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## Practice1

**CODE-**

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <title>Product Card</title>
    <script src="https://unpkg.com/react@18/umd/react.development.js" crossorigin></script>
    <script src="https://unpkg.com/react-dom@18/umd/react-dom.development.js" crossorigin></script>
    <script src="https://unpkg.com/@babel/standalone/babel.min.js"></script>
    <style>     .container {
border: 2px solid #333;
padding: 20px;        text-
align: center;       width:
80%;       margin: 20px
auto;
    }
    .product-list {
display: flex;      justify-
content: center;       gap:
20px;      flex-wrap:
wrap;
    }
```

```css
    .card {        border: 1px solid #ddd;
border-radius: 10px;        padding: 15px;
width: 200px;        text-align: center;
margin: 10px;        box-shadow: 0 2px 5px
rgba(0, 0, 0, 0.1);
    }
    .in-stock {
color: green;        font-
weight: bold;
    }
    .out-stock {
color: red;        font-
weight: bold;
    }
  </style>
 </head>
 <body>
   <div id="root"></div>

   <script type="text/babel">        const ProductCard =
({ name, price, status }) => {
     return (
       <div className="card">
        <h3>{name}</h3>

       <p>Price: ${price}</p>

       <p className={status === "In Stock" ? "in-stock" : "out-stock"}>

        Status: {status}

       </p>
```

```jsx
      </div>
    );
  };


  function App() {
    return (
      <div className="container">
        <h2>Products List</h2>
        <div className="product-list">
          <ProductCard name="Wireless Mouse" price="25.99" status="In Stock" />
          <ProductCard name="Keyboard" price="45.5" status="Out of Stock" />
          <ProductCard name="Monitor" price="199.99" status="In Stock" />
        </div>
      </div>
    );
  }


