

## Experiment 1

Use create-react-app to set up a new project. Edit the App.js file to include a stateful component with useState. Add an input field and a element that displays text based on the input. Dynamically update the content as the user types.

### App.js

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

import './App.css';

function App() {

  const [text, setText] = useState("");      // Declare a state variable 'text' and a function 'setText' to update it

  const handleInputChange = (event) => {    // Event handler to update the state as user types
    setText(event.target.value);
  };

  return (

    <div className="container" >

      <h1> Hello VCET</h1>

      <input type="text"

        value={text}      // Bind input value to state

        onChange={handleInputChange}    // Update state on input change

        placeholder="Type something..."

      />

      <h1>{text || "Type something..."}</h1>

    </div>

  );

}

export default App;
```

### App.CSS

```
.container {

  text-align: center;

  margin-top: 50px;

}
```

## Experiment 2

Develop a React application that demonstrates the use of props to pass data from a parent component to child components. The application should include the parent component named **App** that serves as the central container for the application. Create two separate child components, **Header**: Displays the application title or heading. **Footer**: Displays additional information, such as copyright details or a tagline. Pass data (e.g., title, tagline, or copyright information) from the **App** component to the **Header** and **Footer** components using props. Ensure that the content displayed in the **Header** and **Footer** components is dynamically updated based on the data received from the parent component.

### Header.js (in Src)

```
import React from 'react';

// Header component receives props from the parent component (App)

function Header(props) {
  return (
    <header>
      <h1>{props.title}</h1>  {/* Display the title passed via props */}
    </header>
  );
}

export default Header;
```

### Footer.js (in Src)

```
import React from 'react';

// Footer component receives props from the parent component (App)

function Footer(props) {
  return (
    <footer>
      <p>{props.tagline}</p>    {/* Display the tagline passed via props */}
      <small>{props.copyright}</small>  {/* Display copyright information */}
    </footer>
  );
}

export default Footer;
```

### **App.js**

```
import React from 'react';
import './App.css';

// Import the Header and Footer components
import Header from './Header';
import Footer from './Footer';

function App() {

  // Data to be passed to child components

  const title = "Welcome to React World";
  const tagline = "Code. Create. Innovate.";
  const copyright = "© 2025 Creative Coders Ltd.";

  return (
    <div className="App">

      {/* Pass data to Header and Footer components using props */}

      <Header title={title} />

      <Footer tagline={tagline} copyright={copyright} />

    </div>

  );
}

export default App;
```

### **App.css**

```
.App {
  text-align: center;
  font-family: Arial, sans-serif;
}

header {
  background-color: slategray;
  color: white;
  padding: 20px;
}
```

```
footer {  
  background-color:slategray;  
  color: white;  
  padding: 10px;  
  position: fixed;  
  width: 100%;  
  bottom: 0;  
}
```