


Case Study 5: Hotel Room Reservation

App.js

```
import React from "react";
import HotelApp from "../components/HotelApp";

function App() {
  return (
    <div>
      <h1 style={{ textAlign: "center", color: "darkblue" }}> Hotel Room Reservation</h1>
      <HotelApp />
    </div>
  );
}

export default App;
```

HotelApp.js (Parent – manages state)

```
import React, { useState } from "react";
import RoomList from "../RoomList";
import Summary from "../Summary";

const HotelApp = () => {
  // State
  const [checkIn, setCheckIn] = useState("");
```

```
const [checkOut, setCheckOut] = useState("");
const [selectedRooms, setSelectedRooms] = useState([]);

// Sample Room Data
const rooms = [
  { id: 1, type: "Deluxe Room", price: 2000, availability: true },
  { id: 2, type: "Suite", price: 3500, availability: true },
  { id: 3, type: "Standard Room", price: 1500, availability: false },
];

// Handle Room Selection
const toggleRoomSelection = (room) => {
  if (selectedRooms.includes(room)) {
    setSelectedRooms(selectedRooms.filter(r => r !== room));
  } else {
    setSelectedRooms([...selectedRooms, room]);
  }
};

return (
  <div style={{ padding: "20px" }}>
    { /* Date Selection */ }
    <div style={{ marginBottom: "20px" }}>
      <label>Check-In: </label>
      <input type="date" value={checkIn} onChange={(e) => setCheckIn(e.target.value)} />
    </div>
  </div>
);
```

```

        <label style={{ marginLeft: "20px" }}>Check-Out: </label>
        <input type="date" value={checkOut} onChange={(e) =>
setCheckOut(e.target.value)} />
    </div>

    { /* Room List */ }

    <RoomList rooms={rooms} toggleRoomSelection={toggleRoomSelection}
selectedRooms={selectedRooms} />

    { /* Summary */ }

    <Summary checkIn={checkIn} checkOut={checkOut}
selectedRooms={selectedRooms} />

</div>

);
};

export default HotelApp;

```

RoomList.js

```

import React from "react";
import RoomCard from "../RoomCard";

const RoomList = ({ rooms, toggleRoomSelection, selectedRooms }) => {
    return (
        <div>
            <h2>Available Rooms</h2>
            <div style={{ display: "flex", gap: "20px" }}>
                {rooms.map((room) => (
                    <RoomCard

```

```

        key={room.id}
        room={room}
        toggleRoomSelection={toggleRoomSelection}
        isSelected={selectedRooms.includes(room)}
      />
    ))}
  </div>
</div>
);
};

```

```
export default RoomList;
```

RoomCard.js

```

import React from "react";

const RoomCard = ({ room, toggleRoomSelection, isSelected }) => {
  return (
    <div
      style={{
        border: "1px solid gray",
        padding: "15px",
        borderRadius: "10px",
        width: "200px",
        backgroundColor: isSelected ? "#d1f7c4" : "white"
      }}
    >
      <h3>{room.type}</h3>
    </div>
  )
}

```

```

    <p>₹{room.price} / night</p>
    <p>{room.availability ? "Available" : "Not Available"}</p>
    {room.availability && (
      <button onClick={() => toggleRoomSelection(room)}>
        {isSelected ? "Remove" : "Select"}
      </button>
    )}
  </div>
);
};

```

```
export default RoomCard;
```

Summary.js

```

import React from "react";

const Summary = ({ checkIn, checkOut, selectedRooms }) => {
  const getTotalPrice = () => {
    if (!checkIn || !checkOut) return 0;
    const days =
      (new Date(checkOut).getTime() - new Date(checkIn).getTime()) /
      (1000 * 60 * 60 * 24);
    return selectedRooms.reduce((sum, room) => sum + room.price * days, 0);
  };

  return (
    <div style={{ marginTop: "30px", padding: "15px", border: "1px solid black" }}>
      <h2>Booking Summary</h2>

```

```
<p><b>Check-In:</b> {checkIn || "Not selected"}</p>
<p><b>Check-Out:</b> {checkOut || "Not selected"}</p>
<p><b>Rooms Selected:</b> {selectedRooms.length}</p>
<p><b>Total Price:</b> ₹{getTotalPrice()}</p>
{selectedRooms.length > 0 && checkIn && checkOut && (
  <button style={{ marginTop: "10px", backgroundColor: "green", color: "white",
padding: "10px" }}>
    Confirm Booking
  </button>
)}
</div>
);
};

export default Summary;
```