

React Setup

```
Add Script      <script src="foo.com/react.js" crossorigin />
Add targeting div <div id="react" />
Get root Dom     root = document.getElementById("root");
Bootstrap React  ReactDOM.render(<App />, rootElement);
```

React Hooks

```
const [state, setState] = useState(initialState);
useEffect(() => { ...logic, return cleanup }, [deps]);
useMemo(() => computeExpensiveValue(a, b), [a, b]);
```

Context

```
ThemeContext = React.createContext(themes.light);
<ThemeContext.Provider value={themes.dark}>
```

```
theme = useContext(ThemeContext);
background: theme.background
```

useRef

```
const inputEl = useRef(null);
<input ref={inputEl} />
inputEl.current.focus();
```

async useEffect

```
useFetch = (param) => {
  const [state, setState] = useState([]);
  useEffect(() => {
    async function fetchData() {
      const response = await fetch('url');
      const data = await response.json();
      setState((prev) => prev.concat(data.results));
    }
    fetchData();
  }, [param]);
  return { state };
};
```

JS Arrays

```
Insert at Start  unshift()
Insert at End    push()
Insert at Location splice(start, 0, item2, itemN)
Remove First     shift()
Remove Last      pop()
Remove at Location splice(start, deleteCount)
Get parts        slice(start, end)
```

Algos

```
DFS  getNodes(root)
     [...getNodes(root.left), getNodes(root.right)]
BFS  while(queue.length)
     for(queue.length)
     node = queue.shift()
     queue.push(node.left/right)
```

Big-O

