

28/01/2026 Wednesday

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?**

Answer

To set up a new React project, follow these steps:

Step 1: Install **Node.js** on the system.

Step 2: Open Command Prompt or Terminal.

```
npx create-react-app dashboard  
cd dashboard  
npm start
```

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

package.json is an important file in a React project.

1. Stores project details (name, version)
2. Manages dependencies like React
3. Contains scripts to run the project
4. Helps install required libraries

Without **package.json**, a React project cannot run properly.

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

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

Example :

```
function Welcome() {
```

```
return <h1>Welcome to Dashboard</h1>;  
}  
  
export default Welcome;
```

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

Answer

Components are rendered inside the **App component** by importing and using them as HTML-like tags.

```
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 small components:

- Improves code reusability
- Makes code easy to understand
- Simplifies maintenance
- Reduces errors
- Helps

Structure :

The screenshot shows the VS Code interface with the Explorer sidebar open. The sidebar displays the project structure:

- DASHBOARD_28012026** (expanded):
 - node_modules
 - public
 - src** (expanded):
 - # App.css
 - JS** App.js (marked as modified)
 - JS** App.test.js
 - JS** Course.js (marked as updated)
 - # index.css (marked as modified)
 - JS** index.js
 - logo.svg
 - JS** reportWebVitals.js
 - JS** setupTests.js
 - JS** Welcome.js (marked as updated)
 - .gitignore
 - { package-lock.json
 - { package.json
 - ⓘ README.md

Welcome.js

```
function Welcome(props) {  
  
  return <h1>{props.message}</h1>;  
  
}  
  
  
export default Welcome;
```

Course.js

```
function Course(props) {  
  
  return (  
    <div>  
      <h2>{props.title}</h2>  
      <p>Course Name: {props.name}</p>  
      <p>Duration: {props.duration}</p>  
    </div>  
  );  
  
}  
  
  
export default Course;
```

App.js

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

function App() {
  return (
    <div>
      <Welcome message="Welcome to React Dashboard" />
      <Course
        title="Course Details"
        name="React Basics"
        duration="4 Weeks"
      />
    </div>
  );
}

export default App;
```

Output

