

49-2 What is JSX, React Component, babel transpiler

Passing Props to a Component

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Step 1: Pass props to the child component

```
export default function Profile() {  
  return (  
    <Avatar  
      person={{ name: 'Lin Lanying', imageId: '1bX5QH6' }}  
      size={100}  
    />  
  );  
}
```

Step 2: Read props inside the child component

```
function Avatar({ person, size }) {  
  // person and size are available here  
}
```

Forwarding props with the JSX spread syntax

```
function Profile({ person, size, isSepia, thickBorder })  
  return (  
    <div className="card">  
      <Avatar  
        person={person}  
        size={size}  
        isSepia={isSepia}  
        thickBorder={thickBorder}  
      />  
    </div>  
  );  
}
```

Passing JSX as children

```
<div>  
  <img />  
</div>
```

How props change over time

```
export default function Clock({ color, time })  
  return (  
    <h1 style={{ color: color }}>  
      {time}  
    </h1>  
  );  
}
```

Conditionally returning JSX

```
function Item({ name, isPacked }) {  
  return <li className="item">{name}</li>  
}
```

```
export default function PackingList() {  
  return (  
    <section>  
      <h1>Sally Ride's Packing List</h1>  
      <ul>  
        <Item  
          isPacked={true}  
          name="Space suit"        >  
      </ul>  
    </section>  
  )  
}
```


Conditionally returning JSX

```
    />  
    <Item  
      isPacked={true}  
      name="Helmet with a golden leaf"  
    />  
    <Item  
      isPacked={false}  
      name="Photo of Tam"  
    />  
  </ul>  
</section>  
) ;  
}
```

Conditionally including JSX

```
if (isPacked) {  
  return <li className="item">{name} ✓</li>;  
}  
return <li className="item">{name}</li>;
```

Logical AND operator (&&)

```
return (  
    <li className="item">  
        {name} {isPacked && '✓'}  
    </li>  
);
```

Rendering Lists

```
<ul>  
  <li>Creola Katherine Johnson: mathematician</li>  
  <li>Mario José Molina-Pasquel Henríquez: chemist</li>  
  <li>Mohammad Abdus Salam: physicist</li>  
  <li>Percy Lavon Julian: chemist</li>  
  <li>Subrahmanyan Chandrasekhar: astrophysicist</li>  
</ul>
```

Adding Interactivity

```
export default function App() {  
  return (  
    <Toolbar  
      onPlayMovie={() => alert('Playing!')}  
      onUploadImage={() => alert('Uploading!')}  
    />  
  );  
}
```

```
function Toolbar({ onPlayMovie, onUploadImage }) {  
  return (  
    <div>
```

Adding Interactivity

```
<div>  
  <Button onClick={onPlayMovie}>  
    Play Movie  
  </Button>  
  <Button onClick={onUploadImage}>  
    Upload Image  
  </Button>  
</div>  
) ;
```

```
}
```

Managing State

```
function Button({ onClick, children }) {  
  return (  
    <button onClick={onClick}>  
      {children}  
    </button>  
  );  
}
```

Escape Hatches

```
import { useRef } from 'react';
```

```
export default function Counter() {  
  let ref = useRef(0);
```

```
  function handleClick() {  
    ref.current = ref.current + 1;  
    alert('You clicked ' + ref.current + ' times!')  
  }
```