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Experiment: ProductCard Component Using Props

Aim:

To create a React ProductCard component that displays product details (name, price, image, description) using props.

Theory:

React components are reusable building blocks of UI. Props (short for properties) are used to pass data from parent to child components. This makes components dynamic and reusable. A ProductCard component can be reused for multiple products by just passing different prop values.

Procedure:

1. Create a new React project using create-react-app or Vite.
2. Create a ProductCard component (ProductCard.jsx).
3. Use props to pass product details (title, price, description, image).
4. Style the component using CSS or inline styles.
5. Import and render ProductCard in App.js with different props.
6. Run the app and verify multiple products are displayed dynamically.

Code Implementation:

```
// ProductCard.jsx
import React from "react";

function ProductCard({ title, price, description, image }) {
  return (
    <div style={{
      border: "1px solid #ccc",
      borderRadius: "10px",
      width: "250px",
      padding: "15px",
      margin: "10px",
      boxShadow: "2px 2px 10px rgba(0,0,0,0.1)"
    }}>
      <img src={image} alt={title} style={{ width: "100%", borderRadius: "10px" }} />
      <h3>{title}</h3>
      <p>{description}</p>
      <h4 style={{ color: "green" }}>■{price}</h4>
      <button style={{
        background: "blue", color: "white", border: "none",
        padding: "10px", borderRadius: "5px", cursor: "pointer"
      }}>
        Buy Now
      </button>
    </div>
  );
}

export default ProductCard;

// App.js
import React from "react";
import ProductCard from "./ProductCard";

function App() {
  return (
    <div style={{ display: "flex", flexWrap: "wrap", justifyContent: "center" }}>
```

```

    <ProductCard
      title="Wireless Headphones"
      price="2999"
      description="High-quality Bluetooth headphones with noise cancellation."
      image="https://via.placeholder.com/200"
    />
    <ProductCard
      title="Smart Watch"
      price="4999"
      description="Track your fitness and stay connected on the go."
      image="https://via.placeholder.com/200"
    />
    <ProductCard
      title="Gaming Mouse"
      price="1499"
      description="Ergonomic design with RGB lighting and fast response."
      image="https://via.placeholder.com/200"
    />
  </div>
);
}

export default App;

```

Outcomes:

- Successfully created a ProductCard component using props.
- Demonstrated reusability of React components.
- Learned how to dynamically pass data using props.
- Built a simple UI that can be extended into a full product showcase.

Sample Output:

