Most Common React Interview Question

JavaScript Mastery

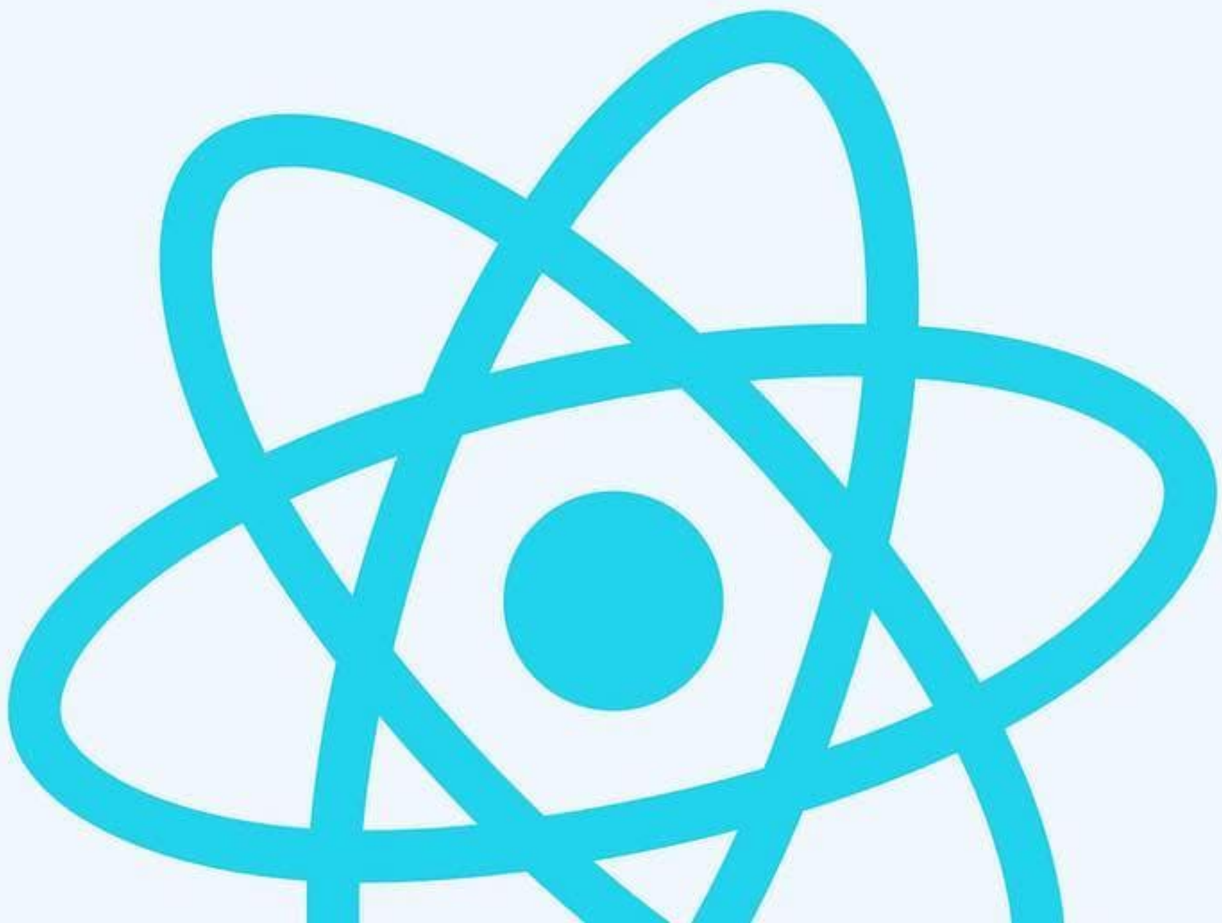
Part-1

What is React?

React is an open-source front-end JavaScript library that is used for building user interfaces, especially for single-page applications.

It is used for handling view layer for web and mobile apps. It was developed by Facebook in 2011.

It is helpful in building complex and reusable user interface(UI) components of mobile and web apps as it follows the component-based approach.



What are the advantages of React?

Great performance: because of Virtual DOM. With the use of virtual DOM, the efficiency of the app improves.

Easy to learn: with basic JavaScript knowledge you can start building applications.

One-way data flow: this flow is also called “parent to child” or “top to bottom” and prevents errors and facilitates debugging.

Reusable components: Re-using React components in other parts of the code or even in different projects can be done with little or no changes.

Huge community: The community supplies a ton of libraries that can be used to build React applications.

What is JSX?

JSX (JavaScript XML) allows us to write HTML inside JavaScript. The official docs describe it as “syntax extension to JavaScript”.

Basically it just provides syntactic sugar for the `React.createElement()` function, giving us expressiveness of JavaScript along with HTML like template syntax.

A simple JSX example:

```
export default function App() {
  return (
    <div>
      <h1>This is JSX!</h1>
    </div>
  );
}
```

Can browsers read JSX directly?

Web browsers cannot read JSX directly. This is because they are built to only read regular JS objects and JSX is not a regular JavaScript object

For a web browser to read a JSX file, the file needs to be transformed into a regular JavaScript object. For this, we use Babel.

What is state in React?

State of a component is an object that holds some information that may change over the lifetime of the component. We should always try to make our state as simple as possible and minimize the number of stateful components.

State is similar to props, but it is private and fully controlled by the component ,i.e., it is not accessible to any other component till the owner component decides to pass it.

```
import React, { useState } from "react";

function User() {
  const [message, setMessage] = useState("Hi State!");

  return (
    <div>
      <h1>{message}</h1>
    </div>
  );
}
```

What are props in React?

Props are inputs to components. They are single values or objects containing a set of values that are passed to components on creation using a naming convention similar to HTML-tag attributes.

They are data passed down from a parent component to a child component. For eg: let us create an element with **age** property:

```
<Element age={"25"} />
```

This **age** name then becomes a property attached to React's props object which originally already exists on all components created using React library.

```
props.age
```

What is the virtual DOM?

DOM stands for Document Object Model. The DOM represents an HTML document with a logical tree structure. Each branch of the tree ends in a node, and each node contains objects.

React keeps a lightweight representation of the real DOM in the memory, and that is known as the Virtual DOM. When the state of an object changes, the virtual DOM changes only that object in the real DOM, rather than updating all the objects.

Consider a virtual DOM object as a blueprint of the real DOM object. Whenever a JSX element gets rendered, every virtual DOM object gets updated.

What is prop drilling in React?

Sometimes while developing React apps, there is a need to pass data from a component that is higher in the hierarchy to a component that is deeply nested.

To pass data between such components, we pass props from a source component and keep passing the prop to the next component in the hierarchy till we reach the deeply nested component.

The disadvantage of using prop drilling is that the components that should otherwise be not aware of the data have access to the data.

Part 2 coming soon! Stay Tuned 🔔