React Session 2 : Introduction to React

21 September 2023   07:58 AM

Introduction to React

ReactJS is a JavaScript library for building reusable UI components.
(what is library ? - collection of prewritten code that user uses for optimize / complete / achieve / dedicated task)

It is an open-source, component-based front end library responsible only for the view layer of the application.

It was created by **Jordan Walke,** who was a software engineer at **Facebook.**

It was initially developed and maintained by Facebook and was later used in its products like **WhatsApp** & **Instagram.**

Facebook developed ReactJS in **2011** in its newsfeed section, but it was released to the public in the month of **May 2013.**

Why learn ReactJS?

Today, many JavaScript frameworks are available in the market(like angular, vue, node), but still, React came into the market and gained popularity amongst them.

The previous frameworks follow the traditional data flow structure, which uses the DOM (Document Object Model).

DOM is an object which is created by the browser each time a web page is loaded. when any modifications were done, then each time a new DOM is created for the same page. This repeated creation of DOM makes unnecessary memory wastage and reduces the performance of the application.

Therefore, a new technology ReactJS framework invented which remove this drawback

React operates on a virtual DOM.
In React, for every DOM object, there is a corresponding "virtual DOM object." A virtual DOM object is a representation of a DOM object, like a lightweight copy.

A virtual DOM object has the same properties as a real DOM object, but it lacks the real thing's power to directly change what's on the screen.

Prerequisite

Before learning ReactJS in-depth, you must have a good knowledge of JavaScript, HTML5, and CSS. The knowledge of ECMAScript 2015 syntax can also be helpful

Installation

1) install nodejs : https://nodejs.org/en/

check it is installed correctly or not : open cmd (Command prompt) and type :

node -v (it will show you installed node version)

npm -v (node package manager)

2)install vs code editor : https://code.visualstudio.com/

1. Extensions of Visual Studio Code
   - AutoFileName
   - vscode-icons
   - JavaScript (ES6) code snippets
   - ESLint
   - Prettier - Code formatter
   - Reactjs code snippets
   - ES7 React/Redux/GraphQL/React
   - ES7+ React/Redux/React-Native snippets
   - Bracket Pair Colorization Toggler

     Auto Import - ES6, TS, JSX, TSX

     From <https://marketplace.visualstudio.com/items?itemName=dzhavat.bracket-pair-toggler>

   ## After Extensions are installed
   - File Menu -> Preferences -> File Icon Theme -> Select VScode Icons

Browser Extensions Installation

- Install Google Chrome Extensions

  - React Developer Tools

    - https://chrome.google.com/webstore/detail/react-developer-tools/fmkadmapgofadopljbjfkapdkoienihi

  - Redux DevTools

    - https://chrome.google.com/webstore/detail/redux-devtools/lmhkpmbekcpmknklioeibfkpmmfibljd