1. Introduction

* React is open source JS library by Facebook
* Latest version 16.x
* Component based architecture
* Components are reusable
* React is declarative - User should specify how the UI should look like
* Uses virtual dom – It’s like a blueprint for actual dom
* The application will be rendered on div tag “root” in index.html

1. Component

* Reusable, part of UI
* It can be nested
* Component is placed in a JS file
* Functional Component
  + Plain JS function
* Class Component
  + ES6 class which extends React Component
  + Render() returns html
* JSX - JavaScript XML
* JSX - Reduce the complexity with syntax

1. State and Props

* Props – It’s immutable
* State – To overcome the problem with props
* Props is passed to the component – state is managed within the component
* Never modify the state directly. Use this.setState() method instead
* Changing this.state.variable will not re render the component
* SetState() will re render the component
* Calls to setState() is asynchronous – In case if any statement to be executed only after the state change, use a call back method as second param in setState()
* React will group multiple setState() into single setState(). Because of this instead of changing this.state.variable always use prevState.

1. Event Handling

* onClick – use function name instead of function call
  + onClick = {handleEvent()} -> will be rendered automatically when refreshed(wrong way)
  + onClick = {handleClick} -> correct way to trigger event

1. Ways to bind event handler

* Bind the handler in render method:
  + onClick = {this.handleClick.bind(this)} -> generate new event handler every time. This may cause performance issue in huge applications.
* Use arrow function:
  + onClick = {() => this.hanldeClick()} -> This also has performance issues. But it is the easiest way.
* Bind event handler in the constructor:
  + Add the line -> this.handleClick = this.handleClick.bind(this)
  + In click event -> onClick = {this.handleClick}
  + This approach is recommended by React
* Use arrow function in class property:
  + Use arrow function inside class
  + handleClick = () => {
  + this.setState = ({
  + // our code
  + })
  + }
  + This is also recommended by React

1. Lists and Keys:

* Use unique id in the list as key
* When to use index as key:
  + When the list don’t have a unique id
  + The list is static and won’t change in future
  + When the list will never be reordered or sorted