

Day-7

## \* JSX, Components and Elements

- JSX is a Syntax extension to Javascript.
- React uses JSX to describe UI appearance.
- Component: Combines markup and business logic
- Tree of Components:
  - Component
  - Comp.
  - Comp.
  - Comp.
- The final web pages React produces is nothing but pure HTML, CSS and JS.

→ JSX:

```
const buttonTitle = 'Submit'
return (
  <button className="">
    <span>
      {buttonTitle}
    </span>
  </button>
)
```

Element:

```
{
  type: 'button'
  props: {
    className: ''
    children: {
      type: 'span',
      children: 'Submit'
    }
  }
}
```



→ In element, each node instead of being JSX is a plain object describing a component instance or DOM node and its desired properties.

→ An element is just a way to represent the final HTML output as a plain object.

→ React : Identifies all user defined components



Converts into DOM elements



This result is known as virtual DOM

→ React transforms the JSX into an internal tree of elements, which are just Javascript objects.

## \* Component Composition with children

→ Component Composition

↓ Two main features



Containment

Refers to the fact that some components don't know their children ahead of time. Can also be described as generic boxes, like a Dialog or Alert.



Specialization

Defines component as being "special cases" of other components. For eg. Confirmation Dialog is a special case of Dialog.