    const root = ReactDOM.createRoot(document.getElementById("root"));
    root.render(<App />);
  </script>
 </body>
</html>
```

**OUTPUT**

## Practice2

**CODE-**

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
<title>Library Management</title>

    <!-- React, ReactDOM, and Babel -->
    <script src="https://unpkg.com/react@18/umd/react.development.js"></script>
    <script src="https://unpkg.com/react-
dom@18/umd/reactdom.development.js"></script>
    <script src="https://unpkg.com/@babel/standalone/babel.min.js"></script>
  </head>
  <body>
    <div id="root"></div>

    <script type="text/babel">
const { useState } = React;

    function Library() {        const
[books, setBooks] = useState([
        { title: "1984", author: "George Orwell" },
        { title: "The Great Gatsby", author: "F. Scott Fitzgerald" },
        { title: "To Kill a Mockingbird", author: "Harper Lee" },
      ]);

    const [search, setSearch] = useState("");
const [newTitle, setNewTitle] = useState(""); const
[newAuthor, setNewAuthor] = useState("");
```
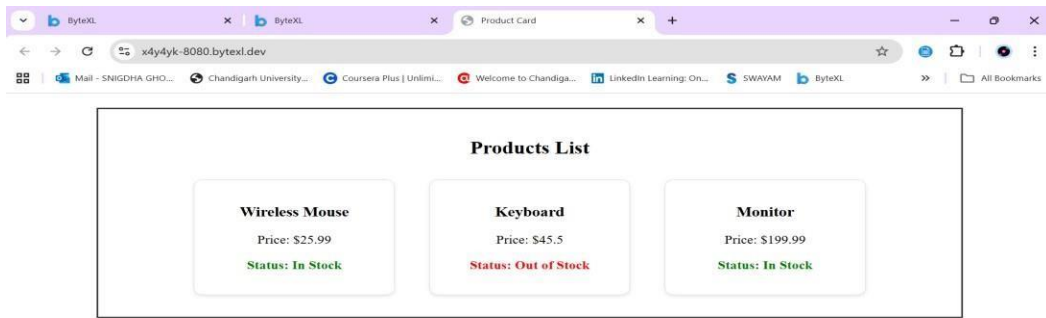
```jsx
    const addBook = () => {        if (newTitle.trim() &&
newAuthor.trim()) {        setBooks([...books, { title: newTitle,
author: newAuthor }]);        setNewTitle("");
setNewAuthor("");
      }
    };

    const removeBook = (index) => {
setBooks(books.filter((_, i) => i !== index));
    };

    const filteredBooks = books.filter(
      (book) =>
book.title.toLowerCase().includes(search.toLowerCase()) ||
book.author.toLowerCase().includes(search.toLowerCase())
    );

    return (
      <div style={styles.container}>
        <h2>Library Management</h2>
        <input          type="text"
placeholder="Search by title or author"
value={search}          onChange={(e) =>
setSearch(e.target.value)}
style={styles.input}
        />
        <div style={styles.addBookSection}>
         <input          type="text"
placeholder="New book title"
value={newTitle}          onChange={(e) =>
setNewTitle(e.target.value)}
style={styles.inputSmall}
        />          <input          type="text"
placeholder="New book author"
value={newAuthor}          onChange={(e) =>
setNewAuthor(e.target.value)}
style={styles.inputSmall}
        />
        <button onClick={addBook} style={styles.button}>
          Add Book
        </button>
      </div>

      <ul style={styles.bookList}>
        {filteredBooks.map((book, index) => (
         <li key={index} style={styles.bookItem}>
```

```jsx
        <span>
          <strong>{book.title}</strong> by {book.author}
        </span>
        <button                 onClick={() =>
removeBook(index)}
style={styles.removeBtn}
        >
          Remove
        </button>
      </li>
    ))}
  </ul>
</div>
    );
    }

    const styles = {
container: {         border: "2px
solid #333",        padding:
"20px",         width: "80%",
margin: "20px auto",
    },        input: {
width: "100%",        padding:
"8px",         marginBottom:
"10px",         border: "1px
solid #ccc",
    },
    addBookSection: {
display: "flex",        gap:
"10px",         marginBottom:
"15px",
    },
    inputSmall: {        flex:
1,       padding: "8px",
border: "1px solid #ccc",
    },    button:   {
padding: "8px 12px",
background: "#333",
    color: "#fff",
border: "none",
cursor: "pointer",
    },
    bookList: {
listStyle: "none",
    padding: 0,
    },
```

```
        bookItem: {            display: "flex",
justifyContent: "space-between",
padding: "8px",            border: "1px
solid #ddd",        marginBottom:
"5px",         borderRadius: "5px",
        },
        removeBtn: {
background: "#f44336",
color: "white",        border:
"none",        padding: "5px
10px",        cursor:
"pointer",
borderRadius: "4px",
        },
    };

    ReactDOM.createRoot(document.getElementById("root")).render(<Library  />);
  </script>
 </body>
</html>
```

