**React**

A javascript library used for building fast and interactive user interfaces for the web as well as mobile applications. It is open sources. React was built by Jordan walke an engineer at facebook.

Components

Are functions in nature. Receives information as arguments and passes via returns

**JSX**

React uses JSX which allows html to be written inside Javascript.

**Virtual DOM**

Only changes the state of objects inside a document not the whole document

**Performance**

Virtual DOM impacts the speed of the application thus improves the performance of application

**One-way data binding**

Information flows in one direction.

**Extensions**

React has many extensions that help build applications. Provides server side rendering, application renders in server not browser.

Flux – **Action** >

**Dispatcher** receives action and dispatches them to store >

**Store** (holds all data >

**View** (data from store is displayed in views)

**Debugging**

Easy to debug using available extensions

**Components**

* building block of any React application
* A piece of User Interface
* It is like a function that returns HTML elements
* Components remain discrete and processed independently
* Reusable

State

* Object that holds data
* The data influences the output of a component
* When state changes, component gets rerendered

Props - properties

* Allow us to pass arguments or data to components
* Properties make components dynamic
* Important to define properties, their types and values

**Components**

* Building blocks of a react application
* A component represents a part of the user interface
* One component can be used several times across an application
* Components can be nested. One component can contain several other components
* Two types of components
  + Stateless functional components – js functions that return html
  + Stateful class components – regular esx classes, must contain render method that returns html

Export and import components

* Export default <component name>
* Import <name the component> from ‘./components/<name of component>
* Individual class components can be exported by adding “export” before declaring a new class’s name and destructured when importing
  + Export Class X extends React.Component {}
  + Import {X} from ‘./xfolder’

Higher order and pure components – class components for reusability