

## ReactJS-HOL

### 1 ) bookstoreapp

#### Component 1: ListOfBooks.js

**Objective:** Use map() and arrow functions.

```
// ListOfBooks.js
import React from 'react';

const books = [
  { title: "Book A", rating: 85 },
  { title: "Book B", rating: 60 },
  { title: "Book C", rating: 72 },
  { title: "Book D", rating: 45 },
  { title: "Book E", rating: 90 }
];

const ListOfBooks = () => {
  return (
    <div>
      <h2>All Books</h2>
      {books.map((book, index) => (
        <p key={index}>{book.title} - Rating: {book.rating}</p>
      ))}
      <h3>Low Rated Books (Below 70)</h3>
      {books.filter(book => book.rating < 70).map((book, index) => (
        <p key={index}>{book.title} - Rating: {book.rating}</p>
      ))}
    </div>
  );
};

export default ListOfBooks;
```

#### Component 2: BookCategories.js

**Objective:** Use destructuring and array merging.

```
// BookCategories.js
import React from 'react';

const fiction = ["Harry Potter", "Percy Jackson", "The Hobbit"];
const nonFiction = ["Sapiens", "Educated", "Atomic Habits"];

const BookCategories = () => {
  const [firstFiction, secondFiction, thirdFiction] = fiction;
```

```

const [firstNF, ...otherNF] = nonFiction;

const allBooks = [...fiction, ...nonFiction]; // merge using ES6

return (
  <div>
    <h2>Fiction Books</h2>
    <ul>
      <li>{firstFiction}</li>
      <li>{secondFiction}</li>
      <li>{thirdFiction}</li>
    </ul>

    <h2>Non-Fiction Books</h2>
    <ul>
      <li>{firstNF}</li>
      {otherNF.map((book, index) => (
        <li key={index}>{book}</li>
      )))
    </ul>

    <h3>All Books (Merged)</h3>
    {allBooks.map((book, index) => (
      <p key={index}>{book}</p>
    )))
  </div>
);
};

export default BookCategories;

```

## App.js

**Objective:** Conditional rendering using flag variable.

```

// App.js
import React from 'react';
import ListOfBooks from './ListOfBooks';
import BookCategories from './BookCategories';

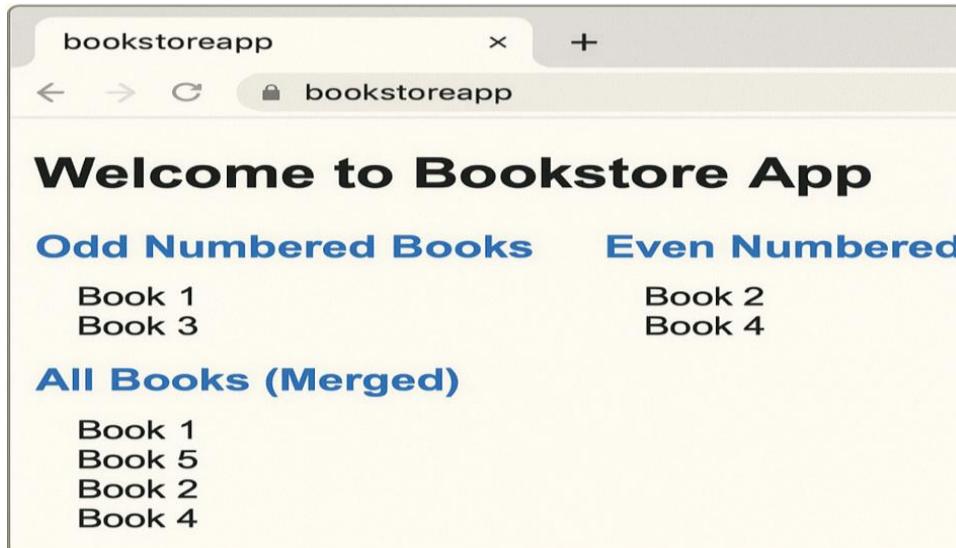
const App = () => {
  const flag = true; // change to false to show other component

  return (
    <div className="App">
      <h1>Welcome to Book Store</h1>
      {flag ? <ListOfBooks /> : <BookCategories />}
    </div>
  );
}

