# Connecting React Frontend to Express API Using Axios

## 1️⃣ Backend (Express.js) - server.js

// server.js  
const express = require("express");  
const cors = require("cors");  
  
const app = express();  
const PORT = 5000;  
  
app.use(cors()); // Allow requests from React app  
  
// Sample product data  
const products = [  
 { id: 1, name: "Laptop", price: 75000 },  
 { id: 2, name: "Smartphone", price: 30000 },  
 { id: 3, name: "Headphones", price: 2500 },  
];  
  
// Route to get products  
app.get("/api/products", (req, res) => {  
 res.json(products);  
});  
  
// Start server  
app.listen(PORT, () => {  
 console.log(`✅ Server running on http://localhost:${PORT}`);  
});

## 2️⃣ Frontend (React.js) - src/App.js

import React, { useEffect, useState } from "react";  
import axios from "axios";  
import "./App.css";  
  
function App() {  
 const [products, setProducts] = useState([]);  
 const [loading, setLoading] = useState(true);  
 const [error, setError] = useState("");  
  
 useEffect(() => {  
 axios  
 .get("http://localhost:5000/api/products")  
 .then((response) => {  
 setProducts(response.data);  
 setLoading(false);  
 })  
 .catch((err) => {  
 setError("Failed to fetch products");  
 setLoading(false);  
 });  
 }, []);  
  
 if (loading) return <h2>Loading products...</h2>;  
 if (error) return <h2 style={{ color: "red" }}>{error}</h2>;  
  
 return (  
 <div className="App">  
 <h1>Product List</h1>  
 <div className="product-container">  
 {products.map((p) => (  
 <div className="product-card" key={p.id}>  
 <h3>{p.name}</h3>  
 <p>Price: ₹{p.price}</p>  
 </div>  
 ))}  
 </div>  
 </div>  
 );  
}  
  
export default App;

## 3️⃣ Frontend Styles - src/App.css

.App {  
 text-align: center;  
 font-family: Arial, sans-serif;  
 margin-top: 30px;  
}  
  
.product-container {  
 display: flex;  
 justify-content: center;  
 flex-wrap: wrap;  
 gap: 20px;  
 margin-top: 20px;  
}  
  
.product-card {  
 background-color: #f8f9fa;  
 padding: 20px;  
 border-radius: 10px;  
 box-shadow: 0px 2px 6px rgba(0, 0, 0, 0.1);  
 width: 200px;  
}

## 🔹 How to Run This Project

1. \*\*Backend Setup\*\*  
 ```bash  
 mkdir express-backend  
 cd express-backend  
 npm init -y  
 npm install express cors  
 node server.js  
 ```  
  
2. \*\*Frontend Setup\*\*  
 ```bash  
 npx create-react-app react-frontend  
 cd react-frontend  
 npm install axios  
 ```  
  
3. Replace code in `src/App.js` and `src/App.css` with above.  
  
4. Run React app:  
 ```bash  
 npm start  
 ```  
  
5. Open browser at: http://localhost:3000  
 You’ll see the product list fetched from Express API.