

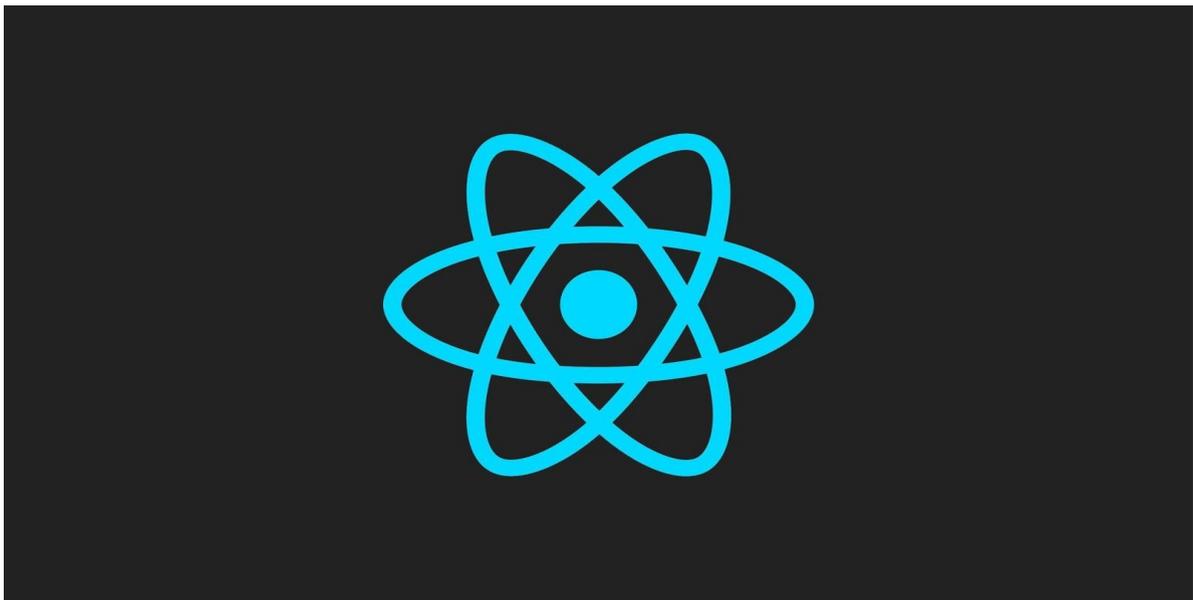
 **React JS** : Time to boost productivity.

By -Ayush kumar

*Globalisation bring many changes over the year in feild of computer science .Digital world rises to new heights and with this web frame work is constantly evolving and changing day by day basic. React is one of the tool use in web development and in very less time it is bestseller In terms of workflow. Therefore, most popular among web developer.*

*What is React JS ?*

*ReactJS basically is an open-source JavaScript library which is used for building user interfaces specifically for single page applications.*



*This Javascript library that one attaches to any existing stack and makes UI dynamic. React was developed by*

**Facebook in 2011 for Facebook application only, and then, they made the code public by 2013.**

**It is also used to reuse UI components. New Stack Overflow Developer Survey observed that React is the most loved among the frameworks, libraries . Approx 66.9% of developers gave their votes for this.**

## **HISTORY :**

**AS we all know, Mostly entire web is based on html. All it started with a simple HTML code .**

**Next came Javascript in 1996 with ways to interact with the HTML DOM(Document Object Model). After that was established came JQuery to change the contents of the HTML DOM. After that in 2009, it came with Angular.js, this as the father of front end frameworks which gave a full fledged option to create a strong fronts End.**

**Also, if we see all these work on HTML code i.e we change HTML on basis of JavaScript (jquery, angular etc.).**

**JavaScript is much powerful than HTML, Facebook considered this and decided to create the HTML itself from JavaScript ( dynamic content ) , they created react.js. So to sum it up react.js creates your html from javascript .**

**We know about components and their function, React.js creates html from Javascript. But, also React.js itself is not written in vanilla javascript. React.js is written in JSX(Java script XML).**