```

```
};  
export default App;
```

## Output



## ES6 Concepts Used:

- map()
- filter() + **arrow functions**
- destructuring arrays
- spread operator for merging arrays
- conditional rendering using if-else logic (via flag)

## 2 ) restaurantmenuapp

- Displays a heading using JSX
- Displays an image of the restaurant
- Uses an object to store and display restaurant info (name, location, rating)
- Has an array of menu items with prices
- Displays each menu item using map()
- Shows the price in **green** if above ₹300 and **red** if ₹300 or less (inline CSS)

### 📁 App.js

```
import React from 'react';

const restaurant = {
    name: "Foodie's Delight",
    location: "Chennai, India",
    rating: 4.5
};

const menuItems = [
    { item: "Paneer Butter Masala", price: 250 },
    { item: "Chicken Biryani", price: 320 },
    { item: "Butter Naan", price: 40 },
    { item: "Tandoori Chicken", price: 400 },
    { item: "Gulab Jamun", price: 80 }
];

function App() {
    return (
        <div style={{ fontFamily: 'Arial', padding: '20px' }}>
            <h1 style={{ color: 'darkblue' }}>Welcome to {restaurant.name}</h1>
            <img
                alt="Restaurant logo or image" />
            <table border="1">
                <thead>
                    <tr>
                        <th>Item</th>
                        <th>Price</th>
                    </tr>
                </thead>
                <tbody>
                    {menuItems.map(item => (
                        <tr>
                            <td>{item.item}</td>
                            <td>₹{item.price}</td>
                        </tr>
                    ))}
                </tbody>
            </table>
        </div>
    );
}

export default App;
```

```
src="https://images.unsplash.com/photo-1565299624946-b28f40a0ae38"
alt="Restaurant"
width="300"

/>

<h3>Location: {restaurant.location}</h3>

<h3>Rating: {restaurant.rating} ★</h3>

<h2>Our Menu</h2>

<ul>

{menuItems.map((menu, index) => (
  <li key={index}>
    {menu.item} -
    <span style={{ color: menu.price > 300 ? 'green' : 'red', fontWeight: 'bold' }}>
      ₹{menu.price}
    </span>
  </li>
))}

</ul>

</div>

);

}

export default App;
```

## Output

Screenshot of a web browser displaying a menu page titled "MENU". The page features four categories: STARTERS, MEALS, DESSERTS, and DRINKS, each with a corresponding image and text label.

The browser window title is "React App" and the address bar shows "localhost:3000/".

**MENU**  
Create your online Delicious Meals, Delivered to Your Doororder

**STARTERS** 

**MEALS** 

**DESSERTS** 

**DRINKS** 

Don't wait—grab your spot now and we'll take care of the rest!

**RESERVE A TABLE**

### 3 ) eventexamplesapp

#### App.js

```
import React, { useState } from 'react';
import CurrencyConvertor from './CurrencyConvertor';

function App() {
  const [count, setCount] = useState(0);

  const increment = () => {
    setCount(prev => prev + 1);
  };

  const sayHello = () => {
    console.log("Hello! Button clicked.");
  };

  const handleIncrement = () => {
    increment();
    sayHello();
  };

  const decrement = () => {
    setCount(prev => prev - 1);
  };

  const sayWelcome = (message) => {
    alert(message);
  };

  const handleSynthetic = (e) => {
    alert("I was clicked");
    console.log(e); // Synthetic event object
  };

  return (
    <div style={{ padding: '20px' }}>
      <h1>React Event Handling</h1>
      <h2>Counter: {count}</h2>
      <button onClick={handleIncrement}>Increase</button>
      <button onClick={decrement}>Decrease</button>

      <hr />

      <button onClick={() => sayWelcome("Welcome!")}>Say Welcome</button>
      <hr />
    </div>
  );
}

export default App;
```

```

<button onClick={handleSynthetic}>Synthetic Event (OnPress)</button>

<hr />

<CurrencyConvertor />
</div>
);

}

export default App;

