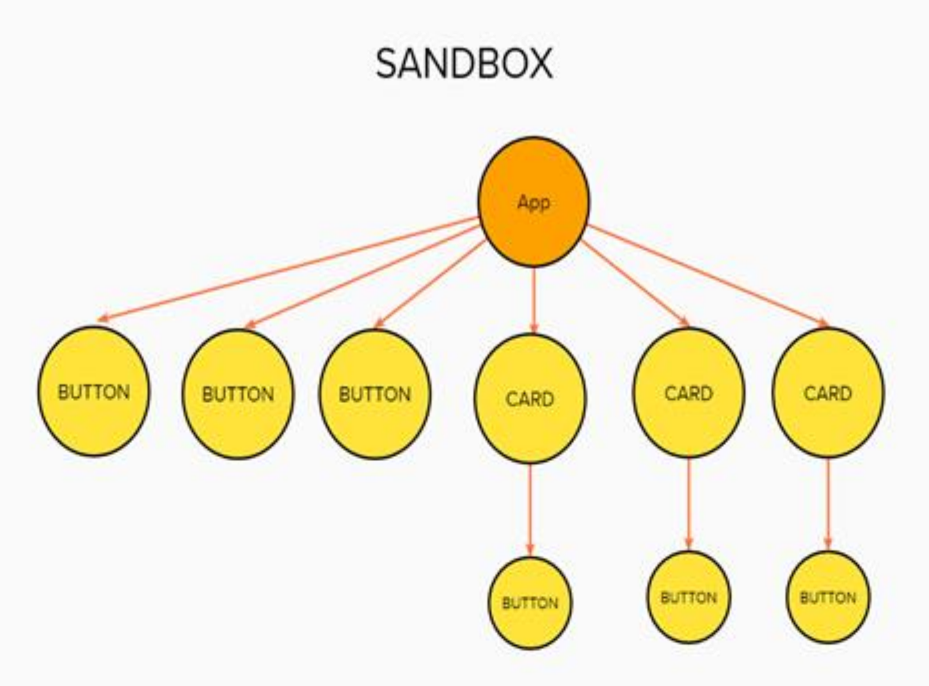

App
NavBar
Card
Card Front
Card Back


DATA FLOWS DOWN THE APPLICATION
DATA IS READ ONLY

Code along - Sandbox

1. How to use props.
2. How to conditionally render a component based on props.
3. Object destructuring.
4. Pass an object into the card component.

Challenge .. Use the object you have just passed into the card to populate it with the data from the object.


SANDBOX
App
BUTTON
BUTTON
BUTTON
CARD
CARD
CARD
BUTTON
BUTTON
BUTTON

Code along - Mealworm

Install the React Devtools Extension => React Developer Tools for Chrome

Edit the Card front component so that is takes in a recipe object as props.

- Edit the CardFront component so that it takes in a recipe Object as props
- Destructure the recipe object in the render method
- Replace hard coded CardFont data with recipe info passed in as props
- Pass recipes[1] in as props from App.jsx

Additional Reading

- https://chrome.google.com/webstore/detail/react-developer-tools/fmkadmapgofadopljbjfkapdkoienihi?hl=en
- https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Destructuring_assignment
- https://reactjs.org/docs/components-and-props.html