

# ASSIGNMENT

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BATCH-07

Scenario:

A startup wants a simple front-end dashboard to display static information such as welcome messages and course details. The team decides to use React for building reusable UI components.

Questions:

1. How would you set up a new React project using tools like Create React App or Vite?
2. What is the role of package.json in a React project?
3. How do you create a functional component in React?
4. How are components rendered inside the main App component?
5. What are the benefits of breaking the UI into small reusable components?

```
Microsoft Windows [Version 10.0.26200.7623]
(c) Microsoft Corporation. All rights reserved.

C:\Users\KEERTHANA>cd Desktop\Fullstack-2026
The system cannot find the path specified.

C:\Users\KEERTHANA>cd C:\Users\KEERTHANA\OneDrive\Pictures\Desktop\Fullstack-2026

C:\Users\KEERTHANA\OneDrive\Pictures\Desktop\Fullstack-2026>dir
 Volume in drive C is Windows
 Volume Serial Number is EA37-06AE

 Directory of C:\Users\KEERTHANA\OneDrive\Pictures\Desktop\Fullstack-2026

13-01-2026  20:03    <DIR>      .
23-01-2026  14:33    <DIR>      ..
12-01-2026  10:49           4,201 employeeregistration.html
12-01-2026  09:32           3,985 lab2.html
              2 File(s)       8,186 bytes
              2 Dir(s)  341,611,778,048 bytes free

C:\Users\KEERTHANA\OneDrive\Pictures\Desktop\Fullstack-2026>npm create vite@latest my-dashboard
Need to install the following packages:
create-vite@8.2.0
Ok to proceed? (y) y

> npx
> create-vite my-dashboard

|
| o Select a framework:
|   React
|
| o Select a variant:
|   JavaScript
|
| o Use rolldown-vite (Experimental)?:
|   No
|
| o Install with npm and start now?
|   Yes
```

```
| o Use rolldown-vite (Experimental)?:
|   No
|
| o Install with npm and start now?
|   Yes
|
| o Scaffolding project in C:\Users\KEERTHANA\OneDrive\Pictures\Desktop\Fullstack-2026\my-dashboard...
|
| o Installing dependencies with npm...
added 157 packages, and audited 158 packages in 14s

33 packages are looking for funding
  run 'npm fund' for details

found 0 vulnerabilities
|
| o Starting dev server...

> my-dashboard@0.0.0 dev
> vite

VITE v7.3.1  ready in 1026 ms

→ Local:  http://localhost:5173/
→ Network: use --host to expose
→ press h + enter to show help
4:04:35 pm [vite] (client) hmr update /src/App.jsx
4:04:42 pm [vite] (client) hmr update /src/App.jsx (x2)
```