```

### CurrencyConvertor.js

```

import React, { useState } from 'react';

function CurrencyConvertor() {
  const [rupees, setRupees] = useState("");
  const [euro, setEuro] = useState(null);

  const handleSubmit = () => {
    const converted = parseFloat(rupees) / 90; // Assume 1 Euro = ₹90
    setEuro(converted.toFixed(2));
  };

  return (
    <div>
      <h2>Currency Convertor</h2>
      <input
        type="number"
        placeholder="Enter amount in INR"
        value={rupees}
        onChange={(e) => setRupees(e.target.value)}
      />
      <button onClick={handleSubmit}>Convert</button>

      {euro && (
        <p>€ {euro}</p>
      )}
    </div>
  );
}

export default CurrencyConvertor;

```

## Output

1)

A screenshot of a web browser window titled "React App" at "localhost:3000". On the left, there is a sidebar with the number "5" and four buttons: "Increment", "Decrement", "Say welcome", and "Click on me". On the right, a modal dialog box is displayed with the text "localhost:3000 says" and "Hello! Member!". A blue "OK" button is at the bottom right of the dialog.

**Currency Convertor!!!**

Amount:

Currency:

2)

A screenshot of a web browser window titled "React App" at "localhost:3000". On the left, there is a sidebar with the number "5" and four buttons: "Increment", "Decrement", "Say welcome", and "Click on me". On the right, a modal dialog box is displayed with the text "localhost:3000 says" and "welcome". A blue "OK" button is at the bottom right of the dialog.

**Currency Convertor!!!**

Amount:

Currency:

3)

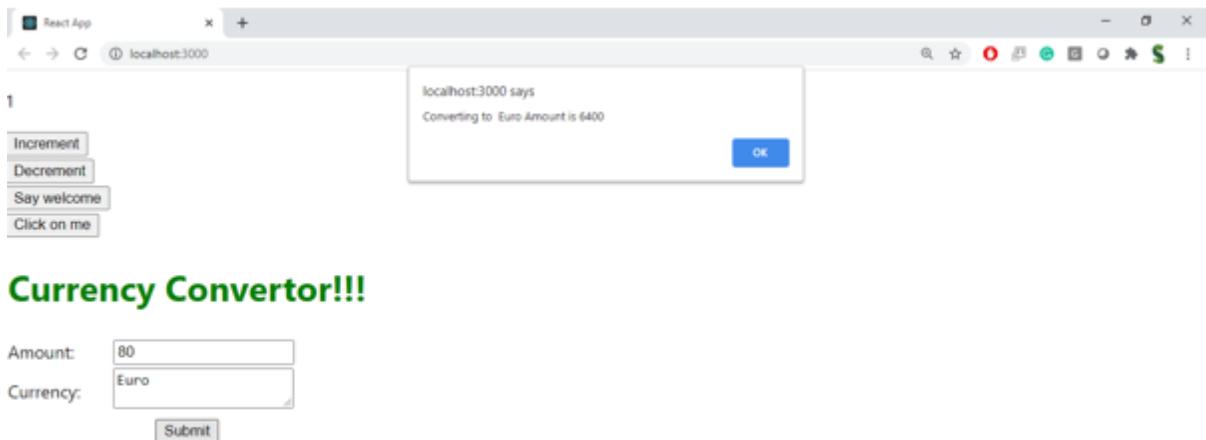
A screenshot of a web browser window titled "React App" at "localhost:3000". On the left, there is a sidebar with the number "5" and four buttons: "Increment", "Decrement", "Say welcome", and "Click on me". On the right, a modal dialog box is displayed with the text "localhost:3000 says" and "I was clicked". A blue "OK" button is at the bottom right of the dialog.

**Currency Convertor!!!**

Amount:

Currency:

4)



### Concepts Used:

Feature	Explanation
onClick events	Handles user interactions
Arrow functions	For concise event handlers
Multiple methods in onClick	handleIncrement() calls 2 functions
Synthetic events	React's wrapper around browser events
Passing arguments	Done using arrow functions
Form input + conversion	Real-world example of input event handling

## 4 ) ticketbookingapp

### 1. Creating the following components:

#### ► GuestPage.js

```
import React from 'react';

function GuestPage() {
  return (
    <div>
      <h2>Welcome Guest</h2>
      <p>Browse available flights here.</p>
    </div>
  );
}

export default GuestPage;
```

