

# Experiment: React Student–Teacher Hierarchy

**Aim:** To create a simple React component hierarchy showing the relationship between Teachers and Students.

**Theory:** This React application demonstrates the concept of component-based architecture. Each teacher has a list of students, and data is passed from the parent component (App) to the child component (Teacher) through props.

## Cleaned Code (No Comments):

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

export default function App() {
  const teacherData = [
    {
      name: "Mr. Sharma",
      subject: "Mathematics",
      students: [
        { name: "Sara Kumari", grade: "A" },
        { name: "Rahul Singh", grade: "B" },
        { name: "Aditi Verma", grade: "A+" }
      ]
    },
    {
      name: "Ms. Gupta",
      subject: "Science",
      students: [
        { name: "Ankit Raj", grade: "A" },
        { name: "Neha Joshi", grade: "B+" }
      ]
    }
  ];

  return (
    <div className="p-6 max-w-xl mx-auto">
      <h1 className="text-2xl font-bold text-center mb-6">Student–Teacher Hierarchy</h1>
      {teacherData.map((teacher, index) => (
        <Teacher
          key={index}
          name={teacher.name}
          subject={teacher.subject}
          students={teacher.students}
        />
      ))}
    </div>
  );
}
```

## Sample Output:

## Student-Teacher Hierarchy

Mr. Sharma - Mathematics

- Sara Kumari (Grade: A)
- Rahul Singh (Grade: B)
- Aditi Verma (Grade: A+)

Ms. Gupta - Science

- Ankit Raj (Grade: A)
- Neha Joshi (Grade: B+)