## OUTPUT

## Practice3

## CODE-

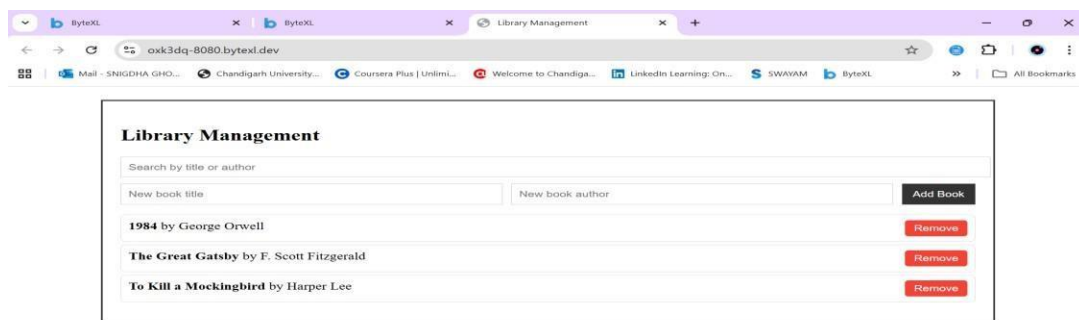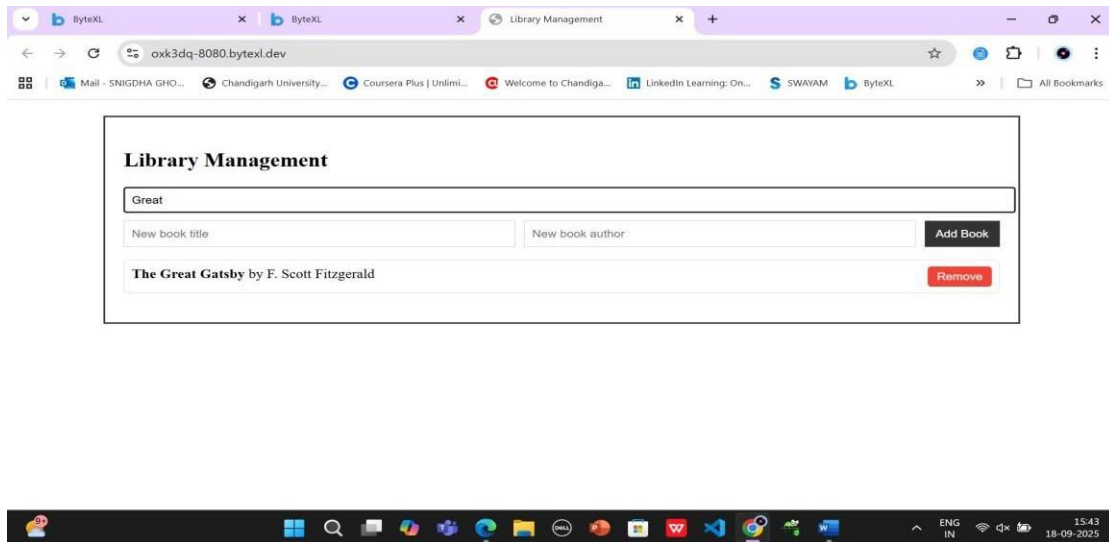```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8" />
  <title>Person / Student / Teacher Demo</title>
  <meta name="viewport" content="width=device-width,initial-scale=1" />
  <style>
    body { font-family: system-ui, -apple-system, "Segoe UI", Roboto, Arial; padding: 20px; }    h1 { margin-
bottom: 8px; }
    pre { background:#f6f8fa; border:1px solid #e1e4e8; padding:12px; white-space:pre-wrap; }
    .log { margin-top:12px; color:#444; }
  </style>
</head>
<body>
  <h1>Person / Student / Teacher Demo</h1>
  <p>This page runs the ES6 classes and prints results below (also logged to console).</p>

  <div>
```

```html
    <strong>Output:</strong>
    <pre id="output">(running...)</pre>
  </div>

  <script>
    // --- Person base class
class Person {
constructor(name, age) {
this.name = name;
this.age = age;
    }

    displayInfo() {        return `Name:
${this.name}, Age: ${this.age}`;
    }
  }

    // --- Student subclass     class
Student extends Person {
constructor(name, age, course) {
super(name, age);         this.course =
course;
    }

    // override       displayInfo() {        return
`${super.displayInfo()}, Course: ${this.course}`;
    }
  }

    // --- Teacher subclass
    class Teacher extends Person {
constructor(name, age, subject) {
```

```javascript
    super(name, age);      this.subject = subject;
    }


    // override    displayInfo() {      return `${super.displayInfo()}, Subject: ${this.subject}`;
    }
  }


  // --- create instances and display results   const student1 = new Student("Alice", 20, "Computer Science");   const teacher1 = new Teacher("Mr. Smith", 45, "Mathematics");


  const outText = [
student1.displayInfo(),
teacher1.displayInfo()
  ].join("\n");


  // show on page
document.getElementById("output").textContent = outText;


  // also log to console (open devtools to see)
console.log(outText);
  </script>
</body>
</html>
```

**OUTPUT**

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Mail - SNIGDHA GHO... · Chandigarh University... · Coursera Plus | Unlimi... · Welcome to Chandiga... · LinkedIn Learning: On... · SWAYAM · ByteXL · · · All Bookmarks

# Person / Student / Teacher Demo

This page runs the ES6 classes and prints results below (also logged to console).

**Output:**

```
Name: Alice, Age: 20, Course: Computer Science
Name: Mr. Smith, Age: 45, Subject: Mathematics
```