

Demo Tips & Code Walkthrough Guide (In 10 minutes)

1. Walk Through Key Features

- Highlight **user input on the frontend**, **API calls to the backend**, and **data persistence in the database**.
- Demonstrate **end-to-end flow**, for example:
Create a record:
React form → Node handler → DB insert
- Also cover **Read / Update / Delete** flows if possible.

2. Frontend Focus: React + JS

a. Key Components

Explain clearly:

- useState holds component data
- useEffect fetches API data once on mount
- map() renders lists dynamically

b. Event Handling / Form Submission

- Show how **form input triggers a fetch() POST request**
- Explain **controlled inputs** and why they are used

Tip: Show only **key code parts**, not the entire component.

3. Backend Focus: Custom Node Server

Key Points to Explain

- **Manual routing** without frameworks
- How **request data is collected and parsed** (req.on('data'), req.on('end'))
- **Sending JSON responses**
- Difference between **GET and POST** requests

Tip: Highlight the minimal code that achieves the functionality.

4. Database Interaction

- Show simple DB queries (SQL or NoSQL)
- Explain:
 - Where data lives
 - How the backend communicates with the DB
 - Example of CRUD operation

Tip: Keep it short; focus on **data flow and logic** rather than schema details.

5. End-to-End Feature Walkthrough

Pick **one feature** and demonstrate the **full request-response cycle**.

Example: Adding a user

1. React form → fetch("/api/users", POST)
2. Node server → reads req.body
3. DB → adds user
4. Node server → responds with JSON
5. React → updates UI dynamically

Tip: Optionally, use a **diagram** to visually show the flow.

6. High-Weight Focus Areas

- Ability to explain **why your code works**
- Understanding **data flow**:
UI → API → DB → Response → UI
- Manual Node server & routing logic
- React **state, props, and rendering**
- Simple **DB queries and CRUD operations**

Avoid: Just running the app without explaining the code.