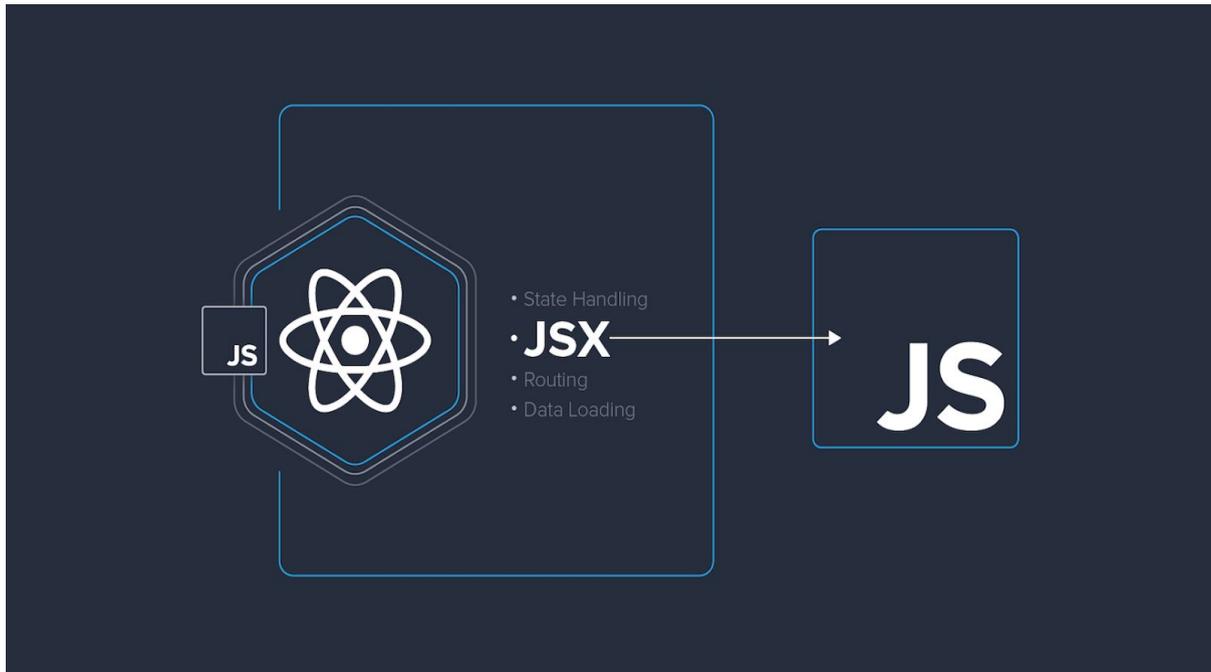
***But HTML is created from Javascript right . So , we get that JS from JSX. For this we use transpiler called Biabel . Babel works to converts our JSX to JS which we can put in our html to create content dynamic.***

### ***BENEFITS :***

***● It facilitates the overall process of writing components***

***JSX is syntax extension to Java Script , that makes writing our components much easier. It accepts HTML quote and also makes a sub component rendering easier.***

***It is also a set of shortcuts for writing React.createElement with a few rules to make your source more cleaner and simpler to understand.***



***JSX is a matter of disputes , it is also proven useful in building High volume apps or custom components too , & excluding typos in large tree structures, and also making it easier to convert from HTML mockups to the React Element trees. Besides , it provides React developers with informative warning and error messages , also helps to prevent code Injections too.***

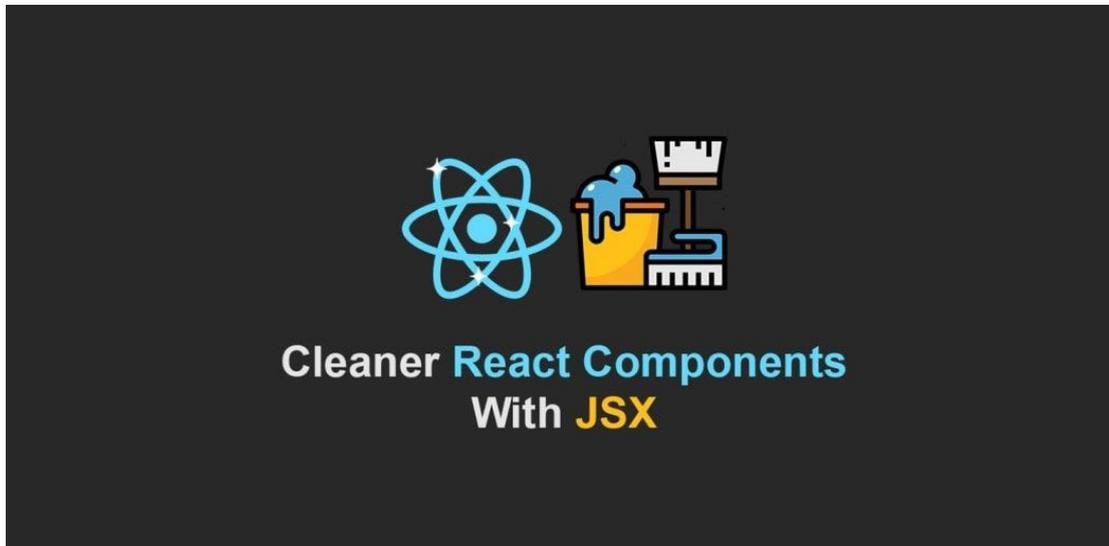
**● Boosts productivity & facilitates further maintenance.**



