JSX

JSX

```tsx
// some-code.tsx

const message = "Hello, world!"
const foo: JSX.Element =
    <div id="foo" className={someString}>{message}</div>
```

- A file extension: `tsx` for TypeScript.

- A syntax for building trees: `<div>Hello!</div>`

- With built-in interpolation syntax: `{foo}` interpolates the variable foo for either content or property values.

- Which returns a new type: `JSX.Element`

- An integration with a library: The syntax translates to a function call of your choice to work with React or other libraries.

Food Truck Receipt

- Entrees, toppings, proteins get emoji icons.

- Pricey proteins get a crown next to them.

- Awesome sauce gets a nuclear icon.

- Any line item with awesome sauce is mind-blowing, and therefore gets an emoji backdrop.

- Display a subtotal, tip, and total.

Order Summary

🌮 **Taco**

👑 🐷 Carnitas
💃 Salsa   😻
🌮 Extra Taco
☢️ **Awesome Sauce**

Total: $11

🍞 **Sandwich**

🐔 Chicken
🥗 Lettuce
🍅 Tomato

Total: $5

Subtotal: $16
Tip: $4

Total: $20.00

Storybook

`npm run exercise-4`

Browse `http://localhost:6006`

React Components

```
const motivation =
    <MyComponent name="Drew" />
```

React Components

```
const motivation =
    <MyComponent name="Drew" />

// --------------------------------

type MyComponentProps = { name: string };

const MyComponent: React.SFC<MyComponentProps> = props =>
    <div>Hello {props.name}!</div>
```

React Components

```typescript
type MyComponentProps = { name: string };

const MyComponent: React.SFC<MyComponentProps> = props =>
    <div>Hello {name}!</div>

const ex1 =
    <MyComponent name="Drew" />

const aName = "Rachael";
const b = <MyComponent name={aName} />

const invalid = <MyComponent name={1} />
// Type Error!
```

Prop Types

```
export interface ReceiptProps {
  items: ItemSummaryProps[];
  subtotal: number;
  tip: number;
  total: number;
}
export interface ItemSummaryProps {
  entreeType: EntreeType;
  additions: AdditionSummaryProps[];
  mindBlowing: boolean;
  itemTotal: number;
}
export interface AdditionSummaryProps {
  annotation?: Annotation; // Pricey or nuclear?
  additionType: AllComponents;
}
export enum Annotation {
  Pricey = "Pricey",
  Nuclear = "Nuclear"
}
```

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References

- Introducing JSX - https://reactjs.org/docs/introducing-jsx.html

- Lists and Keys - https://reactjs.org/docs/lists-and-keys.html

- Git book:
  https://basarat.gitbooks.io/typescript/content/docs/jsx/tsx.html