

Higher-order component (HOC)

- It is an advanced pattern that emerges from React's compositional nature.
- A higher-order component is a function that takes a component and returns a new component.
- It enhances or extends the capabilities of the component provided.

```
const EnhancedComponent = higherOrderComponent
  (wrappedComponent);
```

HOC example

```
const withSubscription = (WrappedComponent, selectData) => {
  return (props) => {
    const [data, setData] = useState([])

    useEffect(() => {
      const handleChange = () => {
        const newData = selectData(dataSource, props);
        setData(newData)
      }
      dataSource.addListener(handleChange)

      return () => {
        dataSource.removeListener(handleChange)
      };
    }, []);

    return <WrappedComponent data={data} {...props}/>
  }
}
```

HOC usage e.g

```
const LiveSubscription = withSubscription(  
  live,  
  () => DataSource.getLive()  
);
```

* 10 Render props

The render props technique is so appropriately named that is almost self explanatory

It is about using a prop called render with a particular attribute that it has to be a function. To be more precise a component with render prop takes a function that returns a react element and calls that function inside its render logic.