***Updates turns into the headache because the application has a complex logic and it also changes in one component can affect others .So ,To solve this issue Facebook has supplemented React with the abilities to reuse system components, and also developers define it as - " one of the best features of React js" .***

***Re use of the assets is well-known among the designers and who typically re employ the same digital objective. We can also start with some finest components like (checkbox, button, etc.), and then move to wrapper components comprised of these small elements and then move forward until the main root component. All the components have their own internal***

***logic, what makes it more easier to manipulate and define them.***



***Such approach ensures consistent app look and facilitates codebase maintenance and growth.***

### ***Why to use React js?***

***For many companies like Walmart . The corporation includes multiple trade marks & branches, such Walmart Chile, Asda, Massmart, Brazil, Sam's Clubs, and others. All the companies have their own online presence, but still you know , there are components that are little common to all the brands , payment form elements, image carousel, bread crumbs.***

***For example. This is also the ability to Re-use code Components comes in hand. To make this version management and also other installation of components easier the company has introduces internal codings standards .Currently , it's moves to the npm registry.***

● ***It ensures faster rendering***

***Another benefit - building a high load applications, it is very essential and must to consider , how the structures will impact the overall app's functions .***

***Latest platforms and engines can't ensure the absence of annoying bottle necks, because (document object model) ie, DOM is tree structured and Small changes at the top layer may cause awful ripples to the interfaces.***

***For solving the issues , Facebook development team has introduced Virtual DOM and one of the benefits of using React js for heavy load.***

***As it is a virtual representation of the document object , so all the variations are applied to the virtual DOM very first and then, using algorithm, the minimum scope of necessary DOM operations is also calculated .***

***Then the real DOM tree is also updated accordingly and ensuring minimum the time consumed. This method also guarantes the better user experience and higher apps performance too.***

● ***Amiable to SEO .***

***One more React js benefits is that its ability to deal with a common search engines failure to read Java heavy apps. In solution, React can also run on the server and also returning the virtual DOM to the web browser as a general and common web page.***

***Some improvements had taken place at Google web site engine , but we shouldn't forget about other search engine platforms, like Yahoo .... Moreover, we need to take into account several microformat use-cases, like Open Graph, Twitter Cards, and many more., Because Facebook, Slack or Twitter won't execute our JS and mainly depend on SSR.***

***● Helpful developer tool set.***

***Today, Learning technologies and using them in the next project is important , but if they can be actually applied in the development environment. Its means that simple framework or library must come with a proper tools for an efficient performance in web development. Advantages of react js, are its coverage with debugging and design tools.***

***React Developer Tools is simple web extension available for both google Chrome and Firefox too. It also enables developers to observe reactive***

***component hierarchies, discover children and parent components, and also inspect their current state and props for more benefits.***

## **SECURITY & EXPERIENCE :**

***I just started learning authorization and authentication in react, I'm writing this after finishing my one login system using JWT, as you know you store a token in the browser and then i compare it with my saved tokens in my back end now , when validation is completed truly then I set Authenticated Boolean and gain approach to the site working web, after that simple system I check the ( react dev ) tools and I found out that , I change the boolean to true and bypass all of the authentication work.***



***I search & try online for tutorials to fix massive & Complex problems but didn't find what was I looking for. I only find how to setup Authentication or protect a router ,but not deeply secured.***