**React :**

React is a JavaScript Library for building UI for web applications, mobiles applications with react native and desktop applications using electron.

React is a declarative, efficient, and flexible JavaScript library for building user interfaces. It lets you compose complex UIs from small and isolated pieces of code called “components”.

Why?

* UI state is difficult to manage because of the DOM traversal, picking the right element and putting the required data into the element is way cumbersome for enterprise applications.
* Focuses on business logic instead of DOM traversal.
* Active community, huge eco system and high performance we applications.

**Using a Build workflow**

Recommended for SPA and MPA,

Why?

* optimize our code (bundling, building, use),
* Next gen features while development (Less error prone and better readability, JSX support)
* More productive (CSS auto-prefixing, linting)

How?

* Need Dependency management NPM or Yarn (ract-dom, react, babel)
* Use bundler (for concatenating, bundling of JS and CSS, Webpack)
* Use compiler for NextGen JS (Babel + presets)
* Use development server acts as web server for local (HTTP Server)

For building this workflow as a developer we need lot of time, instead just we can refer facebook’s create-react-app github repo for the details, and follow the instruction below steps

* Npm install -g create-react-app
* Create-react-app <project-name> [for specific version of folder structure “—script-version <version-numbber(1.15)>”]
* cd <project-name>
* npm start

**Context API:**

The only issue with property binding is, there were no possibility of sharing the data between the components without having to know in between components in component tree. Consider component tree with 5 to 6 levels and the 1st component has some data to share with the 6th component. In this case property binding has to pass the data through all the levels of components, instead this by using this context API there is a possibility of sharing directly to the child. Set the state from somewhere at the tree level and utilize it at anywhere in the child hierarchy.

In react >=16.6 versions introduce a static property contextType, through this we can assign the Context to the variable before render method and use it across the component. The older versions doesn’t have that capability to do that.