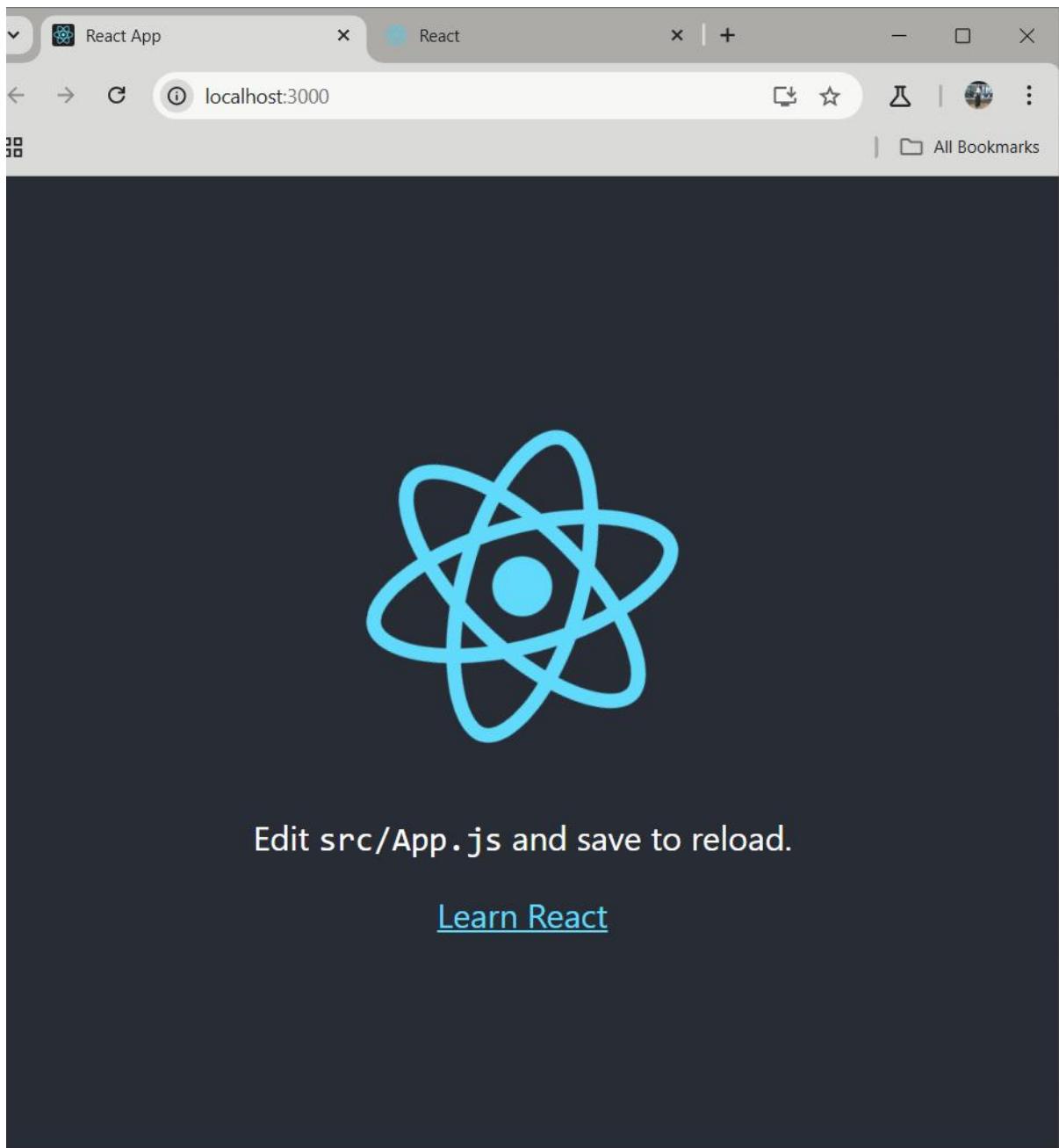


# Welcome to My Dashboard

This dashboard displays course information.

## Courses

- Full Stack Development
  - React Basics
  - Machine Learning
-



## 2. What is the role of package.json in a React project?

package.json is the **configuration file** of a React project. It:

- Stores project name and version
- Lists dependencies like React, ReactDOM
- Contains scripts such as:
  - npm start
  - npm run build
- Helps manage libraries and project settings

## 3. How do you create a functional component in React?

A functional component is a **JavaScript function** that returns JSX.

**Example:**

```
function Welcome() {  
  return <h1>Welcome to the Dashboard</h1>;  
}  
  
export default Welcome;
```

Or using arrow function:

```
const Welcome = () => {  
  return <h1>Welcome to the Dashboard</h1>;  
};
```

```
export default Welcome;
```

---

#### **4. How are components rendered inside the main App component?**

1. Import the component into App.js
2. Use it like an HTML tag inside JSX

**Example:**

```
import Welcome from "./Welcome";
```

```
function App() {
```

```
  return (
```

```
    <div>
```

```
      <Welcome />
```

```
    </div>
```

```
  );
```

```
}
```

```
export default App;
```

---

#### **5. What are the benefits of breaking the UI into small reusable components?**

Breaking UI into reusable components:

- Makes code **clean and organized**
- Improves **reusability**
- Makes maintenance easier
- Allows independent testing
- Improves readability
- Helps teamwork (multiple developers can work on different components)

👉 Example: Separate components for **Header**, **CourseList**, **Footer**.