#### ► UserPage.js

```
import React from 'react';

function UserPage() {
  return (
    <div>
      <h2>Welcome User</h2>
      <p>You can now book your flight tickets.</p>
    </div>
  );
}

export default UserPage;
```

### 2. Modify App.js with login/logout toggle

```
import React, { useState } from 'react';
import GuestPage from './GuestPage';
import UserPage from './UserPage';

function App() {
  const [isLoggedIn, setIsLoggedIn] = useState(false);

  const handleLogin = () => {
    setIsLoggedIn(true);
  }

  const handleLogout = () => {
    setIsLoggedIn(false);
  }
}
```

```

let content;
if (isLoggedIn) {
  content = <UserPage />;
} else {
  content = <GuestPage />;
}

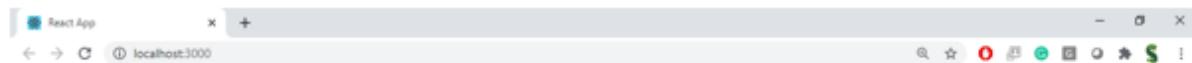
return (
  <div style={{ textAlign: 'center', padding: '30px' }}>
    <h1>Ticket Booking App</h1>

    {isLoggedIn ? (
      <button onClick={handleLogout}>Logout</button>
    ) : (
      <button onClick={handleLogin}>Login</button>
    )}
  <hr />
  {content}
  </div>
);
}

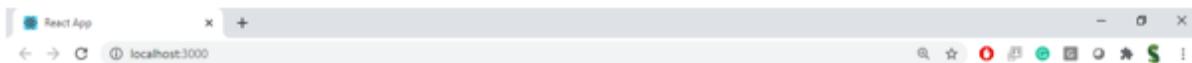
export default App;

```

## Output



**Please sign up.**



**Welcome back**

## 5 ) bloggerapp

### App.js

```
import React, { useState } from 'react';
import BookDetails from './BookDetails';
import BlogDetails from './BlogDetails';
import CourseDetails from './CourseDetails';

function App() {
  const [selected, setSelected] = useState("book");

  // Method 1: Element variable
  let content;
  if (selected === "book") {
    content = <BookDetails />;
  } else if (selected === "blog") {
    content = <BlogDetails />;
  } else {
    content = <CourseDetails />;
  }

  return (
    <div style={{ padding: '20px' }}>
      <h1>Blogger App</h1>

      <button onClick={() => setSelected("book")}>Show Book Details</button>
      <button onClick={() => setSelected("blog")}>Show Blog Details</button>
      <button onClick={() => setSelected("course")}>Show Course Details</button>

      <hr />

      {/* Render using element variable */}
      {content}

      {/* Method 2: Ternary operator */}
      {/* {selected === "blog" ? <BlogDetails /> : null} */}

      {/* Method 3: Logical AND */}
      {/* {selected === "course" && <CourseDetails />} */}

      {/* Method 4: if-else shown above */}
    </div>
  );
}

export default App;
```

**BookDetails.js**

```
import React from 'react';

const books = ["React Basics", "Advanced JS", "Design Patterns"];

function BookDetails() {
  return (
    <div>
      <h2>Book Details</h2>
      <ul>
        {books.map((book, index) => (
          <li key={index}>{book}</li>
        )))
      </ul>
    </div>
  );
}

export default BookDetails;
```

**BlogDetails.js**

```
import React from 'react';

function BlogDetails() {
  return (
    <div>
      <h2>Blog Details</h2>
      <p>Explore the latest blogs about Web Development and AI.</p>
    </div>
  );
}

export default BlogDetails;
```

**CourseDetails.js**

```
import React from 'react';

function CourseDetails() {
  return (
    <div>
      <h2>Course Details</h2>
      <p>Courses available: ReactJS, Node.js, MongoDB, Python.</p>
    </div>
  );
}

export default CourseDetails;
```

## Output

React App		
Course Details	Book Details	Blog Details
<b>Angular</b>	<b>Master React</b>	<b>React Learning</b>
4/5/2021	670	Stephen Biz
<b>React</b>	<b>Deep Dive into Angular 11</b>	Welcome to learning React!
6/3/2021	800	<b>Installation</b>
	<b>Mongo Essentials</b>	Schewzdenier
	450	You can install React from npm.