

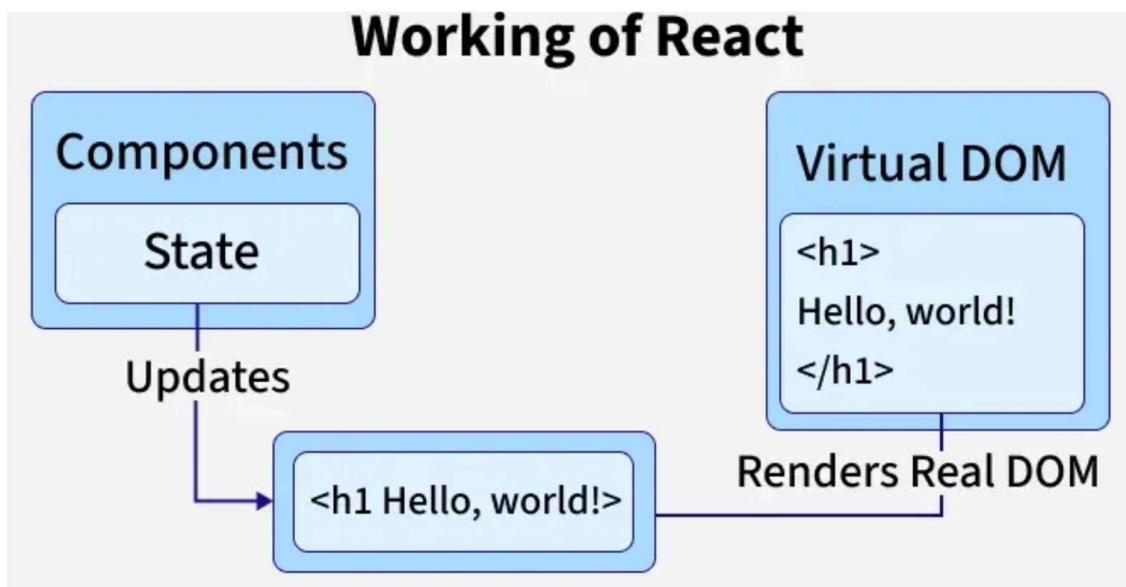
# React JS

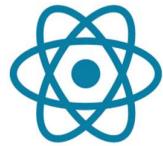
## ■ Introduction of React JS :-

- ReactJS is an **Open-Source JavaScript library** for building **user interfaces**, especially for web application.
- It was created by **Facebook (now Meta)** and is maintained by Facebook and a community of individual developers.
- It is used to create **Single-Page Application (SPA)** with fast and dynamic UI updates.
- React **focuses** only on the **view layer** (The part users see & interact with).

## ■ History of React JS :-

- **2011** – Created by **Jorden Walke**, a Software Engineer at Facebook.
- **2013** – React was released as an **open-source project**.
- **2015** – **React Native** (for mobile apps) was introduced.
- **2020+** – Major improvements like **Hooks, Concurrent Mode and Server Components**.



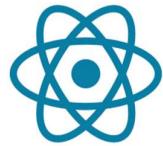


## Features of React JS :-



## Flow of Features :-

- 1. Component-Based Architecture**
- 2. Virtual DOM**
- 3. JSX (JavaScript XML)**
- 4. One-Way Data Flow**
- 5. Declarative Programming**
- 6. Reusable Components**
- 7. Fast Rendering**



## 💡 Why React Became Popular :-

- Component-based architecture
- Fast rendering with Virtual DOM
- Reusable UI components
- Strong Facebook backing
- Large community & ecosystem
- Works for web + mobile (React Native)

## 💡 Core Concepts (Learn in this Order)

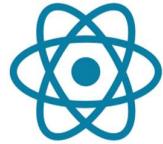
1. JSX – JavaScript XML
2. Components (Functional vs Class)
3. Props – Passing data
4. State – Use State Hook
5. Event Handling
6. Conditional Rendering
7. Lists and Keys

## 💡 Installation and First App :-

### 1. Check node and npm version –

**Step 1 : First we can check version of node and npm –**

```
C:\Users\HP>node -v  
v24.11.1  
  
C:\Users\HP>npm -v  
11.6.2
```



## Step 2 : Install Node.js and npm –

Download Node.js – Click on <https://nodejs.org/en/download>

Or get a prebuilt Node.js® for Windows ▾ running a x64 ▾ architecture.

[Windows Installer \(.msi\)](#)

[Standalone Binary \(.zip\)](#)

Read the [changelog](#) ▾ or [blog post](#) for this version.

Learn more about Node.js releases, including the release schedule and LTS status.

Learn how to [verify](#) ▾ signed SHASUMS.

Looking for Node.js source? Download a signed [Node.js source](#) ▾ tarball.

Check out our [nightly](#) ▾ binaries or all [previous releases](#) or the [unofficial](#) ▾ binaries for other platforms.

Select Windows Installer (.msi)

Then After installation check again version of node and npm.

## 2. Create reactapp using command :-

**Old - npx create-react-app myapp**

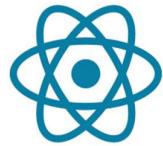
**cd** myapp

**npm start**

**Latest - npm create vite@latest myapp**

**cd** myapp

**npm run dev**



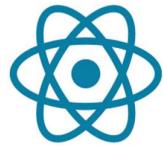
## Step 1 : Select React framework -

```
C:\Users\HP\OneDrive\Desktop\React_example> npm create vite@latest myapp
> npx
> create-vite myapp

◆ Select a framework:
  ● Vanilla
  ○ Vue
  ○ React
  ○ Preact
  ○ Lit
  ○ Svelte
  ○ Solid
  ○ Qwik
  ○ Angular
  ○ Marko
  ○ Others
```

## Step 2 : Select JavaScript variant -

```
◆ Select a variant:
  ○ TypeScript
  ○ TypeScript + React Compiler
  ○ TypeScript + SWC
  ● JavaScript
  ○ JavaScript + React Compiler
  ○ JavaScript + SWC
  ○ React Router v7 ↗
  ○ TanStack Router ↗
  ○ RedwoodSDK ↗
  ○ RSC ↗
  ○ Vike ↗
```



### Step 3 : Select No -

- ◆ Use rollup-vite (Experimental)?:
  - Yes
  - No

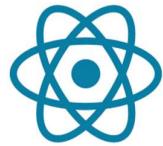
### Step 4 : Select Yes -

- ◆ Install with npm and start now?
  - Yes / ○ No

```
◇ Scaffolding project in C:\Users\HP\OneDrive\Desktop\React_example\myapp...
|
◇ Installing dependencies with npm...
added 157 packages, and audited 158 packages in 56s
33 packages are looking for funding
  run `npm fund` for details
found 0 vulnerabilities
|
◇ Starting dev server...
> myapp@0.0.0 dev
> vite
```

```
VITE v7.3.0  ready in 1003 ms
→ Local:  http://localhost:5173/
→ Network: use --host to expose
→ press h + enter to show help
```

Then it can show server and version



**Step 5 : Click on Server - <https://localhost:5173/>**



# Vite + React

count is 0

Edit `src/App.jsx` and save to test HMR

Click on the Vite and React logos to learn more