



# Assignment 3 - Talk is Cheap, Show me the Code

Q1 Is JSX mandatory for React?

⇒ JSX is mandatory but not mandatory for using React. Each JSX element is just syntactic sugar for calling `React.createElement(component, props, ...children)`. So anything you can do with JSX can also be done with just plain JavaScript.

Q2 Is ES6 mandatory for React?

⇒ ES6 is important but not mandatory for using React. ES6 is syntactic sugar for calling `create-react-class` module

Q3 `{ TitleComponent()}` vs `{<TitleComponent/>}` vs `{<TitleComponent></TitleComponent>}`

⇒ All are same, calling a component

Q4 How can I write comments in JSX?

⇒ `{ /*  
 Write your comment here  
 */ }`

Q5 What is `<React.Fragment><|React.Fragment>` and `<></>`?

⇒ React Fragment often used via `<>...</>` syntax, lets you group elements without a wrapper node.

Eg

```
<>  
  <OneChild />  
  <Another Child />  
</>
```

Wrapper elements in `<React.Fragment>` or `<Fragment>` to group them together in situations where you need a single element. Grouping element in Fragment has no effect on the resulting DOM; it is the same as if the elements were not grouped. The empty JSX tag `<></>` is shorthand for `<Fragment></Fragment>` in most cases!



## Q6 What is Virtual Dom? What is Reconciliation?

→ The Virtual DOM <VDOM> is a programming concept where an ideal, or 'virtual' representation of a UI is kept in memory and synced with the "real" DOM by a library such as ReactDOM. This process is called Reconciliation aka React Fiber

VDOM is usually associated with React elements since they are they are the objects representing the user interface

VDOM is a representation of actual dom

## Q7 What is React Fiber?

→ React also uses internal objects called 'fibers' to hold additional information about the component tree.

Fiber is the new reconciliation engine in React 16. Its main goal is to enable incremental rendering of the virtual DOM.

## Q8 Why we need keys in React? When do we need Keys in React?

→ Keys help React identify which items have changed (added/removed/re-ordered). To give a unique identity to every element inside the array, a key is required. We use keys while using map function

If you changes the order of the list items, weird things will happen.

## Q9 Can we use index as keys in React?

→ Using index as key is not recommended but if there is no unique id you can use index as key.

## Q10 What is props in React?

→ The props are a type of object where the value of attributes of a tag is stored. The word "props" implies "properties" and its working functionality is quite similar to HTML attributes

Props are used to store data that can be accessed by the children of a React component.



### Q11 What is a Config Driven UI?

- A "config-driven UI" is a user interface that is built and configured using a declarative configuration file or data structure, rather than being hardcoded. The configuration file or data structure typically contains information about the structure of the UI, such as the layout of the elements, the properties and behaviors of each element, and any data source or APIs that the UI interact with.
- Using a config - driven UI approach, the UI can be easily modified and customized without requiring changes to the underlying codebase.

